COMMUNITY LINKS

Digital Exclusion and Mental Health

What does the current evidence tell us?



Digital Exclusion

1. Key facts

- A lack of digital skills is costing the UK economy £63bn in potential annual GDP growth, while online shopping saves the average consumer £550 a year. 1
- Digital exclusion can be caused by a range of factors including geographical differences in infrastructure, socioeconomic inequalities and uneven provision and uptake of education and skills training.
- Nearly 20% of the UK population lack the basic online skills needed to send and receive email, use a search engine, browse the internet and complete online forms. Three quarters of those without basic online skills are poor, have disabilities or are older people.²
- The existing literature on digital exclusion suggests that digital skills can help to reduce social isolation and depression, but further research is needed.

2. Introduction

In this paper, we will investigate the impact of digital exclusion on our local community. Digital exclusion has been an area of interest for Community Links for some time as our Advice team sees and reports the impact of digital exclusion every week. During our Tuesday form-filling sessions, which provide assistance to local people needing help with application forms, legal documents and benefit claims, we have regularly seen how a lack of digital skills can limit a person's ability to access essential services. Historically speaking this is not a unique situation, and is reminiscent of times when illiteracy has excluded particular groups and individuals from full participation in society. Today, however, digital exclusion is an increasingly relevant issue, particularly for vulnerable individuals due to the rollout of Universal Credit (UC) with an entirely online, "Digital by Default" system. Community Links has also conducted a digital skills consultation in the local area; the results suggested that over 50s, new parents and small business owners in the community have at times felt disconnected from society as a result of low digital proficiency, resulting in loneliness, isolation and missed opportunities.

These findings made us want to better understand the impact of digital exclusion on the mental health of communities. There has been some previous research into the impact of digital exclusion on the UK economy and on consumers; a 2012 report by Strategy&, for example, argued that if the UK became the "world's most advanced digital nation", its economy would grow by £63bn.³ The same report argues that improving digital skills can improve employability among young people, reduce social isolation among older people and save an average of £550 a year for those who shop online.⁴ Furthermore, a 2014 study by the University of Alabama found that internet use among retired adults in the US reduced the probability of depression by one third.⁵ However, further work is needed to draw together the existing research from different sectors and assess the impact of digital exclusion on communities in the UK. This paper is a beginning.

Generally speaking, digital exclusion is thought of as a problem of unequal access and capacity to use digital technology in a way that prevents full participation in society. Inequalities in internet access and digital skills reflect other inequalities across society, including geographical differences in infrastructure, socioeconomic inequalities and uneven provision of education and skills training. For this reason, it has been proposed by the *Guardian* that digital exclusion is one of the new "giant evils" of the 21st century, a phenomenon which entrenches existing inequalities, limits social integration and prevents full access to citizenship rights. In this paper, therefore, we will assess the current research on digital exclusion in the UK, and examine the impact it has on the wellbeing and mental health of our local community in Newham.

3. Overview of the digital exclusion in the UK

i. How many people are digitally excluded?

Overall, levels of digital participation in the UK are high, despite a recent downturn on some measures. The most recent data from the Office for National Statistics (ONS), released in August 2018, shows that 90% of households in the UK have access to the internet. 91% of households with one person aged 16-64 have internet access, compared to 59% of households with one adult over the age of 65 (down from 61% in 2017). Of households with three or more adults, the ONS places the level of internet access at home at 98%, down from ~100% in 2017.



However, research also suggests that 16-23% of the UK population do not possess the most basic digital skills (managing information online, communicating, mastering online transactions, problem solving and creating content). It is important, therefore, to assess how and why households and communities have unequal access to internet and digital skills training.

ii. Why are they excluded?

Geographical inequalities

In 2017, whilst 94% of households in London and the South East had internet access, the North East of England and Wales had significantly lower rates of accessibility (82% and 84% respectively). ¹⁰ Similarly, the highest levels of basic digital skills are found in Greater London (84%), whereas only 62% of adults in Wales have the five basic digital skills.¹¹ It is unclear exactly what the causes of these inequalities are. On the one hand, some commentators have highlighted the vast geographical inequalities in infrastructure investment between London (and the South East) and the rest of the UK, a factor that suggests poor regional infrastructure may be an issue. 12 Certainly there are some rural areas of the country where infrastructure lags significantly behind the capital, and efforts should be made to close this gap as quickly as possible. 13

That being said, internet access at home is not the only measure of digital inclusion; even if 100% of people were potentially able to access the internet in their own home, significant improvements still need to be made to improve digital infrastructure and uptake for businesses in the UK. Research by the Trades Union Congress (TUC) has found that the UK ranks 20th out of the 21 most developed countries for information and communications technology equipment, part of an overall pattern in which the UK lags significantly behind on capital investment in infrastructure in other areas. The TUC argues that this lack of investment will make the UK economy less able to adapt to future challenges and more vulnerable to seismic shifts such as Brexit.14

It has also arguably contributed to a vast inequality between London and the rest of the country in terms of the growth of digital industries. Further investment in faster internet speeds at more affordable costs could also contribute to a shift in working practices. It could reduce the stress of the daily commute for workers across the UK, with potential benefits for transport infrastructure and the environment. A full discussion of the potential benefits of further digital investment in the UK is beyond the scope of this paper, yet it is important to highlight the central role that digital infrastructure will play in the UK economy, and communities, in the coming years.

b. Social inequalities

ONS figures also highlight that 16% of those without internet access at home cited prohibitive costs (including equipment and access costs). This combined figure is down from 37% in 2006 (which made it the largest reason given at that time) and has reduced by a third since 2014. 15 This would suggest that the equipment and access costs associated with the internet are becoming more affordable, a trend which may be related to the continuing growth of smartphones, tablets and other handheld devices as a means to access the internet at home (whereas laptop internet use fell between 2016 and 2018).16

This does not mean, however, that there is no relationship between social inequality and internet uptake. Research by the Royal Society of Edinburgh has found that "low income and low employment correlate strongly with low broadband uptake" in Scotland. 17 This was found to be particularly the case in Glasgow where, according to earlier research by

¹ Strategy&, <u>"This is for everyone": The Case For Universal Digitisation</u> (Strategy&: London, 2012), p.5.

² Tristan Wilkinson, 'Digital exclusion is a modern social evil we can abolish', Guardian, 8 July 2014.

⁴ Ibid. pp.23-24.

⁵ Shelia R. Cotten George Ford Sherry Ford Timothy M. Hale, 'Internet Use and Depression Among Retired Older Adults in the United States: A Longitudinal Analysis', The Journals of Gerontology, 69:5 (2014), pp.763–771 (p.763).

⁶ Amit Schejter, Ben Harush, Orit Rivka, & Tirosh, Noam, <u>'Re-theorizing the "digital divide": Identifying dimensions of social exclusion in</u> contemporary media technologies', In FACE Conference: European Media Policy 2015, 9-10 April 2015, University of Helsinki, Finland. (Unpublished).

Wilkinson, 'Digital exclusion is a modern social evil we can abolish'.
Office for National Statistics (ONS), 'Internet access - households and individuals', 8 August 2018.

⁹ LSE, 'UK's first Digital Exclusion Heatmap launched', 19 October 2015.

¹⁰ ONS, 'Internet access - households and individuals', 3 August 2017.

¹¹ LSE, 'UK's first Digital Exclusion Heatmap launched', 19 October 2015.

¹² Grace Blakeley, Paying for Our Progress: How will the Northern Powerhouse be financed and funded? (IPPR North: Manchester, 2017).

¹³ Ricky Nicol, 'Scotland's Internet Lag Is a Major Economic Risk', Digit.

¹⁴ Trade Unions Congress, 'UK languishing near bottom of OECD rankings for investment in vital infrastructure', 16 November 2016.

ONS, 'Internet Access', 2017.ONS, 'Internet Access', 2018.

¹⁷ The Royal Society of Edinburgh, Spreading the Benefits of Digital Participation (RSE: Edinburgh, 2014), p.26.



Carnegie UK, 40% of 200 interviewees cited prohibitive costs as being the main reason for not accessing the internet. ¹⁸ It is also the case that some groups in areas of excellent internet infrastructure (such as London) also suffer digital exclusion. This has led some researchers, such as Van Dijk, to argue that unequal access to digital technology is fundamentally shaped by existing social inequalities. ¹⁹

This argument is supported by research conducted by Carnegie UK in Scotland, which found that internet access was lower in the 20% most deprived areas (69%), in social rented housing (61%) and in households with low income (60% with income less than £6,000 pa, 51% with income between £6,001 and £10,000 pa). Similarly the Carnegie research found that internet "non-use" is highest among: older adults (34% of those aged 60-74 did not use the internet, and 76% of 75+); adults in households with low incomes (28% in households with income less than £6,000 pa, 40% in households with between £6,001 and £10,000 pa); adults in the 20% most deprived areas (25%); and adults in social rented housing (31% do not use the internet).

a. Lack of skills / interest

By far the most common reason given in the ONS figures for a lack of internet access at home was "Don't need internet (not useful, not interesting, etc.)" (64%) followed by a "Lack of skills" (20%). Whilst the former group has almost doubled since 2008, the number with a lack of skills is at similar levels to 2010, having risen sharply to 32% in 2014. Previous research has also suggested a gendered inequality in digital skills with only 74% of women, compared to 80% of men, competent across the five basic digital skills. ²³

Judging the progress of engagement with digital technology is difficult as technology and the skills needed to use it continually evolve. Whilst a "Lack of skills" potentially highlights poor digital education among school-age children, there is also the possibility that young people who do not live in "Digital Native" households are more likely to have a lack of interest themselves. Helsper has argued that there are advancing steps of digital engagement: from basic use involving individual communication to advanced use involving civic participation. In this sense, a lack of basic digital literacy prevents a fuller engagement. Because of this it is important to consider the multiple factors (skills, education, social exclusion) which can contribute to individuals not seeing the full benefit of digital participation to themselves at a given moment.

b. Disability

It is also worth highlighting that 2% of those who responded to the ONS survey cited a "Physical or sensorial disability". Whilst this has fallen from 5% in 2016, this was after a steady increase from 1% to 5% between 2008 and 2016. Hilst, again, this is clearly not a major driver of digital exclusion, it is important to consider the effects that exclusion could have on this small but vulnerable population's ability to access services. A report by 21st Century Challenges into the "digital divide in the UK" states that 27% of disabled adults (3.3 million) had never used the internet. Anecdotal evidence from Community Links' own Advice services, as well as evidence gathered by Child Poverty Action Group (CPAG) about Universal Credit, suggests that digital exclusion can limit the ability of disabled people to claim their entitlement, potentially putting them at risk of debt and food poverty. It is therefore important to also consider, alongside universal infrastructural improvements or measures aimed at reducing deprivation, how more targeted digital interventions may prevent smaller groups from losing access to important citizenship rights.

iii. What are the effects?

a. Excluded from accessing services?

Before we analyse the impact of existing digital exclusion on the mental health of UK households, it is worth highlighting some of the wider consequences that may have knock-on effects on wellbeing or an individual's ability to maintain a sense of control over their own life. For instance, people with internet access are more likely to have a bank account: while 97% of people with internet access have a bank account, only 90% of people without internet access have one. A wide range of activities (including but not limited to shopping, accessing information and organising travel) are increasingly done online, making them harder to do without home access to the internet. It is estimated that consumers

¹⁸ Carnegie UK, Across the Divide: Tackling Digital Exclusion in Glasgow (Carnegie UK: Dunfermline, 2013), p.15.

¹⁹ Jan A. G. M. van Dijk, <u>The Deepening Divide Inequality in the Information Society</u> (SAGE Publishing: Twente, 2005).

²⁰ Carnegie UK, *The role of digital exclusion in social exclusion* (Ipsos Mori Scotland: Edinburgh, 2016), p.9.

²¹ Ibid.

²² ONS, 'Internet Access', 2017.

²³ LSE, 'UK's first Digital Exclusion Heatmap launched', 19 October 2015.

²⁴ ONS, 'Internet Access', 2017.

²⁵ 21st Century Challenges, 'Digital divide in the UK'.

²⁶ Child Poverty Action Group (CPAG), Universal Credit Full Service Roll Out: What The Early Warning System Cases Are Telling Us (CPAG: Glasgow, 2017), p.9.

²⁷ Carnegie UK, *The role of digital exclusion in social exclusion*, p.11.



who do not shop online are missing out on an average £550 a year of savings. Furthermore, access to employment opportunities is increasingly reliant on digital skills as recruitment and job searches are both being moved online and 75-90% of jobs require basic digital skills and computer use. As CPAG has highlighted, the online nature of Universal Credit is also causing difficulties for many people trying to make a claim, particularly the long-term ill, disabled and prison leavers who do not have the required email account, identity documents and/or bank accounts required to make a claim. People trying to make a claim.

b. Exacerbating inequalities?

As social geographer Danny Dorling argues, the internet has often been viewed as a means of reducing social and geographical inequalities and closing the gap in lived experiences between deprived and affluent communities. ³⁰ The reality is that, in most cases, digital participation today is deeply influenced by existing social inequalities. In recent years, digital technology has enabled the rapid growth of "platform capitalism", a phenomenon which has taken root more quickly in the UK than any other country and which is tightly related to the growth of low-paid and insecure work. ³¹ The further integration of Artificial Intelligence and automation into the UK economy also has the potential, as the Institute for Public Policy Research (IPPR) has argued, to exacerbate existing inequalities if not managed correctly, particularly as pay growth in high-paid sectors appears to have become completely decoupled from growth in other sectors in recent years. ³² Individuals and groups who are digitally excluded therefore not only may be so because of existing inequalities, but also may find that their lack of digital skills makes them more vulnerable to changes in the UK economy in the near future.

c. Low productivity?

It has also been proposed that a lack of sufficient uptake of digital technology, poor skills training and low levels of investment in research and development are significant factors in the UK economy's stagnation. According to IPPR, the UK "lags behind European leaders on the uptake of digital technology" which could be costing the economy up to £100bn.³³ This suggests that it is not simply the role of individuals to upskill themselves to avoid digital exclusion, but also the role of central and local governments to invest in infrastructure and training, and for businesses to make the best use of the existing skills of workers whilst adopting more digital technology. This would help to tackle the "long tail of low-productivity firms" which make up the "everyday economy", with the likely result of better opportunities, more skills training and higher wages for workers.

d. Poor mental health?

Whilst each of these factors have been proposed as possible results of digital exclusion, the precise nature of this relationship is not very well understood and further evidence is needed to understand how digital exclusion shapes society. However, we also believe that a further factor must be taken into account: the impact of digital exclusion on the mental health of our communities. Below we have summarised the highest quality evidence available in the current literature on how digital exclusion is having an impact on the mental health and wellbeing of UK households.

4. Impact of digital exclusion on mental health and wellbeing

There is certainly a wide array of anecdotal evidence, qualitative evidence and case studies that demonstrate that interventions to increase digital participation can have a positive impact on mental health. In particular, this evidence suggests that digital participation could reduce social isolation and loneliness. However, as Anderson has highlighted, there are very few high quality or longitudinal studies that have conclusively shown a change in individuals' social inclusion through a sustained engagement with digital technology. ³⁴ Nonetheless, several studies have highlighted a strong relationship between digital inclusion and improved mental health outcomes. This evidence is summarised below.

Some of the best evidence available on reducing social isolation through digital participation has studied the impact on older and retired people. For example, research conducted by the Phoenix Centre in 2009 found that depression among retired adults was 20% lower in the groups who were digitally active, particularly through use of social networking.³⁵ Similarly, an analysis of the first wave of results from the English Longitudinal Study of Ageing (ELSA)

²⁸ 21st Century Challenges, 'Digital divide in the UK'.

 $^{^{29}}$ CPAG, Universal Credit Full Service Roll Out, p.3.

³⁰ Professor Danny Dorling, 'Digital divide in the UK?', YouTube, 18 August 2015.

³¹ Institute for Public Policy Research (IPPR), Prosperity and Justice: A Plan for the New Economy (IPPR: London, 2018), p.50.

³² Ibid. p.51.

³³ Ibid. p.49.

³⁴ B. Anderson, B. 'Latest evidence on users and non-users'. Paper presented at the conference, *Whose responsibility is digital inclusion?* (London, 2005).

³⁵ Strategy&, "This is for everyone", p.30.



found that older people are three times more likely to suffer social exclusion if they have no access to the internet.³⁶ Furthermore, Haddon's research has found a relationship between social isolation and digital participation in single parents and older people. However, this study also highlighted that the extent of isolation reduction depended on participants' willingness to engage with digital technology.³⁷

Research conducted by Carnegie UK has found that "mental health is positively correlated with internet access: 49% of those with above average mental health have access to the internet compared with 38% of those without internet access". Furthermore, those with internet access are more likely than those without internet access to have an above average mental health and wellbeing score (15% compared to 9%) or an average score (74% compared to 66%). Those without internet access are twice as likely to have a below average score (25% compared to 12%), leading Carnegie to argue that "digital exclusion may play a significant role in some dimensions of social exclusion". 39

Another way in which digital exclusion may have a negative impact on mental health is through the exclusion of the non-digitally literate from important services and citizenship rights. A key example would be the rollout of Universal Credit which requires claimants to have an email account and manage their claim entirely online. The rollout of this system has, judging by anecdotal evidence collected from advice services in the third sector (including Community Links), increased demands on support services as older people, disabled people and homeless people require a greater degree of support than was necessary with legacy benefits to navigate the complex online system. The knock-on effects of not being able to navigate this system can include the non-receipt of welfare payments, potentially pushing vulnerable households into debt, rent arrears and food poverty (all of which can have negative impacts on mental health). Again, much of this evidence is qualitative and anecdotal, and reflects the real-life experience of many claimants and advisors. However, to fully unpick and understand the role that digital exclusion is having, among a number of other contributory factors to poor mental health for vulnerable households, further evidence (particularly longitudinal studies of digitally-excluded Universal Credit claimants) is needed.

Some recent research has conversely highlighted potentially negative consequence of digital participation. For example, Huang's meta-analysis of forty different studies found that internet use had a small negative impact, with potential associations to depression, loneliness, low self-esteem, and low life satisfaction (however, the results were of low significance and the author argued that further research was needed). Studies by the University of Melbourne and University of Missouri have highlighted possible relationships between use of social media and low self-esteem, depression and anxiety among young people. In a similar vein, O'Keefe and Clarke-Pearson have argued that the internet can represent an unsafe environment for young people, putting them at risk of "cyberbullying, 'Facebook depression', sexting, and exposure to inappropriate content". As with the positive case for digital inclusion, however, the evidence that digital inclusion can have a negative impact on mental health is weak and needs to be better understood with more high-quality evidence and longitudinal studies.

In summary, existing evidence appears to indicate an association between digital exclusion and poor mental health, although there is also the possibility that poor mental health can be prompted by some forms of digital participation. There is little clarity on whether these relationships are causal.

5. What are the drivers of digital exclusion?

i. Existing inequalities

Even with better evidence of a strong association between digital exclusion and poor mental health, it would be difficult to understand whether the key driver of this is digital exclusion in itself or underlying social inequalities. Many policymakers and researchers have highlighted a strong relationship between digital exclusion and social inequalities, and argue that inequality is driving lower levels of internet access and digital skills. However, as the Carnegie report argues, "those who are socially excluded are less likely to use the internet and benefit from the internet applications that

³⁶ Office of the Deputy Prime Minister, *The Social Exclusion of Older People: Evidence from the first wave of the English Longitudinal Study of Ageing (ELSA)* (London, 2006), p.32

³⁷ L Haddon, 'Social exclusion and information and communication technologies lessons from studies of single parents and the young elderly', *New media & society*, 2:4 (2002), pp.387-406.

³⁸ Carnegie UK, <u>The role of digital exclusion in social exclusion</u>, p.12.

³⁹ Ibid. p.15.

⁴⁰ Trussell Trust, *Early Warnings: Universal Credit and Foodbanks* (Trussell Trust: London, 2017), p.3; Michael Savage and Chaminda Jayanetti, 'Revealed: universal credit sends rent arrears soaring', *The Guardian*, 17 September 2017.

⁴¹ University of Melbourne, 'Social media can be bad for youth mental health, but there are ways it can help', 11 December 2017; University of Missouri, 'If Facebook Use Causes Envy, Depression Could Follow', 3 February 2015.

⁴² Gwenn Schurgin O'Keeffe, MD, Kathleen Clarke-Pearson, 'The Impact of Social Media on Children, Adolescents, and Families', *American Academy of Pediatrics*, 127:4 (2011).



may help them tackle their exclusion". 43 This suggests not only that digital exclusion is shaped by underlying inequalities, but also that a lack of digital participation can exacerbate and prolong these inequalities. Whilst it is therefore difficult to untangle the issues of socioeconomic inequality and digital exclusion from each other, interventions which seek to improve mental health must also take into account (and perhaps seek to tackle) existing socioeconomic inequalities.

ii. Digital skills are evolving quickly

Even in areas with high levels of internet access at home, some groups do not have the necessary skills to maximise their digital participation. To some extent these skills gaps are driven by educational inequalities, but some groups remain additionally vulnerable. These groups include older people, parents, and the unemployed - particularly if a person has faced a sustained period without access to the internet during which time existing skills can quickly become obsolete. Even young people who are "digital natives" and who may feel comfortable using digital technology on a daily basis may not have the appropriate skills to access services, navigate complex systems and apply for work online.

Low investment in digital infrastructure and skills

Skills gaps are exacerbated by a chronically low level of investment in digital infrastructure and skills in the UK. IPPR has highlighted that whilst the uptake of digital technology in high productivity firms in the UK is generally good, there is a "long tail of low-productivity businesses", particularly among smaller firms. 44 In particular this refers to a large number of small businesses in the "everyday economy" who have in recent years struggled to find adequate finance to grow their businesses and, as a result, have lagged behind on the uptake of digital technology. 45 Supporting the take-up of digital technology in the everyday economy would not only contribute to greater overall economic productivity, but would also enable a far wider diffusion of basic digital skills (particularly among lower paid workers). Enabling this greater take-up, however, would require significant investment and/or increased lending to small businesses.

iv. Digitalisation of important services

As highlighted with the example of Universal Credit, many vital services are increasingly administered through "online only" systems. Job searches, council services, utility bills, shopping and arranging travel are all processes which increasingly require basic digital skills to access and manage. Some of these services will also be accessible through offline means, but the information on how to access those services is also online and requires support for the nondigitally literate to access. When it comes to accessing vital citizenship rights, such as claiming welfare payments, a lack of digital skills combined with the removal of offline systems can have a significant impact on the ability of vulnerable households to make claims without significant support. While it would be counterproductive to delay the digitisation of services as a result, it should be necessary for more support to be made available to the most vulnerable groups and for public sector bodies to undertake an assessment of the potential impact that these processes could have on the digitally excluded (particularly the discriminatory impact it may have on older and disabled people).

6. Recommendations

Based on the available evidence and having assessed similar recommendations from researchers, campaigners and the third sector, Community Links believes the following recommendations are necessary steps to begin tackling digital exclusion and reducing its impact on mental health in the UK.

- 1. Further investment in digital infrastructure and skills training is needed. This would help to improve the ability of individuals to find work and access services, prevent further problems from occurring (e.g. social isolation, fraud, low productivity) and improve civic participation.
- The government should ensure that all homes are able to access "superfast" broadband in the next five years, and make plans for the rollout of "ultrafast" broadband over the next decade. The coverage of 4G internet and provision of free public WiFi in public spaces should also be extended.

⁴³ Carnegie UK, *The role of digital exclusion in social exclusion*, p.5.

⁴⁴ IPPR, *Prosperity and Justice*, p.48.

⁴⁵ Ibid. p.51.



- 3. Industrial strategy must address how the take-up of digital technology among small businesses, and in the everyday economy more generally, can be improved. Money should be set aside to invest in increased digital skills training and for more lending to be made available for businesses to invest in digital development.
- 4. The government should define and enact a Digital Exclusion duty, similar to the socioeconomic duty of the 2010 Equality Act, which requires public bodies to determine the potential discriminatory effects of moving their systems online. Where such an effect is identified, public sector bodies would have to provide demonstrably adequate support to those without the requisite skills.
- 5. The Department for Work & Pensions (DWP) should improve the availability of Universal Support for Universal Credit claimants. This should include properly meeting the needs of claimants without access to the internet at home, without the digital skills to self-serve UC, with language barriers, and with physical or mental health issues. Further training is needed for those providing Universal Support. Furthermore, evidence must now be collected to assess whether the DWP is meeting this need.

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If you have a question about this research or would like to find out more about Community Links, please visit www.community-links.org or contact us at Daniel.Willis@community-links.org.

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