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Summary

So MUCH OF our lives takes place online. The digital world is where we find many of the things we enjoy and depend on – work, public services, shopping, socialising, entertainment. Over the last two decades, the day-to-day role of the internet has evolved and expanded to such an extent that it is now difficult for many to imagine life without it. In many ways our entire lives are now digitally enabled, with devices and connections permeating almost everything. The internet is fundamental to functioning in 21st century society.

But not everyone recognises this story. A significant number of people in the UK remain digitally excluded, either without internet access or making only very limited use of it. The Covid-19 pandemic has brought this exclusion into sharp relief. Through successive lockdowns, even more of our social, cultural and economic activity moved online – and a lot of these changes appear permanent.

Before the pandemic, we knew that a person's likelihood of being digitally excluded was higher if they belonged to certain demographic or social groups. Older people, people with low incomes or people in the DE occupational class, and disabled people were all disproportionately prone to being offline or having limited digital capability and confidence. Many people within these groups also experience other forms of social and economic disadvantage too.

To understand what has happened to digital inequality over the pandemic, the Fabian Society undertook data analysis and a literature review alongside in-depth interviews with policy experts and with digitally excluded people. We found that more people have moved online during the pandemic, but digital inclusion gaps remain wide. Too many households still experience 'hard' exclusion – of not accessing the internet at home.

More people have moved online during the pandemic, but digital inclusion gaps remain wide

- During the pandemic, the proportion of households online increased from 89 per cent to 94 per cent. For adults aged 55 and above, there appears to have been a dramatic decline in those without access to the internet at home (from 23 per cent to 7 per cent, compared with 6 per cent for adults of all ages).
- But six per cent of adults still do not access the internet at home. This amounts to 1.5 million households without home internet connections.

 Adults in low-income and DE social grade households are more likely to be connected than before the pandemic, but the gap between them and the general population has not narrowed.

Less has changed over the course of the pandemic for people experiencing 'soft' exclusion, who may have access to the internet but have limited digital engagement, skills or confidence – or may only go online via a smartphone. None of these measures show much positive progress. On some measures, digital inclusion has stalled at best and taken a step backwards at worst. As with 'hard' exclusion, inequality remains.

- The proportion of the UK adults with 'very low' digital engagement (based on an index developed by Lloyds Bank) fell slightly from 33 per cent pre-pandemic in 2020 to 29 per cent in 2021.
- But over the same period, the percentage
 of people equipped with seven 'foundation' digital skills did not increase
 (according to successive Lloyds Bank
 surveys, the proportion of adults not
 able to perform these foundation tasks
 increased from 17 to 19 per cent). Additionally, the proportion of internet users
 who do not report being confident online appears to have increased.

Our research also found that there are multiple, interconnected reasons why people remain offline or do not engage with the internet. We found that many feel that the internet is not'for them', or that they do not need it and that they can live a fulfilling life without it.

But we also found that many people are digitally excluded for other reasons: they do not have the digital skills and confidence that they want; they cannot afford the connections or equipment necessary to be online; or there is not a good internet connection available where they live.

A great deal of good work has taken place to attempt to increase digital inclusion in the UK. Local authorities, the voluntary and private devolved administrations sectors and have stepped up their activity in recent years - and central government has taken action on some fronts too. In particular, the necessity of remote learning over the pandemic prompted the Department for Education to roll out free devices for disadvantaged children without access.

Action is needed to bring
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But existing efforts are not of a sufficient scale compared to the challenge we face, and they do not always fully recognise the relative importance, and precise nature, of the barriers to digital inclusion. The patchwork of schemes and initiatives are too fragmented and piecemeal and meas-ures are not coherent across geographies. Crucially, leadership, strategy and funding are required from central government.

Government must take a more interventionist role to advance digital inclusion. We need a coordinated, comprehensive plan of action to overcome the digital divide. And Whitehall must devote resources to support local delivery of solutions, to ensure that barriers are being tackled in the most effective ways, and that life's activities are accessible for those who remain offline. Government must look to the future and adopt an approach that 'designs out' inequality as technologies advance in the years ahead.

We need a coordinated, comprehensive plan of action to overcome the digital divide

Given that even the 'shock' of the pandemic did not eradicate digital inequality, it is clearer than ever that bold policy measures are required. Action is needed to bring the provision of basic digital skills closer to where people are, and to make digital life accessible for everyone. We need to see central government lead on making the internet affordable for those for whom it is too expensive. And we need better targeted, more ambitious action on ensuring everyone has the option of connecting at faster speeds as gigabit-capable connections rapidly become mainstream. We set out 10 recommendations to achieve these aims.

Our three core recommendations form a package of new 'digital entitlements' to transform the landscape of support for people who would benefit from undertaking activities online but currently cannot. These digital entitlements are:

- a mandatory social tariff, available from all internet providers, that delivers discounted internet connections for those in need – through a broadband discount scheme, co-funded by government and the telecommunications industry;
- a guarantee of a free internet-enabled device for individuals identified to be in need at a local level; and
- **3.** universal access to free digital skills support in the community.

Alongside this package, we propose additional action to tackle both affordability and capability-related barriers to digital inclusion. On affordability:

4. the government should work with Ofcom to explore restricting broadband connection fees and early exit charges, which can disincentivise financially insecure households from getting connected and can limit competition.

To supplement an entitlement to community-based digital skills provision and ensure everyone has meaningful access to the internet, we recommend that government should:

- ensure frontline public service workers are given 'identification, support and signposting' training, so people without essential digital skills can be 'triaged' in the course of their day-to-day lives;
- review public digital services to ensure they meet the highest standards of accessibility for disabled users; and
- require that public services are easily available for those who remain offline, and use this offline provision of services to offer support people with their digital skills where appropriate.

Finally, we propose a set of measures aimed at getting everyone the broadband infrastructure they will need in the future while achieving value for taxpayers' money. We recommend that the government should:

- support local authorities to better understand and use public assets like tunnels and buildings to improve the efficiency and value for money of new infrastructure rollout;
- ask Ofcom to review and upgrade standards for 'decent' speed, data use and affordability, and explore how this can be funded and delivered outside of the existing universal service obligation mechanism; and
- 10. support the use of alternative technologies like wireless and satellite to bring very fast internet to the most geographically hard-to-reach areas.

Introduction

IGITAL CONNECTIVITY IS now more important than ever. We now live so much of our lives online - with the work we do, the public services we rely on, and the TV, films and games we enjoy. Digital devices and connections play a role countless times each day, in shops and workplaces, when we are travelling and in the home - often without us noticing. The internet is now an essential, foundational service. For most of us, living without it is unthinkable.

Throughout successive waves of the pandemic, we have repeatedly relied on digital connectivity to keep us functioning as a society

In early 2020, the arrival of the Covid-19 pandemic changed our relationship with the internet overnight, as for many people work, relationships, and shopping moved completely online. Through successive waves of the pandemic, we have repeatedly relied on digital connectivity to keep us functioning as a society. Even when social distancing measures have eased, a number of these changes

have remained and could be permanent fixtures of our lives going forward.

The pandemic accelerated a change that was already happening. Between 2009 and 2019, the proportion of adults using the internet daily or almost every day increased from 55 per cent to 87 per cent.1 The pandemic boosted both the pace and relative importance of this change.

But because digital connectivity is now so essential, addressing the digital divide has become more important. People belonging to particular socio-economic and demographic groups - including many older people, people on lower incomes and disabled people - are more likely to be excluded from meaningful access to digital technologies. Often this compounds other forms of exclusion that many already face.²

Most of us look forward to an exciting and convenient world of smart technologies, the internet of things, digital public services and the cash-free economy. But that future must include all of us. In many ways our entire lives are now digitally enabled, with devices and connections permeating almost everything. Unless we act now, rapid digital innovation and adoption will turn us into a more divided and unequal society.

Previous attempts to address the digital divide have fallen short. On the one hand, the Conservative government's policies have been piecemeal, under-resourced and

poorly coordinated. On the other, Labour's proposals at the 2019 election - to give free, nationalised, ultrafast broadband to everybody – did not target the real barriers to digital inclusion and were out of touch with reality, with independent estimates suggesting one-off costs of £40-50bn and annual costs of £3.5bn.3

The pandemic may have changed our relationship with digital connectivity, but there remain real-world constraints in delivering digital connectivity and narrowing the digital divide.



DEFINING DIGITAL EXCLUSION

For the purposes of this report, we adopt a broad definition of digital exclusion. We take it to mean that, if an individual is digitally excluded, they do not have access to the internet or are only able to use it in a limited way. Within this, we specify two categories of exclusion. 'Hard' exclusion refers to not having independent access to a decent internet connection. In practice this means either not having internet access at home (via a fixed or mobile connection), not having access to a specific type of connection (e.g. no fixed line broadband), or never having used the internet.

'Soft' exclusion refers to having access to the internet but having low digital skills or confidence; only carrying out a very limited number of tasks online; or being restricted in the technology that is used to go online ie only via a smartphone.

We also refer to **digital inequality** to reflect the gradient that exists with respect to people's access and utilisation of technology. It is no longer a question of being 'online' or 'offline' – some people have multiple devices and connections and feel totally comfortable in their digital lives; for others participation is constrained to a greater or lesser extent.

This report seeks to answer the question: what is the nature of digital inequality and what can we do about it? We undertook data analysis and a literature review, alongside in-depth interviews with policy experts and with digitally excluded people.

We begin by outlining the most recent evidence on the state of digital exclusion in the UK. We explore the questions of who is digitally excluded, how digital exclusion interacts with other social characteristics, and how trends in the digital divide have transformed over the pandemic. We also explore the barriers to digital inclusion, and present case studies highlighting the experiences and views of people who have remained excluded over the pandemic.

We then examine existing policy approaches to digital exclusion, and determine the extent to which they are sufficient to meet the scale of the challenge.

Finally, we set out a plan to address the digital divide. We outline 10 recommendations to transform digital inclusion in the UK, to ensure people can afford devices and connections, access skills and support, and have the right infrastructure wherever they live.



Chapter one: The state of the digital divide in 2022

OVID-19 HAS SPURRED an increase in online activity, but the digital divide remains. This chapter brings together the most recent evidence on digital exclusion in the UK to form a picture of what has happened over the pandemic. We answer two key questions:

- How many people are still digitally excluded compared to before the Covid crisis?
- Who is most likely to be digitally excluded, and how has this changed over the crisis?

We find that there has been only limited progress in advancing digital inclusion through the pandemic. Although more people are now online than before, just as many people are experiencing the 'soft' exclusion of having limited digital capabilities and confidence. Furthermore, we find digital inequality remains, with stark gaps between the inclusion of disadvantaged groups and the general population.

This chapter also summarises the evidence on the barriers to digital inclusion, and presents case studies of people who have remained excluded through the pandemic.

How many are still digitally excluded?

Hard exclusion

What we call 'hard' digital exclusion affects a significant proportion of adults in the UK. This means never having used the internet, not having used it for a period of time, or not living in a home with internet access. Overall around one in 20 experience hard exclusion, depending on how we choose to measure it. The most recent available survey data shows that:

- Six per cent of adults in the UK had never used the internet in early 2020 (just prior to the start of the pandemic).⁴
- Five per cent of adults in the UK had not used the internet in the previous three months when surveyed in the first half of 2021.⁵
- Six per cent of UK adults surveyed reported that they did not live in a home with internet access in late 2021.⁶ This amounts to 1.5 million households without home internet.

On top of this total exclusion, a larger group – 14 per cent of households – are not connected to the internet at home

using a fixed broadband connection.⁷ This is an important consideration, because accessing the internet using mobile data is significantly more expensive per unit in the current market (especially when data caps are exceeded) and tends to provide slower download speeds.⁸

Looking at change over the pandemic, headline rates of hard exclusion appear to have declined by a few percentage points.⁹

- In 2020, 8 per cent of adults in the UK had not used the internet in the three months prior to being surveyed; by 2021, this had fallen 3 percentage points to 5 per cent.¹⁰
- In early 2020, before the first Covid-19 lockdown, the proportion of UK adults reporting that they did not have internet access at home was 11 per cent this had fallen by 5 percentage points to 6 per cent by early 2021. ¹¹ This 6 per cent exclusion rate remained unchanged in late 2021. ¹² The method for collecting this survey data shifted from face-to-face interviews in 2020 to telephone interviews in 2021, which means we can only say that this change is indicative.
- The proportion of adults reporting that they did not connect to the internet at home via a fixed broadband connec-

tion was 20 per cent in 2020 – falling to 14 per cent in 2021, indicating a decrease here too.¹³

Soft exclusion

Larger numbers of people experience forms of 'soft' exclusion. Similar to hard exclusion, there are several ways we can define and measure soft exclusion, but generally it refers to a low level of digital engagement, capability or confidence. All measures of soft exclusion point to a persistent challenge.

Lloyds Bank's digital index summarises the digital engagement of individuals by examining how much people interact with online services, how much they spend online and the extent of their use of digital technologies. In 2021, 29 per cent of all UK adults had a'very low' digital engagement score. 14

The percentage of adults unable to complete any or some of the foundation essential digital skills was 19 per cent in 2021. Meanwhile according to Ofcom surveys, in late 2021, 21 per cent of adult internet users did not describe themselves as being confident online and 21 per cent of adult internet users used only a smartphone to go online. 18,19

Decreases in soft exclusion over the course of the pandemic are less marked than for hard exclusion. Indeed on some measures, there are indications that things have moved in the wrong direction – with the proportions of adults who do not say they are confident online, who use only a smartphone to go online and who do not have all the 'foundation' level digital skills appearing to have increased.

- The proportion of the UK population with 'very low' digital engagement fell from 33 per cent in 2020 to 29 per cent in 2021.²⁰
- But between 2020 and 2021, the percentage of people able to do the seven foundation essential digital skills did not decline. In the Lloyds Bank survey, the proportion not able to do these tasks actually increased from 17 to 19 per cent (though this was not a statistically significant change).²¹
- Similarly, in an Ofcom survey the proportion of adult internet users who do not report being confident online went up from 13 per cent in 2019 to

21 per cent in 2021.²² This survey data was collected through face-to-face interviews in 2019 and through a combination of online and postal surveys in 2021 – so the change can only be said to be indicative. However, lower online confidence might be a reflection of the rising proportion of adults using the internet, including many with limited previous digital experience.

The proportion of adult internet users using only a smartphone to go online appears to have increased, from 12 per cent in 2019 to 21 per cent in 2021.²³ Again, this change is only indicative because methodological change in Ofcom's survey over the pandemic makes direct comparison difficult.

The data paints a picture of digital exclusion in the UK evolving over the pandemic. It is encouraging to see more people access the internet in their homes than before. But in absolute terms a very large number of households remain offline – and the extent of digital engagement and foundational digital capabilities has not changed nearly as much as we might have expected given the migration of so many activities online over successive lockdowns. So, although the overall prevalence of 'hard' digital exclusion has decreased, too many remain left out of an increasingly digital world.

Who is most likely to be digitally excluded?

Exclusion rates between different groups

Before Covid-19, we knew that certain groups within the population faced significantly higher risk of digital exclusion.²⁴ The most recent evidence shows that this is still the case.

Older people experience some of the highest rates of hard exclusion. In 2021, 20 per cent of people aged 65 or over reported living in a home without internet access – more than three times the rate of adults in general.²⁵ The latest data on internet usage amongst older adults is from before the pandemic, and it is likely to have changed. Nonetheless, in early 2020, 39 per cent of adults aged 75 and over and 11 per cent of those aged 65–74 had never used the internet at all – compared with 6 per cent of the population in total.²⁶

Hard exclusion is also more common for people who are in the DE social group, low-income, disabled, ethnic minority or outside of the south of England.

- Adults in the DE socio-economic group were more than twice as likely as adults in general to not have access to the internet at home in 2021 (14 per cent vs 6 per cent).²⁷
- Adults with low household incomes (under £11,500 per year) were more than twice as likely as adults in general to not have access to the internet at home in 2021 (15 per cent vs 6 per cent).²⁸
- Disabled adults were more than twice as likely as adults in general to have never used the internet in early 2020 (15 per cent vs 6 per cent).²⁹ In late 2021, 11 per cent of adults who reported having an impacting or limiting health condition did not access the internet at home, compared with 4 per cent of adults without a condition.³⁰
- Adults in Bangladeshi or Pakistani ethnic groups were more likely than adults in general to have never used the internet in early 2020 (10 per cent and 8 per cent respectively, vs 6 per cent overall). All other minority ethnic groups were less likely than average to have never used the internet ³¹
- Internet use is lower in some regions and nations (although the differences are quite small). Eight per cent of adults had not used the internet in the three months before being surveyed in early 2020. But this rate of non-use was higher in Northern Ireland (12 per cent), the North East (11 per cent) and Wales (10 per cent). Other areas above the average were the North West, Yorkshire and the Humber, the East Midlands, the West Midlands and Scotland (all 9 per cent).³²
- People in rural areas are more likely to be online despite the greater connectivity challenges; in early 2021, 5 per cent of adults in urban areas did not have home internet access compared with 3 per cent of adults in rural areas.³³

Digital inequalities exist in soft exclusion too. Adult internet users aged 65 or over, in working-age DE households and in the most financially vulnerable households were all more likely to be what Ofcom terms 'narrow' internet users³⁴ than the average adult internet user.³⁵ And on other measures of soft exclusion, inequalities are clear:

- 29 per cent of adults have 'very low' digital engagement (measured by the Lloyds Bank digital index), but that rate is 44 per cent for people aged 60–69, 64 per cent for people aged 70–79 and 82 per cent for people aged 80 and over; 34 per cent for benefit claimants; and 41 per cent for those with annual incomes under £20,000.36
- Only 28 per cent of adults aged 75 and over have all seven foundation-level digital skills, compared with 81 per cent of adults overall.³⁷
- Compared to the 79 per cent of all internet users who described themselves as confident online in 2021, only 56 per cent of those aged 65+ and 69 per cent

of DE social grade users reported that they were confident.³⁸

 And while 21 per cent of internet users only used a smartphone to go online in the same period, 31 per cent of DE social grade users only used a smartphone to go online.³⁹

Changes over the pandemic

Comparing the landscape before and after the pandemic hit, we find that digital divides persist. Figures 1 and 2 present the changes between 2020 and 2021 for adults overall and the particularly excluded groups for whom we have suitable data from Ofcom.

The data suggests progress has been made in reducing exclusion of adults aged 55 and over, with the decrease in over-55s' exclusion appearing to have been more dramatic than the decrease in exclusion of adults in general. There is reason to believe that this represents a real fall in exclusion, although changes in survey methodology between 2020 and 2021 mean that reported

changes are only indicative. While we do not have the data to compare how hard exclusion has changed amongst over-65s preand post-pandemic, we do know that there remained a large gap in 2021 (20 per cent of over-65s did not have internet access at home compared with 6 per cent of adults in general).⁴⁰

Figures 1 and 2 also show that inequalities between the general population and those in DE or low-income households remain large. It is encouraging that there appears to have been an overall decline in hard exclusion for both groups. However, while the true extent of change is unclear because of survey methodology changes, we can see that inequalities are present in both the 2020 and 2021 data: adults who are low-income or in the DE social group remain far behind all adults. Unfortunately we do not have data to show indicative change over the pandemic for some of the other particularly excluded groups, such as disabled people, people in some ethnic minority groups, and people in some UK nations and regions.

FIGURE 1: Percentage of adults without internet access at home, 2020

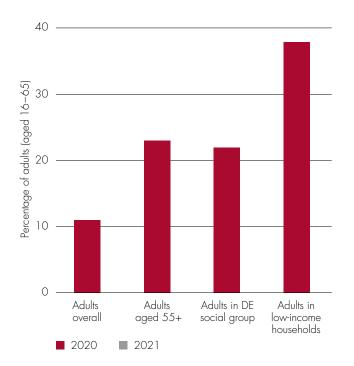
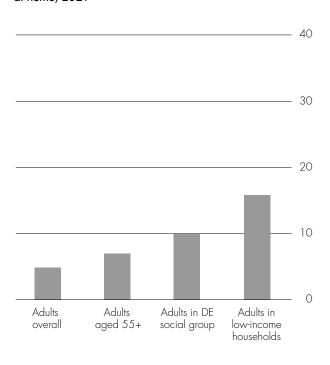


FIGURE 2: Percentage of adults without internet access at home, 2021



Source: Ofcom. 2020. Ofcom Nations and Regions Technology Tracker – 2020 data tables; Ofcom. 2021. Ofcom Technology Tracker 2021 data tables.⁴¹ Due to the methodological changes between 2020 and 2021 necessitated by the pandemic, year-on-year comparisons can only be said to be indicative.

In terms of soft exclusion, the gap between the overall population and particularly excluded groups has remained.

- The number of adults aged over 75 without foundation-level digital skills increased by five percentage points between 2020 and 2021, compared with a two percentage point decrease in the general population.⁴²
- The reported online confidence of internet users in the DE social group appears to have decreased between 2019 and 2021, just as it did for internet users overall. 43 In 2019, 79 per cent of DE users said that they felt confident online while in 2021 the figure was 69 per cent. Comparing with internet users overall, DE confidence fell from eight percentage points below average in 2019, to 10 percentage points below average in 2021.44 Although these changes are only indicative due survey methodology changes over the pandemic, one potential explanation for lower confidence of internet users is that significantly more people were online or connected at home for the first time over this period, and these new users are likely to have been less confident online.

More people are online, including in particularly excluded groups – but the gap between them and the rest remains

• Inequalities between DE and all internet users with respect to accessing the internet via a smartphone also remained. In 2019, 26 per cent of DE internet users were smartphone-only, compared with 12 per cent of internet users in general; in 2021, DE users were still more likely to be smartphone-only, at 31 per cent compared with 21 per cent of internet users in general.⁴⁵

In sum we can see that the size of the digital divide has remained significant. More people are online, including in particularly excluded groups – but the gap be-

tween these groups and the rest remains. On some measures, the inequalities may have become more severe. This is a finding of substantial concern. If the 'push' for excluded groups to get online and develop digital capabilities from the pandemic did not wipe out or meaningfully reduce inequalities, it is a clear sign that more active policy intervention is needed.

The barriers to digital inclusion

To bridge the digital divide, we need to understand why it exists. To this end, we explored the survey responses of those who remain offline, gathered insights from case study interviews with people who are digitally excluded, and collected evidence from digital policy experts and industry stakeholders. Several interconnected barriers to digital inclusion exist. Different datasets show similar patterns in the relative importance of each of these barriers in landscape of digital inclusion.⁴⁶ We examine these barriers in turn.

- Skills. 40 per cent of people were not connected to the internet because it was 'too complicated'. 22 per cent said that they did not have 'the right help to know how to start'using the internet at home. 47 People are often not accessing the support services available. In our interviews, one participant from Somerset said that he was not aware of any support services available and worried that anything provided would not teach him the very basics he needed, while the participant from Manchester was also unaware of any support with using the internet in his area. Several policy stakeholders also emphasised that Covid-19 restrictions had reduced the capacity of organisations to deliver face-to-face support.
- Accessibility. Some people cannot access the internet due to disabilities seven per cent of those not online who responded to Lloyds' survey reported that they 'have an impairment that prevents [them] from using the internet'. Anumber of policy stakeholders referenced the design of websites and online services as an issue preventing the digital inclusion of some disabled people.
- Interest in the internet and perceived need. 42 per cent of those without in-

ternet at home gave as a reason at least one of: "It's just not for people for like me", "I don't see the need" or "I'm not interested in doing this".49 And several of our case study participants expressed the view that not much would incentivise them to get online or increase their online activities, as they felt they did not need to do so. Our interviews with policy experts suggest that people may say they are not interested in being online because they do not want to admit they lack the skills or the money. However, some people have made a logical decision to limit their online activities because that is what makes most sense for them.

- Safety and security online. 28 per cent of respondents to Ofcom's survey gave "I don't trust the internet/being online is not safe/secure/there are data privacy issues" as a reason for not being online at home.⁵⁰
 - Affordability of connections and devices. According to Ofcom's survey, 36 per cent of adults who do not go online at home gave a cost-related reason – either or both of "being connected to the internet is too expensive/not worth the money" (26 per cent) or "the equipment needed to go online is too expensive/not worth the money" (30 per cent).51 In the Lloyds Bank survey, 26 per cent of adults not using the internet in the past three months gave "it's too expensive" as a reason – while a larger proportion (47 per cent) said: "I'd rather spend my money on other things".52 Even those who are online are often cutting back on essentials because they rely on it.53 The costs of connectivity need to be set in the context of rising overall living costs and very low incomes for many households. Our interviews with policy stakeholders and digitally excluded individuals across the UK also pointed to the role of long contracts and high upfront costs in disincentivising some people from getting online – especially those facing financial or housing insecurity. Some emphasised that they were not paying for a connection as it would not be good value, given that they would not be making extensive use of the internet anyway. Several case study participants suggested that they would be more likely to get

connected if the internet were free or very cheap.

 Availability of decent connections.⁵⁴ 17 per cent of those who had not used the internet in the past three months cited slow broadband speeds as a reason in the Lloyds Bank survey - the same proportion gave "no mobile internet coverage" as a reason, while 14 per cent gave no broadband coverage in their area at all as a reason.55 However, given that 96 per cent of premises have access to at least a superfast connection and Ofcom estimates that around 38,000 or less than 0.2 per cent of premises in the UK still cannot access either a decent fixed or mobile broadband connection, this suggests that for many of these people this is principally an issue of a lack of awareness of what connectivity is available to them at home, rather than a lack of availability.56 But many more households experience slow internet speeds or patchy coverage. In our case study interviews, one of the participants said that slow speeds in his area were a contributing factor to his decision to stop paying for a home connection. This issue will become more important as superfast and ultrafast speeds become the norm.

Measures to improve living standards and reduce poverty must be an important part of the policy mix

Ultimately, all of these reasons for being offline are interrelated and to tackle digital exclusion and inequality, policy approaches must seek to address them all. That said, we do not advocate an approach which attempts to 'push' people online who have perfectly sensible reasons for wanting to remain offline. We therefore do not explore policy'solutions' to the 'lack of interest/perceived need' barriers alone.

It is also important to acknowledge that digital exclusion and inequality exist in a context of broader social exclusion and inequality. Many of the barriers we present here cannot be totally overcome by digital policy alone, as they relate to underlying disadvantage. Measures to improve living standards and reduce poverty must be an important part of the policy mix when considering how best to address digital exclusion. Policymakers should consider, for example, how broader strategies to boost low household incomes could support digital inclusion alongside the targeted proposals outlined in chapter 3.

Digital exclusion case studies

In November 2021 we spoke to five people across England and Wales – who either have no internet access or do not have all the 'foundation' level digital skills – about their views on and experience of life with, or without, the internet.

Ray, Bridgend

Ray is in his 70s, and has been retired from his career as a home improvements salesman for more than a decade. He does not currently have internet access at home – although he used to, seven, eight years ago'. At that time, the speed of the service was so slow that it rendered being online absolutely useless'. Although Ray has heard from neighbours that speeds have greatly improved, he has decided to remain without a connection.

Ray explained the main reason he has for not using the internet at home: "Because I've got so much family around me, I don't miss it. I've got two sons within five miles. They're really good on the internet. So if I need it, I can just give them a ring." Ray feels confident that little would persuade him to take up a contract. Cost is a factor in his decision —"£25, £30 or whatever it is, that's quite a lot of money for a month"—but it is not the main issue. Ray would, however, take up the offer of a connection if it were free.

In his view, the family support network to which Ray has access removes the need for a personal internet connection. His passions – playing sport and walking in the country – do not require engagement with the digital world. His decision to remain offline is one that makes sense for him.

Lewis, Manchester

Lewis is a 30-year-old roofer. He has a fouryear-old son, although does not see him often due to a custody dispute. Lewis does not have access to the internet at home, and says that his digital skills are very limited.

The cost of broadband is a significant barrier for Lewis, who receives universal credit: "I can't really afford things like that, I'm paying a lot of debts off at the moment." He feels that, because wi-fi is available in other places, such as at work, it is not worthwhile for him to pay for his own connection. This became more of a difficulty during the pandemic. Lewis explained: "In lockdown, it was a bit more difficult then, because I couldn't really watch things I like." This contrasted with friends of his, who had access to sports channels and new movies. He says that if prices were lower, or if broadband was free, he would be incentivised to get connected: "It's not a luxury anymore, is it? It is a necessity, so it should be free. Or very cheap."

Lewis mentions that he does make use of the free internet access at his local library to complete job applications and produce invoices, but that he would 'love to learn' more. He references his friends again, and notes that they're good with computers and that he "always sound[s] like a bit of a caveman to them". But he is unaware of any support he could access; his library does not have the staff to provide training.

Brenda, Doncaster

Brenda is in her late 80s, and has a broadband connection at home. She only uses the internet, however, to access Netflix via a smart TV and an Amazon Alexa. Brenda's husband died two years ago, and 'he was the electronics man'. She says she has none of the foundation-level digital skills: "since him passing away, I just don't know how to use it".

This does not bother Brenda, however: "I manage. I manage just the same, you know. If there was anything that gets desperate, my family will help me out ... I just carry on and I'm quite happy with what I've got." Brenda also feels that the Covid-19 lockdowns had little impact on her life and her connection with the world; she is disabled and explains that her mobility issues made going out difficult even before the pandemic. Instead, her telephone and her television are her'lifeline'. She is clear that not using the internet also does not affect her because she has "good neighbours, a good family, and if I want anything, I just ask".

Brenda mentions that she is aware of a community centre at the end of her street that provides free computer classes; her late husband used to go every week to it. Although she has no interest in becoming a 'computer whiz' herself, she recognises the value of the service "do[ing] all these things for people that want to go".

"I would actually prefer not to use it. I think some people are on the internet far too much"

Elaine, Cambridge

Elaine is a 74-year-old former university lab technician who spends much of her time painting and gardening. She is an internet user – but does not have broadband at home. Instead, she relies on accessing the computers at her local library.

The pandemic has made this aspect of Elaine's life challenging. Elaine has found it more difficult to do what she was primarily using the library computers for pre-pandemic: house-hunting. Even since restrictions eased and the library re-opened, Elaine has been reluctant to use it due to ongoing concern about Covid-19: "The last two years,

I think I've been in there three times." She is able to use her daughter's computer, but this is limiting as she only sees her daughter occasionally, not every day.

However, Elaine feels sure that not much would persuade her to get connected to the internet at home. She says this is because she is "not driven by computers ... I would actually prefer not to use it. I think some people are on the internet far too much." While affordability of the internet does not feature highly on her list of reasons to remain unconnected, she expresses that she would consider getting broadband if it was free – although she stresses that her usage would still be limited.

Ultimately, Elaine would like to see a return to being able to easily access what she needs offline. She has noticed that making transactions at her building society in person or over the phone incurs a financial penalty compared with doing the same things online. She believes councils should have services available offline too.

Roger, Somerset

Roger is a retired 77-year-old who lives with his wife. He has a large family – five children, 12 grandchildren and a recently-

adopted cat. Roger uses a laptop to do 'things that are necessary', such as paying bills online. But by his own admission, his digital skills are limited: "First day at school as far as the internet's concerned."

The internet has become more important for Roger over the course of the pandemic, in ways both positive and negative. He has learnt some new skills, such as how to complete online purchases, although his confidence remains low: "I'm scared I'm pressing the wrong button." Roger has also perceived the movement of some essential services online, in ways he feels reluctant to engage with: "If you want to go to a doctor, you try and ring a doctor, but they're now trying to get you to go online. I won't do it, because I don't know how to do it."

Roger feels a mixture of scepticism about the idea that anyone could help, and a desire to learn more. He expresses that he would like to understand how to use word processing applications — but 'wouldn't know how to start' and cannot think of a source of help that would not confuse him with jargon or assume prior knowledge. Although he recalls attending some evening classes to introduce him to the internet 25 years ago, he would not know how to access the same kind of training today.

Conclusions

Our case studies reveal diverse experiences of digital exclusion. Different people have different needs – and, whether they have an internet connection or not, want the extent of their internet usage to reflect their interests. Some, like Ray and Brenda, are adamant that being online would add nothing to their lives. For these people, it is important that the services they use remain accessible offline.

For others, limited digital skills or affordability issues are playing a larger role in preventing digital inclusion. An absence of, or lack of awareness of, support with digital capabilities is a barrier for Lewis and Roger. More than one of the case study participants felt that free or much cheaper connections would incentivise them to get online. And across our case studies, we can see that the presence of a supportive network of family and friends has helped digitally excluded people through the pandemic. In the absence of such networks, it is unclear how many would be able to conduct their lives without better provision of support to engage more deeply with the digital world.



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Chapter two: Current policy approaches to tackling digital inequality

POLICYMAKERS, CHARITIES AND private sector organisations have grappled for many years with the digital inequalities issues discussed in chapter 1. National and local governments have initiated measures to promote digital inclusion – supplementing work from the third sector and from telecommunications firms themselves – especially over the course of the pandemic. These have ranged in scope and effectiveness.

This chapter outlines and assesses some of the approaches taken by these organisations. We find that there are many positive initiatives to learn from, but ultimately they are too patchy, underfunded and incoherent to tackle the digital divide.

Strategy and coordination

Central government does not have an up-to-date digital strategy. The most recent strategy was published in 2017 under a different prime minister. This included commitments to implement the universal service obligation (USO), free digital skills training and money for the NHS to support digital inclusion in accessing health services. A new strategy was due to be published in 2020, but it has been delayed and has still not been published at the time of writing in 2022.⁵⁷ The 2017 strategy is now almost five years out of date – and clearly, a lot has changed in that time.

The UK government's lack of an up-todate strategy stands in contrast to Wales and Scotland, where the governments have published strategies much more recently.

- The Scottish government published a digital strategy in March 2021.⁵⁸ Its first substantive section is focused on digital inclusion. While most of the actions are focussed on digital infrastructure, it also pledges to boost its Connecting Scotland programme (see page 17) to do more on devices, data and skills.
- The Welsh government published a digital strategy in March 2021.⁵⁹ The document references its December 2020 digital inclusion-specific delivery strategy, which details actions to be taken to increase digital inclusion.⁶⁰ The strategy includes details of the ongoing Digital Communities Wales programme, which supports organisations across Wales to help people get online through skills and device provision.⁶¹

Devolved strategies are essential, but the lack of a UK-wide digital strategy is clearly problematic, given how important digital connectivity has become, the persistence of the digital divide and the impacts of exclusion for those who remain offline.

Skills and accessibility

Even without any digital strategy from Whitehall, there have been a number of policy measures and initiatives in recent years to improve digital skills capability, both from the UK and devolved governments:

- in 2017 to bring together "public, private and charity sector organisations to help increase the digital capability of individuals and organisations in England". Downwere, it has only published news of recent work twice in the last two years. Although it has focused to some extent on basic digital skills, much of its work was on developing higher-level digital skills capability in the economy. This is an important goal, but not the key priority when it comes to reducing the digital divide.
- The Department for Digital, Culture, Media and Sport's Digital Inclusion Fund ran from January to December 2019 and provided money for initiatives aimed at improving digital inclusion through skills provision – especially for older people and disabled people.⁶³ To date, no national successor scheme (or extension of the fund) has been delivered. Many policy stakeholders highlighted such a pattern across digital policy more

systematically: funding is rarely provided for the long term, which creates instability for organisations delivering digital inclusion support and inconsistency in what they are able to provide over time.

- In August 2020, the government introduced an entitlement to a free, funded essential digital skills qualification. Takeup during the first year of the qualification has been very low.⁶⁴ The key challenge appears to be making qualifications truly accessible to those who need them most for example, many adults without basic digital skills may not be inclined to return to a formal education setting to learn how to navigate the online world in a way that meets their needs.
- There have also been a number of skillsfocused initiatives in the devolved nations. The inclusion of a dedicated digital skills section in the Scottish government's digital strategy is welcome - although its focus is on digital 'upskilling' of the workforce and advanced digital skills, rather than basic digital skills.65 Basic digital skills are, however, a focus of the Connecting Scotland programme (which we discuss on page 17 below). The Northern Ireland government runs the 'Go ON NI' online service that provides guidance on getting online, basic digital skills and signposts to where people can find local free internet access.66
- · Voluntary sector organisations have also implemented initiatives on digital skills. Good Things Foundation manages the Online Centres Network, which brings together thousands of community-based institutions that deliver digital skills and support to improve confidence, close to where people actually live. They operate in locations like libraries, community venues, leisure centres or shopping centres, and sometimes pubs and cafes. Some centres focus on 'outreach' too, delivering provision in places like care homes and supported housing - and many specialise in reaching particular groups in a community that disproportionately experience digital exclusion and social isolation. Evidence on 'what works' for reaching people in need of basic digital skills and confidence suggests that informal learning delivered by local and trusted contacts - either

at home or in the community - is best.67

• There is evidence that initiatives like the Online Centres Network are not supported sufficiently to deliver at the scale they need. The Future Digital Inclusion initiative, funded by the Department for Education, supported Online Centres to provide tailored support for unemployed, low-skilled and disabled people with digital skills needs. But DfE funding ended suddenly during the pandemic, and evaluations of the initiative found that funding for the project when it was running was too low as support is resource intensive. 68

The private sector, and in particular telecommunications firms themselves, have also launched initiatives to improve basic digital skills in recent years. For example, BT's Skills for Tomorrow delivers free digital skills training and resources for people at different skill levels. While the bulk of provision is itself delivered online – which is obviously problematic for those without any internet access – the initiative also works with partners like Good Things Foundation to deliver in-person learning.

Dedicated public funding seems to be too low to deliver digital inclusion interventions at scale

Looking across all these skills and accessibility initiatives, a general picture is clear. First, dedicated public funding seems to be too low to deliver digital inclusion interventions at scale. Second, policy must devote as much attention to basic digital skills as to advanced work-related digital skills. Finally, approaches need to learn from best practice to reach people in need of skills provision.

Affordability of connections and technology

The pandemic has provided an impetus for central government policy initiatives to address the costs of getting online.

- Between September 2020 and June 2021, and again from October 2021, the DfE rolled out support for disadvantaged children and young people engaging in remote learning, who did not have access to any or sufficient devices at home or did not have internet access at home at all. The devices and data were distributed through schools, colleges and local authorities.
- In February 2021, DCMS funded the £2.5m 'Digital Lifeline Fund' to provide devices and data to people with learning disabilities unable to afford internet access.⁶⁹ It did this by paying for 5,000 tablets pre-loaded with data and free tech support.⁷⁰ This was another positive development but, again, came with no indication of a commitment to continued support.

These initiatives have fallen short. The House of Commons Culture, Media and Sport Committee report found that DCMS had failed to meaningfully advance digital inclusion over the pandemic because they lacked the funding needed to coordinate across government and support third sector initiatives.⁷¹

During the pandemic there has also been increasing debate about social tariffs for broadband – lower-priced packages offered to prospective customers who are likely to struggle with affording to connect at full price. When the USO for broadband was introduced, the government rejected calls for it to include a social tariff. Recently the government and Ofcom have been encouraging (but not mandating) internet service providers to offer social tariffs, although not providing any real support to implement them.⁷²

There has been an increase in the number and quality of social tariffs voluntarily offered by internet service providers over the pandemic:

• BT, Virgin Media, KCOM, Community Fibre, Hyperoptic and VOXI all have social tariffs in place. The However, awareness and take-up amongst people who are eligible are incredibly low. Social tariffs are also not available to everyone who needs them, simply because not all providers offer them. And existing social tariffs differ in their quality, with wide variation in prices, speeds offered and eligibility conditions. To the social tariffs differ in their quality, with wide variation.

- In September 2021, TalkTalk launched a new scheme that offers jobseekers six months' free access to a superfast broadband connection. The Access is granted through a voucher offered by Jobcentre Plus work coaches and the scheme is part-funded by the Department for Work and Pensions. This model has an advantage over market-based social tariffs, because it does not rely on low-income customers independently finding out about offers to take advantage of them. Instead, the voucher is actively offered to the target recipient at the point of need.
- Voluntary organisations have also stepped up their offer of affordability-related provision over the pandemic. Good Things Foundation in partnership with Virgin Media O2 announced the creation of the 'National Databank' in 2021.⁷⁷ The mobile operator will be donating large amounts of data over the next two years for Good Things Foundation to distribute to those in need via its online centres. This is an innovative and positive initiative – but as with the current landscape of social tariffs, it is dependent on the goodwill of mobile network operators to 'gift' access.
- Other initiatives have focused on digital devices. 'Everyone Connected' is an ongoing project to provide devices for lowincome individuals, managed by Good Things Foundation, with the support of funders including Barclays Bank, BT and Vodafone. The scheme comes on top of a number of initiatives to provide low-cost refurbished devices to low-income households, such as Get Online @ Home. Similarly Nominet has established the 'Reboot' platform, which provides guidance to organisations on how to set up a device distribution scheme.

Much of this good work to improve affordability is clearly voluntary. This poses a problem: it leaves large gaps in access to digital connectivity. The government has no large-scale scheme to guarantee that cost is never a barrier to being online with a decent connection. Given the numbers of people not accessing the internet for cost-related reasons, or having to forego other essentials in favour of paying for a connection, a more comprehensive, robust and long-term approach is needed.

Infrastructure for connectivity

The last chapter showed that some people remain digitally excluded because they do not have a decent internet connection available where they live. Ofcom found significant gaps in fixed-line broadband coverage in particular: an estimated 650,000 or around 2 per cent of premises still cannot receive a 'decent' connection (defined as 10mbps download and 1mbps upload speed). However, this figure drops to around 130,000 premises when other technologies such as fixed wireless access services, which are capable of delivering the equivalent of a decent service over a fixed line, are accounted for.81 Many more people, however, can only access connection speeds well below the norms people increasingly expect today in the coming years. Central government has policies to address this problem.

The definition of a decent and affordable connection does not reflect most people's expectations

- The broadband universal service obligation (USO) that came into force in 2020 gives these households that do not have access to a decent service via fixed or wireless technologies a right to request a decent connection (defined as 10mbps) that is also affordable (defined as less than £46.40 per month). If a premises is without a connection that meets these standards, the universal service providers BT (and KCOM in Hull) are obligated to install a decent connection at no charge to the end user as long as the cost of works is less than £3,400 per eligible premise. Digital inclusion campaigners and experts have raised concerns about whether the USO offer can truly tackle digital exclusion: many households are effectively left out of the USO's scope because of the cost of works;82 and the definition of a decent and affordable connection does not reflect most people's expectations for digital connectivity in the 2020s.
- The government's superfast broadband programme has seen mixed success. In 2011, the government began to sup-

port the rollout of superfast broadband (30+mbps) to areas unlikely to be connected through commercial investment. This has been successful on a number of measures – for example, it has genuinely supported the extension of coverage to 5.9 million additional premises.83 Beyond the commercial network build to nearly 25 million premises, the programme surpassed the target to reach 95 per cent of UK premises in 2017 and has now reached 96 per cent of premises.84 On other measures, though, it has been less successful: it has faced delays in getting hard-to-reach areas connected; a handful of the connected premises do not access superfast speeds in practice (although these do not count towards the target); and some have argued that the infrastructure is unsuitable for meeting future demand - because achieving superfast speeds through cheaper 'fibreto-the-cabinet' upgrades has been prioritised, rather than the more expensive full-fibre upgrades necessary to achieve gigabit speeds.85

• In 2021, the government launched 'Project Gigabit', a £5bn fund to support gigabit connectivity rollout to the 20 per cent of areas that would risk being left behind by private-sector rollout. This includes £210m for the gigabit broadband voucher scheme, to help rural residents and businesses to afford the installation of gigabit broadband at their property without having to wait for Project Gigabit-funded providers to lay cables in the local area first.86 However, the government's ambitions have fallen significantly: the 2019 Conservative manifesto contained a high-profile pledge to connect 100 per cent of premises to gigabit networks by 2025; but now, the government target is only 85 per cent of UK premises - suggesting the manifesto promise was always unrealistic. The most recent update on the progress of Project Gigabit suggests the marketdriven commercial build will reach 80 per cent of the UK - meaning the taxpayer's substantial investment will only connect an additional 5 per cent of premises by 2025.87 It appears that the vast majority of the commercial '80 per cent' will be built by 2025, whereas only around 5 per cent of the total additional 20 per cent requiring

government assistance will be delivered on the same timescale. This suggests the government underestimated the challenges in delivering a funding process that could deal with the high costs and complexity of reaching 100 per cent of premises with gigabit speeds. It has also been slow to address the barriers to efficient rollout identified by industry, such as organising street works, agreeing wayleaves, access to skilled workforces and planning issues, all of which increase the cost to both commercial actors and government (and thus reduce the commercial viability of fibre builds).88 This all raises the risk that people in hardto-reach areas will suffer poor connectivity and slow broadband for years to come. People in rural areas may have to pay more, receive less choice of service, and reach gigabit speeds far later than everyone else.89 In February 2022, the government clarified as part of its Levelling Up white paper that its aim is now to deliver nationwide gigabit-capable broadband by 2030. The paper does, however, define 'nationwide' as 'at least 99 per cent of premises' - suggesting that it anticipates the very hardest to reach may still not be connected by 2030, in spite of public investment.90

The government needs to explore what more can be done to reach the most excluded places in an efficient way

The government's commitment of public money to expand the coverage of broadband is welcome. But, so far, the plan looks to be limited in its effectiveness – and the government needs to explore what more can be done to reach the most excluded places in an efficient way so that no one is left behind.

'Multi-pronged' approaches

Some policy approaches to improving digital inclusion aim to address multiple barriers simultaneously. These approaches can be observed at all levels of government – in

Whitehall, from devolved administrations and from combined and local authorities.

- The Digital Inclusion Toolkit provides help and advice for local authority digital teams on how to advance digital inclusion in their areas. It is funded by the Department for Levelling Up, Housing and Communities and delivered by a partnership between Leeds City Council, Croydon Council, Age UK Croydon and TechResort.⁹¹
- The Connecting Scotland Programme supports public and community organisations to boost the digital inclusion of their service users, through identifying needs and then providing data and devices, as well as basic skills training. The programme is funded and overseen by the Scottish government, and is managed by the Scottish Council for Voluntary Organisations with local councils and third sector organisations playing a role in the delivery of digital inclusion support on the ground. By August 2021, more than 40,000 households had been supported by the scheme. 92
- The Greater London Authority formed a digital exclusion taskforce to map connectivity issues, determine the need for devices and support digital skills provision in London. They have been promoting device donation and coordinating efforts between third sector organisations in the capital. £1.5m has been allocated over the two years from February 2021 to start to deliver the 'digital access for all' Covid-19 recovery mission – for "every Londoner to have access to good connectivity, basic digital skills and the device or support they need to be online by 2025".
- The Greater Manchester Combined Authority formed a digital inclusion taskforce in December 2020. After the May 2021 mayoral election, Greater Manchester mayor Andy Burnham announced the formation of the digital inclusion action network to deliver on the ambition to "equip all under-25s, over-75s and disabled people with the skills, connectivity and technology to get online". In April 2020, the GMCA also established the Greater Manchester

Tech Fund, which began as a scheme to support young people to get connected to learn during the pandemic and has now evolved into a long-term support scheme to tackle digital exclusion. And in March 2020 the GMCA funded digital inclusion leads to be introduced in all of the ten constituent councils to drive a coordinated focus on digital inclusion.⁹⁴

There is plenty of good work happening on digital inclusion – but it is too fragmented and piecemeal

The 100% Digital Leeds programme is run by a dedicated digital inclusion team at Leeds City Council.95 Members of the team work as conveners and coordinators. supporting organisations within the public and voluntary sectors across the city to reach the most digitally excluded people and help them overcome the barriers to exclusion that they face, whatever they might be. They help organisations that have regular contact with digitally excluded people to integrate digital inclusion into their practices. While the team receives some core funding from the council, it has to source additional resource from other parts of the local authority and other local organisations in order to maintain the required capacity.

As with approaches that aim to deal with particular barriers to digital inclusion, these multi-pronged approaches are rarely backed by enough resources, given the size of the challenge. Crucially, the coverage of such schemes is patchy: excellent initiatives exist in some areas and not others. Large cities appear to be taking the lead, which is positive, but that means people in other areas are excluded. Overall, there is plenty of good work happening on digital inclusion – but it is not of a sufficient scale, it is too fragmented and piecemeal and it is not coherent across geographies.

Chapter three: Conclusions and recommendations

DIGITAL EXCLUSION MATTERS more now than ever. The internet is now vital for our everyday lives, but that makes digital exclusion all the more acute for the people it affects. It is good that more people are online now than before the pandemic, but too many people remain excluded. And just being online is not enough to be digitally included – there has been little improvement in how many people have the skills or confidence to use the internet how they want.

Persistent digital inequality is especially concerning. There remains a persistent gap between those that see the highest rates of digital exclusion and the rest. Given how vital the internet now is, it is a deep injustice that older people, people on lower incomes and disabled people are much less likely than average to make full, or any, use of it.

Current government policy is nowhere near meeting this challenge. There is next to no coordination or overarching plan on digital inclusion from central government. Most initiatives are aimed at addressing individual barriers in isolation – whether that is skills, affordability, or the availability of decent connections – and do not consider how these barriers interact with one another, and the ways they might be confronted together. This is compounded by a lack of resources dedicated to digital inclusion: digital exclusion is a social problem and it requires the commitment

of resources if it is to be tackled. That commitment has yet to be made.

Good work is underway in local government, and in the third and private sectors. Our research has shown that there is a great deal of excellent work being done to support digital inclusion, in local government and in the third and private sectors - and this has ramped up over the past two years. In some areas there are signs the government is finally willing to deploy significant resource to address issues, such as with the Department for Education's programme to distribute devices and connections to disadvantaged children for remote learning. But the existing patchwork of initiatives has too many holes. Support is fragmented; schemes are not able to reach the scale reguired; and many cannot address the fundamental causes of digital exclusion.

Whitehall must take a more interventionist role

The government must now tackle digital exclusion. Whitehall must take a more interventionist role in advancing digital inclusion. This is the only way to achieve the necessary scale and coverage of support. Central government must devote resources to enable local delivery of solutions, and

ensure that the right problems are being tackled in the most effective ways. Some of our proposals below apply to the whole UK while some focus on England only, because some powers are devolved. Where the latter is true, we would like to see the Scottish, Welsh and Northern Ireland governments draw on the ideas presented.

Below, we set out 10 policy recommendations to address the barriers to digital inclusion. Our three core proposals make up a set of new'digital entitlements' to transform the landscape of support for people who would benefit from undertaking activities online but currently cannot. These core proposals are supplemented by further actions to address challenges around affordability, digital skills and accessibility, and infrastructure and connectivity.

To demonstrate commitment to a coordinated plan and to ensure accountability, the government should publish a digital inclusion strategy that takes on these recommendations. The strategy should be published by the Department for Digital, Culture, Media and Sport but should contain actions for departments across government. The Cabinet Office should take a role in overseeing the delivery of the strategy in partnership with DCMS, holding other departments' feet to the fire on digital inclusion in their respective areas of policy and service delivery.

The new digital entitlements

Government should introduce a social tariff for home internet connections, provided through a broadband discount scheme that is co-funded by taxpayers and internet service providers (UK)

Existing policy is failing to make the internet affordable for people on low incomes. While several internet service providers have taken action to introduce their own social tariffs, take-up remains low and the process of verifying eligibility based on benefit receipt remains limited.96 People on low incomes - and other excluded groups - deserve a more robust and coordinated approach that makes such an essential service affordable to them. This is not just important for internet access, but also for living standards: many people in low-income households choose to spend money on internet access, but sacrifice other essentials to be able to afford it.

We recommend that the government introduce an industry-wide social tariff via a broadband discount scheme. All internet service providers would be required to offer a social tariff with a maximum retail price of £15 per month with download speeds of up to 40mbps (similar to BT's existing 'Home Essentials' social tariff). Every customer eligible for the discount scheme would be able to sign up to this £15 social tariff. The discount scheme should initially be open to households receiving universal credit, pension credit (guarantee credit component), working tax credit, child tax credit, income support, income-related jobseeker's allowance or income-related employment and support allowance.

The discount scheme would function by partially compensating internet service providers for the costs that they would incur from operating a £15 social tariff. We recommend that internet providers should receive funding from the discount scheme of £10 per social tariff customer per month. This would offset most of the cost of Openreach network rental for providers. 97

A market-wide social tariff would be recognition that the internet is an essential utility – taking a lead from the warm home discount scheme in the energy sector, as well as the existing social tariffs for water and voice calls. Crucially, operationalising

the tariff through a government-mandated discount would maximise take-up and level the playing field between internet service providers.

The discount should be promoted prominently in the new customer journey of all internet providers, with live access to Department for Work and Pensions databases to validate eligibility. The government should also create a voucher for the discount that would be issued directly and automatically by the DWP when a claim for any of the listed benefits is approved and to existing claimants of these benefits at the outset of the scheme. Alongside the implementation of the discount scheme, internet providers should be encouraged and supported to offer payment mechanisms other than a standard direct debit for social tariff customers, to give people on low and often insecure incomes as much flexibility as possible in how they pay for the internet. Alternative payment methods – such as monthly 'pay as you go' billing - must not come with additional costs, so as to prevent the emergence of a poverty premium.98

It should be possible for social tariff customers to have the choice of using the discount on a range of products

Although providers would be required to offer a £15 social tariff, it should be possible for social tariff customers to have the choice of instead using the discount on a range of products, with providers encouraged to deliver a range of discounted products. This would make the policy 'technology neutral', with the discount able to be applied to fixed-line broadband or mobile data packages depending on the needs of the household. It could then be used to make a cheap mobile-based broadband package almost free, or to reduce the cost of an ultrafast fibre package.

Although we propose the government begins the scheme with a maximum £15 social tariff for those receiving the means-tested benefits outlined, policymakers might want to look beyond this baseline.

First, the government could consider expanding eligibility to include disabled people in receipt of personal independence payment, disability living allowance or attendance allowance. The purpose of this would be to support take up of the internet amongst this particularly excluded group without imposing an additional burden on disabled people's living standards.

Second, in future the government could explore increasing the value of the discount for out-of-work households – with the aim of making a decent internet connection free for these families. Internet service providers could be required to offer a free broadband package to this group of customers. In return, providers would be able to claim the full cost of Openreach line rental for each customer on this free broadband tariff – which would be £14.50 per customer per month. The value of both a partial and full discount provided by the scheme should be reviewed annually to reflect the market.

This is a far cheaper, better targeted and more practical proposal than the Labour party's 2019 manifesto commitment to provide free full-fibre broadband to all. This did not target spending on those who really need support with the cost of internet access and would have been very expensive. Figure 3 sets out indicative costs of our options for a discount scheme with different hypothetical rates of take-up (all of which are far higher than the current take-up of existing broadband social tariffs provided by individual internet providers). This compares to annual spending on the warm homes discount of £350m (prior to recent energy price rises), and public spending of £5bn on the Project Gigabit project to supplement commercial rollout of gigabitcapable broadband.99

The costs of funding the social tariff/discount scheme should be shared by government and industry. Since the internet is an essential utility and a social good, there is a case that general taxation should play a role. At the same time, a discount scheme would prove beneficial to internet service providers in several ways, including by stimulating demand for their products and removing the need for them to fully fund their own social tariffs; in light of this, an industry-wide levy could also provide funding. Ministers should negotiate a cofunding model where the taxpayer and industry shares the cost of the discount.

FIGURE 3: Estimates for the cost to government/industry of a broadband discount scheme 100

Take-up of eligible households	30%	50%	70%		
Option 1: Households on means-tested benefits – discount value of £10 per month					
No. of households	2.8 million	4.6 million	6.5 million		
Annual cost	£330m	£550m	£780m		
Option 2: Households on means-tested benefits or non-means-tested disability benefits – discount value of £10 per month					
No. of households	3.6 million	6 million	8.5 million		
Annual cost	£430m	£720m	£1bn		
Option 3: Households on in-work means-tested benefits or non-means-tested disability benefits – discount value of £10 per month; households on out-of-work benefits – discount value of £14.50 per month					
No. of households	3.6 million	6 million 8.5 million			
Annual cost	£510m	£850m £1.2bn			

Government should guarantee a free internet-enabled device for individuals who are identified to be in need at a local level (England)

The pandemic has seen the expansion of initiatives to donate, refurbish and distribute free or low-cost devices to people who could not otherwise afford them, but awareness is low and the level of provision is not currently matching the scale of the challenge. Coordination between central and local government support for these initiatives varies from place to place. The Greater Manchester Combined Authority and the Greater London Authority have started to provide the coordination necessary to make this a reality, both between national and community organisations, and between their constituent councils.

We recommend that the government establish an entitlement to a free internet-enabled device for people who cannot afford one. To deliver this, Whitehall should fund and provide local authorities with guidance to coordinate and upscale initiatives for device donation, refurbishment and distribution. Combined authorities and local authorities across the country should look to replicate the approaches in Greater Manchester and London.

To help achieve this and other outcomes described throughout this chapter, the government should fund every upper tier local authority to establish their own digital inclusion team. These teams would operate as independent leaders, conveners and coordinators of support, developing and implementing a strategy to get the digitally excluded online in their area. To deliver the entitlement to a free device (and free skills training - see recommendation 3) for those in need, local digital inclusion teams will work in partnership with other frontline local organisations like GP practices, schools and colleges, voluntary and community sector organisations, housing associations and sheltered housing - ensuring they have the knowledge, capacity and resources to identify who needs a device and how best to provide it.

Government should ensure everyone who needs it has access to free digital skills support in their community (England)

Too many people are going without appropriate training and support and remain digitally excluded as a result. Our research has found that the most effective interventions to help people who want to improve

their basic digital skills are conducted by local, trusted organisations – close to the everyday lives of those they aim to help. There is a need for a clear offer to people who would benefit from support, as well as a requirement for funding to provide it.

We recommend that the government provide a new entitlement to free, local digital skills support for everyone in England (and that the devolved nations adopt a similar approach). To achieve this, government must look to strengthen local referral pathways for support and training (see recommendation 5), and ensure that organisations delivering digital skills provision in communities are able to access funding to boost their scale and capacity.

To ensure a sufficient funding stream for community-based digital skills initiatives, the government should look to support initiatives with resource from the adult education budget. Policymakers should acknowledge that it must be a goal of mainstream skills funding to support basic digital skills and online confidence and safety – and to allocate resources to these goals accordingly. The AEB can be used to fund a wide range of skills and training interventions, and these do not have to result in a qualification or take place in large edu-

cational institutions. Good Thing Foundation's Online Centres Network, created by the Labour government in the 2000s, ¹⁰² could be developed as the spine of a new system of government-supported, community-based hubs for accessible digital skills support.

In allocating resources, funding authorities should consider inequalities that exist in the present digital inclusion landscape – and ensure that specialist organisations focused on particular groups such as older people or disabled people are included in the process.

Enhancing affordability

Government should work with Ofcom to explore restricting broadband connection fees and early exit charges for those with affordability challenges (UK)

Many families struggle to pay the oneoff fees often charged for connecting with a provider for the first time. This disincentivises both getting connected at all, and switching to a cheaper tariff from a more expensive contract. While Openreach made the decision in the autumn of 2021 to waive fees for connecting a new customer receiving universal credit with no other earnings, it is left up to internet service providers to determine how, or if, they pass these savings onto low-income customers. 103 Providers may also find it difficult to identify which of their customers are eligible for the offer, as they cannot easily verify whether households are receiving universal credit. 104

In addition, consumers often face the prospect of being charged an early exit fee if they need to leave a contract before it ends. As with connection fees, early exit fees undermine price competition between internet service providers by increasing the difficulty and cost of switching to a cheaper tariff. They are also a financial penalty for families experiencing financial or housing insecurity, who face a higher likelihood of needing to leave their contract early. Research suggests that both initial installation costs and charges for disconnecting put pressure on low-income households, and can lead to the disadoption of broadband.¹⁰⁵

We recommend that the government work with Ofcom to explore the case for restricting the use of connection fees and early exit charges. While a priority should be limiting or removing charges for lowincome households eligible for our proposed broadband discount scheme (see recommendation 1), we suggest that Ofcom consider doing so for all customers. In the absence of a market-wide social tariff discount scheme, universal restrictions on these charges would prevent the scenario in which people with affordability challenges miss out on additional means-tested discounts if they cannot prove their eligibility.

Reducing or removing connection fees and exit charges would most likely be costneutral for internet service providers. This is because we would expect firms to make up the lost revenue elsewhere, for example by raising monthly tariffs. If this did happen, it would still be a better outcome for low-income customers for two reasons. First, the customer would face the same costs, but spread over a longer period of time - reducing the disincentivising impact of high upfront charges. Second, regulated connection fees and exit charges would simplify the experience of navigating the market for low-income customers, making the 'true' price of a broadband package clearer to see and enabling consumers to make better-informed decisions.

Better digital skills and accessibility

Government should ensure 'identification, support and signposting' training for frontline workers who deliver public services (UK/England)

There is currently a complex – and impressive – patchwork of provision for basic digital skills. Voluntary organisations, technology companies, libraries, further education colleges and other institutions offer varying levels and types of support across the country. But as well as these providers being under-resourced, the most digitally excluded people in society are not adequately engaged and encouraged to take advantage of the support available. No nationwide strategy exists even to find out who these people are.

We recommend that the government implement the delivery of 'identification, support and signposting' training for front-line public service workers, so that people without essential digital skills can be 'triaged' in the course of their day-to-day lives. People who do not have the skills and con-

fidence to use the internet should be supported to do so at the point of interaction with public services and the post office. This could be relatively effective, given that people in particularly excluded groups – older people, low-income people, unemployed people and disabled people – are more likely to be accessing many key public services.

Workers in frontline services are often under a great deal of pressure, so it is important to emphasise that the purpose of providing this training would not be to add demanding tasks to their job roles. Instead, frontline workers would be supported to (a) identify a basic digital skills need in a service user and (b) understand where to direct a service user to receive digital skills support. We do not recommend workers in these other public services deliver digital skills support themselves. We also suggest that the government should explore, in partnership with industries like high-street banking, how such an approach can be replicated in essential services provided by the private sector.

There is additional urgency for better signposting to digital support caused by the upcoming switch-off of the analogue landline phone network ('PSTN'), and its replacement with digital phone service using Internet Protocol (IP). By the end of 2025, all landline services in the UK will be routed through an internet connection. 106 This switchover process must be grasped as an opportunity to direct people without digital skills and confidence towards support. Ofcom and DCMS should ask telecommunications companies to develop a support and awareness programme to accompany the PSTN switch-off, so that vulnerable, digitally excluded people are not left without phone service, can confidently navigate the new technology and can access further digital skills support if they want it. Any initiative should draw on the success of the 2008-2012 analogue TV switch-off, which included a very successful public awareness campaign and clear signposting to help with the transition.

Government should enact a review of public digital services so that they meet the highest standards of accessibility for disabled internet users (UK/England)

The design of websites can be the difference between disabled people engaging and not engaging with public services. While 2018 legislation requires public sector bodies' websites to conform to an international accessibility standard, we know that there is still considerable variation in the quality and accessibility of public sector websites.¹⁰⁷

We recommend that the government launch a review of public digital services and websites to ensure they meet the highest standards of accessibility for disabled people. The purpose of a review would be to (a) assess the extent to which the legal obligations currently placed on public sector organisations are being met, and (b) evaluate whether the accessibility requirements contained within these obligations could go further to support disabled internet users to use apps and websites fully.

The voices of disabled people and representative organisations should be integrated into the review through robust consultation and co-design mechanisms. In the wake of a review and any resulting changes to accessibility standards for public digital services, the government should commit to providing practical support for all public sector organisations to comply with standards - from government departments to district councils to primary schools. The government should also explore how to encourage private sector organisations to commit to meeting the same standards. One way to do so could be to embed the standards into procurement practices, so that any company receiving government funding to provide services was required to meet public sector benchmarks for customer-facing digital services.

Government should require that public services are easily available for those who remain offline (UK/England)

Our research has highlighted that a significant proportion of people who do not use the internet, or who use it in a limited way, have made a choice to do so because it is makes sense for them. They have strong offline social networks, are able to engage in the activities they enjoy in person and feel they are not missing anything from being offline. In recent years, however, many key public services have become harder to access for people who do not use the internet, as the government has adopted a 'digital by default' approach. For many people who do not use the internet personally, a relative or carer needs to use it on their behalf.

We recommend that government and public service providers ensure services are made accessible for those who remain offline. This could entail a commitment to a minimum standard of telephone or inperson service from services such as local authorities, GP practices, and job centres—supported by the resources required to make this a reality. This should go together with improvements to the digital services that are provided, to make them the first choice for people who are connected. In this way, the costs of providing in-person support can be contained, without gatekeeping that puts off people who need it.

These points of contact for people who remain offline should additionally be used to advance digital inclusion where appropriate. Public service providers delivering offline services can help identify where an individual might benefit from doing, or has a desire to do, something online or develop their digital capabilities – and can signpost people to support (see recommendation 5). This might be appropriate, for example, where a public service provides in-person support to assist in the completion of a transaction most people can do for themselves online.

Upgrading infrastructure and connectivity

Government should help local authorities identify how public assets can be better used to upgrade internet infrastructure (UK/England)

The government has rightly provided £5bn of funding to supporting the rollout of gigabit-capable internet to premises beyond those reached by the private sector. However, the ambition for what this money looks set to achieve has diminished a great deal since its announcement. It is vital that decisions taken now do not result in people being left behind: it will be no time before digital services important for social inclusion are being designed on the assumption that people have ultrafast internet.

We recommend that the government commit resources to helping local authorities play a bigger role in the gigabit broadband rollout. In particular, councils should be supported to do more to identify how their physical assets and infrastructure can be leveraged to improve gigabit network coverage in the most cost-effective way.

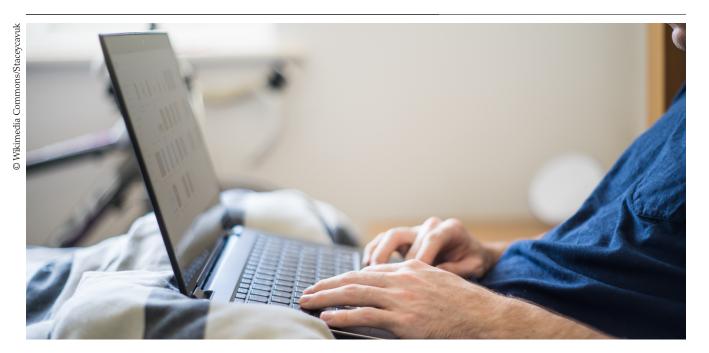
All councils should have funding to first map and then mobilise public assets like tunnels and buildings – and coordinate more intensively with telecommunications companies to make infrastructure upgrades more efficient. For example, the costs associated with installing new fibre-optic cabling in a neighbourhood could be brought down by coordinating the project with other street work. 108

This approach could bring two related benefits. First, it could lower the costs of installing fibre for the private sector, so that it becomes commercially viable to roll out upgrades to more areas – in turn reducing the need for direct public subsidy to connect these places. Second, it could ultimately increase the affordability of gigabit connections for the consumer by lowering the initial investment costs of installing infrastructure for telecommunications companies.

Government should review and upgrade standards for 'decent' speed, data use and affordability, and explore how this can be funded and delivered outside of the existing universal service obligation mechanism (UK)

In the years to come, people's view of what constitutes a decent connection will continue to advance. Even while the government was introducing the broadband universal service obligation between 2016 and 2020, it faced calls for the 'decent connection' definition to include a minimum download speed higher than the 10mbsp now enshrined in regulation.¹⁰⁹ Other aspects of the USO also leave people at risk of falling behind - including the assumption that broadband packages below £45 per month are 'affordable', the 100GB monthly data cap and the £3,400 spending cap before households have to begin contributing to the costs of an installation. The legislation that provides the basis for the USO requires it to be reviewed when uptake of superfast (i.e. 30+ mbps) broadband exceeds 75 per cent of all UK premises - but the Secretary of State for Digital, Culture, Media and Sport can direct Ofcom to review it at any time.

We recommend that the government trigger this provision and ask Ofcom to review standards for 'decent' speed and affordability set out in the USO. A review should operate on the basis that it would be desirable to bring up minimum standards – but it must explore the scope for any unintended adverse consequences of doing so, and what could be done to mitigate them, including how the typically very high costs



of delivering enhanced services to the very hardest to reach premises could be met. Depending on the timing of a review, it could draw on the findings of forthcoming research to determine a minimum digital living standard. ¹¹⁰

We are aware that upgrading the definition of a decent connection could result in additional burdens and potential costs for the universal service providers, currently BT (and KCOM in Hull), and that this would fundamentally change the basis of the existing obligation. If an Ofcom review concludes that the USO should be modified, government should work with BT, KCOM and other internet service providers to agree a funding package to deliver a new, more adequate USO likely making use of alternative technologies to deliver good connectivity to the final few per cent at a reasonable build cost.

This recommendation should be considered in the context of the rollout of full-fibre networks. Around 97 per cent of UK premises already have superfast speeds available to them. Public and private investment in both superfast and gigabit-capable networks is expected to deliver speeds of at least 30mbps to many of the premises comprising the remaining three per cent over the next few years. Even an upgraded USO is therefore unlikely be the primary mechanism for boosting speeds for those who currently

do not have good connections, although it remains important that the USO guarantees a good minimum standard where premises can be connected at a reasonable cost. We propose a distinct, targeted approach for the 'final few' premises – which are expected to remain without decent speeds despite Project Gigabit and the USO, due to the extremely high costs of supplying a fixed-line fibre connection to remote areas (see recommendation 10).

Government should support the use of alternative technologies like wireless and satellite to bring very fast internet to the most excluded areas (UK)

The costs and logistical difficulties of connecting the 'final few' per cent of homes to gigabit networks using fibre cables are very high — especially where rural premises are extremely remote. But people who live in these places need affordable solutions to mitigate the risk of future exclusion. The launch of Project Gigabit included a call for evidence on how best to connect very hard-to-reach areas.

We recommend that the government support the uptake of non-fibre technologies to bring much faster connectivity to the most excluded areas. This should include an evaluation of how fast wireless broadband including satellite broadband might be deployed to digitally include these areas in a timely and affordable way. While fixed wireless access and satellite connections do not tend to provide gigabit speeds, they can provide superfast (30mbps+) or ultrafast (300mbps+) speeds in the absence of full fibre at a lower cost than seeking to build fibre to the very hardest premises to reach. The government must prioritise answering the questions on alternative technologies that were posed in the launch of Project Gigabit, including how such services could be funded, because delivering potential solutions via any technology fibre, terrestrial wireless or satellites - will take time, and people living in remote, excluded locations deserve to keep up with the rest of the country.

The government must act to ensure that potential non-fibre solutions are made affordable, the service they deliver is suitable and that a competitive market can be cultivated. This is important for all potential technology options that could deliver to these very hardest to reach areas. Government should consider how best to subsidise fast broadband to ensure affordability for consumers in remote areas. One potential mechanism is the establishment of a new funding pot, existing alongside but distinct from Project Gigabit and the USO, that can be used to either fund the capital costs or discount the operational cost eg the cost of monthly fees for using these alternative technologies for very hard-to-reach premises.

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