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| **Digital resilience and vulnerability during the pandemic** |
| A qualitative research report |

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| Prepared for the Communications Consumer Panel |

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| Collaborate Research, April 2021 |

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1. Executive summary
   1. Introduction

The aim of this research was to explore the role of digital connectivity during the pandemic and the impacts during this time of having or not having access to the digital connectivity required, or skills to make use of this digital connectivity.

A programme of 60 qualitative in-depth interviews was completed between 10th February and 5th March, 2021. The focus of the research was on people who wanted or tried to use the internet differently during the pandemic. We primarily targeted those who had experienced difficulties in achieving their online requirements during the pandemic but also included some who had no such issues. Within these parameters, the sample comprised a range of audiences including older people, people living on low incomes, people with disabilities, microbusinesses, people living in the devolved nations and people living in rural as well as urban areas.

* 1. Key findings

Below we provide a summary of findings against the main research objectives:

***How have people’s requirements from digital connectivity changed during the pandemic?***

This research specifically targeted people who had been prompted by the pandemic to try or want to be online in ways or for reasons which were new to them, including:

* for working or running a business from home for the first time;
* for home schooling;
* new types of digital communication (such as video calling);
* new types of entertainment (such as online gaming or streaming services);
* first time users of online banking or shopping;
* first time users of digital government or council services; and
* first time internet users.

While some people actively sought out these new uses, others felt they had been ‘forced’ into it by the circumstances and not having access to alternative channels. In both cases the internet became an even more ‘essential service’ to people during the pandemic.

The profile of people who tried or wanted to use the internet in new ways varied across the different types of uses. However, in general there were some who can be characterised as vulnerable either due to their pre-existing circumstances or how they were specifically affected by the pandemic.

***How well have people’s wants and needs from digital connectivity been served?***

For some people, their digital connectivity during the pandemic was a ‘lifeline’ while for others the experience of digital connectivity challenges added to the financial and/or emotional toll of the pandemic.

Overall, the main challenges that people experienced when trying to make use of digital connectivity during the pandemic related to:

* connection reliability or speed;
* digital skills issues;
* not having the required equipment;
* affordability or contract issues; and
* wider usage challenges, such as due to low literacy or English language skills, or mental health conditions.

Some were able to resolve these challenges, while for others this was not possible, due to them not having sufficient skills, financial resources or support to overcome the obstacles. Some also attempted workarounds but these did not always fully overcome the issues and could result in additional costs or inconvenience.

Importantly, the connectivity barriers some people faced, and their challenges in overcoming these, were not just due to people’s individual characteristics but also major structural impediments such as:

* not having an option to upgrade their connection due to where they live;
* not receiving a satisfactory response from their communication provider regarding a connection problem;
* not having access to financial support to acquire the equipment needed;
* an inherent lack of usability of some digital government services; and
* not having sufficient access to assisted digital support or digital skills development opportunities.

The pandemic itself made it more difficult for people to deal with connectivity challenges due to them being practically and emotionally overloaded, and having more limited access to external support.

***What impacts did people experience due to their digital connectivity during the pandemic?***

There was evidence of a range of negative impacts associated with insufficient connectivity, which at the most extreme affected some people’s:

* access to essential products and services;
* health outcomes;
* finances;
* children’s educational attainment; and
* ability to maintain social connections contributing to their isolation.

We also identified some other negative impacts, such as:

* detriment associated with more heavy online use in general; and
* both a specific risk of exposure to online harm[[1]](#footnote-2), and general risk of future digital exclusion due to having difficulties online, for those with limited digital skills who have attempted new online uses.

On the other hand, there were important advantages that some people experienced from being able to be online during this time. In particular, where people were able to access sufficient digital connectivity it enabled them to maintain some semblance of normal life, including by continuing with their work or businesses, schooling, transactions and social interactions. This mitigated some of the most detrimental effects of the pandemic.

***Are there particular people who have not been able to make full use of digital connectivity?***

Not surprisingly, we found somevariability in who was most affected across the different types of connectivity challenges. However, there were also some commonalities.

Overall, we characterise the people who have been most at risk of detriment due to insufficient connectivity during the pandemic as having ‘low digital resilience’.

As expected, this group includes people with low digital skills, low incomes and those who would be regarded as vulnerable**[[2]](#footnote-3)** (especially those with mental health conditions who may lack the emotional resilience to resolve challenges).

People could also lack digital resilience due to not having access to the support they need from their family, workplace, children’s school or communication provider, or not having any opportunity to improve the quality of their connection due to where they live.

Therefore, people who could be described as having low digital resilience during the pandemic represent a considerably broader group than those who would traditionally be characterised as being digitally excluded.

In addition, as mentioned above, there is evidence of vulnerability (to online harm) as well as risk of future digital exclusion (due to challenges experienced online) associated with the new digital behaviours of inexperienced internet users in particular.

***What are people’s digital connectivity needs going forward?***

Many people said they would like to continue with certain new digital uses after the pandemic especially where these have been found to be time-saving and more convenient.

In particular, many of those currently working from home expect to continue this after the pandemic, at least on a part time basis, and there was some evidence of employers closing or downsizing premises meaning that this would be some employees’ only option.

A reliable connection is the most important requirement from a communication provider, followed by minimum speeds that allow for video calling or streaming. Both of these have become more important because of people’s new online uses during the pandemic.

Some would also welcome increased trouble-shooting support from communication providers as they have found it challenging to diagnose the source of connection problems or determine how to resolve them by themselves.

In addition, the pandemic has increased people’s requirements of other parties, such as employers, schools, government and the third sector, to support them to overcome both personal and structural barriers to digital connectivity.

* 1. Implications

Overall, this research raises some important policy questions, including relating to:

* ensuring equality of digital access;
* determining what custodianship is required for our digital public space; and
* supporting those with skills deficits to be online safely and effectively.

Related to the above, our research strongly suggests that addressing the root causes of low digital resilience will require a multifactorial response, focusing on each of the following digital connectivity barriers that people reported in this research:

* digital infrastructure;
* quality of digital service;
* affordability;
* usability, particularly of government digital services;
* digital support; and
* digital skills development opportunities.

1. Introduction
   1. Context for this research

The essential nature of digital connectivity is incontrovertible, because those who lack sufficient online access, and/or the required skills to use the internet to its full advantage, are at greater risk of social[[3]](#footnote-4) and financial[[4]](#footnote-5) exclusion. They are also at risk of paying a ‘poverty premium’[[5]](#footnote-6) because goods and services tend to be cheaper online.

The outbreak in early 2020 of the Coronavirus pandemic has significantly restricted what physical interactions have been possible outside the home environment. This has made many of us more reliant than ever before on digital channels to connect to the outside world for work, learning, transactions, keeping in touch with friends and family, entertainment and so on. As such, it is not surprising that people on average are spending more time online since the start of the pandemic[[6]](#footnote-7). They have also been using the internet differently, an example of which has been the increased popularity of video call platforms as well as content creation sites and apps[[7]](#footnote-8).

This research was commissioned to help the Communications Consumer Panel (the Panel) understand the changing role of digital connectivity during the pandemic, how well people’s digital requirements have been met so far, and what their ongoing needs are likely to be moving forward.

In particular, the Panel wished to explore the impacts of not having the required level of digital connectivity or skills needed to make full use of this connectivity. For example, this might have been due to people:

* seeking to broaden their digital use, such as by trying online shopping or video calling for the first time, due to the limited offline options available but struggling to achieve what they require due to having limited digital skills;
* seeing unexpected increased demands on their home internet connection to support what may have been a first time need to undertake home-based work or remote learning; or
* needing additional data or equipment to achieve what they wanted to do online during the pandemic, thereby potentially exacerbating the effects of digital poverty[[8]](#footnote-9).
  1. Research aims and objectives

Ultimately, the Panel has commissioned this research to provide new evidence on the detriment associated with limited digital connectivity during the pandemic, and how this contrasts with the benefits of having sufficient connectivity or being able to successfully overcome any barriers faced. They are also interested in understanding how people’s digital connectivity needs have evolved due to the pandemic and what this means for the future.

The main aims of this research were therefore to explore:

* the digital connectivity experiences and attitudes of UK consumers, citizens and microbusinesses since the pandemic;
* whether there are particular people who have not been able to make full use of digital connectivity;
* the impacts of having sufficient/insufficient access to digital connectivity or skills to use it; and
* the expected digital connectivity needs of people moving forward.

There were six associated research objectives which this research looked to answer:

1. How have people’s needs/wants from digital connectivity changed during the pandemic?
2. How well have people’s wants and needs from digital connectivity been served?
3. What have people struggled with and why?
4. Did they find workarounds or remedies?
5. What has been the impact on people who could not find workarounds or remedies?
6. Have people’s ongoing requirements from communication providers changed as a result of the pandemic?
   1. Method and sample

To answer the research aims and objectives above, a programme of 60 qualitative in-depth interviews was undertaken with people who have tried to, or wanted to, do something different online during the pandemic[[9]](#footnote-10). We primarily targeted people who had experienced challenges in achieving their digital requirements but also included some who did not have any such issues. Within these parameters, the sample encompassed a wide cross-section of the UK population including older people, people living on low incomes, people with disabilities, microbusinesses, people living in the devolved nations, and people living in rural as well as urban areas. The composition of the sample is included in Table 1 below and a further breakdown by nation is provided in the Appendix.

**Table 1 – Sample composition**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Age** | Under 40 | 20 | 40-64 | 20 |
| 65-74 | 13 | 75+ | 7 |
| **Socio-economic grade (SEG)** | ABC1 | 25 | C2DE | 35 |
| **Gender** | Male | 26 | Female | 34 |
| **Nation/region** | England – North/Midlands/East | 12 | Scotland | 10 |
| England – London/South | 18 | Wales | 10 |
| Northern Ireland | | | 10 |
| **New digital uses *(1)*** | Working or running microbusiness from home | 27 | Home schooling | 19 |
| Communication | 38 | Entertainment | 35 |
| Online banking, shopping or government processes | | | 34 |
| **Level of digital challenges** | Significant | 38 | Some | 16 |
| Few/none | | | 6 |
| **Type of digital challenges *(2)*** | Coverage/connection quality | 40 | Equipment/devices | 21 |
| Digital skills | 26 | Affordability/contract | 13 |
| **Impacts of digital connectivity *(3)*** | Strongly negative | 32 | Strongly positive | 11 |
| **Other key sampling variables** | Very low income (<£15,000) | 18 | Live in a rural area | 27 |
| Live in a low digital coverage area | 10 | Disabled or long-term health condition | 22 |
| Run a microbusiness (0-9 employees) | 16 | Low literacy or English proficiency | 6 |
| Financial hardship or other vulnerability | | | 11 |
| 1. A number of respondents reported more than one type of new digital use 2. A number of respondents reported more than one type of digital connectivity challenge 3. The remainder of the sample reported less significant positive or negative impacts | | | | |

The data collection took place between 10 February and 5 March, 2021 during which time the UK was in a national lockdown. Therefore both the recruitment and interviews were undertaken remotely, the latter using a mix of channels including telephone, Zoom and WhatsApp video calls depending on the preference of each respondent. The duration of the interviews was typically between 45 and 60 minutes and most respondents completed a short pre-task ahead of the interview to aid with their recollection of their digital experiences during the pandemic. To ensure accessibility for respondents was maximised, some interviews involved an interpreter or Welsh language speaking moderator.

* 1. This report

This report is of the main findings from the qualitative research. Anonymised verbatim quotes have been included alongside the narrative commentary to provide a flavour of the views expressed, along with selected anonymised case studies to illustrate individual experiences.

The detailed findings that follow are arranged into sections (listed below according to their numbering in the report) which address the following key questions:

1. How have people’s requirements from digital connectivity changed during the pandemic?
2. How well have people’s digital connectivity requirements been served?
3. What impacts have people experienced due to their digital connectivity during the pandemic?
4. Were there particular people who were not able to make full use of digital connectivity?
5. What are people’s connectivity needs moving forward?

There is also a final section (Section 8) setting out what we regard to be the key conclusions and implications from this research. The pre-task instructions and discussion guide from the research are attached (in Appendix A), along with a breakdown of the sample by nation (in Appendix B).

1. How have people’s requirements from digital connectivity changed during the pandemic?
   1. Summary of findings

|  |
| --- |
| * This research specifically targeted people who had been prompted by the pandemic to try or want to be online in ways or for reasons which were **new to them**, including:   + for working or running a business from home for the first time;   + for home schooling;   + new types of digital communication (such as video calling)   + new types of entertainment (such as online gaming or streaming services);   + first time users of online banking or shopping;   + first time users of digital government or council services; and   + first time internet users. * While some people actively sought out these new uses of digital connectivity, others felt they had been ‘forced’ into it by the circumstances and not having access to alternative channels. In both cases the internet became an even more **‘essential service’** to people during the pandemic. * The profile of people who tried or wanted to use the internet in new ways varied across the different types of uses. However, in general there were some who can be characterised as **vulnerable[[10]](#footnote-11)** either due to their pre-existing circumstances or how they were specifically affected by the pandemic. |

* 1. Who tried what new uses of digital connectivity

As mentioned above, we intentionally targeted people in this research who tried or wanted to beonline in **new ways or for new reasons** during the pandemic. These new uses of digital connectivity, which included for working from home, home schooling, new forms of digital communication, first time users of digital transactions and so on, were unexpected for almost everyone. While some people actively wanted to expand their digital usage in these ways, others felt they had been **‘forced’** into it by the circumstances and not having access to alternative channels. Whether chosen or forced, the internet became even more of an ‘**essential service’** to all who attempted new uses during the pandemic.

*"I hadn't even heard of it before, and then suddenly everybody was on Zoom!"* (45 year old woman, runs a microbusiness, lives in an urban area in the South of England)

*"I'm dependent on being able to contact people via the internet now."* (69 year old woman, clinically vulnerable and shielding, lives in a rural area in Wales)

*"I wouldn't have dreamt that I'd be doing all of this online."* (73 year old woman, lost her husband during the pandemic, lives in an urban area in Scotland)

*"To start off it was a necessity - we have a saying here that 'must do is a great master’.”* (75 year old man, has a visual disability, lives in a rural area in Northern Ireland)

Table 2 below shows how the profile of people who tried or wanted to use the internet in new ways varied across the different types of digital uses. However, in general there were some who can be characterised as **vulnerable** either due to their pre-existing circumstances or how they were specifically affected by the pandemic.

**Table 2: Profile of people attempting different types of new uses of digital connectivity**

|  |  |
| --- | --- |
| **New digital use** | **Profile of users** |
| Working or running business from home | * Working age; in work or actively running a business and not furloughed; not key workers. * Due to the above characteristics, more likely to be higher socio-economic grade (SEG)[[11]](#footnote-12). * However, also included some who were experiencing financial hardship or other vulnerable circumstances. |
| Home schooling | * Have school age children and therefore likely to be working age. * Children who have notbeen identified by the school or local authority as vulnerable and therefore were not able to continue attending physical classes at school during lockdown periods. * However, also included some who were experiencing financial hardship or other vulnerable circumstances. |
| Communication (especially video calling) | * Encompassed a wide range of people including those working from home and home schooling children, as well as those who wanted to use new digital methods to communicate with friends and family. * A number were previously narrow[[12]](#footnote-13) internet users. * Also included some who were experiencing financial hardship or other vulnerable circumstances. |
| Online banking and/or shopping | * Typically previously narrow internet users. * Also included some who were experiencing financial hardship or other vulnerable circumstances. |
| Government or council services | * Typically previously narrow internet users. * Many were experiencing financial hardship or other vulnerable circumstances. |
| New to the internet | * Previous non-internet users before the pandemic. * Included some who were experiencing financial hardship or other vulnerable circumstances. |
| Entertainment (such as gaming and streaming services) | * A wide range of people, including some who were experiencing financial hardship or other vulnerable circumstances. |

1. How well have people’s digital connectivity requirements been served?
   1. Summary of findings

|  |
| --- |
| * For some people, their digital connectivity during the pandemic was a **‘lifeline’** while for others the experience of digital connectivity challenges **added to the financial and/or emotional toll** of the pandemic. * Overall, the **main challenges** that people experienced when trying to make use of digital connectivity during the pandemic related to:   + connection reliability or speed;   + digital skills issues;   + not having the required equipment;   + affordability or contract issues; and   + wider usage challenges, such as due to low literacy or English language skills, or mental health conditions. * Some were able to resolve these challenges, while for others this was not possible to due to them **not having sufficient skills, financial resources or support** to overcome the obstacles. * Some also attempted workarounds but these did **not always fully overcome the issues** and could result in **additional costs or inconvenience**. * Importantly, the connectivity barriers some people faced, and their challenges in overcoming these, were not just due to people’s individual characteristics but also **major structural impediments** such as:   + not having an option to upgrade their connection due to where they live;   + not receiving a satisfactory response from their communication provider regarding a connection problem;   + not having access to financial support to acquire the equipment needed;   + an inherent lack of usability of some digital government services; and   + not having sufficient access to assisted digital support or digital skills development opportunities. * The **pandemic itself made it more difficult for people to deal with connectivity challenges** due to them being practically and emotionally overloaded, and having more limited access to external support. |

* 1. How the pandemic affected people’s digital experiences

The pandemic affected everyone to some degree but our sample included some people for whom the **effects have been extreme**, exacerbating existing vulnerabilities and in some cases making them newly vulnerable (such as due to the experience of bereavement, illness or needing to shield, as well as job loss, financial hardship, social isolation and mental health issues).

*"It's been depressing having to be in the house all the time and only being able to go outside for a walk. It's gone on for weeks and weeks and there are very long days to fill. I used to go out to keep fit classes and meet friends for coffee. I was always out and about and I found it really, really overwhelming. I could feel tears running down my face as I was really, really unhappy."* (76 year old woman, clinically vulnerable and shielding, lives in a rural area in Scotland)

*“Our livelihoods have been taken away from us, everything I loved about life has been taken away.”* (26 year old woman, runs a microbusiness, lives in an urban area in the South of England)

*“Right at the beginning I was lost. I didn’t want to be furloughed, I would rather work as it was part of my identity. There have been very lonely moments*.” (37 year old woman, was furloughed from her job, lives in a rural location in the Midlands)

*"I have bipolar which has been worse during the pandemic. When you're distracted, working and engaged then my mind isn't talking to me. Because I have lost a lot of things to keep me busy I have struggled."* (65 year old woman, has a mental health condition, lives in an urban location in the South of England)

**Many people felt overloaded** by the new, unexpected and overwhelming experience of living in a pandemic which affected their capacity both to undertake the new uses of digital connectivity they required, and to respond to any challenges they experienced. Conversely, for some it actually created a survival instinct and **determination to persevere** with their new digital uses and overcome any issues.

*"(The pandemic has) been mentally draining. I was anxious and didn't know what to expect. There was so much chopping and changing, so many ups and downs, it was so restrictive. What you used to take for granted you can't think of doing. It's still going on and you need to live day to day."* (39 year old man, lives in a rural area in Scotland)

*"A feeling of survival kicks in, it's all down to me now. That reality is quite scary in itself. It's down to you and you have got to do it. I was determined. I said 'I am not going to let this beat me’.”* (69 year old woman, clinically vulnerable and shielding, lives in a rural area in Wales)

Overall, digital connectivity has represented a ‘**lifeline’** for many over the past year as it helped them to retain some semblance of normal life and mitigate what would have otherwise been much greater negative impacts associated with the pandemic.

*"It’s been a silver lining to a dark cloud. The pandemic has helped me realise what I'd been missing and what the internet can do for me.”* (68 year old man, lives in a rural area in Northern Ireland)

*"I'm delighted that I've got it. If it wasn't for that I'd probably be in a state of depression.”* (68 year old woman, has a physical disability, also clinically vulnerable and is shielding, lives in an urban area in Scotland)

However, some people were not successful in their digital endeavours due to experiencing **challenges that they were not able to satisfactorily resolve**.

*“I haven't got a clue, I can be sat looking at a blank screen and I just can't make it work. You think it's your fault, and it makes me cross."* (58 year old man, runs a microbusiness, lives in a rural area in Wales)

*"When I was cheffing I had 600 covers a day and I never got flustered on the grill, but if you put me in front of a computer I turn into a baby."* (35 year old man, has a physical disability, not working, lives in an urban area in the East of England)

In addition, a number report more limited access to external support due to the pandemic as will be detailed in Section 6.

* 1. What digital connectivity challenges were experienced during the pandemic

Overall, the **main challenges** that people experienced when trying to make use of digital connectivity related to:

* + Connection reliability and speed;
  + digital skills issues, including with their functional skills to get around online, technical skills to set up new equipment or apps, and critical thinking skills when encountering risks of online harm[[13]](#footnote-14);
  + not having the required equipment, which included not just appropriate devices to get online but also ancillary equipment such as printers and screens;
  + affordability or contract issues; and
  + wider usage challenges, such as due to low literacy or English language skills, or mental health conditions.

However, the nature of the connectivity challenges **varied across the different types of new digital connectivity uses,** as shown in Table 3 below.

**Table 3: Main challenges associated with each new digital connectivity use**

|  |  |
| --- | --- |
| **New digital use** | **Challenges (in order of prevalence)** |
| Working or running business from home | * Connection reliability and speed (especially initially).   *"There were hours and days wasted when I couldn't get onto the system. It was really frustrating.”* (36 year old woman, lives in a rural area in Northern Ireland)   * Not having required equipment and not able to afford this (for those with limited financial means and lacking support from their place of work).   *“My equipment sadly wasn’t good enough (to do my job) so I waited till Costco had a sale on and I put it on my credit card.”* (65 year old man, lives in a rural area in the North of England)   * Less likely but still possible to have digital skills issues, especially in relation to new processes or applications. |
| Home schooling | * Connection reliability and speed (especially initially).   *"We’ve had issues where the lesson hasn't worked because of a really bad connection…The kids panic about school and get really upset when they can't get on their lessons.”* (42 year old woman, lives in an urban area in Wales)   * Not having required equipment and not able to afford this (for those with limited financial means and lacking support from school).   *"I can't just go out and buy a computer or a printer. It would have been a lifesaver - just to print out colouring or puzzles to keep the kids occupied.”* (29 year old, sole parent and not working, lives in a rural area in the South of England)   * Accessibility issues due to the wide range of platforms were being used to deliver lessons and provide resources, and that different levels of interactivity were expected. * Less likely but still possible to have digital skills issues. |
| Communication (especially video calling) | * Digital skills were a major factor for some and meant that they experienced challenges both with video call set-up (e.g. downloading the app, connecting up the camera and mic) and use (e.g. initiating calls and sending invitations).   *“(My family) were keeping in touch with one another on Zoom but I wasn’t able to see them. I was mad at myself, I wanted to do it myself and I felt so stupid as it’s a wee simple task but I can’t do it*.” (58 year old woman, has a mental health condition and is living on a very low income, lives in an urban area in Scotland)   * Could also be connection quality, equipment or affordability issues. |
| Online banking and/or shopping | * Digital skills were a major factor, often linked to trust issues (especially worries about falling victim to fraud or a scam), fear of making a mistake and also concerns about consumer rights (e.g. related to returning goods).   *"I'm worried about money being taken out of my account online - I don't know how that happens. I try and keep use (of online banking) to a minimum and get in and out safely. I need to be in a room by myself so I can concentrate and so I don't get distracted and mixed up. It's more difficult to concentrate as you get older and also to remember things like user names and passwords. I have notes and put these away safely."* (76 year old woman, clinically vulnerable and shielding, lives in a rural area in Scotland)   * Could also be connection quality, equipment or affordability issues. |
| Accessing essential government and council services | * Many people found online government and council forms to be particularly complex to complete and to pose challenges in a way that other transactions, such as online banking and shopping, do not to the same extent. * People with low digital skills experienced particular difficulties.   *"It was a bit of a nightmare (to renew car tax online) because the site wasn't at all user friendly. It drove me berserk trying to get it done. It wasn't clear enough in taking you through step by step."* (75 year old man, has a visual disability, lives in a rural area in Northern Ireland)   * Could also be other challenges e.g. related to a mental health condition or to low literacy or English language proficiency. * Could also be connection quality, equipment or affordability issues. |
| New to the internet | * Digital skills were a major factor, often linked to trust issues and fear of making a mistake.   *"I haven't got enough knowledge, it's not easy for old people. Downloading - I've got no idea what that means.* *I don't want to make mistakes, I'm frightened to because of the outcome. Banking online I don't trust as you hear all these stories about people being swindled."* (84 year old woman, first time internet user, clinically vulnerable and shielding, lives in an urban area in the South of England)   * Could be very challenging to access help needed during the pandemic to get up and running digitally. |
| Entertainment | * Connection quality for high bandwidth uses, especially where there are multiple people in household. |

* 1. What workarounds or remedies were attempted and what were the outcomes of these

The main attempts at workarounds or remedies reported were efforts to overcome connection problems, access required equipment and resolve skills-related issues, as we detail below. In general, overcoming digital connectivity challenges was more difficult for people who lack financial resources, have other skills-related issues such as low literacy or English proficiency, or who have mental health conditions which affect their ability to resolve problems themselves or seek external support.

* + 1. Attempts to resolve connection problems

Only some contacted their communication provider regarding an issue with connection quality while others were put off by **difficulties in getting in touch** with the provider or felt **nothing could be done** to resolve their issues.

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| **Case study: Jenny’s broadband connection issues**  Jenny, who is 64 and runs a microbusiness, has always had issues with her broadband connection due to living in a rural area in Northern Ireland that lacks access to decent broadband[[14]](#footnote-15). However, the issues have become a lot worse since the pandemic which she believes is due to her household’s increased usage. She couldn’t easily get in touch with her provider to try to resolve this as they don’t publish their phone number.  *“You can't ring (my provider) anymore and there is no phone number. You need to send them an email and if the internet is down how can you do contact them?"* (64 year old woman, lives in a rural area without access to a decent broadband service  (More detail on Jenny’s story is provided in Case Study 3 in Section 6.4) |

*"If you bought something in a shop and it's not right you can return it but you don't have that option with broadband and you don't know what your rights are.“* (75 year old man, lives in a rural area without access to a decent broadband service in Northern Ireland)

There was evidence of generally **low knowledge** of what quality of digital service people should be entitled to and no one mentioned any awareness of their specific rights as broadband consumers, which currently include:

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| **Current broadband consumers’ rights:**   * the right to request a decent broadband connection[[15]](#footnote-16); * the right to require providers who have signed the Voluntary Broadband Speed Code of Practice to resolve speed problems or to be able to exit contracts without penalty[[16]](#footnote-17); and * the right to receive automatic compensation for total service loss[[17]](#footnote-18). |

Amongst those who did contact their provider, a **variability in responses** was reported:

* Some providers tried to help customers identify and fix issues.
* Others tried to upsell or offered no solution.
* Only one provided the customer compensation for total service loss.

*"Their internal support was limited to telling us to turn off and on the router. That wasn't a solution."* (39 year old man, lives in a rural area with low coverage in Scotland)

*"I contacted (my provider) and said 'I can't cope'. They said I'd find it easier with fibre so I had to have it. I am totally dependent on the internet to survive, it's not a good feeling."* (69 year old woman, clinically vulnerable and shielding, lives in a rural area in Wales)

A few people **switched providers** during the pandemic in an attempt to get a better quality broadband connection. However, switching reportedly did not always achieve this, which was sometimes due to living in an areas without access to a decent broadband service or in certain types of housing where it was not possible to improve their connection.

*“We have changed broadband provider in the past but it has made no difference. I'm just resigned to it now, I can't do anything about it. I've accepted it."* (25 year old woman, lives in rural area without access to a decent broadband service in the South of England)

Switching was also not possible for some people due to being **locked into contracts**, and nor was upgrading their broadband connection due to some people **not being able to afford** **this** or **not having the option to upgrade** their connection due to where they live.

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| **Case study: Chrissie’s use of mobile data as a workaround**  Chrissie, who is 28, rents a flat in an urban area in the South of England. This basement flat has very poor broadband connection and switching providers did not resolve this. As a result, she and her flatmates competed to be in the bathroom, where the connection is best, to hold work calls during the pandemic. She also tethered her computer to her personal mobile and this used up all her free data on her phone.  *“You become fatalistic. You stand on tiptoe in the bathroom leaning towards the window and you don’t think anything of it.”*  (More detail on Chrissie’s story is provided in Case Study 1 in Section 6.4) |

Some alternatively **opted for workarounds**, such as shifting their own usage to late at night when there were fewer other household users, purchasing a broadband booster or plugging an ethernet cable into their device rather than using Wi-Fi. Such workarounds often did not fully resolve the problems and resulted in additional costs or inconvenience.

* + 1. Attempts to access required equipment

As mentioned previously, some people lacked access to appropriate devices to get online as well as required ancillary equipment such as printers and screens. While some could **self-fund** the additional equipment they required, others did not have the financial resources to do this and were therefore reliant on their **employer** to provide this or needed to ask for help from theirchild’s **school or a charity**.

People who needed to work from home reported mixed responses from employers with not all funding what they needed to support their transition to working from home, and ensure their health, safety and wellbeing. For example, we received reports of not receiving required devices, ancillary equipment (such as additional monitors and laptop stands), or any allowance for necessary upgrades to their broadband connection. This variable response may be due to the novel nature of the pandemic and lack of certainty initially about its impacts and duration.

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| **Case study: Philip’s difficulties getting the equipment he needed**  Philip, who is 65, has started a new short-term job for the NHS which he does from home in a rural area in the North of England. His employer promised to provide a laptop to undertake this work but this did not happen so Philip had to buy himself one as his old one was too slow and had insufficient memory. He also needed to upgrade his broadband package to get sufficient connectivity as he dropped out of meetings initially. All of this was difficult for him to self-fund as he was until recently unemployed.  *“The agency I work for said all our equipment would be supplied but then when I got closer to getting the job offer it was apparent that you had to use your existing equipment.”*  (More detail on Philip’s story is provided in Case Study 2 in Section 6.4) |

Similarly, those who were home-schooling children reported mixed responses from schools and local authorities, with some people who needed financial help to access required devices **missing out** on this due to a lack of availability of such equipment.

*“(I wish there would have been) grants and support to buy essential IT kit. Like a loan scheme where you get vouchers to buy IT and you can pay it back each week from your benefits*.*"* (29 year old, sole parent and not working, lives in a rural area in the South of England)

* + 1. Attempts to overcome skills-related issues

More formal sources of digital usage support, or skills development opportunities, were reportedly **much less available** to people due to changes in service provision during the pandemic.

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| **Case study: Anne’s difficulties due to lack of formal support**  Anne, who is 58, only has a mobile phone and lacks functional digital skills which means she can’t initiate an email or use Zoom by herself, and she worries about making mistakes. She previously accessed equipment and digital support at a community centre local to where she lives in a suburb of Scotland. However, this facility is now closed due to the pandemic.  *“I’m not really good online. I used to be able to go down to the local resource centre and it had an IT suite. There was always someone there who could help you but they’ve been closed since March.”*  (More detail on Anne’s story is provided in Case Study 5 in Section 6.4) |

Given this, some people with skills-related problems asked for help from their **family members** while others did not have this option available to them. Success in overcoming skills issues was therefore highly dependent on who people needing help had available to support them and how motivated and equipped these individuals were to provide such support.

*"It took a lot of patience from my daughter and son-in-law. They gave me instructions over the phone and came into my Messenger chat to check I was doing it right."* (76 year old woman, first time internet user, has a mental health condition, lives in a rural area in Wales)

A number **sought help due to the** **particular complexity associated with digital government services** which posed challenges to a range of people in a way that other transactive channels, such as online banking and shopping did not. However, these challenges experienced in completing online government processes were reportedly difficult to overcome, even with such support.

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| **Case study: James’s experience of applying for a government loan**  James, who is 54 and lives in rural Wales, has low literacy and finds online instructions difficult to understand, especially with respect to government processes. For example, he tried to claim a loan from his benefits online during the pandemic but found the experience to be confusing and traumatic. He phoned the Jobcentre and a member of staff tried to walk him through it but this didn’t help. In the end they had to send him a paper form which he managed to complete.  *“I got into such a pickle I had to phone them up in the end, and even then I was getting into such a mess I asked [the Jobcentre] to send me a paper form. They'd try to talk me through it, tell me where to click, and I'd be 'where's that? I can't find it on my tablet!' I almost got into an argument with them."*  (More detail on James’ story is provided in Case Study 7 in Section 6.4) |

In addition, several in this research reported having fallen **victim to online harm**, such as from scams or viruses, or knowing someone who had. This was often an area that people with lower digital skills also **sought help with**.

*"My father sometimes can't sleep and he goes down to the computer and clicks on things online which caused a virus to come on. My brother-in-law needed to wipe the hard disk."* (45 year old man, lives in an urban area in Scotland)

* + 1. Structural barriers that impeded people’s ability to resolve challenges

Overall, the challenges people reported, and the difficulty some people had in overcoming these, demonstrate that the connectivity barriers experienced were not just due to people’s individual characteristics but also involved **major structural impediments** such as:

* not having an option to upgrade their connection due to where they live;
* not receiving a satisfactory response from their communication provider regarding a connection problem;
* not having access to financial support to acquire the equipment needed;
* an inherent lack of usability of some digital government services; and
* not having sufficient access to assisted digital support or digital skills development opportunities.

It is also worth noting that people who were **previously narrow or occasional internet users** felt that the onus was on them to **‘sink or swim’** in a new, unfamiliar environment. Many found it challenging to navigate this new online world, including completing transactions and government processes, as well as determining the legitimacy of content and people encountered on social media sites.

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| **Case study: Jade’s challenges due to limited internet skills**  Jade, who is 24 and has dyslexia, was a narrow internet user prior to the pandemic and was reluctant to do any online banking or shopping due to concerns about scams. She is long-term unemployed and found it very challenging to search for jobs during the pandemic as everything now has to be online including applications, interviews and Jobcentre support. She also finds social media communication confusing and stressful due to worrying about bullying and trolling.  *“I’m frightened of (social media). I don’t know who I’m taking to. They could say they’re the person and they’re not the person.”*  (More detail on Jade’s story is provided in Case Study 10 in Section 6.4) |

There was a tendency for people to blame themselves if they failed to achieve their desired outcome, however reports of such challenges were widespread enough across our sample to point to structural issues with the online environment itself resulting in the experience **not being sufficiently safe or user friendly** for many.

In addition, as mentioned in the previous chapter, the **pandemic itself made it more difficult for people to deal with connectivity challenges** due to them being practically and emotionally overloaded, and often having more limited access to support from employers, schools, government and the third sector.

1. What impacts did people experience due to their digital connectivity during the pandemic?
   1. Summary of findings

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| * There was evidence of a **range of negative impacts** associated with insufficient connectivity, which at the most extreme affected some people’s:   + **access to essential products and services;**   + **health outcomes;**   + **finances;**   + **children’s educational attainment**; and   + **ability to maintain social connections contributing to their isolation.** * We also identified some other negative impacts, such as:   + detriment associated with more **heavy online use** in general; and   + both a specific risk of exposure to online harm, and general risk of future digital exclusion due to having difficulties online, for those with **limited digital skills** who have attempted new online uses. * On the other hand, there were **important advantages** that some people experienced from being able to be online during this time. In particular, where people were able to access sufficient digital connectivity it enabled them to maintain some semblance of normal life, including by continuing to with their work or business, schooling, transactions and social interactions. This mitigated some of the most detrimental effects of the pandemic. |

* 1. Negative impacts related to insufficient connectivity during the pandemic

There was evidence in this research of a **range of negative impacts** associated with insufficient digital connectivity, ranging from extreme to more nuanced. There are a number of reasons why not everyone reported major detriment associated with their digital connectivity challenges:

* This research targeted people who have been motivated to use the internet in different ways during the pandemic, and some also drew on this motivation to resolve with their connectivity challenges or achieve satisfactory workarounds.
* The people we interviewed had different levels of resources (personal, social, financial) to deal with challenges they experienced, and those with highest levels of resources were best equipped to resolve challenges and/or minimise the associated negative impacts.
* We covered a relatively long time period (almost a year) which means it is possible for people to have experienced issues which were major at the time but were subsequently resolved, such as by suppliers making improvements to connection quality or due to the users’ own upskilling.
* People also did not always recognise all of the possible forms of detriment they were experiencing, or they downplayed the negative impacts in the context of the pandemic.

That said, we did identify people who experienced **major negative impacts** associated with insufficient connectivity, including **difficulties in accessing essential products and services**, such as financial support, medical diagnosis, prescriptions, up-to-date Covid-19 information, basic necessities if shielding, and equipment required for children to access interactive learning resources during home schooling. This lack of access to essentials online during the pandemic caused significant detriment for some people, such as by affecting their **health outcomes, financial security or educational attainment**, each of which are respectively demonstrated in the following case study vignettes:

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| **Case study: Pam’s difficulties getting medical prescriptions**  Pam, who is 69 has been shielding where she lives in rural Wales. As a result, she has needed to move all of her essential activities online. She experienced significant challenges in accessing health services. This included not being able to successfully older a prescriptions for 3 months of medication she takes daily, and giving up attending a virtual asthma clinic as she felt unsafe performing the activities unsupervised.  *“I thought that is terrible, it's really awful having to be diagnosed over WhatsApp. It's all on you to look after yourself.”*  More detail on Pam’s story is provided in Case study 6 in Section 6.4) |

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| **Case study: Nilda’s challenges applying for Universal Credit**  Nilda, who is 59, arrived in the UK relatively recently from Brazil and is living in a suburban area in the South of England While she is a competent internet user, she has very low English proficiency and this is one of the main reasons she believes she failed in her online application for Universal Credit. As she is not working and receives no benefits has needed to rely on her son and his family to support her financially during the pandemic.  More detail on Nilda’s story is provided in Case study 8 in Section 6.4) |
| **Case study: Kelly’s home schooling difficulties**  Kelly, who is 29, is a sole parent who lives in a rural area in the South of England. She only has a smart phone for her eldest child to use for home schooling. She asked the school for a computer but they had already allocated all of them. This meant that during the first lockdown her son was unable to participate in formal schooling due to not being able to see the worksheets properly or engage with activities. As a workaround Kelly made up her own curriculum using BBC resources.  *“I feel like I've let my son down and I feel like the school has let him down. Because he is behind anyway, he'll be behind even more than before. Will he notice the difference between him and his friends? Will he feel like he doesn't want to go back?”*  (More detail on Kelly’s story is provided in Case Study 4 in Section 6.4) |

A few also mentioned having difficulty in **pivoting their jobs or businesses online** which contributed to insecure employment or loss of income.

*“I’ve gone from teaching classes in the studio to somehow trying to figure out how to teach classes online. And it’s not as easy as you might think! I was very, very overwhelmed. I’m only doing 3-4 hours a week online for work now – it hasn’t gone so well.”* (26 year old woman, runs a microbusiness, lives in an urban area in the East of England)

In addition, a variety of **other negative impacts** associated with insufficient connectivity were reported, each of which were relatively prevalent and felt to be significant to those experiencing them. These included:

* + Missing out on important benefits **of social connections** which contributed to their **sense of isolation during the pandemic**.

*"Children her age are always on snapchat and Instagram and I couldn't afford the data, so in a way she's been curtailed and I feel sorry for her.”* (64 year old woman, runs a microbusiness, lives in a rural area in Northern Ireland)

* + **Opportunity costs**, such as needing to go out or to rely on others if they were unable to undertake online shopping or banking.

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| **Case study: Beverley’s reliance on others**  Beverley, who is 84 and lives in an urban area in the South of England, was new to the internet during the pandemic. She was helped to access the equipment she needed by a charity but she has lacked support to learn how to go online. As a result she is unable to access online shopping which would benefit her greatly as she has numerous long-term conditions and low mobility meaning she finds it difficult to get out and often needs to rely on others to shop for her.  *"I want to be able to order my own shopping online. It would make a big difference as I can’t always go out. At the moment I'm reliant on people but the trouble is you can't ask them to get you 10 things, just 2-3, and I sometimes feel embarrassed to ask."*  (More detail on Beverley’s story is provided in Case study 9 in Section 6.4) |

* + **Emotional impacts** of the connectivity problems e.g. frustration, stress, contribution to mental health issues.

*“I was brokenhearted when the [broadband] signal dropped out. There's no words. Pain and heartache, a horrible feeling. It's so important to be able to keep in touch with family and see them."* (69 year old woman, clinically vulnerable and shielding, lives in a rural area in Wales)

* + **Time, costs and inconvenience** associated with workarounds or attempts to resolve the issues.

*“I’m really tired as I have to do my course in the middle of the night. I can’t do it when the kids are awake, the connection is too interruptive.”* (42 year old woman, lives in an urban area in Wales)

Our research has also specifically identified **risks of being online in new ways** for those with skills deficits, which include:

* + **not being able to resolve functional problems** they encounter which limit their ability to get around online and cause them to be at risk of making errors;
  + **being vulnerable to online harm** such as from scams, viruses or inappropriate conduct of people on social media sites; and
  + **not being successful in completing government processes** due to their inherent complexity which is exacerbated in an online context.

This is due to the largely **self-serve way** that many people with low digital skills have embarked on their new online uses during the pandemic, with a number reporting **very limited access to support**. It means that **vulnerability to the** **risks identified above may be unrecognised and unaddressed** for many such novice digital users.

*“It’s alien to shop for food online. I ticked the wrong things and spent a lot more. I was making loads of mistakes.”* (69 year old woman, clinically vulnerable and shielding, lives in a rural area in Wales)

*"The website looked so real. It was the first thing of value I bought and it was a stinging moment.”* (52 year old man, lives in a rural area in Scotland)

*“[Online government processes] must all be written by younger people who are au fait with the jargon and take it for granted that we understand. Like 'click on the link' - I didn't know what a link was."* (75 year old man, has a visual disability, lives in a rural area in Northern Ireland)

* 1. Negative impacts of increased digital reliance during the pandemic

In addition, there were some negative impacts reported that were associated with **heavy online use** during the pandemic. For example, there were frequent reports of **physical health effects** such as eye strain, back pain and the like due to increased screen time and sedentary behaviour. This was especially for people who were online for long periods in an inadequate household set-up (such as due to a lack of appropriate space, privacy, furniture or ancillary equipment).

*"I'll be honest, it's just the amount of internet use. Because I work in a shed, one night I just worked till 3 in the morning, because I was just going on and on, and there isn't a clock in there."* (46 year old man, lives in an urban area in the South of England)

*“Everything seems to happen in the same room, I find that so frustrating. I never thought I’d miss my commute.”* (27 year old woman, was living in an urban area in the South East of England but has now moved to a rural area in the East of England)

A number also spoke of **psychological impacts** such as increased stress, anxiety and sleeplessness.These wereparticularly associated with increased exposure to social media, as well as the merging of people’s home and work lives due to the expectation that they will be always contactable, and the specific intrusion of instant messaging. Some also referred to difficulties in managing children’s screen time and changes in their behaviour.

*“I’ve deactivated and reactivated Facebook about three times since the pandemic. It all gets too much, there’s too much negative news. Being online is an anxiety trigger*.” (22 year old man, lives in a rural area in Wales)

*"Previously we had apps that would limit the amount of time he spends online, and we would keep to it, but that has all gone out of the window because we need to work."* (45 year old woman, lives in an urban area in the South of England)

In addition, some people experienced negative **financial impacts** associated with their increased online use. This could be due to online shopping sometimes costing more (including delivery), as well as by fuelling shopping addictions resulting in debt problems.

*"Staying in, I want the home to smell nice so I bought candles and you have to buy so much to get free delivery. Then I bought the whole family Hunter wellies... I'm trying not to tell my husband (about the debt). You see people on Facebook making stuff and their houses look so nice, so I've got a load of chalk paints to do up the furniture which I don't use. We are usually sensible with money.”* (42 year old woman, lives in an urban area in Wales)

There were also some comments about negative impacts associated with increased reliance on **video-based communication** in particular. This channel was felt to be inherently inferior to face-to-face methods, especially for the delivery of medical diagnosis and mental health support where it could contribute to negative health impacts. In addition, video-based communication was commonly associated with a poorer quality experience for certain other types of interactions, such as fitness classes, interactive learning and communication with elderly relatives.

*"It seemed like a replacement, and not as good as the real thing."* (34 year old man, lives in an urban area in the South of England)

* 1. Positive impacts of digital connectivity during the pandemic

On the other hand, there were also some positive impacts associated with digital connectivity, all of which relate to the outcomes achieved and mitigation of the effects of the pandemic. In particular, digital connectivity enabled people to **carry on with the essential aspects of life** including their work or business, and children’s schooling.

*"Without it I wouldn't have been able to do my job and I would have had to travel into work by train every day which wouldn't have been ideal."* (25 year old man, lives in an urban area in Scotland)

In addition, digital connectivity had the important benefit of enabling people to **stay in contact with friends and family**, including loved ones in hospital and care homes, and led to increased contact with more distant friends and family in some cases.

*“I am in touch with my cousins in Canada. It’s like you get a window into their lives every week, when before I would only go and visit them every couple of years.”* (74 year old woman, new internet user, has a mental health condition, lives in a rural area in Wales)

*"We are aware of everyone else's lives. Without Zoom I wouldn't have known that my brother was considering retiring. I'm not good at keeping in touch on a regular basis normally."* (54 year old man, runs a microbusiness, lives in an urban area in Wales)

The above benefits were widespread for those who had sufficient connectivity and some people also reported additional specific benefits which included:

* Access to new **continuing professional development opportunities** for some people e.g. online volunteering, or professional or academic courses online.

*“I’ve started volunteering online for a mental health charity, doing text message support and I’ve started a masters online, which I wouldn’t have thought was as good as in-person teaching but now everyone’s learning online. So I’m going to be able to have a career change which I didn’t think was possible.”* (28 year old woman, living in a rural area in the Midlands)

* Being prompted to introduce **new and more efficient processes** for some who run microbusinesses e.g. scanning in cheques or automating payments.

*"I didn’t realise I could scan cheques into my account using my phone. They clear much quicker as well."* (54 year old man, runs a microbusiness, lives in an urban area in Wales)

* Some newer or previously narrow internet users also spoke of gaining **new digital skills and confidence**.

*"It was a tick in the box and a pat on the back. I was even telling other people that I was doing it. Others might think it's just a day-to-day thing but I was really pleased that it worked."* (75 year old man, has a visual disability, lives in a rural area in Northern Ireland)

1. Are there particular people who have not been able to make full use of digital connectivity?
   1. Summary of findings

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| * Not surprisingly, we found some **variability** in who was most affected across the different types of connectivity challenges. However, there were also some commonalities. * Overall, we characterise the people who have been most at risk of detriment due to insufficient connectivity during the pandemic as having ‘**low digital resilience’**. * As expected, this group includes people with **low digital skills**, **low incomes** and those who would be regarded as **vulnerable** (especially those with mental health conditions who may lack the emotional resilience to resolve challenges). * People could also lack digital resilience due to **not having** **access to the support** they needfrom their family, workplace, children’s school or communication provider, or **not having any opportunity to improve the quality of their connection** due to where they live. * Therefore, people who could be described as having low digital resilience during the pandemic represent a considerably **broader group** than those who would traditionally be characterised as being digitally excluded. * In addition, as mentioned in the previous section, there is evidence of **vulnerability** (to online harm) a**nd risk of future digital exclusion** (due to challenges experienced online)associated with the new digital behaviours of inexperienced internet users in particular. |

* 1. Who was most affected by different types of digital challenges during the pandemic

It has been possible through this research to identify which types of people are most likely to have been affected by **each of the different connectivity challenges** during the pandemic. These findings are summarised in Table 4 below:

**Table 4: Who was most affected by different digital challenges during the pandemic**

|  |  |
| --- | --- |
| **Challenges** | **People who were most affected** |
| Connection reliability/speed | * Biggest issue was for those living in not spots or areas without access to decent broadband, particularly in rural locations. * But it could also affect people living in: * certain types of housing e.g. basement flats, high rise, high density etc.; and * larger households or those with high bandwidth requirements. |
| Equipment/devices | * People who lack spare device(s) for their children to home learn. * People who have no device other than a mobile. * People who require additional equipment to work from home. * People whose hardware or software is outdated. * Those who don’t have financial resources or skills to rectify these issues are likely to be most affected. |
| Affordability/contract | * People who can’t afford the cost of additional equipment (including devices as well as ancillary items like printers, monitors, headsets etc.) or who can’t afford data costs. * Those who feel they are not getting a satisfactory broadband service and therefore not receiving value for money. For many in this group, the main or only solution being offered by their service provider involves additional cost and for some this did not improve their situation. |
| Digital skills | * Newer or previously narrow internet users who tend to be older (especially 65+). |
| Other types of challenges | * People with low literacy or English language proficiency are less able to navigate access essential government services or official information due to having challenges with the comprehension of complex written materials which were compounded in an online environment for those who also have digital skill deficits. In addition, having low literacy or English skills could be a barrier to accessing support to help overcome any difficulties experienced. * People who are financially excluded, such as due to not having access to a debit card, and are therefore not able to undertake online transactions. * Some people with mental health conditions have lower personal resilience and ability to overcome challenges, such as due to difficulties with problem solving and engaging with services. |

* 1. Introducing ‘digital resilience’ as a way of interpreting people’s varying experiences of digital connectivity

Looking across all types of digital uses and challenges experienced, we have also identified some factors that we believe contribute to people being more or less ‘**digitally resilient’** overall during the pandemic. This is a new way of understanding people who have not been able to make full use of digital connectivity which goes beyond the standard understanding of the digitally excluded, which focuses primarily on people aged 65 and over, in DE socio-economic groups and those with certain types of disabilities[[18]](#footnote-19). For example, people with low digital resilience could be young single people and sole parents as well as the older age groups, and they could be people in higher socio-economic groups if they lack financial resources or access to support.

The main value of this new type of definition is as a tool to identify risk factors, which may include both personal characteristics and structural impediments to digital connectivity. More detail on the factors that contribute to higher and lower digital resilience is provided in Table 5 below.

**Table 5: Factors contributing to lower or higher ‘digital resilience’ during the pandemic**

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| **Key factors:** | **Less digital resilient** | **More digitally resilient** |
| Digital skills | Low | High |
| Financial resources | Low | High |
| Access to support | Low | High |
| Vulnerable circumstances | Yes | No |
| Physical environment | Poor | Good |
| Opportunity to improve connection | No | Yes |
| Communication provider access/response | Poor | Good |

As highlighted above, people with a good level of **digital skills** were more likely to be digitally resilient during the pandemic and to be capable of resolving any connectivity challenges they experienced. Having good digital skills includes having sufficient:

* **functional skills** to get around websites and apps (although apps are generally regarded as more intuitive than web-based processes by more novice internet users);
* **technical skills** to download apps or software, set up new equipment, or ensure they have camera and microphone access for video calls etc.;
* **critical thinking skills** in order to evaluate online risks such as from scams, and stay safe online; and
* **digital communication skills**, including understanding the appropriate language and etiquette both for text-based and video-based digital communication.

People’s **financial resources**, and the **support** they had available to them, were each also important contributors to digital resilience. Financial resources enable people to self-fund the equipment they need and be able to afford to upgrade their broadband connection if required. Having access to support from family, friends, their employer and/or children’s school could help people overcome skills deficits as well as to access financial support where required.

People with low digital skills, financial resources and/or support were therefore more likely to have low digital resilience during the pandemic. So too were people who could be regarded as **vulnerable,** particularly those experiencing:

* **financial hardship** (e.g. living on a very low or suddenly reduced income which makes it difficult to fund what is necessary to achieve adequate connectivity) or **financial exclusion** (e.g. not having access to the financial products needed to undertake online transactions);
* **mental health conditions** as these could make it more difficult for people to resolve problems and deal with communication providers (we found mental health conditions to be a more significant factor associated with low digital resilience compared to physical disabilities in this research);
* **low literacy or English language proficiency** which could exacerbate digital skills deficits and again make it more difficult for people to resolve problems; and
* **changes in people’s personal circumstances,** such as needing to shield due to clinical vulnerability, illness, bereavement or job loss, which could significantly affect people’s overall personal resilience and ability to cope with digital challenges.

We also identified some additional factors as being associated with low digital resilience during the pandemic:

* People who are operating from an **unsatisfactory physical environment** at home, including where they lack space, privacy or have an inadequate set-up or insufficient equipment to achieve their online requirements (this was particularly the case for those who needed to work/run their business from home or facilitate their children’s home schooling).
* People who **lack the opportunity to improve their broadband connection** (including those who live in areas without decent broadband or in certain types of dwelling).
* People who have found it **difficult to get in touch with their communication provider**, or who received an **unsatisfactory response**, particularly with respect to resolving connection problems.

Other characteristics tended to be less significant determinants of digital resilience than the factors identified above. However, in some cases there was cross-over, such as:

* **Older people** (particularly those aged 65+) tended to have lower digital skills compared to younger people and were therefore more likely to have low digital resilience due to a digital skills deficit.
* Some **microbusiness** operators had low digital resilience either due to lacking the opportunity to improve their broadband connection where they are situated or because they were experiencing a loss of business causing financial hardship during the pandemic.
* People living in **rural areas** across all four nations were disproportionately affected by lacking decent broadband connection where they live.
  1. Case studies of people with lower digital resilience

On the pages that follow we have included a series of anonymised[[19]](#footnote-20) case studies of people demonstrating lower digital resilience that we identified in this research. These demonstrate the different factors that can contribute to low digital resilience and the diversity of circumstances that exist within this cohort.

**Table 6 – Case studies of people with lower digital resilience**

| **Case no:** | **Low digital resilience factors** | **Their story…** |
| --- | --- | --- |
| 1 | 1. Vulnerable circumstances 2. Poor physical environment 3. No opportunity to improve connection | **Chrissie is 28 and normally lives with flatmates in London**, but she is now staying with her parents as she required more support. She is a policy adviser and reports having a mental health condition.  The basement flat she rents has very poor broadband connection. The household had switched broadband provider just before the pandemic for better connection quality but this didn’t help. This meant that during the pandemic, when all the flatmates were working from home, they needed to compete to be in the bathroom, where the connection is best, to hold work calls.  Her employer offered her a dongle as a workaround but her flatmate already tried this and it made no difference. Instead, she tethered her computer to her personal mobile and this used all her free data on her phone and meant she was not able to use any of her apps for personal use.  *“You become fatalistic. You stand on tiptoe in the bathroom leaning towards the window and you don’t think anything of it.”* |
| 2 | 1. Low financial resources 2. Low access to support 3. Poor physical environment | **Philip is 65 and lives with his partner in rural Lancashire**. He was previously unemployed but is now working on a short-term contract for an agency recruiting staff for the NHS to administer the Covid vaccine, which he does from home.  His employer promised to provide a laptop to undertake this work but this did not happen so Philip had to buy one himself as his old one was too slow and had insufficient memory. He also needed to pay to upgrade his broadband package to get sufficient connectivity as he dropped out of meetings initially. Both of these expenses were difficult for him to afford due to his previous unemployment.  His connection is still not great as he needs to work out of a shed in the garden to comply with his employer’s GDPR requirement for the work to be carried out from a private space.  *“Trying to look like I’m ‘up to speed’ was difficult when the laptop was freezing. I didn’t want to look like I had any technology issues. So I had to borrow the money to get a better laptop in the end.”* |
| 3 | 1. No opportunity to improve connection 2. Poor access to provider | **Jenny is 64 and runs a microbusiness (a stable) in rural County Antrim, Northern Ireland.** Her adult son and granddaughter have been living with her during the pandemic.  She has always had issues with her internet connection due to living in an area that lacks access to decent broadband. However, the issues have become a lot worse since the pandemic which she believes is due to her household’s increased usage.  She couldn’t easily get in touch with her provider to try to resolve this as they don’t publish their phone number and she believes that there is no opportunity to upgrade her service due to her location.  She decided to install a 4G router as a workaround. This means she pays more than £100 per month just for her fixed and mobile connections, before any data costs. She then experienced bill shock due to the amount of data being used and she has now had to implement a data cap. She feels that the only long-term solution is to install a satellite connection at yet more expense.  *“You can’t ring [provider] anymore. You need to send them an email so if they internet is down how can you contact them?”* |
| 4 | 1. Low financial resources 2. Low access to support 3. Vulnerable circumstances | **Kelly is a 29 year old sole parent who lives in rural Hampshire.** Her eldest, school-aged son has a developmental delay and her middle son is being assessed for a learning disability.  Kelly only has a smart phone for her eldest child to use for home schooling. This meant he couldn’t see the worksheets properly and struggled to engage with activities. She asked the school for a computer but they had already allocated all of them. Her workaround during the first lockdown was to make up her own curriculum using BBC resources as her son could not participate in formal schooling.  In addition, her middle son didn’t want to engage with the Education, Health and Care Assessment on the small mobile screen which has delayed the assessment process.  *“I had a one-hour meeting on my phone to assess my son. I had to talk to her while my son climbed the furniture; it was one of the most awkward hours of my life.”* |
| 5 | 1. Low digital skills 2. Low financial resources 3. Vulnerable circumstances | **Anne is 58 and lives alone in a suburb of Lanarkshire, Scotland**. She has mental health conditions, does not work and is living on disability benefits.  She only has a mobile phone and lacks functional digital skills which means she can’t initiate an email or use Zoom by herself, and she worries about making mistakes. A centre where she used to access equipment and digital support is closed due to the pandemic.  A further issue is that she currently only has a ‘cashline’ card which doesn’t support online transactions. She wants to do online shopping and banking but would need to apply for a debit card at her bank and would need her bank to help her set up online banking.  She is unable to visit the bank herself due to her mental health condition causing her anxiety in such interactions. She has a mental health key worker who would normally accompany her in these situations but this isn’t possible currently due to the pandemic.  *“I get panicky in case I do it wrong so I end up giving up.”* |
| 6 | 1. Low digital skills 2. Vulnerable circumstances | **Pam is 69 and lives alone in a rural Conwy, Wales**. She is retired and shielding due to COPD.  Although her daughter had signed her up to Facebook prior to the pandemic, Pam had not been online prior to March 2020 and needed to buy a smart phone to get online.  Due to shielding, Pam needed to move all of her essential activities online. She experienced significant challenges in online shopping, and in accessing prescriptions and health services. This included making mistakes with online grocery orders, not being able to successfully order a prescription for 3 months for medication she takes daily, and giving up attending a virtual asthma clinic as she felt unsafe performing the activities unsupervised.  She also experienced significant issues with her broadband connection which were only resolved once she paid to upgrade her service.  *“I thought that is terrible, it's really awful having to be diagnosed over WhatsApp. It's all on you to look after yourself.”* |
| 7 | 1. Low digital skills 2. Low financial resources 3. Vulnerable circumstances | **James is 54 and lives with his wife and stepson in rural Caernarfonshire, Wales**. He has mental health conditions and low literacy. Both he and his wife receive disability benefits.  James prefers to undertake transactions and access services face-to-face or by phone rather than online as he finds written instructions difficult to understand, especially with respect to government processes. For example, he tried to claim a loan from his benefits online during the pandemic but found the experience to be confusing and traumatic. He phoned the Jobcentre and a member of staff tried to walk him through it but this didn’t help. In the end, they had to send him a paper form which he managed to complete.  His broadband connection is also poor which affects his ability to stream programmes to relax. He wanted to complain about this but his mental health condition means he finds it difficult to engage with his provider.  *“I got into such a pickle that I had to phone [the Jobcentre] in the end and even then I was getting into such a mess that I asked them to send me a paper form.”* |
| 8 | 1. Low financial resources 2. Vulnerable circumstances | **Nilda is 59 and lives with her adult son and his family in a suburban part of Sussex**. She is Italian/Brazilian and has been in the UK since September 2019. She doesn’t speak any English (the interview required a family friend to translate) and is not working.  While she is a competent internet user, Nilda’s lack of English has caused difficulty when applying for EU settlement, a National Insurance number and Universal Credit, and is the main reason she was not successful in completing any of these processes online.  On the other hand, she can manage online banking and shopping even on English language websites, suggesting that there may be learning from these that could be applied to government processes.  Nilda currently relies heavily on her daughter-in-law to translate any online government processes but she isn’t always around and Nilda doesn’t want to impose. She also uses Google Translate but this can be misleading. |
| 9 | 1. Low digital skills 2. Vulnerable circumstances | **Beverley is 84 and lives alone in London**. She has numerous long-term health conditions and low mobility.  She did not use the internet prior to the pandemic but a Christian charity bought her a laptop during the summer of 2020 and also helped her to arrange a broadband connection at home, which Beverley herself pays for.  Beverley wants to be able to use the internet for browsing and online shopping but she doesn’t know how to. Her family doesn’t live nearby and although they have tried to teach her by phone it has been difficult for her to learn this way. She is very concerned about the possibility of making mistakes as well as about the security of online transactions and risk of experiencing scams.  Due to these issues, she is forced to try to get out to the shops when she is well enough or alternatively to rely on others to shop for her.  *“I want to be able to order my own shopping online. At the moment I'm reliant on people but the trouble is you can't ask them to get you 10 things just 2-3 and I sometimes feel embarrassed to ask.”* |
| 10 | 1. Low digital skills 2. Vulnerable circumstances | **Jade is 24 and lives in with her mother and brother in a suburban area of County Armagh, Northern Ireland**. She is long-term unemployed and has dyslexia and low literacy.  She was a narrow internet user prior to the pandemic and reluctant to do online banking or shopping due to concerns about scams.  She was only able to use the internet in new ways during the pandemic with a lot of support. For example, her brother helped her to successfully migrate from JSA to Universal Credit, along with a representative from the local Jobcentre who supported her by phone. However, she has found it very challenging to search for jobs during the pandemic as everything now has to be online, including applications, interviews and Jobcentre support.  She also finds social media communication confusing and stressful, and she worries about bullying and trolling.  *“I'm frightened of (social media). I don't know who I'm talking to. They could say they're the person and they're not that person."* |

1. What are people’s digital connectivity needs going forward?
   1. Summary of findings

|  |
| --- |
| * Many people said they would like to continue with certain new digital uses after the pandemic especially where these have been found to be **time-saving and more convenient**. * In particular, many of those currently **working from home** expect to continue this after the pandemic, at least on a part time basis, and there was some evidence of employers closing or downsizing premises meaning that this would be some employees’ only option. * A **reliable connection** is the most important requirement from a communications provider, followed by **minimum speeds** that allow for video calling or streaming. This has become more important because of people’s new online uses during the pandemic. * Some would also welcome increased **trouble-shooting** **support** from communication providers as they have found it challenging themselves to diagnose the source of connection problems or determine how to resolve them. * In addition, the pandemic has increased people’s requirements of other parties, such as **employers, schools, government and the third sector,** to support them to overcome both personal and structural barriers to digital connectivity. |

* 1. What new digital uses people expect to continue post-pandemic

There was a tendency to expect to continue with new uses that have proven to be **time-saving or otherwise beneficial**. The new online uses that most people who successfully attempted them expect to continue after the pandemic include:

* online banking;
* online prescription ordering;
* working from home, at least part-time which will mean continuing with work-related video calls;
* some aspects of online schooling, such as submitting homework online; and
* new entertainment opportunities such as gaming, streaming services etc.

On the other hand, there are some new uses that people expect to reduce or stop after the pandemic, either because they had **difficulty engaging with them** or regard them as **inferior to other channels**. These included:

* recreational video calling, except where friends or family are geographically distant;
* online exercise classes;
* online shopping for those who prefer face-to-face methods;
* homeschool video lessons;
* online medical consultations; and
* using digital government services without face-to-face support.
  1. Whether people’s requirements of communication providers or others have changed

Before the pandemic, many people had **few expectations** of what level of digital service they should be receiving from their communication providers.

*"I didn’t know what I have a right to expect. I didn't know what I was paying for. I didn't understand speed and what I have. It all needs to be explained better."* (35 year old woman, lives in an urban area in Scotland)

**Quality of service issues** were only on the radar of people who had previously experienced problems and some of these lived in areas without access to decent broadband so were used to having poor connection quality and had accepted this.

Since the pandemic, the **reliability of people’s home digital connection** and, in particular, that it does not cut out, became an important minimum requirement for most. It was suggested by some who currently live in areas without a decent broadband service that people in future would benefit from information on available broadband services to help inform decisions on new properties to rent or buy.

*"It's even more important to have a steady connection - speed isn't necessarily the issue but it's about the internet cutting out."* (65 year old woman, has a mental health condition, lives in an urban area in the South of England)

**Connection speed** also became an important issue for those with heavy use of video calling and houses with several people using the internet at once.

*"I want a cast iron guarantee (of minimum speeds). I want to be sure they offer something that they can stand by."* (75 year old man, has a visual disability, lives in a rural area in Northern Ireland)

In addition, **customer service** became more important as more people needed support. Good quality customer service is now regarded as requiring providers to:

* have well-staffed telephone lines;
* provide trouble-shooting support; and
* not just up-sell more expensive fibre broadband contracts.

Beyond communication providers, the pandemic has also increased people’s reliance on other parties, such as **employers, schools, government and the third sector,** to help them to overcome both personal and structural barriers to digital connectivity. This includes interventions to:

* supply devices and data to people who cannot afford to self-fund these;
* ensure essential digital services are accessible to a wide range of people;
* provide appropriate usage support to those who require it, particularly if they do not have access to support from family members; and
* provide appropriate skills training to those who want to access this (a number of newer or previously narrow internet users in this research claimed to be interested in accessing further training provided it was specifically tailored to their level and delivered as either small groups or one-on-one sessions).

1. Conclusions and implications
   1. Conclusions

It has long been argued that the internet is an essential service but the Coronavirus pandemic has further increased society’s reliance on being online for almost all aspects of life. Digital connectivity has therefore represented a **lifeline for many** over the past year, but inequality of access has also served as an **accelerator of the digital divide**.

In many cases, it was no longer having any alternative option that ‘forced’ people to try using the internet in new ways during the pandemic and most within our sample incurred some challenges in their efforts to expand their online use. Some were able to overcome these and for them the experience was ultimately a successful one that helped them to retain some semblance of normal life and mitigate what would have otherwise been much greater negative impacts associated with the pandemic. However, others found their issues to be much more insurmountable resulting in a number of **negative impacts.**

At the most extreme, we identified examples where insufficient connectivity negatively affected people’s **access to essential services, their health, finances and children’s educational attainment.** In addition, there were a number of other softer, but still important, impacts such as **difficulty maintaining social connections** which contributed to their sense of isolation.

We characterise the people who have been most at risk of detriment due to insufficient connectivity during the pandemic as having **‘low digital resilience’**. As expected, this group includes people with low digital or other skills, low incomes and those who would be regarded as vulnerable (especially those with mental health conditions). In addition, people could also lack digital resilience due to not having access to the support they need from their family, workplace, children’s school or communication provider, or not having any opportunity to improve the quality of their connection due to where they live. Therefore, the group of people who could be described as having low digital resilience during the pandemic is considerably broader than those who would traditionally be characterised as being digitally excluded.

There is also a **vulnerability** associated with the new digital behaviours of inexperienced internet users, some of whom have found the self-serve digital environment very challenging to navigate and who have struggled to access help when they have incurred challenges affecting their connectivity. This brings with it risks that such people either revert back to their previously more narrow usage patterns (thus undoing the benefits of their new learning) or that they will have poor experiences and outcomes unless they are supported to use the internet in new ways safely and effectively.

* 1. Implications

Overall, this research raises some important policy questions, including relating to:

* **Minimum digital access as an equalities issue:** How can people be ensured equality of access to adequate digital infrastructure and equipment in order to access essential services, given the growth of digital by default and particularly if we expect that some video-based delivery of such services may continue post-pandemic?
* **Addressing the ‘digital wild west’:** Although online services and transactions can have many advantages over face-to-face services, people can also experience them as more risky than their previous habits. In a digital by default world, and particularly in the context of the pandemic, many people have in effect been forced online to access the basic necessities of life, and much of the public space has also moved online. This poses an ethical question about online safety and whether there need to be more standards or custodianship in place to ensure that all members of society can safely and easily use the essential government and transactive services they need.
* **Supporting those with skills deficits to continue use the internet safely and effectively:** Our research has shown that while many have made the leap into new digital activities, and feel they are benefitting from these in a variety of ways, the ad-hoc and self-serve way in which they have made that jump may leave them with unrecognised and unaddressed digital vulnerabilities. Essentially they are ‘driving without a license’ which highlights the how precarious expanded digital use is for this cohort.

Related to the above, our research strongly suggests that addressing the root causes of low digital resilience will require a **multifactorial response**, focusing on each of the different digital connectivity barriers that people reported in this research:

* + 1. Digital infrastructure

Our research identified people without access to decent broadband as a group who have been particularly disadvantaged due to the pandemic. This means that ensuring adequate digital infrastructure, including addressing known not spots, is arguably more important now than ever. It is worth noting that people expect to continue working from home to some extent, and to keep up a number of their other new online uses, even after the pandemic.

The government already has this issue on its radar, most recently introducing a universal service obligation for broadband which provides people a legal right to request a decent broadband connection.

However, the evidence from this research suggests that there is negligible consumer awareness of this right. Some in the research suggested that they would benefit from information on coverage to help inform decisions on new properties to rent or buy.

* + 1. Quality of digital service

Most larger internet service providers have signed up to the Voluntary Broadband Speed Code of Practice where they are required to provide a personal speed estimate for their connection. In addition, they must also provide, upon request, a Minimum Guaranteed Access Line Speed and commit to resolving speed problems or provide customers the right to downgrade or exit their contract without penalty. However, here again our research suggests that consumers’ knowledge of these provisions is low.

There is also now an automatic compensation scheme in place for instances of ‘total loss of service’, however responses from participants in this research suggest that there is a case for such compensation to extend to problems with intermittent connection or slow speeds, as part of a quality of service commitment.

Participants’ comments in this research additionally suggest that they would welcome more troubleshooting support in the event of connection issues, as they currently receive this for some other services such as pay TV.

* + 1. Affordability

Available evidence[[20]](#footnote-21) shows a clear link between poverty and digital exclusion. Certain initiatives during the pandemic may have helped to mitigate this, including the major internet providers removing data caps on fixed line broadband, and the Department for Education, charities and others providing devices and/or data to those who cannot afford them.

However, we still picked up several examples in this research of people in need who had not received any support and who were experiencing detriment as a result. This suggests that more could be done to ensure sufficient provision of devices and data to the poorest and most vulnerable households.

In addition, as people do not expect their digital behaviour to revert fully to the way it was before the pandemic, they can be expected to continue to have higher data needs (e.g. to support video calling, streaming etc.). Therefore, there is a risk of digital connectivity becoming more unaffordable to people with low financial resources if and when financial support is reduced or data caps are reintroduced by communication providers.

* + 1. Accessibility and usability

There are already mandatory digital accessibility requirements in place for public sector bodies with respect to people with certain disabilities[[21]](#footnote-22). However this research suggests that a number of other groups also have accessibility requirements including those with low literacy or English language skills, and novice digital users, suggesting that the digital accessibility parameters should be widened.

In addition, there is a need to address the perceived complexity of online government forms which pose challenges to a wide range of people in a way that other transactive channels, such as online banking and shopping, do not. Therefore, commercial transactive processes may provide transferrable learning for the future design of government forms. In addition, apps are generally regarded as more intuitive than web-based processes by more novice internet users and there may be usability-related lessons from apps that could also be applied to government processes.

The lack of standardisation of approaches to delivering essential digital services represents a further potential accessibility issue. For example, parents who have been home schooling their children reported that a wide range of platforms were being used to deliver lessons and provide resources, and that different levels of interactivity were expected from children involved in online lessons. Further harmonisation should therefore be considered in order to improve accessibility and usability.

* + 1. Support

This research supports the continuation of offline channels to support people with low digital skills or other difficulties in completing digital government processes (e.g. the Help to Claim service) and efforts to increase awareness of these services may also be required.

Our findings also suggest inconsistencies in the approach of employers to supporting their employees to make the transition to working from home, potentially due to the novel nature of the pandemic and lack of certainty initially about its impacts and duration. It suggests more could be done to make employers (and their employees) aware of their responsibilities for the health, safety and wellbeing of their employees who are working from home and, if required, to enforce compliance with existing laws.

In addition, many parents felt unsupported in navigating the home schooling provisions and expectations of their school. This was a particular issue for those who had some level of digital exclusion, suggesting that, if we revert to home learning for any reason in the future, that this group should be prioritised, not just for the provision of devices and data, but also printed materials and phone calls/text messages to ensure that they do not miss out on important updates.

* + 1. Skills development

As FutureDotNow has written[[22]](#footnote-23), one of the main challenges for addressing digital skills deficits is motivating people. The pandemic has helped to achieve this to some extent by giving some people no choice but to try to use the internet in new ways. Therefore, a focus of future skills training provision needs to be on maintaining this motivation so that previous narrow or non-users aren’t at risk reverting back to their previous behaviour.

However, expansion of digital use also comes with its own risks. A number in this research were worried about or had fallen victim to online harm such as scams and viruses, so another priority needs to help those with lower skills develop critical thinking skills and ensure their safety online.

In addition, to be self-sufficient in a digital communication age requires more than getting around a website but also technical skills to set up camera and microphone access for video calls, and learning the associated language and etiquette for participating in this way.

The newer or narrow internet users in this research often claimed to be interested in accessing further training and called for it to be specifically tailored to their level, a very patient approach and either small groups or one-on-one sessions.

A particular gap identified in this research is those who do not have access to support from family members, and those whose health means that accessing skills training within their community would not be feasible unless it is in their own home.

Many library services offer a ‘digital buddy’ service and we know of at least one of these that has extended this service into helping to people to make video calls to their healthcare provider. This model may be one with potential for wider use.

Appendix A – Research materials

Pre-task

Please reflect back over the course of the pandemic so far (March 2020 through to now) and note down all the examples you can recall of you trying or wanting to do **something new or different online. *By online we mean anything you might do on the internet or with apps using your computer, smartphone, tablet or other internet-connected device.***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **What new/different things did you try or want to do online during the pandemic?**  ***(It could be for work, education, communication, entertainment, banking, shopping, or completing government processes etc.)*** | **Roughly when did this first happen?**  **(*e.g. at the start of the pandemic, over Summer, after Christmas etc.)*** | **What was happening in your life at the time that made you try or want to go online in this way?** | **How did this experience make you feel?**  ***(e.g. frustrated, disappointed, relieved, delighted etc.)*** |
| Example 1 |  |  |  |  |
| Example 2 |  |  |  |  |
| Example 3 |  |  |  |  |
| Example 4 |  |  |  |  |

Please also answer the following questions about your **online experiences** during the pandemic…

|  |  |  |  |
| --- | --- | --- | --- |
| Q1: Did you experience any moments of **frustration** **or disappointment** in going online during the pandemic?  If so, what led to this? | *Write in:* | | |
| Q2: Did you experience any moments of **relief or** **happiness** whengoing online during the pandemic?  If so, what led to this? | *Write in:* | | |
| Q3a: Were you **successful** overall in going online in the ways you wanted during the pandemic?  Q3b: *IF YOU ANSWERED SUCCESSFUL OR MIXED:* Did being able to go online in the ways you wanted have any **positive effects** on your life during the pandemic?  If so, what were these positive effects?  Q3c: *IF YOU ANSWERED MIXED OR NOT SUCCESSFUL:* Did not being able to fully go online in the ways you wanted result in any **negative effects** on your life during the pandemic?  If so, what were these negative effects? | *Mark appropriate box below…* | | |
| **Yes, successful** | **Mixed** | **No, Not successful** |
| *Write in:* | | |
| *Write in:* | | |

Interview guide

|  |  |
| --- | --- |
| Introduction  *(5 mins)* | ***Moderator’s introduction:***   * Hello, my name is [moderator] from Collaborate Research. Collaborate Research has been asked to conduct this research by the Communications Consumer Panel, a group of independent experts who are responsible for ensuring the communication market works well and fairly for consumers, citizens and the smallest businesses across all nations of the UK. * *IF VIDEO CALL:* Can I please check, are you currently connected to Wi-Fi / do you have enough data to continue with this video call? *Offer to revert to phone call if required* * The aim of this research is to better understand the experiences of people who have tried or wanted to do something different online during the pandemic. By ‘online’ we mean anything you might do on the internet or via an app for communication, entertainment or information. It might be using a computer, smartphone, tablet, smart TV or other internet-connected device.   + We are particularly interested in discussing any **challenges** you might have experienced, and whether there were any **positive or negative impacts** on your life due to what you have or have not been able to do online during the pandemic. * The Panel will use this research to learn about how going online (or not) affects people’s everyday lives and will inform Ofcom, the government and companies, by recommending changes in policy that will help make people’s lives better. * We know that the pandemic has affected people in a lot of different ways. We want this to be a safe space for you to talk about your experiences but also understand that there may be some things you don’t feel comfortable sharing, and that’s fine too. * Also, we want to reassure you that when it comes to exploring your online behaviour and experiences during the pandemic we are interested in all the finer details. So don’t be concerned about raising anything that you might regard as trivial in the current scheme of things as we want to understand all the issues and impacts on you, both big and small. * *Explain audio/video recording and re-confirm participant’s permission to record:*   + *For analysis purposes*   + *Potentially to share with the Panel – audio*   + *Potentially to share with the Panel – video (and brief/help participant to change visible name to first name and surname initial if needed for video interviews on Zoom)* * *Explain and re-confirm participant’s permission for listening in (if relevant)* * *If have not already received the participants’ pre-task check whether they have completed it and ensure they have it to hand to refer to during the discussion*   ***Participant introduction/background:***   * Name, age, who you live with, whether working/what kind of job * Can I get a few details on your online use before the pandemic, just for context:   + How often did you go online before?   + What did you mainly go online for before? Were there any things you avoided doing online before?   + How confident were you online before?   + Did you have any issues in accessing or using the internet or apps before (e.g. with broadband/mobile connection, devices/technology, contracts/affordability, digital skills)? |
| Overview of how the pandemic affected participants  *(5 mins)* | * I want to start off our main discussion thinking beyond just online use and about the **pandemic more generally**. *Moderator to select task/s from below depending on the participant’s preferences/ability to respond and probe responses:*   + Could you pick up to three words to describe your own personal experience of the pandemic?   + Can you recall something you saw, heard or read that best symbolises the pandemic for you?   + If you had kept a diary over the past year, what would be the main thoughts and feelings you recorded? * What are the **main ways your life has changed or has been different** during the pandemic compared to what it was before? This could be because of major events and/or changes to your everyday routine. *Probe responses and prompt if required on different areas of life (health, work, finances, education, social interactions, entertainment and leisure, shopping and transactions, using government websites and apps etc.).* |
| How the pandemic affected people’s digital needs and wants  *(10 mins)* | * Now thinking about your online experiences during the pandemic. Did going online become any **more or less important** to you during the pandemic than before? How and why? * Did you go online any **more or less often or for longer or shorter periods** during the pandemic? How and why? * We understand that you wanted or tried to **use the internet or apps** **differently** in some ways during the pandemiccompared to before. In what ways/for what purposes did you try or want to use the internet or apps differently? *Refer to pre-task if completed and prompt if required on new uses for home working, remote learning, communicating and staying in touch, entertainment and leisure, shopping, banking, government processes etc.* * ***For each new online use mentioned, probe as appropriate:*** * **Who** was this for? Was this for you personally, another family member (e.g. your children), or both? * **When** did this first happen? What was **happening in your** life at the time? Do you recall what you were **thinking/feeling/saying** to others at the time? *Probe fully to establish context* * *If not determined through context reinstatement ask directly:* **Why** did you need or want to do this? Would you have **expected** to have wanted to use the internet/apps in this way before the pandemic? |
| Experiences of specific new/different online uses  *(15 mins)* | * ***For each new online use or themes of uses mentioned:*** * How did this experience make you feel? Were there any particular **high points or low points** along the way? What and why? * Were you able to **achieve what you needed/wanted** to online in this way? Was this straight away or did it take time for you to achieve this? Did you get any **support or advice** from elsewhere in order to achieve this? From where/whom? * Did you experience any **particular issues or challenges** in achieving *this (either before or after receiving support if relevant)*? *Probe fully, prompting on issues if relevant such as:*   + The internet connection (broadband, mobile data) was too slow/unreliable   + Technology/device issues e.g. only have mobile to go online, no spare computer for children   + Contractual/pricing issues e.g. limited data allowance, data costs unaffordable   + Having insufficient digital skills, confidence or trust   + Other reasons e.g. literacy, language, physical or cognitive barriers etc. * *Ask those who have* ***experienced issues****:*   + Do you regard these issues as major or minor? Why?   + Did you find any workarounds or **ways of dealing** with these issues? What were they? How effective were they?   + Did you look for any **information** or seek any **support or advice** from elsewhere in order to resolve this? From where/whom? How helpful was this?   + Have you **resolved** these issues or are still experiencing any ongoing issues in doing this online? |
| Overall experience and impacts  *(20 mins)* | * *Refer to the pre-task:* Considering all the ways that you used the internet or apps during the pandemic, and particularly the new uses, did you experience any moments of **frustration or disappointment**? What led to this? * *Refer to the pre-task:* And did you experience any moments of **relief or happiness** when using the internet or apps during the pandemic, and particularly the new uses? What led to this? * *Refer to the pre-task:* Overall, **how successful** were you in going online in the ways you wanted to during the pandemic?   + *Ask those who feel they have been successful and/or not experienced major problems/resolved any issues:* Why do you feel you have been successful (i.e. not had major issues or have been able to resolve any issues)? *Probe on their skills and resources e.g. digital skills, finances, access to help/advice etc.*   + *Ask those who feel they have not been fully successful (had major or unresolved challenges):* Why do you feel you have not been fully successful (i.e. had major issues or have not been able to resolve all issues)? *Probe on any deficits in skills and resources e.g. digital skills, finances, access to help/advice etc.* * *Ask anyone who had any level of online success even if there were challenges (refer to pre-task):* Overall, did being able to go online in some/all ways you wanted to have any **positive effects** on your life during the pandemic? For example, this might be by allowing you to do things during the pandemic that otherwise would have been impossible or making it easier for you to get through the pandemic? ***PROBE FULLY*, *prompting on:***   + What were these positive effects? Did they have any positive knock-on effects (e.g. in your mood, relations with others or other things) you wouldn’t have predicted at first?   + How significant were these positive effects How would life during the pandemic have been like if you weren’t able to do this? What would life during the pandemic be like from here on if you could no longer do this tomorrow? * *As anyone who had any online challenges even if they resolved these (refer to pre-task):* Did not being able to (initially) go online in (all) the ways you wanted result in any **negative effects** on your life during the pandemic? For example, this might be by meaning you missed out on things during the pandemic because accessing them online was difficult or by leading to negative knock-on effects on your finances or life (e.g. higher costs, job insecurity etc.)? ***PROBE FULLY,******prompting on:***   + What were these negative effects? Did they have any negative knock on effects (e.g. in your mood, relations with others or other things) that you wouldn’t have predicted at first?   + How significant were these negative impacts? What would life during the pandemic have been like if you hadn’t experienced these issues? What would life during the pandemic be like from here on if you found you could do everything you wanted to online tomorrow? * *Ask all:* **Did the way you used the internet** during the pandemic have any (other) negative impacts on your life during the pandemic? This could have been due to the amount of time you/family members spent online, the financial costs of being online or any other negative impacts? *Probe fully* * *Ask anyone who has any level of online success:* Have you **supported anyone else** to get online/use the internet more or differently during the pandemic?   + *If yes:* Who was this? What did they want to do and why?   + Were you able to support them to achieve what they wanted to do? *If so:* What enabled you to support them? *If not (fully):* Why not? What would have helped you support them more effectively?   + Overall, what impact do you feel being able to use the internet in these new ways (or not) had on the person you were trying to support? What impact did this experience have on you? |
| Looking to the future  *(5 mins)* | * (Now focusing again on your own experiences and) Thinking back to the person you were before, have your online experiences during the pandemic **changed you** in any way? *Unprompted first and then prompt if required on changes to regular online activities, skills, confidence etc.* * To what extent, if at all, do you feel the changes to what you do online will **continue beyond the pandemic**? * To what extent, if at all, do you feel your experiences during lockdown will change what you look for in an **internet (broadband, mobile) provider** in future? How – what specifically might become more/less important to you? *Prompt if required on faster connection speed, unlimited data package, easier to contact/better support, easier to use devices, service guarantees.* * Finally, do you have any suggestions on how people could be **better helped** to use the internet and apps the way that they require it? What would have been particularly helpful to you/the person you supported *(if relevant)* at the time? Who should do these things (e.g. internet providers, government, charities etc.)? |

Appendix B - Sample breakdown by nation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **England** | **Scotland** | **Wales** | **NI** |
| **Gender** | | | | |
| Male | 17 | 5 | 6 | 6 |
| Female | 13 | 5 | 4 | 4 |
| **Age** | | | | |
| Under 40 | 11 | 4 | 1 | 4 |
| 40-64 | 10 | 3 | 5 | 3 |
| 65-74 | 5 | 2 | 3 | 2 |
| 75+ | 4 | 1 | 1 | 1 |
| **SEG** | | | | |
| ABC1 | 16 | 6 | 0 | 3 |
| C2DE | 14 | 4 | 10 | 7 |
| **Other factors** | | | | |
| Disability/LTC | 9 | 3 | 7 | 3 |
| Income <£15k | 9 | 3 | 5 | 1 |
| Rural | 9 | 4 | 7 | 7 |
| No decent broadband | 6 | 1 | 1 | 1 |
| Microbusiness | 12 | 0 | 1 | 3 |
| Low literacy or English | 2 | 0 | 3 | 1 |
| Other vulnerability | 8 | 1 | 2 | 0 |

1. For the purpose of this report, online harm includes potentially harmful online experiences relating to interaction with other people/content, data/privacy and hacking/security. [↑](#footnote-ref-2)
2. We are using Ofcom’s definition of vulnerability which is any temporary or permanent circumstance which makes dealing with essential services and markets more difficult: <https://www.ofcom.org.uk/about-ofcom/what-is-ofcom/consumer-vulnerability> [↑](#footnote-ref-3)
3. <https://d1ssu070pg2v9i.cloudfront.net/pex/carnegie_uk_trust/2016/09/LOW-2697-CUKT-Digital-Participation-Report-REVISE.pdf> [↑](#footnote-ref-4)
4. <https://www.fca.org.uk/publication/research/financial-lives-consumers-across-uk.pdf> [↑](#footnote-ref-5)
5. <https://www.bristol.ac.uk/media-library/sites/geography/pfrc/pfrc1614-poverty-premium-key-findings.pdf> [↑](#footnote-ref-6)
6. <https://www.ofcom.org.uk/__data/assets/pdf_file/0027/196407/online-nation-2020-report.pdf> [↑](#footnote-ref-7)
7. Ibid [↑](#footnote-ref-8)
8. <https://www.nesta.org.uk/project-updates/data-or-dinner/> [↑](#footnote-ref-9)
9. This focus on people attempting new types of digital uses was to ensure that this research did not duplicate another recent study, by the Broadband Stakeholder Group, which specifically looked at the impacts of Covid-19 on digitally excluded people: <http://www.broadbanduk.org/wp-content/uploads/2020/10/Broadband-Stakeholder-Group-Digital-Exclusion-2020-Final-report.pdf> [↑](#footnote-ref-10)
10. We are using Ofcom’s definition of vulnerability which is any temporary or permanent circumstance which makes dealing with essential services and markets more difficult: <https://www.ofcom.org.uk/about-ofcom/what-is-ofcom/consumer-vulnerability> [↑](#footnote-ref-11)
11. See ONS data on SEG of home workers during the pandemic: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/coronavirusandhomeworkingintheuk/april2020> [↑](#footnote-ref-12)
12. This report uses the Ofcom definition of ‘narrow’ internet users which is people undertaking fewer than 5 different categories of internet usage out of 15 possible categories: <https://www.ofcom.org.uk/__data/assets/pdf_file/0023/102776/section-9-newer-narrow-non-users-internet.pdf> [↑](#footnote-ref-13)
13. For the purpose of this report, online harm includes potentially harmful online experiences relating to interaction with other people/content, data/privacy and hacking/security. [↑](#footnote-ref-14)
14. For more information on Ofcom’s definition of lacking access to a ‘decent broadband service’, see <https://www.ofcom.org.uk/__data/assets/pdf_file/0024/209373/connected-nations-2020.pdf> [↑](#footnote-ref-15)
15. <https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/broadband-uso-need-to-know> [↑](#footnote-ref-16)
16. <https://www.ofcom.org.uk/__data/assets/pdf_file/0026/111698/statement-voluntary-code-practice-residential.pdf> [↑](#footnote-ref-17)
17. <https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/costs-and-billing/automatic-compensation-need-know> [↑](#footnote-ref-18)
18. See, for example: https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigitaldivide/2019-03-04 [↑](#footnote-ref-19)
19. All names have been changed to protect people’s identities [↑](#footnote-ref-20)
20. See, for example: <https://www.goodthingsfoundation.org/projects/nobody-dark> [↑](#footnote-ref-21)
21. https://www.gov.uk/guidance/accessibility-requirements-for-public-sector-websites-and-apps [↑](#footnote-ref-22)
22. <https://futuredotnow.uk> [↑](#footnote-ref-23)