HOUSE OF LORDS

COVID-19 Committee

1st Report of Session 2019–21

Beyond Digital: Planning for a Hybrid World

COVID-19 Committee
The Select Committee on COVID-19 was appointed on 11 June 2020 to consider the long-term implications of the COVID-19 pandemic on the economic and social wellbeing of the United Kingdom

Membership
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Declarations of interests
See Appendix 1.

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SUMMARY

When this Committee was established in May 2020, very few people imagined that, a year later, our lives would still be severely restricted by the pandemic. People's work, education, relationships, social and leisure activities and opportunities to travel have all been curtailed.

The fact that we have been able to continue with these things to the extent that we have has in large part been thanks to the internet. Indeed, the way that the internet enabled many people to continue to work, learn, trade, access services etc is what made it possible for governments to introduce the restrictions that they did; the internet enabled many of us to stay home, and to stay safe.

This dependence on the internet as a result of the pandemic has led to a massive acceleration in many pre-existing digital trends: from online shopping to online GP appointments, automation of jobs to remote working. It has been a catalyst for breaking through the inertia that existed in some sectors in relation to digitalisation and we have adjusted our behaviours and invested in technology to the extent that we have reached a level of digitalisation that we might not otherwise have done for many years.

This last year of living online has highlighted starkly the huge inequalities that exist in this country. The children who have lost a year of schooling for want of a laptop and an internet connection; the businesses that could not move their trade online because they lacked the skills or broadband access to do so; those who have spent the year isolated and alone, not able to join an online community group or religious service because they have never used the internet and would not know where to start. We should, as a society, be ashamed that so many have suffered unnecessarily, for want of the things that have become such basic essentials of modern life.

The future was always going to be hybrid—an increasingly blurred mix of online and offline aspects of life. As a result of the pandemic, that future is here now. Some individuals, organisations and businesses will adapt pretty effortlessly but many millions will not. This is a societal change that affects us all, whether we want it to or not, and we believe Government intervention needs to be more fundamental than is currently being envisaged.

For this inquiry, we set out to look at the impact that the pandemic-driven digital acceleration might have in the long-term on the aspects of life known to have the biggest impact on our wellbeing: physical and mental health, social connection, education, quality of work.

In each area, we found that there had been real (and sometime surprising) benefits to some people from the sudden shift to digital; benefits that must not be lost in a desire to 'return to normal.'

We also heard plenty of examples of where digital was a very poor substitute for 'in person' services and interactions. This year has left many of us longing for, and appreciating, the value of human contact as never before.

Most damningly, we heard time and again that the most disadvantaged and marginalised people in society were being further marginalised and disadvantaged because they did not have the money to pay for an internet connection and a computer, did not have the appropriate space at home, or did not have the skills and confidence to fully participate in the online world.

Without urgent Government action we risk:

- services being digitalised, sometime badly, for cost-saving reasons, without understanding the impact on those who use them;

- people feeling (and being) constantly, electronically, monitored at work, working longer and longer hours, unable to switch off or maintain a separation between work and home;

- thousands, maybe millions, of jobs being lost to automation with no plan in place to provide the skills and training needed for those affected to move into the new jobs that will be created; and

- a variety of digital trends and local government funding constraints combining to reduce our opportunities to meet with others. From automated check-out tills, to pub and library closures, homeworking and digital personal trainers, there is a legitimate fear that the digitalisation driven by one pandemic could result in another: a pandemic of loneliness.

The UK Government has already committed to producing a new digital strategy in light of the economic and societal changes of the last year. However, if this is simply an updated version of what has gone before this will be nothing like sufficient. The gulf between the digital 'haves' and 'have nots' will become a new dividing line, with society separated between those for whom digitalisation means a move to a rural idyll, the flexibility of home working, and easy access to online services; and those for whom it means precarious, poorly paid work, with access to public services and amenities restricted to whatever stripped down 'in person' offering remains and living in cramped homes that make it difficult or impossible to prosper in the new hybrid era.

As with other major cross-cutting issues—Brexit, devolution, Government efficiency—responsibility for the Government's strategic response should sit with the Cabinet Office because this shift will affect the development of public policy across all of Whitehall. 'Digital' has far outgrown the time when it could sit siloed as a separate policy area in a single government department. Investment in digital infrastructure and skills is very much needed. However, that on its own will not be enough. This strategy needs to be genuinely new and to take into account fully the profound changes of the last year.

We need a new 'social contract' in light of how digitalisation is shaping society: what can individuals now expect from the state, from services and from employers, and what can those organisations expect from us? How we, collectively, answer this question will be a critical factor in the long-term impact of this last year on our individual and collective wellbeing.

The environment and climate change in a hybrid world

Although commuting to work (and travel of all sorts) significantly reduced during the pandemic, with a consequent reduction in emissions, other COVID-related behaviour change may have had a negative environmental impact. There has been a significant increase in vehicles delivering online shopping and takeaway meals to people's homes, for example, while working from home will have changed patterns of energy consumption. The Government should make a careful assessment of the climate change implications of the hybrid world and adopt policies to mitigate any negative impact.

Beyond Digital: Planning for a Hybrid World

CHAPTER 1: INTRODUCTION

About this inquiry

1. During our first inquiry—Life Beyond COVID—we invited individuals and organisations from across the UK to share their hopes and fears about what the pandemic might mean in the long-term for their daily lives. We received over 300 written evidence submissions, 500 social media posts, and over 4,000 people shared their views with us through our discussion packs. Eight broad themes emerged from our work, including that we will be living more of our lives online.

2. In October 2020, we launched an inquiry into how a rapidly increasing reliance on digital technology, accelerated by the pandemic, may have a long-term impact on our social and economic wellbeing. There are many definitions of wellbeing, with Marie Brousseau-Navarro, from the Office of the Future Generations Commissioner for Wales, emphasising the importance of economic, social, environmental and cultural wellbeing.[1] For the purpose of this inquiry, we are using the Office of National Statistics' (ONS) definition of wellbeing as "how we are doing, as individuals, communities and as a nation and how sustainable this is for the future".[2] Research has consistently found that the most important drivers of adult wellbeing are mental and physical health, relationships and employment,[3] and so we decided to focus our work on the impact that digital technology is likely to have on these aspects of our lives in 2–5 years' time, the opportunities and threats that this poses to our wellbeing, and what the Government should do in response. Given the critical role of education for the future wellbeing of children and young people, we also included consideration of this in our work. As our remit asked us to focus on social and economic wellbeing, we wanted our report to consider life online in the context of wellbeing. As Professor Jan-Emmanuel De Neve reminded us: "Growth for the sake of growth no longer translates necessarily into greater well-being;"[4] when looking at the benefits and drawbacks of life online we would support that.

3. During our inquiry, we received over 130 written evidence submissions, including from the Scottish Government, Welsh Government and the Department for Finance in Northern Ireland, and heard from experts in subjects as diverse as physical activity and sport, loneliness, platform working and digital inequality, in ten oral evidence sessions. As with most other things

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1   Oral evidence taken before the COVID-19 Committee, inquiry on Measuring Wellbeing, 23 March 2021 (Session 2019–21), Q 8 (Marie Brousseau-Navarro)
2   Office of National Statistics, 'Measures of National Well-being Dashboard' (October 2019): https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/measuresofnationalwellbeingdashboard/2018–04-25 [accessed 11 February 2021]
3   Office for National Statistics, 'Personal and Economic Well-being: What Matters Most to Our Life Satisfaction?' (May 2019): https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/personalandeconomicwellbeingintheuk/whatmattersmosttoourlifesatisfaction [accessed 11 February 2021]
4   Oral evidence taken before the COVID-19 Committee, inquiry on Measuring Wellbeing, 23 March 2021 (Session 2019–21), Q 7 (Professor Jan Emmanuel De Neve)

in the last year, our work has been undertaken entirely virtually. We will be undertaking further inquiries into other aspects of the long-term social and economic consequences of the pandemic in the months ahead.

4.   Policies relating to many of the issues discussed in our report, including healthcare, education and skills, are largely devolved in the United Kingdom. Consequently, much of the evidence we received and the corresponding conclusions and recommendations, focus on the situation in England. While addressing our recommendations to the UK Government, we believe that the governments of Northern Ireland, Scotland and Wales may find our report useful in considering the future relationship between digital technology and wellbeing, and their role in shaping this relationship.

Digital technology and COVID-19

5.   There is no doubt that the COVID-19 pandemic has drastically accelerated many of the digital trends that existed pre-pandemic. We are more dependent on the internet and digital technology than ever before: in our personal lives, our working lives and in how we access services. For many people, it is hard to imagine what the last year would have been like without the internet: it became a lifeline that enabled us to stay in touch with friends and family, for shops to continue to trade, for many of us to continue to work, and for everything from GP appointments, to education, to debates in the House of Lords, to take place without the infection risk from meeting with others. As Yuval Noah Harari recently pointed out, pre-internet, "if you ordered the entire population of a country to stay at home for several weeks, it would have resulted in economic ruin, social breakdown and mass starvation"[5]: the internet made it possible for many of us to stay at home and work from home; it helped keep us safe.

6.   An Ofcom report found that the proportion of adults making video calls doubled during the first lockdown, with Zoom experiencing a 2000 per cent growth in usage.[6] Similarly, Deloitte's Digital Consumer Trends survey (carried out in May 2020), found that almost 40 per cent of respondents had done more online shopping, 22 per cent had used online banking more, 14 per cent had had remote appointments with health practitioners and 34 per cent were streaming more films and TV.[7]

7.   Workplaces and industries have also accelerated their adoption of technology as a result of the pandemic. In April 2020, Satya Nadella, CEO of Microsoft, suggested that "we've [already] seen two years' worth of digital transformation in two months".[8] Giving evidence to our inquiry, independent analyst Benedict Evans agreed, stating that "we have had one, two, three years of adoption pulled forward into a couple of quarters".[9]

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5   'Lessons from a year of COVID', *Financial Times* (26 February 2021): available at https://www.ft.com/content/f1b30f2c-84aa-4595–84f2-7816796d6841 [accessed 13 April 2021]

6   Ofcom, 'UK's internet use surges to record levels' (24 June 2020): https://www.ofcom.org.uk/about-ofcom/latest/media/media-releases/2020/uk-internet-use-surges [accessed 3 March 2021]

7   Deloitte, 'Lasting lockdown habits: a new digital consumer?' (August 2020): https://www2.deloitte.com/uk/en/pages/technology-media-and-telecommunications/articles/digital-consumer-trends-lockdown-behaviour.html [accessed 11 February 2021]

8   Microsoft, '2 years of digital transformation in 2 months' (30 April 2020): http://www.microsoft.com/en-us/microsoft-365/blog/2020/04/30/2-years-digital-transformation-2-months/ [accessed 13 April 2021]

9   Q 36 (Benedict Evans)

8. Public service delivery has been transformed: in the first two weeks of the initial COVID lockdown, the number of court cases held as video calls in England and Wales rose by 800 per cent (although this has not prevented a serious backlog in court cases),[10] and some local authorities have reported a 700 per cent increase in digital library subscribers.[11] Research by the Royal College of General Practitioners (RCGP) found that "at the peak of the pandemic … around 71 per cent of GP consultations were conducted remotely by telephone or video", compared to 25 per cent for the same period last year.[12]

9. While these changes arose as a result of the pandemic, having now adapted our behaviour (and invested in the technology) there is no going back. While most of us may be keen to return to face-to-face socialising as soon as possible, and to visit cinemas and football stadiums in real life rather than virtually, those who have found online shopping and healthcare appointments more convenient will want to continue with those services, and businesses that have automated their processes will not turn back. A survey conducted by the British Medical Association (BMA) found that nine in ten GPs want to continue to deliver consultations remotely when the pandemic has ended,[13] and 60 per cent of those who used online banking more during lockdown say they will continue to do so once restrictions have lifted.[14]

10. What became clear to us in the course of our inquiry is that the world is now hybrid: not a binary of online or offline, but more and more aspects of our lives incorporating a mix of both. And this means we—society, Government, individuals—can no longer think about 'digital' as being something separate, but must recognise that the online and offline worlds are increasingly blending together and consider the opportunities and risks to our wellbeing in that context, including the policy implications for government.

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10 Deloitte, 'An emerging legacy: How COVID-19 could change the public sector': https://www2.deloitte.com/uk/en/pages/public-sector/articles/an-emerging-legacy-how-corona-virus-could-change-the-public-sector.html [accessed 11 February 2021]

11 'Digital library subscriptions increase as government lockdown continues', *The Independent* (3 April 2020): https://www.independent.co.uk/arts-entertainment/books/news/library-digital-subscriptions-uk-online-coronavirus-lockdown-a9446276.html [accessed 11 February 2021]

12 Royal College of General Practitioners, *RCGP survey provides snapshot of how GP care is accessed in latest stages of pandemic* (30 July 2020): https://www.rcgp.org.uk/about-us/news/2020/july/rcgp-survey-provides-snapshot-of-how-gp-care-is-accessed-in-latest-stages-of-pandemic.aspx [accessed 11 February 2021]

13 Pulse, 'Nine in 10 GPs want to continue with remote consultations after coronavirus' (9 June 2020): https://www.pulsetoday.co.uk/news/uncategorised/nine-in-10-gps-want-to-continue-with-remote-consultations-after-coronavirus/ [accessed 11 February 2021]

14 Deloitte, 'Lasting lockdown habits: a new digital consumer?' (25 August 2020): https://www2.deloitte.com/uk/en/pages/technology-media-and-telecommunications/articles/digital-consumer-trends-lockdown-behaviour.html [accessed 11 February 2021]

Box 1: What do we mean by hybrid?

A hybrid world is one that embraces the flexibility that remote working and virtual interaction can offer, with the recognition that we want and need public and private spaces in our communities to meet face-to-face, deepen relationships and socialise with friends and relatives, as well as to benefit from the enhanced learning, collaboration, invention and innovation that direct human interaction brings It would, for example, mean harnessing the power of technology to make education and employment more accessible to disabled people, while ensuring the efficiency that can come from digitalisation does not limit people's opportunities to receive health and mental health services and support in-person. However a hybrid world cannot be inclusive nor offer equal opportunity to all unless everyone has the necessary broadband speeds, digital devices and skills to live and work online—a potentially transformational step for both the economy and inequality, reducing the barriers to employment and learning that many currently experience, but which will not occur without government intervention.

The need for a new strategic approach

11. The hybrid world is not new, but the COVID pandemic has pushed us over a tipping point between the digital and non-digital worlds. As such, we must now develop policies and interventions that are suitable for an increasingly hybrid (also referred to by many as blended) world to ensure that we harness the full potential of digital technology to improve wellbeing. This will require a significant shift in the UK Government's policy and action, thinking and attitude about digital. We welcome the fact that Ministers have already acknowledged that their current *Digital Strategy*, published in 2017, does not reflect "the new post-COVID reality"[15] and have committed to a new strategy which they "are currently working towards publishing in 2021."[16]

12. We believe that the Government's new strategy must be a hybrid strategy which recognises the impact of digital technology on all aspects of public policy. All government departments must be mindful of both the positive and potentially negative impact of digital technology in developing policies, strategies and interventions.

Box 2: What do we want to see in a hybrid strategy?

The Government must be alive to the risk that any increasing role for digital technology, particularly in developing policy interventions and providing essential services, may reinforce existing inequalities. As such, the hybrid strategy must maximise the opportunities offered by digital technology to improve wellbeing for all, for example, by improving access to jobs , healthcare and other essential services for those who find it hard to leave their homes or who live in more remote areas, and by building a cohesive relationship between offline and online services to ensure access for all.

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15   Digital Secretary Oliver Dowden, Speech to the UK Tech Cluster Group, 23 June 2020: https://www.gov.uk/government/speeches/digital-secretarys-closing-speech-to-the-uk-tech-cluster-group [accessed 23 February 2021]

16   Written Answer, 129989, Session 2019–21

> The hybrid strategy must also acknowledge and emphasise the importance of face-to-face services and interactions. As Professor Robin Dunbar, Professor of Evolutionary Psychology at Oxford University, explained:
>
> > "All our research points to the fact that nothing replaces face-to-face interactions… nothing on earth ever replaces face-to-face. If you do not meet up from time to time face-to-face, nothing in the digital world will stop that relationship eventually becoming an acquaintanceship."[17]
>
> The hybrid strategy must ensure that underpinning the relationship between offline and online services must be an acknowledgement of our minimum rights—as patients, students, workers and individuals—to have a real say in whether online or offline is most suitable.
>
> The hybrid strategy must also be underpinned by a commitment to tackle those barriers to digital access, digital skills and digital confidence that will otherwise leave parts of our society behind.

13. Our approach to the hybrid world will be critical to the nation's future economic and social wellbeing. While various government departments have specific responsibilities—the Department for Digital, Culture, Media and Sport (DCMS) was responsible for the Government's Digital Strategy, the Department for Education was responsible for developing guidance on remote education during the pandemic, the Department for Health and Social Care was responsible for implementing digital healthcare services at pace—the new hybrid strategy must be at the very heart of Government. We believe that responsibility for the strategy, in common with other critical, cross-cutting issues, should sit with the Cabinet Office and the Prime Minister, in recognition that this is about much more than 'computers' and 'the internet' but affects every aspect of our lives and every Government department. This central oversight can also ensure that the impact of digital technology and the hybrid strategy on existing inequalities is assessed and evaluated holistically across government.

14. In the chapters that follow, we make a number of recommendations for what the Government should include in a hybrid strategy, and also highlight other areas of policy and legislation that we have found will need to be updated to reflect the post-pandemic, hybrid reality.

15. *While we welcome the UK Government's commitment to developing a new Digital Strategy, we believe that it must go far beyond the traditional silo of 'digital' and recognise that all aspects of our lives are, and will increasingly be, a hybrid blend of online and offline interactions. In common with other critical issues that affect all Government departments, and that are embedded into all aspects of government policy, responsibility for a new hybrid strategy, and developing a wider hybrid approach, should sit with the Cabinet Office and the Prime Minister. This central oversight of the hybrid approach should ensure the consideration of its impact on inequality and the evaluation of what services should be delivered remotely or face-to-face.*

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17   Q 72 (Professor Robin Dunbar)

CHAPTER 2: OVERARCHING THEMES

16.   Our inquiry focused on those aspects of our lives that are known to have an impact on our wellbeing: mental and physical health, social interaction, work and education. However, witnesses raised other, overarching, issues which will be critical to the Government's new hybrid strategy:

- Digital inequality;

- Skills and training;

- Data and research;

- Co-operation;

- Resilience; regulation and rights; and

- Online harms.

17.   Unless comprehensive action is taken to address these issues, with government interventions to maximise the opportunities and mitigate the risks, our hybrid world will neither achieve its full potential nor serve the interests of all, and instead will leave many behind.

Digital inequality

What is digital inequality?

18.   There is no simple, universal definition of digital inequality, and many organisations have moved from defining individuals as simply internet 'users' or 'non-users' to exploring different levels of internet use and digital skills. Many organisations use the term digital exclusion which, at its most basic level, describes the experiences of those people who lack full access to digital technologies. We prefer to discuss digital inequality, as we believe that it captures the wider implications, for issues such as health, education and work, of inadequate digital access.

19.   Tackling digital inequality is vital to ensure that the hybrid world is accessible to all. Without adequate broadband access, digital devices, digital competence, confidence and skills, there will be no really inclusive hybrid world and existing inequalities will be exacerbated. Moreover, it is also vital to acknowledge that people's past experiences of public services will impact their willingness and ability to access digital services. Those who are digitally included will be able to access services both offline and online, and those who are digitally excluded will be left behind. This cannot be allowed to happen. The Government's new hybrid strategy must urgently tackle digital inequality.

20.   The Cambridge Centre for Housing and Planning Research (CCHPR) emphasised that rather than thinking of the digital divide as a binary issue, it is better to think about digital inclusion and exclusion as a spectrum of digital engagement from internet access, to skills, to being able to make use of online resources for beneficial outcomes.[18] It explained that even where people have the necessary skills to use online resources, access to the internet is differential, with some people restricted by their broadband speed, and others restricted by the type of device they own: using a phone to write

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18   Written evidence from Cambridge Centre for Housing and Planning Research (LOL0008)

essays or write job applications is almost inevitably less effective than using a desktop computer. Douglas White, Head of Advocacy at Carnegie UK Trust, agreed, emphasising that "digital exclusion/inclusion is not a binary thing; if it ever was, it certainly is not now."[19] Douglas explained that there are multiple different aspects to digital exclusion, and that different aspects will be more or less important for different households:

> "For some households, getting access to work will be critically important. For others, it might be getting access to education, or being socially engaged."[20]

21.   The CCHPR also highlighted the links between digital inequality and wider inequalities, stating that of the eight million people in the UK who do not use the internet, 90 per cent suffer from other kinds of economic or social disadvantages.[21] It went on to explain that those people who experience digital inequality are more likely to be in the lowest income bracket and/or be disabled with long-standing health conditions.

The scale of the problem

22.   Ian Macrae, Director of Market Intelligence at Ofcom, stated that "11% of households do not have internet access" (which equates to 2.8 million households) and of these approximately 10 per cent or 280,000 households, cannot afford internet access.[22] Ian went on to explain that over 95 per cent of the population live in areas where superfast broadband is available,[23] but that take-up is relatively low, with approximately two-thirds of those with broadband having superfast broadband. Professor Jason Whalley and Dr Volker Stocker explained that some premises are unable to receive 'decent' broadband:

> "At the end of 2019, Ofcom reported that 610,000 premises fall into this category, with 449,000 of them being in rural areas. This equates to 10% of all rural premises. While the number of premises unable to receive 'decent' broadband has fallen to 590,000 in May 2020 it remains stubbornly high."[24]

23.   This variation in people's ability to access the internet is also seen in the data that shows that one in five households with one adult aged 65 and over does not have an internet connection,[25] and only half of households earning £6,000–10,000 a year have access[26] (approximately 2.3 per cent of households earn between £6,000–10,000).[27]

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19   Q 2 (Douglas White)
20   *Ibid.*
21   Written evidence from Cambridge Centre for House and Planning Research (LOL0008)
22   Q 2 (Ian Macrae)
23   *Ibid.*
24   Written evidence from Professor Jason Whalley and Dr Volker Stocker (LOL0071)
25   *Ibid.*
26   Cambridge Centre for Housing and Planning, 'Pay the WiFi or Feed the Children: Coronavirus has Intensified the UK's Digital Divide': https://www.cam.ac.uk/stories/digitaldivide [accessed 11 February 2021]
27   Office for National Statistics, 'Average Household Income UK: Financial Year 2020' (21 January 2021): https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/bulletins/householddisposableincomeandinequality/financialyear2020 [accessed 22 March 2021]

24. Having an internet connection does not stop someone being digitally excluded. In 2018, 10 per cent of the adult population were "internet non-users."[28] One recent analysis suggested 9 million people are unable to access the internet by themselves and 11.7 million lack the digital skills for everyday life.[29] Again, these overall figures mask significant variations between different sections of the population: people with an annual income of £50,000 or more, for example, are 40 per cent more likely to have basic digital skills than those earning less than £17,499,[30] and nearly half of 'non-users' have a disability or long-standing health issue.[31]

25. To be able to fully participate in a society where work, education, healthcare, banking, council services etc are accessed online, each individual needs access to a suitable device. Nine per cent of households with children only have access to the internet through a smartphone,[32] and a survey by the Sutton Trust found that 15 per cent of teachers in the most deprived schools said that more than a third of their students did not have adequate access to an electronic device for home learning, compared with 2 per cent of teachers in the most affluent schools.[33]

Box 3: Digital technology and inequalities

We have found that technological ways to connect digitally have been an absolute lifeline to many of the people we have supported throughout Covid, and it has been completely devastating for people who have not had digital access … Many of the people we have supported have said that they do not know where they would be without WhatsApp, Skype, Zoom or whatever it is. Honestly, they really worry that they would not be here any more, that they would not have been able to cope and survive and get through this.

[Refugees and asylum seekers] living on £39 a week, you often cannot afford data or access to digital devices, and the people we are supporting are often choosing between food and digital access. They see the two as equally important throughout this pandemic, and it is pretty shocking that people are having to make that decision.

Children from disadvantaged households or poorer households have less access to digital devices and a quiet place to study, they are participating in fewer hours of online learning, and they have less face-to-face online contact with teachers than their peers. So across a range of indicators we are seeing the gap widening between disadvantaged children and their peers.

Source: Q 68 (Olivia Field), Q 71 (Olivia Field) and Q 114 (Natalie Perera)

Why this matters: the impact on wellbeing

26. While those from marginalised and less advantaged groups are more likely to lack digital access, digital inequality also compounds marginalisation and

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28 Office for National Statistics, 'Exploring the UK's Digital Divide' (4 March 2019): https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigitaldivide/2019–03-04 [accessed 11 February 2021]

29 Lloyds Bank, *UK Consumer Digital Index 2020* (May 2020): https://www.lloydsbank.com/assets/media/pdfs/banking_with_us/whats-happening/lb-consumer-digital-index-2020-report.pdf [accessed 11 February 2021]

30 *Ibid.*

31 Written evidence from Just Fair (LOL0035)

32 *Ibid.*

33 The Sutton Trust, 'COVID-19 Impacts: School Shutdown' (20 April 2020): https://www.suttontrust.com/our-research/covid-19-and-social-mobility-impact-brief/ [accessed 3 March 2021]

disadvantage. As Helen Milner, Group Chief Executive of the Good Things Foundation, explained, digitally excluded individuals cannot apply for work online and so are excluded from the majority of employment opportunities, and cannot manage their finances online and are excluded from the financial and advice services that are made available online.[34] A number of witnesses, including Parkinson's UK, the Addressing Poverty with Lived Experience collective (APLE) and the Royal College of Physicians (RCP)[35] raised concerns about unequal access to healthcare, leading to further exacerbation of existing health inequalities. Being unable to access the same online learning resources as their more advantaged peers will also widen the educational attainment gap for disadvantaged students.

Box 4: Digital inequality in rural communities

Three groups of rural residents are more likely to be digitally excluded than others. The first group are those older residents who have not had the opportunity to acquire digital skills, though this is a group which is diminishing in size … The second group are residents on a low income who find it hard to afford IT equipment and connection charges … The third group is young people who continue to be the most isolated/lonely members of our communities generally and this is amplified further in rural areas where there are less things for young people to do.

Source: Written evidence from Rural Services Network (LOL0038)

27.   While the trend for digital-only payments existed pre-pandemic, this has been exacerbated both by a wariness of cash for hygiene reasons and an increasing reliance on digital technology more generally. Any increasing reliance on digital technology for shopping, such as online shopping and contactless payment methods, may lead to those who are restricted to cash payments having narrower and more expensive choices. This is a serious issue, as a survey by Which found that 10 million people in the UK rely on being able to pay with cash and 1.2 million people do not have a bank account.[36]

28.   **The COVID-19 pandemic has highlighted and exacerbated the deep inequalities that have existed in society for some time. Digital inequality is one vivid example of this.**

29.   **Throughout our inquiry, we have heard concerns that our increasing reliance on digital technology is having a detrimental impact on certain groups and communities, and is leading to some people being left behind. This cannot be allowed to continue. There are more analytical tools for Government to measure the unequal impact of digital technology than ever before, and we believe that the Government must use these analytical tools to understand which groups and communities are, or are not, using digital technology. This data must then be used to develop specific programmes to ensure that all groups and communities have the opportunity to benefit from**

34   Q 2 (Helen Milner)
35   Written evidence from APLE (LOL0031), Parkinson's UK (LOL0045) and Royal College of Physicians (LOL0073)
36   'More than a third of UK shoppers blocked from paying with cash in Covid-19 crisis', *The Guardian* (19 January 2021): https://www.theguardian.com/business/2021/jan/19/uk-shoppers-paying-cash-covid-19-crisis [accessed 22 March 2021]

the increasing use of digital technology, and that the hybrid world is one that tackles, rather than exacerbates, existing inequalities.

30. *The Government should ensure that using digital technology to tackle existing inequalities is a key strand running through its new hybrid strategy. It should also publish a detailed equality impact assessment alongside its strategy, explaining the effect of its plans on different communities and how it will mitigate any negative consequences identified.*

Possible solutions

31. The most obvious way, perhaps, to tackle digital inequality is to ensure everyone has access to an internet connection and a suitable device on which to use it, and providing universal and affordable access to the internet is one of the targets for developed countries in the United Nations Sustainable Development Goals. While we welcome the UK Government's consultation on *Improving Broadband for Very Hard to Reach Premises*,[37] we believe that much more needs to be done to ensure that everyone can access the internet.

32. The Centre for Ageing Better suggested that national government and local authorities should commit to universal access to the internet by working to expand access to broadband, data/telephone packages, and to computer and IT packages, in particular for individuals and families on low incomes who have the greatest need and are most likely to be digitally excluded.[38] Dr Merten Reglitz, from the University of Birmingham,[39] Professor Abigail Marks et al,[40] and the CCHPR[41] all argued for the internet being a universal entitlement and for financial support from Government to provide access to those who cannot afford it. Parent Zone argued Child Benefit should be adapted to include a grant to enable families to pay for internet access,[42] and Helen Milner stated that a quick solution to tackle digital inequality would be to ensure that people receiving Universal Credit have an element added to their welfare benefit to pay for broadband access.[43]

33. As reflected above, providing everyone with an internet connection will not be enough to tackle digital inequality; as the Centre for Ageing Better stated:

    "Making sure digital services are accessible and providing access to equipment and the internet will not be effective if people cannot use the technology or if they see tech as a barrier."[44]

34. The Good Things Foundation noted that a Great Digital Catch Up, costing £130m over four years, could help 4.5 million people to get online and get the skills they need for work, effectively halving the digital divide.[45] It explained

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37   Department for Digital, Culture, Media and Sport, *Improving Broadband for Very Hard to Reach Premises* (19 March 2021): https://www.gov.uk/government/consultations/improving-broadband-for-very-hard-to-reach-premises [accessed 22 March 2021]
38   Written evidence from Centre for Ageing Better (LOL0051)
39   Written evidence from Dr Merten Reglitz (LOL0074)
40   Written evidence from Professor Abigail Marks et al (LOL0070)
41   Written evidence from Cambridge Centre for Housing and Planning Research (LOL0008)
42   Written evidence from Parent Zone (LOL0039)
43   Q 14 (Helen Milner)
44   Written evidence from Centre for Ageing Better (LOL0051)
45   Written evidence from Good Things Foundation (LOL0080)

that:

> "This would be run through our existing network of hyper-local partner organisations, so it could be rolled out quickly at scale by people who know—and are trusted by—their communities. Many of our centres already work with users from disadvantaged backgrounds, but they require more funding so that they can reach more people."[46]

35. Richard Hart, Deputy Head of the Library Service at Leeds City Council, noted that the council is exploring how to take a public library and turn it into a digital hub. Richard explained that:

> "Currently, on average, only 60% of the slots that are available on our public access PCs are utilised, so there is capacity there to increase their use. For me, it is then about the advocacy of getting more people in, pushing and promoting the service that is available, and the motivations for people to engage."[47]

36. CCHPR also mentioned using libraries, community centres, education settings, volunteers and local digital champions to provide digital access and support for people to begin to develop their digital skills.[48] The Good Things Foundation has worked with the NHS to establish 'digital health hubs' embedded in local communities, providing advice, support, and training specifically around digital healthcare.[49]

37. DCMS told us that, in August 2020, the Government introduced a new legal entitlement in England to fully funded digital qualifications, at entry level and level 1, for adults with no or low digital skills.[50] The new entitlement mirrors the existing legal entitlements for English and maths, with DCMS stating that it will provide adults with the digital skills needed for life and work. It went on to explain that alongside the entitlement, the Government has introduced new essential digital skills qualifications (EDSQs) based on new national standards for essential digital skills.

38. **In today's society, home broadband is an essential utility in the same way as water or electricity: without it, people are excluded from employment opportunities and access to vital services. No one should be without access to the internet for reasons of cost or location.**

39. *We urge the Government to consider introducing a legal right to internet access and digital infrastructure, which is regulated in a way that gives individuals a suitable right to redress. We note that the Digital Economy Act 2017 included the creation of a broadband Universal Service Order, giving all premises in the UK a legal right to request a minimum standard of broadband connectivity.*

40. *However, to tackle the immediate lack of digital access we believe that just as those in receipt of income-related benefits can access social tariffs and additional payments to help cover water and electric bills, as part of its new hybrid strategy, the Government*

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46   *Ibid.*
47   Q 14 (Richard Hart)
48   Written evidence from Cambridge Centre for Housing and Planning Research (LOL0008)
49   Written evidence from Good Things Foundation (LOL0080)
50   Written evidence from the Department of Digital, Culture, Media and Sport (LOL0122)

should work with internet providers to develop a scheme to provide affordable internet, and suitable, safe devices (not necessarily just a smartphone), on which to use it, to those in poverty and on low incomes.

41. **We welcome the UK Government's introduction of a legal entitlement to digital skills training in England, and agree that such skills are now as essential as basic literacy and numeracy. Undertaking formal qualifications, however, will not be the right solution for everyone.**

42. *The Government must make a commitment (and an ambitious target) to improve digital literacy central to its new hybrid strategy, and work with charities, skills providers and local authorities to deliver a comprehensive digital skills programme, informed by the knowledge these organisations have about how to meet effectively the varied needs of different communities.*

Skills and training

43. Moving beyond basic literacy, witnesses repeatedly emphasised the need to address the 'digital skills gap' in order for individuals and businesses to perform successfully in the hybrid world.[51]

44. The Lloyds UK Consumer Digital Index 2020 highlighted that half of the current workforce lack digital skills in the workplace.[52] The Good Things Foundation emphasised that, as 82 per cent of jobs advertised now require digital skills, this "urgently needs to change"[53] and the Open University agreed, arguing that the current and future workforce require access to training that covers both basic and more complex digital skills needs.[54]

45. Witnesses highlighted how a variety of digital trends were radically reshaping the types of jobs available in different sectors (an issue we return to in Chapter 5), and the skills required by employers. Verity Davidge, Director of Central Policy at Make UK, told us that employers were keen to support those whose jobs would be lost to retrain and take on the new, more highly-skilled roles, being created, but that this would require the right policy levers to be in place and recommended a lifelong digital skills account for individuals.[55] Verity noted that, at some point in their lives, all workers will need access to digital skills, and that while there are a range of Government initiatives aimed at addressing this—intensive training courses, lifetime skills guarantees—what individuals and employers need most is the ability to tap into a set pot of funding at the point that they need it.[56] The Sutton Trust stressed the need for young people heading into the workplace to be adequately prepared, arguing that the changing skills requirements of employers should be reflected in what young people are taught.[57] It emphasised that the combination of learning and 'on the job' experience provided by an apprenticeship is particularly effective when it

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51   For example, written evidence from The Good Things Foundation (LOL0080) and Centre for Ageing Better (LOL0051) and Q 34 (Dr Ruth Chambers).

52   Lloyds Bank, *UK Consumer Digital Index 2020* (May 2020): https://www.lloydsbank.com/assets/media/pdfs/banking_with_us/whats-happening/lb-consumer-digital-index-2020-report.pdf [accessed 12 February 2021]

53   Written evidence from The Good Things Foundation (LOL0080)

54   Written evidence from The Open University (LOL0090)

55   Q 87 (Verity Davidge)

56   *Ibid.*

57   Written evidence from The Sutton Trust (LOL0048)

comes to adapting skills training to the needs of a fast-moving economy, and stressed the importance of such opportunities being open to people from all backgrounds.

46. Scope highlighted that only 38 per cent of disabled people have the digital skills needed for work[58] and that disabled people were 40 per cent less likely to have received digital skills support from their workplace.[59] Combined with the fact that they are more likely to be working in the sectors most vulnerable to technological change,[60] this suggests that specific action is needed to address this skills gap.

47. We also heard how the pandemic has exposed an urgent need to increase digital skills in a number of professions, as an increasing amount of their work moved online for the first time. Dr Farah Jameel, Executive Member of the General Practitioners Committee at the BMA, for example, told us that its members believe that "training is a huge problem".[61] Dr Jameel described how:

> "Training in the use of simple tech, the day-to-day stuff that we use, is put to one side: you sit in a quiet place and complete a module, and then just crack on with it. If I cast my mind back to when I was learning as a GP trainee, I had exposure to one system, but actually there are four key GP systems out there. Using it is very different from being able to draw helpful insights, to be able to gain maximum support and advice and derive the best out of that system.[62]"

48. Professor Kate Cavanagh, Professor of Clinical Psychology at the University of Sussex, also emphasised the importance of digital training for healthcare professionals:

> "there are also barriers such as the limited rollout of training for healthcare staff on digital working and a need for greater support, upskilling and confidence-building in that area. NHS colleagues have been remarkable during the Covid pandemic, but that is an acute response to meet the needs of the communities they serve. In a slightly longer timeframe, more deliberate and planned training and support are needed."[63]

49. Richard Sheriff, President of the Association of School and College Leaders, suggested that there was a need for digital skills to be a core requirement in the training of teachers as "you cannot be a teacher unless you are a digital teacher."[64]

50. ***The Government should put investment in digital skills at the heart of its new hybrid strategy and ensure that both the school curriculum and adult skills provision adequately meets the needs of the hybrid world. One element of this should be the development of a new Digital Skills for Work Framework for England (and ideally in agreement with Scotland, Wales and Northern Ireland), to tackle the radically altered employment landscape resulting from the***

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58   Written evidence from Scope (LOL0094)
59   Q 92 (James Taylor)
60   Written evidence from Scope (LOL0094)
61   Q 34 (Dr Farah Jameel)
62   *Ibid.*
63   Q 51 (Professor Kate Cavanagh)
64   Q 117 (Richard Sheriff)

>*COVID-19 pandemic. The Framework must consider the different requirements of different communities and include specific action to tackle the low levels of digital skills amongst disabled people.*

51. **While we understand that many workplaces, including health settings and schools, were required to introduce online services urgently during the COVID-19 pandemic, we believe that it is unacceptable to expect people to continue to provide digital services without adequate training and resources.**

52. *The Government should work with training providers and professional bodies to ensure that both the initial training of workers such as teachers and medical professionals and their Continuing Professional Development reflects how digital technology will be an integral part of their working lives.*

Data and research

53. Just as digital inequality will prevent individuals and society from realising the potential benefits of a hybrid world, unless we have a robust evidence base to help us understand the impact of digitalisation on different communities, and the effectiveness of different digital services and interventions, we will not be able to make the most of the digital future. Throughout our inquiry, we have identified a lack of research on certain topics, particularly in analysing the experiences of different communities. This lack of data and research is particularly problematic when we consider that people from Black and Asian communities and disabled people have been disproportionality affected by COVID-19 and suffered from COVID mortality rates that have been significantly higher than that of the general, working age population.[65]

54. There is a lack of detailed data about the workplace experiences of various communities, for example. In response to a question from the Committee asking about data on the experiences of Black and minority ethnic people, and the extent to which they may be disadvantaged by technological developments in the workplace, Josh Abey, a researcher at the Fabian Society, noted that:

     > "One of the surprising things about the ONS dataset that I have referenced, which picks apart some of these inequalities, is that it did not have an accompanying analysis of the breakdown of risk for different ethnic minority groups."[66]

55. Responding to a question from the Committee about research on the impact of different working conditions on people from Black, Asian and minority ethnic groups, Anna Thomas, Director of the Institute for the Future of Work, stated that "there certainly needs to be a lot more research,"[67] and Fabian Wallace-Stephens, Senior Researcher at the RSA, suggested that:

     > "It would be very interesting to explore in your recommendations how we can improve data collection in understanding the challenges for this group of workers."[68]

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65 'Higher COVID Among BAME People 'Not Driven By Health Issues'', *The Guardian* (16 October 2020):   https://www.theguardian.com/world/2020/oct/16/bame-people-more-likely-to-die-from-covid-than-white-people-study [accessed 1 March 2021]
66 Q 86 (Josh Abey)
67 Q 95 (Anna Thomas)
68 Q 86 (Fabian Wallace-Stephens)

56. We were also struck by the lack of evidence about women's experiences during the COVID pandemic, outside of data relating to employment. The research that has been done suggests that women's well-being was more negatively affected than men's,[69] and that women who are parents have faced particular challenges (an issue we will be considering as part of our next inquiry).

57. Another significant research gap flagged by witnesses was the lack of a robust system for evaluating digital healthcare interventions in England. Tom Foley, Honorary Senior Clinical Lecturer at Newcastle University, emphasised the importance of evaluating the impact of digital interventions, and how this impact can change over time:

> "Evaluation is huge. In the case of drugs, for example, in the past we could say that a drug was a drug, it was the same here as it was there and it was not going to change over time, whereas these digital interventions are evolving over time."[70]

58. Tom Foley explained that if a large randomised control trial of a digital intervention, such as an app, was undertaken, by the time the results were published, the app might have changed completely and the trial would not show if it was still safe or effective.[71] As a result, Tom suggested that new methodologies are required for assessing the effectiveness, safety and cost-effectiveness of digital interventions. Tom went on to explain that as digital interventions often generate data, that data could be harnessed to run more agile clinical trials, allowing researchers to develop a quicker system for learning from the patients who have used these interventions.[72] Professor Cavanagh agreed that agile clinical trials are vital to evaluate the impact of digital interventions, but also noted that:

> "In digital mental health research, we already have quite a rich history of high-quality evaluation of individual tools in a research context. Where we see the gap is in taking that evidence base and implementing it in broadly disseminated real-world practice."[73]

59. Professor Cavanagh went on to explain that the key missing piece in the evidence base at present was the evidence to support the implementation of digital interventions at scale and suggested that more research is required on ensuring that the implementation of digital interventions is effective in practice.[74]

60. **Throughout our inquiry we identified a lack of research on specific issues. We noted that there was insufficient evidence about the experiences of women, and that there was a striking gap in research on the experiences of Black and Asian communities. These communities have been disproportionately affected by COVID-19, and we cannot allow people to be further marginalised because policies and interventions designed to prepare for the hybrid world have not been developed to meet their needs. It is only by having**

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69 European Parliament, 'Understanding COVID-19's Impact on Women' (1 March 2021): https://www.europarl.europa.eu/news/en/headlines/society/20210225STO98702/understanding-the-impact-of-covid-19-on-women-infographics [accessed 13 April 2021]
70 Q 52 (Tom Foley)
71 *Ibid.*
72 *Ibid.*
73 Q 52 (Professor Kate Cavanagh)
74 Q 53 (Professor Kate Cavanagh)

comprehensive data, and using the right analytical tools, about the experiences of different communities, and particularly Black and Asian communities, that the Government can formulate policies that are inclusive and deliver for all. As such, we must emphasise that the Government's new hybrid strategy can only be effective if there is sufficient, accurate data and research to underpin it.

61. *The Government should work with UK Research Councils and Higher Education funding bodies to identify and address gaps in the evidence base for both how our increasingly hybrid world is impacting on different communities, and on the effectiveness of policies and interventions developed in response to the digital future. The lack of data on Black and Asian communities' experiences, alongside those of other minority ethnic communities, should be a particular priority.*

62. There is no doubt that digital technology is playing an increasing role in the provision of healthcare services, and will continue to do so. While we welcome the potential for digital technology to allow patients to monitor their own health and for the NHS to develop innovative medical treatments, witnesses consistently told us that there were no clear processes in place for developing, evaluating and implementing these digital healthcare interventions. Without a robust evaluation method it will be very difficult to decide which interventions should be scaled-up and rolled-out nationally, risking some ineffective interventions being rolled-out and some effective interventions not being rolled-out.

63. *The Government should ensure that the processes in place to develop, test and evaluate digital health interventions are as robust as those used for physical health interventions.*

Working in collaboration

64. A common theme across all our evidence sessions was the very different impact that increasing digitalisation has on different people and that the Government's response to the hybrid world cannot assume 'one size fits all'. In recognition of this, many witnesses emphasised the importance of actively working with communities to produce policies and interventions that meet their specific needs.[75]

65. Douglas White emphasised the importance of taking an approach based on co-operation to develop interventions to tackle digital inequality, stating that it is vital to work with individuals, communities and organisations that have been supporting those communities.[76] Douglas explained that as the impact of digital inequality will be different in different communities, the solutions will also be different, and the most suitable solutions can only be developed in collaboration with specific communities.

66. Witnesses argued that digital healthcare services should be co-designed with patients, with Chris McCann, Director of Communications, Insight and Campaigns at HealthWatch England, emphasising the importance of ensuring that new systems are designed for everyone, and that any new

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75 For example, Q 8 (Douglas White), written evidence from Dr Hannah Marston et al (LOL0017) and Q 43 (Professor Charlie Foster).

76 Q 8 (Douglas White)

system is as inclusive, legible, readable and accessible as possible.[77] Chris went on to note that "the people who need the services the most are often the people who find them the hardest to use."[78] As such, Chris suggested that a key factor when scoping and designing new processes or applications is to consider the needs of those who will be using the new services. Dr Pritesh Mistry, Policy Fellow for Digital Technology at the King's Fund, suggested that "there is a lot of value in co-developing our tools at a local level."[79] Dr Mistry explained that local co-operation is a vital opportunity to consider local demographic needs, how the demographic will change in the future, and to ensure that the digital tools can react to those changes. The Ada Lovelace Institute believed that it would be valuable to reach out to communities who are likely to disproportionately face health inequalities and to be under-represented in existing policy spaces e.g. Black, Asian and minority ethnic communities, LGBTQ+ and disabled communities, to actively solicit their opinions alongside wider public engagement.[80]

67. **We agree with those witnesses who emphasised the importance of working with the intended audience when developing new skills initiatives and new technology, as well as the innovative use of existing tools and technologies. A single approach to tackling digital inequality or the digital skills gap is bound to fail. Communities have a wealth of knowledge about what will work best for their members, and it is by listening to their views and experiences that we can ensure that interventions will have the biggest, and best, impact.**

68. *In its hybrid strategy, the Government must commit to listening to the views and experiences of communities and working with them to discuss, develop and implement solutions that meet their needs.*

Resilience, regulation and rights

69. Beyond merely reflecting the reality of the post-lockdown world, we believe that the hybrid approach can also be a cornerstone for building resilience into the economy, as a strong, vibrant economy will naturally develop a reliance on a mix of face-to-face and remote employment, service provision and trade. While market conditions may determine the balance of remote and workplace working for individual firms and individual employees, companies will need to build resilience to market disruption by a further pandemic or local lockdowns. For example, if a company usually has 40 per cent of its staff working remotely and 60 per cent working in an office, it should be able to move seamlessly to have 80 per cent or more of its staff working remotely if required.

70. Our increasing reliance on digital systems and infrastructure makes their resilience increasingly important. Much of the evidence below discusses the resilience of large-scale digital infrastructure, but for most of us, the resilience of our home broadband or mobile data is just as important. At an individual level a platform worker whose internet connection goes down cannot work and loses that day's pay. A small business or service delivered online cannot operate if its internet service is interrupted. At the other end of the scale, financial transactions rely on internet services almost

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77   Q 31 (Chris McCann)
78   *Ibid.*
79   Q 30 (Dr Pritesh Mistry)
80   Written evidence from Ada Lovelace Institute (LOL0105)

universally and during the COVID pandemic most organisations relied on staff being able to connect online. There are a variety of threats to this digital infrastructure. The UK Government's Integrated Review of Security, Defence, Development and Foreign Policy [81] recognised the importance and vulnerability of undersea critical infrastructure (the cables that connect the internet across continents). At the start of the pandemic as so many services moved online, there was concern about the capacity of the system to cope with the volume of data being sent through the internet. In addition, there is the constant vulnerability to cyber-attacks from malign actors or hostile nations (the WannaCry cyber-attack was not specifically aimed at the NHS, but nonetheless led to the cancellation of 19,000 appointments, the loss of patient data and £72 million being spent on restoring IT systems).[82]

71.   Professor Helen Margetts, Programme Director for Public Policy at the Alan Turing Institute, emphasised that our increasing reliance on digital technology will mean that digital resilience also becomes increasingly important, stating that:

> "We really need to think about our digital resilience and how to protect it. A key part of that will be keeping it safe. We have to think about protecting digital infrastructure … in the same way as we would protect our water system."[83]

72.   On the other hand, Benedict Evans suggested that digital technology is already more resilient than other communication and information networks:

> "Of course, as the cliché goes, the internet was designed to withstand a nuclear attack. The internet is much less a point of failure than a TV network and half a dozen newspapers. It is thousands of companies and thousands of networks."[84]

73.   The Lords Select Committee on Risk Assessment and Risk Planning has taken evidence on the importance of broader digital risks and resilience, particularly compared to other national and international risk, with John Thornhill, from the Financial Times, stating that "the issue that I would most focus on is our vulnerability to cyberattack, because that can degrade so many other functions of our societies."[85] On the other hand, Dr Simon Beard, from the Cambridge Forum for Sustainability and Environment, emphasised that "we can have cyber vulnerabilities due to naturally occurring disasters, normal accidents and bugs in the system."[86] However, for those reliant on digital connections, the cause of any interruption of service is less important than the fact that the service has been interrupted.

81   HM Government, *Global Britain in a Competitive Age: The Integrated Review of Security, Defence, Development and Foreign Policy*, CP 403 (March 2021): https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/975077/Global_Britain_in_a_Competitive_Age-_the_Integrated_Review_of_Security__Defence__Development_and_Foreign_Policy.pdf [accessed 13 April 2021]

82   New Statesman Tech, 'The WannaCry Ransomware Attack Left the NHS with a £73m IT Bill' (12 October 2018): https://tech.newstatesman.com/security/cost-wannacry-ransomware-attack-nhs [accessed 1 March 2021]

83   Q 16 (Professor Helen Margetts)

84   Q 23 (Benedict Evans)

85   Oral evidence taken before the Risk Assessment and Risk Planning Committee, 13 January 2021 (Session 2019–21), Q 42 (John Thornhill)

86   Oral evidence taken before the Risk Assessment and Risk Planning Committee, 13 January 2021 (Session 2019–21), Q 42 (Dr Simon Beard)

74. As digital services become more complex, more universal and more interconnected, that complexity may become a source of instability and there is little doubt that the Internet of Things will potentially create more points of access and vulnerability. Dr Stephen Cave, from the Leverhulme Centre for the Future of Intelligence, explained that new technological innovations can also lead to new risks:

> "The new and emerging digital technologies are creating new forms of dependency on the internet, even specific applications like Google, or on infrastructure like the cell phone network. There is one thing in particular that I want to highlight … which is the way in which AI and related technologies might exacerbate existing vulnerabilities. As we use AI to automate processes in the healthcare system, the energy grid and other critical systems, we might be making those systems more complex, more opaque and difficult to oversee."[87]

75. Dr Cave went on to warn against considering risks too narrowly, and instead suggested that we should focus on whether:

> "undesirable outcomes, like the collapse of critical infrastructure, civil unrest or failure of the democratic process, become more likely because of the development of technologies like AI and the transformations it will bring."[88]

76. In discussing how the Government should mitigate against technological risks, Dr Beard explained that the national security risk assessment:

> "considers risks only in the immediate future. It is really looking at the things that we are expecting to happen now. Technological risks are risks that we need to act on now, but they are not going to reach their full extent for years to come … One of the really important things about the national security risk assessment is that it gives a lot of attention to attacks, a reasonable amount of attention to accidents and very little attention to systemic risks. A lot more attention needs to be given to systemic risks within this context."[89]

77. **In the hybrid world, a safe and reliable internet will become increasingly important for everyone—individuals, businesses, Government—and any threat to digital infrastructure will threaten our ability to work, access essential services, buy groceries online, and access our money through online banking. As such, it is vital that the Government takes action to protect our digital infrastructure from threats, such as cyber-attacks, in the same way that other aspects of Critical National Infrastructure are monitored and protected.**

78. *As part of its new hybrid strategy, the Government should commit to reviewing the resilience of the UK's digital infrastructure every two years and to report to Parliament on this review and the action being taken to ensure it is adequately robust for the hybrid world.*

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87   Oral evidence taken before the Risk Assessment and Risk Planning Committee, 13 January 2021 (Session 2019–21), Q 42 (Dr Stephen Cave)

88   Oral evidence taken before the Risk Assessment and Risk Planning Committee, 13 January 2021 (Session 2019–21), Q 43 (Dr Stephen Cave)

89   Oral evidence taken before the Risk Assessment and Risk Planning Committee, 13 January 2021 (Session 2019–21), Q 43 (Dr Simon Beard)

79. Benedict Evans suggested that "we should think of the internet as critical infrastructure in the same sense as the water system, the power system or the radio broadcasting system."[90] This dependence also speaks to the need for greater regulation, with Professor Margetts suggesting:

> "We have to be braver about it. We are very afraid when it comes to regulation and I think it comes back to the earlier cyber-utopian dreams about the internet, which was presented as something that should not be regulated. The digital platforms have far too much power in this space and it is something that we have to do …"[91]

80. We agree that as part of our critical infrastructure, the regulation of the internet is vital, and we suggest that the internet should be regulated in such a way as to ensure that it benefits us all, not just technology companies.

81. Beyond regulation, witnesses also emphasised the importance of considering "whether there are such things as digital rights."[92] In discussing digital rights, Hanna Johnson, Chief Operating Officer at Public, explained that: "We need to find a way to make sure that people are protected and can receive the public services that they should."[93]

82. We agree that providing individuals with digital rights is vital as we become increasingly reliant on digital technology to provide essential services. We believe that the Government must consider how to safeguard our digital rights, and how these interact with our ability to access the internet and digital devices, and access those services that will increasingly be provided digitally. As Professor Margetts noted:

> "You will not achieve digital rights just with internet access and the resources to access it, but digital rights should involve some kind of right to online access."[94]

83. *We have not received much evidence on regulation and digital rights and these issues have not been considered in detail throughout our inquiry. We do not underestimate the complexity of digital regulation and digital rights, but believe that these issues, including digital rights, must be considered by the Government in developing its hybrid strategy.*

84. **Treating the internet as an essential utility will include regulating it in the same way as other utilities. This will involve challenging the international private sector internet corporations and their supply and pricing policies. Until now, European and North American governments have achieved very little in this area, but the United Kingdom should use its 'soft power' strengths to take the lead in developing a new strategy.**

Online harms

85. As part of ensuring the UK is ready for, and can embrace all the advantages of, the hybrid world, the UK Government, the devolved administrations and

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local authorities must be alive to the risks that exist online, especially for children and vulnerable people.

86. Witnesses emphasised that the research on the impact of digital technology on the mental health and wellbeing of children and young people was mixed. Dr Bernadka Dubicka, Chair of the Faculty of Child and Adolescent Psychiatry at the Royal College of Psychiatrists (RCPsych), stated that the question of how much technology has to do with the worsening mental health of young people in the UK is "a hotly contested issues amongst academics"[95] and that the research has been extremely limited, and has not focused on the most vulnerable. The Children's Society referred to its research which found that high intensity social media use (defined as more than four hours per day) is associated with lower life satisfaction, but that there is no evidence that low and medium intensity usage is linked to lower wellbeing.[96]

87. Witnesses explained that while the internet has been hugely beneficial for many young people during the pandemic, allowing them to continue with their education and keep in contact with friends, they also explained that some vulnerable children and young people with mental health problems struggle with the more pernicious effects of digital technology.[97] The RCPsych also emphasised the importance of recognising that the potential harms could be particularly damaging to certain vulnerable groups, particularly children and young people with mental health difficulties, whose offline vulnerabilities can transfer to the online world.[98]

88. Dr Dubicka recommended greater regulation of online content and the way algorithms expose children and vulnerable people to potentially harmful content and suggested that social media companies should be expected to warn users about potentially harmful content.[99] Dr Dubicka went on to recommend that technology companies should ensure that default privacy settings are in place on all accounts to protect vulnerable users, and that users should have much more power over their digital footprints, allowing them to take down content that may affect or damage their future prospects.

89. **Given the ever-increasing prevalence of the internet in our lives, there is an urgent need for comprehensive research to explore the relationship between digital technology and wellbeing, particularly amongst children and young people. This research must go beyond screen time alone, and must also consider the experiences of marginalised and vulnerable young people.**

90. **There is a vast framework of legislation and policy designed to keep us safe in the offline world. Part of preparing for the hybrid world must involve considering how to ensure the same levels of protection in the online world, particularly for children and vulnerable adults. This needs to encompass issues such as child protection, privacy and safeguarding.**

91. *We welcome the Government's commitment to publishing an Online Harms Bill and urge it to bring this legislation forward in the next*

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95   Q 60 (Dr Bernadka Dubicka)
96   Written evidence from The Children's Society (LOL0085)
97   Q 60 (Dr Bernadka Dubicka)
98   Written evidence from Royal College of Psychiatrists (LOL0101)
99   Q 61 (Dr Bernadka Dubicka)

session of Parliament. It will need to reflect the central role that the internet plays in our education, work and social lives, and ensure that provisions are put in place to protect children and vulnerable people online which are at least as robust as those in place offline.

CHAPTER 3: HEALTH

The impact of the pandemic on the use of digital technology

92. One of the areas where we have seen the greatest change in how services are accessed, as a result of an increasing reliance on digital technology during the COVID-19 pandemic, has been the provision of healthcare services. Almost overnight services that have traditionally been provided face-to-face have been provided remotely, via telephone or video. While this was, undoubtedly, a suitable urgent response to a global pandemic, there is now a need to develop a more considered approach to digital healthcare services. As we have stated throughout our report, the future will be hybrid, and the future of healthcare provision is no different. In the future, services will be provided both remotely and face-to-face, with some patients preferring remote services, others preferring face-to-face services, and some preferring a mix of both. We believe that digital capacity should be used as an effective new tool in providing some healthcare but can never be seen as a universal solution. There are undoubtedly some medical appointments that cannot, or cannot effectively, be provided remotely. The Royal College of Nursing (RCN) gave the example of needing to be able to smell wounds if infection is suspected and, in some instances, being able to use touch to discover what kind of pressure elicits pain to help staff ascertain adequately the patient's health problem.[100] Therefore, the challenge will be ensuring that all patients receive the best possible healthcare services regardless of the mode in which it is delivered and in line with their choice about the mode.

93. According to the RCGP, prior to the COVID-19 pandemic, approximately a quarter of GP appointments were carried out remotely.[101] Since the introduction of COVID restrictions, approximately 70 per cent of GP appointments have been carried out via video or telephone. Dr Mistry emphasised that it was important to note that the statistics on remote consultations differ depending on the "digital maturity" of the organisation in question,[102] and that there was a marked difference in pre-pandemic access to remote healthcare between digitally enabled GP practices and those struggling to provide remote services.

What we have learned

94. Chris McCann told us that Healthwatch had interviewed patients about their experiences of remote healthcare provision and had found that "for many people, remote consultations offer a convenient option for speaking to a healthcare professional,"[103] although only where the quality of communication did not compromise the quality of the interaction. Chris went on to explain that patients appreciate the quicker and more efficient access, not having to travel, less time taken out of their day, and the ability to fit an appointment into their general lives. Mind agreed, and also noted that a key benefit of digital delivery of mental health services is that online digital mental health programmes allowed people to access support more quickly, with 65 per cent of the people surveyed able to start using the support immediately.[104]

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100 Written evidence from the Royal College of Nursing (LOL0022)
101 Royal College of General Practitioners, 'General Practice Will Not Become a Remote Service Post-COVID' (2 July 2020): https://www.rcgp.org.uk/about-us/news/2020/july/general-practice-will-not-become-a-remote-service-post-covid.aspx [accessed 11 February 2021]
102 Q 26 (Dr Pritesh Mistry)
103 Q 27 (Chris McCann)
104 Written evidence from Mind (LOL0087)

95. Mind also told us, however, that some people struggled to access services when they were provided remotely. A fifth of those surveyed at the beginning of the pandemic had tried to access mental health services in the last two weeks, but almost a quarter of those people had been unable to access services.[105] The main difficulties experienced in accessing support were difficulty contacting a GP or Community Mental Health Team (24 per cent), feeling unable or uncomfortable using phone or video call technology (22 per cent) and appointments being cancelled (22 per cent).

Box 5: Digital consultations

I have met an entire range of patients, from those who absolutely love using digital technology and find it great either to speak on the phone or to speak via a video call right through to people who have found it a really unpleasant experience to engage in those ways. As a clinician, I have had some excellent consultations with patients … However, in some cases I have just had to hang up the phone, get in my car and go to the person's house and see them face to face.

Source: Q 53 (Tom Foley)

96. The pandemic has also highlighted the need for greater investment in the technology needed for digital healthcare. A BMA survey found that 46 per cent of doctors said that internet speed/bandwidth was a barrier to providing remote consultations and nearly six in every 10 doctors (56 per cent) feel that current IT infrastructure significantly increases their day-to-day workload: a quarter (27 per cent) reported more than four hours per week were lost due to inefficient hardware/systems. Dr Jameel explained how issues with digital technology might affect a patient's experience:

> "I have seen a patient in general practice and referred them on to secondary care. Their referral should be with the secondary care team, because now we have a lovely electronic referral system. My understanding is that in some trusts the team responsible will download it off that system, PDF it and upload it on to a different system, and then the consultant might print it off at their end and review the referral. That sounds like an awful lot of steps and a waste of time for a lot of people."[106]

97. **COVID-19 resulted in a dramatic shift to healthcare services being delivered online. While this was driven by necessity, some people have benefited from this approach and will want it to continue. Digitally delivered services also present opportunities to save time and treat more people; given the significant existing pressures on mental health services, for example, which are only expected to grow as a result of the pandemic, the increasing adoption of digital interventions may be the only realistic way of providing a service to those who need help, but always ensuring that face-to-face consultations are available as an alternative when clinically preferable or desired by patients.**

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105 Mind, 'Mental health charity Mind finds that nearly a quarter of people have not been able to access mental health services in the last two weeks' (7 May 2020): https://www.mind.org.uk/news-campaigns/news/mental-health-charity-mind-finds-that-nearly-a-quarter-of-people-have-not-been-able-to-access-mental-health-services-in-the-last-two-weeks/ [accessed 11 February 2021]

106 Q 28 (Dr Farah Jameel)

98. ***The Government must commit to ensuring health professionals have the training and equipment needed to deliver digitally effective services in the most appropriate way.***

Potential future uses of technology

99. While the pandemic required a shift from in-person to remote healthcare appointments, digital healthcare interventions were being developed and used before the pandemic, and have the potential to play an increasing role in future.

100. A number of witnesses told us about the potential benefits of 'wearables'.[107] Dr Mistry explained that "there is a growing evidence base" for their effectiveness, and that some of the technologies that are "ready for uptake"[108] include:

    "apps for health monitoring, what are termed digital therapeutics, which can provide cognitive behavioural therapy through digital means, and wearables that can give you a precursor for a deterioration in well-being, which can then be supported through remote monitoring."[109]

101. Dr Mistry then highlighted the role of wearable technology in 'nudging' people to monitor their own health, such as an app that tells the wearer when pollen levels or air pollution levels are high, which may cause a flare-up of their asthma.[110] However, Dr Mistry then noted that while such nudges can help people to self-care, it tends to be people who are highly educated, and who already know a substantial amount about their health conditions, who use such technology.[111]

102. SimplyHealth also noted the potential for digital technology to raise awareness and early treatment of mental health issues through the ability of smartphone apps and digital wearables to provide 'nudges' and mental wellbeing self-management advice in real-time in addition to access to remote consultations with a psychiatrist or counsellor.[112]

103. Dr Ruth Chambers, from Staffordshire Sustainability and Transformation Partnership, gave detailed examples of pilot projects where wearables have been used successfully, including a project where 400 AliveCor devices were posted to patients to discover if they had an irregular heart rate (atrial fibrillation). Each patient borrowed the device for two weeks, and would use it intermittently to monitor their heart rate, and check whether they had atrial fibrillation.[113]

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107 Wearables, or wearable technology, are smart electronic devices that are worn close to and/or on the surface of the skin, where they detect, analyse and transmit information.
108 Q 26 (Dr Pritesh Mistry)
109 *Ibid.*
110 Q 31 (Dr Pritesh Mistry)
111 *Ibid.*
112 Written evidence from Simplyhealth (LOL0065)
113 Q 33 (Dr Ruth Chambers)

Box 6: The cost-saving potential of digital technology

I would price a stroke up as £30,000, which is common with atrial fibrillation, either because of their hospital stay and the fact that they have lost their job or because people are looking after them. That is what we have saved the country. It is easy to price up how these wearables, if we were to target them at scale, could save the resources of the NHS.

Source: Q 33 (Dr Ruth Chambers)

104. Witnesses also emphasised the role of existing technology, such as Facebook, in improving health outcomes. Dr Chambers explained that a pilot project had established a closed Facebook group for socially isolated people with multiple sclerosis in North Staffordshire.[114] The group gave people the opportunity to socialise online and share their experiences. A nurse would post health messages to the Facebook group once or twice a week, to provide health 'nudges'. While the pilot project was a success, Dr Chambers expressed frustration that such successful pilots are not rolled out nationally.

105. Dr Chambers also highlighted the importance of supporting patients to use digital technology, giving the example of providing vulnerable people with an Alexa Echo Show, and the support of a "buddy" to learn how to use it. She emphasised the importance of working with people and respecting what they are prepared to do, rather than "dismissing them because they do not have a smartphone."[115]

106. Any increasing role for digital technology in providing healthcare services may raise concerns about data sharing. Chris McCann explained that HealthWatch England commissioned a poll in 2018 about data sharing in the NHS, which found that, overall, most people are positive about sharing their patient data. Approximately 73 per cent of respondents stated that they would be happy for the NHS to use their information to improve healthcare treatment for themselves and others. However, he went on to emphasise that "the key thing here is public confidence, and that any mis-steps involving the use of personal data really negatively affect public trust in data sharing."[116]

Box 7: Existing digital technology

We see headlines about exciting new avenues of research and high-tech ideas that have potential for mental health services, but what we are more likely to see implemented over the next few years, and what resources are needed for, are services that make the best of technologies already widely accessible and ways of working that already have a mature evidence base. That will include a need for services to deliver confidently a more blended approach that draws on technology that many people already have access to, adding what is special and supportive in digital technology to well-established, evidence-based practice in face-to-face working.

Source: Q 51 (Professor Kate Cavanagh)

107. **There is clearly significant potential to improve our health and wellbeing by harnessing both the day-to-day technology that many of us use and by developing healthcare specific products and tools.**

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114 Q 31 (Dr Ruth Chambers)
115 *Ibid.*
116 Q 26 (Chris McCann)

However, some people may be wary of such technology due to concerns about data privacy and data sharing. As highlighted earlier in this report, these benefits will only be realised if there is a robust system in place for developing, testing and evaluating such approaches, and if significant progress is made on tackling digital inequality and making these technologies accessible to all.

Preparing for the hybrid world

108. Many witnesses suggested that future healthcare provision should ensure a blended approach, whereby patients can access services both remotely and face-to-face, depending on their circumstances. Dr Jameel explained that there are some elements of healthcare that can only be delivered by examining and seeing a patient face-to-face, and that clinicians must choose the right consultation method based on patient interaction, patient preference and the patient's needs.[117]

109. A number of witnesses also expressed concerns that an increasing reliance on providing digital healthcare, particularly consultations, may mean that some symptoms or conditions are missed. Dr Jameel told us that there were a "number of times"[118] when "I listened to a chest and spotted a mole that I just did not like the look of which I then sent off for specialist review."[119] Dr Jameel explained that the patient had booked an appointment to discuss other issues, and would not, necessarily, have booked an appointment specifically for advice on the mole. Carnegie UK Trust made a similar point, stating that telephone or virtual consultations led to a tendency to focus on the specific health problem being presented, rather than the health of the whole person.[120] While Dr Mistry agreed that there are concerns that "something will be missed" by offering remote appointments, they also suggested that technology can mitigate some of these risks, by using innovative devices, such as e-stethoscopes.[121]

110. Alongside thinking about which services are best suited for digital or face-to-face delivery, witnesses repeatedly emphasised the issue of digital inequality in accessing healthcare. Chris McCann, for example, raised concerns that any increasing role for, or reliance on, digitally technology in providing healthcare services could exacerbate existing inequalities[122] and that there may be a risk that people without access to technology will receive poor-quality care.

111. Other witnesses focused on specific communities or groups that may face increased inequality in accessing digital healthcare services, with Professor Gurch Randhawa, from the University of Bedfordshire, referring to research that suggests that older people, people from lower socio-economic groups, and people from Black and Asian communities are less likely to utilise phone or online healthcare services.[123] The RCP suggested that older people and people from lower socio-economic backgrounds may have worse health

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117 Q 27 (Dr Farah Jameel)
118 *Ibid.*
119 *Ibid.*
120 Written evidence from Carnegie UK Trust (LOL0096)
121 Q 27 (Dr Pritesh Mistry)
122 Q 32 (Chris McCann)
123 Written evidence from Professor Gurch Randhawa (LOL0007)

outcomes because their communication with their doctor is affected by their lack of digital skills or the quality of their devices.[124]

112. Dr Emily Peckham, from the University of York, suggested that people with severe mental health issues are at an increased risk of being unable to access digital healthcare services.[125] Dr Peckham explained that over a third of people with severe mental health issues do not use the internet for daily activities, compared to 10 per cent of the general population, and that some people had expressed concern that mental health symptoms can make accessing digital services harder and symptoms can be made worse by the experience (voices, paranoia about social media or being online), and this may lead to people not accessing services that are delivered remotely.

113. Mind highlighted similar concerns, and also told us that young people were more likely to find it difficult to access mental health support using digital technology, and less likely to feel comfortable accessing mental health support over the phone or on a video-call.[126] Almost a third of young people (30 per cent) who accessed or tried to access support said that the technology was a barrier to doing so.[127]

114. **We heard from witnesses that some conditions may be missed during remote consultations, while other medical specialisms may not be suitable for virtual appointments. However, digital technology and patient data can also be used to help ensure that a patient's medical needs are understood more fully. As such, we believe that the hybrid healthcare service must be underpinned by an acknowledgement of the potential opportunities and current shortcomings of digital provision in certain circumstances and a commitment to ensure that all patients receive the very best healthcare service.**

115. *As part of its new hybrid strategy, the Government should work to develop a genuinely hybrid healthcare service. In implementing a hybrid healthcare service the Government should work with the NHS to evaluate what treatments are suitable to be offered digitally, and provide further funding to research new digital interventions for those specialisms that currently cannot be provided remotely. The Government should also work with the NHS to ensure that current, and future, healthcare systems and processes reflect the new hybrid reality, including the importance of face-to-face provision, and enable patients to move seamlessly between online and offline service provision.*

116. *The digitally hybrid healthcare service in England should be underpinned by a code of practice giving patients the right to receive services online or offline, as well as guaranteeing a minimum service standard for both online and offline healthcare services, including a right to contact their doctor digitally. In developing this code of practice, the Government should undertake a review of patients' rights in hybrid healthcare provision, including its impact on accessibility, privacy and the triage between face-to-face and digital provision.*

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124 Written evidence from Royal College of Physicians (LOL0073)
125 Written evidence from Dr Emily Peckham et al (LOL0042)
126 Written evidence from Mind (LOL0087)
127 *Ibid.*

CHAPTER 4: EDUCATION IN SCHOOLS

The impact of the pandemic on the use of digital technology

117. As a result of the pandemic, education for many children and young people moved abruptly online. While schools remained open for children of key workers and vulnerable children, most students had to begin to work from home. The new hybrid model, with some children learning at home and others attending school, was a suitable emergency response to the COVID pandemic, but is unlikely, and undesirable, as the long-term future of education.

118. As explained in Chapter 2, the abrupt move to home schooling has had a detrimental impact on the education of children and young people who lack digital access, adequate digital devices and a quiet space to work at home. As we discuss in more detail below, this disruption to children's education may have a negative impact on children's attainment, future education and future employment prospects, and will have the greatest effect on those children who are already disadvantaged. Some research suggests, for example, that more than 200,000 pupils will leave primary school this year without being able to read, an increase of 30,000 compared to the previous year.[128]

What we have learned

119. One of the most obvious lessons of the pandemic has been that many schools were not adequately prepared to deliver education online, and that there have been significant variations in the amount and type of learning provided. The best-resourced schools were able, from the start of the pandemic, to deliver lessons via video conferencing and offer other opportunities for 'live' online interaction, enabling students to speak directly to the teacher, and receive feedback, as part of the lesson.[129] Other pupils have had very different experiences and had very few opportunities for communication with their teachers or with other pupils. Secondary school children spent an average of four and a half hours a day learning (a 30 per cent reduction on pre-COVID times);[130] this also varies significantly between schools, with 64 per cent of private school pupils spending five or more hours a day learning, compared to 31 per cent of pupils at state-funded schools.[131] This suggests that, even before taking into consideration their home-learning environment and other factors affecting their ability to learn, the opportunities to learn that have been offered to pupils have varied considerably.

120. Digital inequality, in a variety of forms, was starkly highlighted. Ask Research, for example, noted that on average, education providers thought around 30 per cent of families at their school or college had little or no IT access at home, and approximately one in three providers said that this was the case for over 35 per cent of their families.[132] It went on to explain that limited IT access was reported as more of an issue by settings with higher

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128 'Children's Laureates Campaign for £100m a Year to Fix Primary School Libraries', *The Guardian* (13 April 2021): https://www.theguardian.com/books/2021/apr/13/childrens-laureates-campaign-for-100m-a-year-to-fix-primary-school-libraries [accessed 13 April 2021]

129 The Sutton Trust, *Learning in Lockdown* (January 2021): https://www.suttontrust.com/wp-content/uploads/2021/01/Learning-in-Lockdown.pdf [accessed 13 April 2021]

130 The Institute for Fiscal Studies, 'The crisis in lost learning calls for a massive national policy response': https://www.ifs.org.uk/publications/15291 [accessed 13 April 2021]

131 The Sutton Trust, *Learning in Lockdown*

132 Written evidence from Ask Research (LOL0026)

rates of Free School Meal (FSM) eligibility (with 37 per cent of their families having limited access) than those with lower rates of FSM (22 per cent of families at these schools were felt to have limited access). While we heard limited evidence on the experiences of young people in Pupil Referral Units, witnesses suggested that existing disadvantages have been exacerbated by the pandemic. Richard Sheriff explained the difference in digital access between pupils in schools serving more privileged areas, compared to more deprived areas:

> "One of the schools in my trust has 2,000 students in a well-to-do area; every single child has an iPad through an iPad scheme that we developed eight or nine years ago. We are really used to using that mode, and this has not been a challenge for those children and families.

> However, another of our schools serving one of the most deprived areas in the city of Leeds says that only 30% of its families have access to broadband."[133]

121. Professor Henrietta Moore also argued that the digital divide is having an uneven impact on children's education, with those living in low-income households and with parents who do not have formal or higher education qualifications having significantly less access to, and quality of, educational resources, lower educational attainment and worse performance outcomes.[134] James Turner, Chief Executive of the Sutton Trust, agreed, emphasising that the educational and attainment gap between poorer pupils and their more privileged peers has widened, and that:

> "The driver seems to be that what remote learning looks like to a poor child is very different from what it looks like to their classmates: as we have heard, they struggle to access technology and the internet, they are probably less likely to have a quiet place to work, and they have parents who are probably less confident about supporting them or who are working jobs that take them out of the home."[135]

122. Natalie Perera, Chief Executive of the Education Policy Institute, also highlighted that children from poorer and more disadvantaged households have less access to digital devices and a quiet place to study, they are participating in fewer hours of online learning, and they have less face-to-face online contact with teachers than their peers.[136] James Turner suggested that the unequal access to home schooling during the pandemic means that for some children both the quality and the quantity of the learning that they have had during this period has been lower.[137] On average, they have done fewer hours of learning, and teachers also report that the quality of, and engagement with, that work has suffered. James Turner suggested that this could have a long-term impact on children's attainment and progression:

> "Some people are saying that the gap in primary schools between a poor child and their peers is now seven months, and that has grown during the pandemic. We suspect that it is likely to be higher in secondary schools. However, this will not just affect those children's lives for the

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133 Q 114 (Richard Sheriff)
134 Written evidence from Professor Henrietta Moore (LOL0083)
135 Q 114 (James Turner)
136 Q 114 (Natalie Perera)
137 Q 114 (James Turner)

next one or two years; it will have knock-on impacts on the skills they develop, the qualifications they get and, ultimately, the jobs that they go on to do and their chances of being socially mobile."[138]

123. The Education Endowment Foundation has undertaken research which suggests that primary-age pupils have significantly lower achievement in both reading and mathematics as a result of missed learning during the pandemic.[139] Even more worrying is the finding that there is a large attainment gap between disadvantaged pupils and their non-disadvantaged peers. The Foundation's work on the impact of school closures on the attainment gap also found that:

- School closures are likely to reverse the progress made to close the attainment gap since 2011;

- Supporting effective remote learning will mitigate the extent to which the gap will widen; and

- Sustained support will be required to help disadvantaged pupils catch-up.

124. Not all pupils lost out, however. Scope highlighted the benefits of online education, stating that the increase in online flexible learning has meant that young disabled people can now access learning at their own pace, access new training opportunities, and manage their disability or condition around their online studies.[140] While emphasising that disabled children are not a homogenous group, Natalie Perera noted that school leaders have found that some disabled children are finding it easier to learn at home.[141]Natalie explained that for some children with autism and other sensory issues, being at home in a quiet and familiar environment can sometimes be easier. Margaret Mulholland, a Special Educational Needs and Disability (SEND) and inclusion specialist, agreed, noting that young people with additional needs attending mainstream schools have seen real advantages in remote learning. Margaret explained that:

"there are wonderful examples of young people now using speech-to-text devices and cameras to record their learning—lots of opportunities that may have been available in school, but young people did not like the experience of standing out and being different. That sense of difference was previously often a very excluding factor in the use of technology in school. Now, as more people are using digital strategies at home, we are hoping that they will translate back into the classroom and be transformational."[142]

125. Natalie Perera explained that there are lessons to be learnt from remote schooling during the pandemic for pupils who may need to be out of school

138 *Ibid.*
139 Education Endowment Foundation, 'Best Evidence on Impact of School Closures on the Attainment Gap' (2 June 2020): https://educationendowmentfoundation.org.uk/covid-19-resources/best-evidence -on-impact-of-school-closures-on-the-attainment-gap/ [accessed 3 March 2021]
140 Written evidence from Scope (LOL0094)
141 Q 114 (Natalie Perera)
142 Q 114 (Margaret Mulholland)

for a prolonged period:

> "they may have a mobility issue or they are having long-term treatment … we now have the infrastructure and, I would argue, the confidence to deliver some learning remotely so that we are not in a binary system of schools having to close or certain pupils not being able to attend the school and therefore learning stops entirely."[143]

126. Margaret Mulholland discussed similar issues, noting that during the pandemic, the mainstream education system has learnt lessons from hospital schools and special schools where there has been a longstanding telepresence:

> "A child can be in a hospital bed for six months and yet tune into a classroom and learn in an engaging and effective way. We should be taking those lessons from acute needs, putting them into mainstream contexts and saying what we can achieve from this."[144]

127. Some disabled students told Scope that they struggled to participate in learning before the pandemic, as different lecturers or teachers would put up learning materials in one format, and then another in an inaccessible format, or refuse to give disabled students online copies at all.[145] As a result of the pandemic, teachers and lecturers have now been forced to make learning resources available online and all in the same format. The introduction of distanced learning courses has also allowed some to participate in types of courses previously unavailable to them. Scope argued that the Government must aim to ensure that, post-pandemic, young disabled people have a choice of options about how they learn and that they are offered a mix of both face-to-face and online methods, as well as real-time learning and recordings, to suit their particular needs.

128. However, the Nottingham Centre for Children, Young People and Families suggested that young disabled people have found it difficult to engage with online interaction, particularly interacting with peers and school staff whom they were used to seeing in person.[146] The Centre also highlighted that it is more difficult for children without traditional literacy or verbal communication skills to sustain interaction on-screen and recommended that when designing online education and social activities, providers should consider accessibility to disabled children, especially those who do not have traditional literacy or verbal skills.[147]

129. In February 2021, the Government announced a £700 million recovery support package to help children and young people catch-up on missed learning as a result of the pandemic.[148] This support package will focus on expanding one-to-one and small group tutoring programmes, as well as supporting the development of disadvantaged children in early years settings, and summer provision for those pupils who need it the most. State primary and secondary schools will also be given a one-off Recovery Premium,

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143 Q 116 (Natalie Perera)
144 Q 120 (Margaret Mulholland)
145 Written evidence from Scope (LOL0094)
146 Written evidence from Nottingham Centre for Children, Young People and Families (LOL0041)
147 *Ibid.*
148 Department for Education, Press Release: *New Education Recovery Package for Children and Young People*, 24 February 2021: https://www.gov.uk/government/news/new-education-recovery-package-for-children-and-young-people [accessed 8 March 2021]

building on the existing Pupil Premium, to use as they see best to support disadvantaged students.

130. Natalie Perera suggested that the Government has three options to mitigate the impact of lost learning and support pupils to catch-up:

> "First … they could use some of the current interventions that they have, such as the pupil premium and the national tutoring programme, and turbo-charge them by adding more resources to them and accelerating their progress and reach.

> The second set of options might be considered more radical and might require some changes to the school infrastructure: a longer school day; summer programmes that focus on academic and well-being support; and, for some pupils, possibly repeating the school or an academic year …

> The third bucket is the most interesting, in a way, because it gets to the heart of the problem. It is taking the opportunity now to address some of the root causes of inequality, thinking about policies such as how to address child poverty and policies on early intervention and the early years, focusing resources and effort on those areas in order to prevent the disadvantage gap from opening up in the first place."[149]

131. **We are deeply concerned by the impact of the prolonged period of disrupted study on pupils' educational outcomes, future education, employment opportunities and their long-term wellbeing. We note that many of our witnesses were unconvinced that the measures announced by UK Government so far are sufficient to address the scale of the problem.**

132. *The Government must prioritise mitigating the long-term impact of the prolonged period of disrupted learning on children's life-chances and wellbeing. This should include undertaking research to understand the very different experiences of children from different communities, ensuring that specific funding and support is available to address the growing attainment gap between advantaged and disadvantaged pupils, and establishing a support programme focused on the wellbeing of children and young people post-pandemic. The Government must also recognise the impact that a lack of space to work from home has had on children's learning, and ensure that this is recognised in their 'catch-up' plans for pupils.*

Potential future uses of technology and preparing for a hybrid world

133. Parent Zone told us that many schools, even after fully re-opening, will continue to use digital platforms and tools for education.[150] It explained that having invested in the necessary digital infrastructure and digital skills for their staff, schools are unlikely to revert to using physical textbooks and marking homework on paper copybooks. As a result, Parent Zone stated that it will continue to be essential for families to have a stable internet connection in their home, and for children to have access to a device to work on supported by parents who themselves have adequate support.

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149 Q 121 (Natalie Perera)
150 Written evidence from Parent Zone (LOL0039)

134. Richard Sheriff emphasised the importance of digital skills provision in the curriculum, stating that "developing digital skills… is absolutely vital."[151] Richard then went on to explain the potential that digital technology has to revolutionise teaching and education:

> "One advantage you might have is from … using the medium of technology to make sure that every child has access to the great teacher who inspires you to learn about whatever it might be … then those teachers become leading personalities, not footballers or film actors but educators, because they have a digital online following. You want to be in that lesson, because it is with the teacher who does that fantastic stuff, whether it is about Shakespeare or microbiotics. That would be an amazing revolution."[152]

135. Richard Sheriff also highlighted the importance of a blended approach to education, stating that some vulnerable children are finding that blended learning is working very well for them.[153] Margaret Mulholland gave specific examples of pupils who could benefit from a blended approach to education, describing how a parent:

> "has been sitting alongside her son to work through the day, as well as him having access to one-to-one support for his special educational needs. When he has had to get up to move around because of the difficulty he has in focusing, she has used a sound beam to make sure that the lessons follow him around the house, and he has been able to continue to engage."[154]

136. Margaret had then asked the mother about their concerns for their child returning to school:

> "If this had worked so well for him, how did she feel about the return to school, where he would not have autonomy and control to such a degree, and where those assisted technology resources have not been as apparent. She said that she hopes … that he and indeed teachers will feel more confident about using them, but she also recognised the social connectedness that is so valuable to his development. She feels that the opportunity to address a blended approach, a hybrid approach, of some learning at home, maybe a couple of afternoons a week, and in school would really support his learning.[155]"

137. While Richard Sheriff highlighted the potential of a blended approach to improve educational provision, and attainment, for vulnerable pupils, Richard also emphasised the risk that schools serving privileged areas with "savvy parents" will do very well out of the blended approach, but those from more deprived areas and who do not have appropriate digital access will struggle.[156]

138. **The pandemic has highlighted that large numbers of children do not have the internet connections, access to devices, or quiet space to be able to work effectively online from home. This does not become**

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151 Q 117 (Richard Sheriff)
152 Q 119 (Richard Sheriff)
153 Q 114 (Richard Sheriff)
154 Q 116 (Margaret Mulholland)
155 *Ibid.*
156 Q 116 (Richard Sheriff)

irrelevant when schools return: unless action is taken to address this, these children's inability to complete online homework assignments, undertake additional study and develop the familiarity with working online that will be expected in their future working lives, will lead to an ever widening inequality between them and their more advantaged peers. Unless and until all children have access to the internet, and the skills they need to make use of digital technology, the Government cannot consider itself prepared for the hybrid world.

139. *The Government should work with local authorities and schools to fund a specific support programme to ensure that all children have an adequate internet connection and suitable digital devices to work effectively online from home. It must also provide funding to ensure that teachers and schools can make the most of the benefits that an increasing role for online learning offers. The Government should ensure that the curriculum reflects the increasing need for digital skills and provides all children and young people with the skills needed for our hybrid world.*

140. *In common with the other areas of life considered in this report, it will be important that those who have benefitted from the rapid shift to online—in this case, young disabled people in particular—do not find the option for more flexible, digital study withdrawn once schools are able to fully reopen.*

CHAPTER 5: WORK

The impact of the pandemic on the use of digital technology

141. Prior to the pandemic, we could already see a hybrid approach to work emerging, with some workers working remotely, alongside an increasing role for digital technology in the workplace, including automation and e-commerce. While the COVID pandemic dramatically accelerated these existing trends, it is important to remember than many workers—builders, delivery drivers, midwives—cannot undertake their work remotely. As such, the hybrid future of work will see some employees working entirely remotely, some working part of the week remotely and part in the workplace, and others still working entirely from their workplace.

142. A recent CBI survey found that over 60 per cent of firms have adopted new technologies or management practices since the onset of the pandemic, while a third have invested in new digital capabilities.[157] Verity Davidge noted that in the manufacturing sector "we have definitely seen digital adoption accelerated through the pandemic",[158] with 80 per cent of companies now saying that the adoption of digital technologies will be a full reality in their business within the next four years. Verity went on to explain that:

     "We have also seen a large number of companies move to what we call the revolution phase of digital adoption, which they are fully adopting, whether it is additive manufacturing, robotics or cobotics, the Internet of Things, or augmented and virtual reality."[159]

143. The pandemic also necessitated a shift to home working for many people. Fabian Wallace-Stephens explained:

     "in 2019, only around 5% of people mostly worked from home. Some of the most recent data suggests that, for the first half of January, 35% of people worked exclusively from home."[160]

144. COVID has also forced a change in consumer behaviour, most notably e-commerce, and where people have found that to be a positive experience, it is likely to stick.[161] The latest ONS statistics, from November 2020, show a 75 per cent growth in the value of online retail sales compared to the same period the year before.[162] A recent survey by Waitrose found that 20 per cent of those doing their grocery shopping online had not considered it before. It found the biggest shift in shoppers over the age of 55; the number of regular

157   Centre for Economic Performance, *The business response to Covid-19: The CEP-CBI survey on technology adoption* (September 2020): https://cep.lse.ac.uk/pubs/download/cepcovid-19-009.pdf [accessed 11 February 2021]
158   Q 82 (Verity Davidge)
159   *Ibid.*
160   Q 82 (Fabian Wallace-Stephen)
161   RSA, *Who is at risk? Work and automation in the time of Covid-19* (October 2020): https://www.thersa.org/globalassets/_foundation/new-site-blocks-and-images/reports/2020/10/work_and_automation_in_time_of_covid_report.pdf [accessed 11 February 2021]
162   Office for National Statistics, 'Retail sales, Great Britain' (November 2020): https://www.ons.gov.uk/businessindustryandtrade/retailindustry/bulletins/retailsales/november2020 [accessed 11 February 2021]

online shoppers has nearly trebled in this age group and half say they will shop more for groceries online post-lockdown.[163]

145. Andrew Goodacre, Chief Executive Officer of the British Independent Retailers Association, stated that:

> "Pre-Covid about 75% of our members had a website, and about half of those websites were transactional—they could do a sale over the internet. We did some research in October, which showed that the number of businesses with websites had risen to almost 90%, but, more importantly, the number of transactional websites was 80%."[164]

146. Andrew also noted the large shift from offline to online shopping during the pandemic, with online shopping accounting for 50 per cent of non-food sales, compared to 20 per cent pre-COVID.[165] Andrew explained that the changes towards online and digital sales that were happening pre-pandemic have been accelerated by a timescale of four or five years, and that this shift was unlikely to fall back,[166] showing that online shopping is here to stay.

What jobs will be available in the hybrid world?

147. This inquiry set out to examine the impact of accelerated digitalisation, driven by the pandemic, on our long-term wellbeing. When it comes to considering how the number and types of jobs available in different sectors will change, it is impossible to separate the digitalisation that was happening pre-COVID, from the acceleration that has taken place during the pandemic and the wider impact that the pandemic has had on the labour market and the economy (and which is likely to continue for some time).

148. It is clear, however, that these factors combined are resulting in significant changes, and that there is much more to come. The retail sector, for example, saw nearly 180,000 jobs lost in 2020[167] and the Centre for Retail Research has estimated there could be up to 200,000 jobs lost in 2021.[168] Andrew Goodacre told us that some of the workforce could be retargeted and relocated, with some jobs moving from front of house to back of house—to packing, to creating the product ready for delivery, perhaps in some cases moving into delivery itself. However, not all jobs will be reallocated:

> "Currently there are 2.5 million people employed in retail. In two to five years' time, it will probably fall below 2 million within that timescale, as shops close and businesses change, and pivot to a more back-of-house emphasis, which is arguably more efficient than the front-of-house emphasis we have seen over the years from a retail perspective."[169]

149. Fabian Wallace-Stephens noted that there has already been a shift from customer service roles towards warehousing and logistics jobs, noting that over the last decade, approximately 100,000 jobs were lost in customer service

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163 Waitrose and partners, *How Britain shops online:* https://www.waitrose.com/content/dam/waitrose/ Inspiration/HOW%20BRITAIN%20SHOPS%20ONLINE%20FOOD%20&%20DRINK%20 EDITION.pdf [accessed 11 February 2021]

164 Q 82 (Andrew Goodacre)

165 *Ibid.*

166 *Ibid.*

167 BBC News, 'Worst year for High Street job losses in 25 years' (1 January 2020): https://www.bbc. co.uk/news/business-55501049 [accessed 11 February 2021]

168 *Ibid.*

169 Q 83 (Andrew Goodacre)

and about 40,000 jobs were created in warehousing and logistics.[170] Fabian explained that this might be an appropriate way to think about how jobs will be created and lost in response to COVID. Fabian went on to describe how this change might significantly change the gender profile of jobs towards more male employment:

> "We have seen food delivery platforms such as Deliveroo being such a lifeblood to restaurants during lockdown. This would further increase demand for male-dominated roles such as delivery workers, while reducing the need for waiting staff, who are more likely to be women."[171]

150. Josh Abey also emphasised the potential impact on retail and hospitality, stating that in the next two to five years:

> "We are worried about the retail and hospitality sectors, precisely because of this double whammy from Covid—furlough rates and jobs being lost to unemployment, and the high feasibility of automation in some of those sectors."[172]

151. Josh went on to explain that some subcategories in the hospitality sector— food and beverage service activities, restaurant work, bar work—have seen an incredibly high number of furloughs.[173] Moreover, according to an ONS analysis of the feasibility of automation of tasks in certain jobs and sectors, that subsector is at the highest risk of automation.[174] Josh noted that those two things interacting together raise serious concerns about the number of jobs in those industries over the next few years.[175]

152. While sharing these concerns, Andrew Goodacre also noted that shopping can change, and retailers may use the increasing role for digital technology as an opportunity to change the shopping experience:

> "Retailers will move the shopping experience more into an online environment, using technology such as Zoom. There is no reason why a virtual sales assistant could not connect with a customer, even in a pre-set appointment, to talk through their clothing range or what they are looking for, for a wedding or for whatever it may be."[176]

153. Even with the opportunities offered by digital technology for changing the online shopping experience, and creating more warehouse and distribution roles, Andrew Goodacre stated that the job creation that comes from digital technology will not fully equate to the job losses from the closure of shops and the loss of shop floor staff. There will be an imbalance and a net loss of jobs on the high street.[177]

154. These job losses are likely to hit some communities particularly hard. The ONS estimates that of the 1.5 million people in England in jobs most vulnerable to automation, 70 per cent are women and 99 per cent do not have higher education degrees; workers aged 55 to 64 are more than twice as likely to be at risk than those in their 30s, and younger workers (aged 16–24) more

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170 Q 83 (Fabian Wallace-Stephens)
171 *Ibid.*
172 Q 83 (Josh Abey)
173 *Ibid.*
174 *Ibid.*
175 *Ibid.*
176 Q 87 (Andrew Goodacre)
177 *Ibid.*

than eight times as likely.[178] Jobs most at risk are also concentrated in already economically disadvantaged areas: mainly rural, coastal or ex-industrial towns.[179] But even this analysis is not straightforward. Those in the sectors least at risk of automation (such as health and education) are also more likely to be women, for example.[180]

155. In response, a number of witnesses spoke about the need for greater investment in skills and training. Fabian Wallace-Stephens recommended that the Government should explore how personal learning accounts could future-proof roles most at risk.[181] The personal learning account would give all workers an annual training allowance to spend on different courses. On the other hand, Josh Abey noted that one of the Fabian Society's most pressing recommendations to deal with the fallout from the COVID crisis and the interaction with the potential automation of lots of jobs would be to start with furloughed workers, some of whom will have been without work and technically unemployed for a year.[182] Josh suggested that those on furlough should be provided with training, whether it is via employers or further education colleges, using the Union Learning Fund or Jobcentre Plus.[183] Josh then went on to recommend the overhaul of the adult skills system to introduce a culture of constant lifelong learning and reskilling in the UK.[184]

156. In the medium term, the Fabian Society would like to see the introduction of an integrated adult skills system, including a digital portal for every worker so that they can see what is on offer for them in terms of training and reskilling, their current career options given the skills they currently have, and what they might need to do to acquire new skills and advance along a career path.[185]

157. **The combination of the pandemic and increases in automation and other digital trends is radically changing the number and types of jobs available in different sectors. It is too soon to know how many people will lose their jobs and be unable to quickly gain new ones but it is clear that a very great number of people will need both financial support whilst unemployed and access to training to enable them to obtain new skills fit for the digital/AI era and employment.**

158. *There will clearly need to be significant action from the Government to tackle future increases in unemployment. We fully endorse the recommendations of the House of Lords Economic Affairs Committee's report Employment and COVID-19: Time for a New Deal.*

159. The extent to which significant levels of home working remains a trend in the long-term is unclear. A number of surveys suggest many of those who began working from home during the pandemic as a necessity would like

178 Community and Fabian Society, *Sharing the Future—workers and technology in the 2020s* (December 2020): https://fabians.org.uk/wp-content/uploads/2020/12/FABJ8359-Work-LONG-report-WEB-201214v1.pdf [accessed 11 February 2021]
179 *Ibid.*
180 RSA, *Who is at risk? Work and automation in the time of Covid-19* (October 2020): https://www.thersa.org/globalassets/_foundation/new-site-blocks-and-images/reports/2020/10/work_and_automation_in_time_of_covid_report.pdf [accessed 11 February 2021]
181 Q 90 (Fabian Wallace-Stephens)
182 Q 90 (Josh Abey)
183 *Ibid.*
184 Q 88 (Josh Abey)
185 *Ibid.*

to continue to do so, at least in part, in the long-term[186] and a survey of just under 1,000 businesses by the Institute of Directors showed that 74 per cent plan on maintaining the increase in home working and more than half planned on reducing their long-term use of workplaces.[187] However, Kate Bell, Head of Rights, International, Social and Economics at the TUC, drew our attention to a survey of businesses by the ONS which found that only 14 per cent of businesses say that they will be increasing home working in the future.[188]

160. If many people continue to work from home in future, this will have a number of implications. We heard that there would be a knock-on impact for those employed in other sectors, such as those cafes, shops and other businesses that depend on custom from commuters, with Josh Abey stating that:

> "City centres have been a large source of concern over the pandemic because of service jobs that served commuters no longer being needed."[189]

161. We intend to further explore the potential for remote working to reshape towns and cities in a further inquiry.

162. Professor Abigail Marks, Principle Investigator with the Working@home Project, explained that in the future it will be important to emphasise that remote working does not necessarily mean home working. Professor Marks discussed the potential for establishing community hubs that can allow people who do not have the infrastructure at home to work away from the organisation.[190] Professor Marks went on to recommend that the idea of community hubs should be supported, as some workers lack the space or ability to work from home. They suggested that community hubs could be particularly suitable for young people who may not be getting socialisation within the organisation, with community hubs being the next best thing.[191]

163. Others raised concerns about the potential for remote working to increase inequalities. Many people work in jobs that cannot be done remotely, and there is concern that those who are likely to benefit most are those who already enjoy higher levels of job quality, thus deepening inequalities in how people experience work.[192]

164. The Sutton Trust noted that there is a risk that a growth in home working could result in young people missing out on vital networking opportunities and experience of the office environment, which are major development opportunities for disadvantaged students in particular who have fewer pre-existing connections and opportunities for work experience.[193] To prevent this from happening, it suggested that employers should ensure

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186 YouGov, *Most workers want to work from home after COVID-19*: https://yougov.co.uk/topics/economy/articles-reports/2020/09/22/most-workers-want-work-home-after-covid-19 [accessed 12 February 2021]

187 Institute of Directors, *Home-working Here to Stay, New IoD Figures Suggest* (October 2020): https://www.iod.com/news/news/articles/Home-working-here-to-stay-new-IoD-figures-suggest [accessed 12 February 2021]

188 Q 103 (Kate Bell)

189 Q 83 (Josh Abey)

190 Q 94 (Professor Abigail Marks)

191 Q 100 (Professor Abigail Marks)

192 Carnegie UK Trust, 'Good Work for Wellbeing in the Coronavirus Economy' (5 October 2020): https://d1ssu070pg2v9i.cloudfront.net/pex/carnegie_uk_trust/2020/10/27154455/Good-Work-for-Wellbeing-in-the-Coronavirus-Economy-Full-report.pdf [accessed 12 February 2021]

193 *Ibid.*

there are plenty of online opportunities for employees to connect and, where possible, meet in person.

165. Others highlighted the potential for remote working to remove barriers to employment for some people, with the British Psychological Society stating that "the key point" is that remote working provides flexibility, so that those with conditions that make it difficult to travel, to be around people, or to sit at a desk for seven hours without rest will see the barriers to their employment lifted.[194] It also highlighted the importance of flexibility for those with caring responsibilities, who could use remote working to combine a job with the unpredictable nature of care responsibilities.

166. **Just as with other aspects of the increasing reliance on digital technology, remote working has the potential to bring both benefits and risks and will impact different people in different ways. If the Government is committed to improving people's wellbeing, it should consider how to ensure those who would benefit from the continued ability to work more flexibly, including remotely, are enabled to do so. It should also ensure that the tax system does not create barriers to remote working. Employers will also need to consider how to mitigate the risks of any increases in remote working exacerbating inequalities, including the particular impact on women and younger people.**

167. *The Government should work with employers and trade unions to ensure that decisions about job locations are equality impact assessed, so that people are not excluded from employment opportunities because of their living situation.*

What we have learned

168. As noted above, the pandemic has given many individuals and businesses experience of remote working for the first time. In common with the other aspects of life considered in this report, this was found to work for some and not for others.

169. Professor Abigail Marks et al told us that for women in particular, there is a fine line between the advantages and disadvantages of home-based work.[195] They explained that women appreciate the flexibility of home working but as women still take most of the responsibility for unpaid labour, women working from home—particularly when a partner and children are at home—are faced with an increased domestic burden. Women are also less likely to have dedicated workspace and more likely to share a workspace than men, with 51 per cent of women reporting that they have a dedicated room compared to 65 per cent of men.

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194 Written evidence from the British Psychological Society (LOL0044)
195 Written evidence from Professor Abigail Marks et al (LOL0070)

Box 8: The hybrid world and gender inequality

All the evidence we heard suggests that women have born a disproportionate burden during the pandemic, often having to combine working online from home with primary responsibility for home schooling of their children and doing the majority of the housework. Women are also over-represented in the employment sectors hardest hit by the pandemic. The Government's approach to the hybrid world will need to be mindful of this, and include a strong focus on addressing gender inequalities in work and childcare.

170. Other witnesses emphasised the different experiences of different socio-economic groups. Working Families referred to analysis by the Resolution Foundation, for example, which found that more than 80 per cent of workers in the top earnings quintile worked from home some or all of the time during the pandemic, compared to less than half in the bottom quintile. Professor Alan Felstead, from Cardiff University, emphasised that while home working grew across all occupational groups during lockdown, it grew particularly rapidly among the higher skilled occupational groups. For example, during the initial lockdown a majority of those working as managers, professionals, associate professionals (e.g. computer assistants, buyers and estate agents), and administrative and secretarial staff (e.g. personal assistants, office clerks and book-keepers) reported that they did all of their work at home. This was up from 5–9 per cent before lockdown. However, workers operating in lower skilled occupations continued to use the factory or office as their workplace with more than four out of five operatives and elementary workers (e.g. machine operators, assemblers and labourers) reported that none of their work was carried out at home in lockdown.[196]

171. The Employment Lawyers' Association (ELA) suggested that for some younger workers, the shift to home working has affected a more traditional career paradigm of moving to big cities, commuting to work and perhaps living in shared accommodation with friends or housemates, as opposed to staying at home with their parents.[197] Meanwhile, the Sutton Trust raised concerns about young people sharing space with people at home or not having a dedicated space to work in shared accommodation.[198] It stated that if young people are working in the family home or living in shared housing after graduating, it is likely that these issues will continue to affect this group as they enter employment.

172. In discussing the additional costs of working from home, Jon Boys, Labour Market Economist at the CIPD, noted that "it is mostly the employees who are paying for working from home at the moment."[199] Jon explained that any decision about who should pay the costs of future home working will be difficult as:

> "There are costs and benefits for both sides. Working from home we save a lot on commuting, et cetera, but we have the bills. In the office they are not paying for lots of rented space. It will be interesting to see how it pans out and where the balance of costs and benefits lies."[200]

196 Written evidence from Professor Alan Felstead (LOL0034)
197 Written evidence from the Employment Lawyers' Association (LOL0076)
198 Written evidence from The Sutton Trust (LOL0048)
199 Q 111 (Jon Boys)
200 *Ibid.*

173. Professor Marks agreed, stating that in considering the additional costs of home working, "the key question, if those are all additional costs to the employee, is the extent to which organisations will be made responsible."[201]

Box 9: Resources for home working

Going forward it is important that organisations are made accountable for the home-working space, both the physical provision of chairs and desks as well as the provision of technology, and perhaps financial support to optimise broadband, domestic heating, et cetera. There should be allowances for home working if that is the direction of travel.

Source: Q 100 (Professor Abigail Marks)

174. **Many people's experience of working life has changed significantly in the last year—with many people working from home and others on furlough or working reduced hours. Many others have lost their jobs entirely and there are many more job losses expected in the months and years ahead.**

Reducing barriers for disabled people

175. Any increasing reliance on digital technology may have negative consequences for disabled employees, as Scope's research found that disabled people are more likely to be in lower-paid work sectors which are most vulnerable to technological changes.[202] It believed that increasing digitalisation poses a big risk to the employment prospects of disabled people as these low-paid, low-skilled jobs are increasingly replaced by roles requiring workers to use digital technology, or to move online. Only 38 per cent of disabled people have the digital skills for work,[203] compared to the UK average of 52 per cent, and disabled people are 40 per cent less likely to have received digital skills support from their workplace.[204]

176. Scope highlighted some of the advantages of increasing reliance on digital technology, in supporting some disabled people to work from home, facilitating more flexible working patterns, and reducing the issues and the stresses associated with physical inaccessibility on transport and in offices.[205] It noted that working from home has helped some disabled workers' mental health and wellbeing, giving them more time to manage their disability or condition around their work, and has ultimately helped them stay in work. Home working has also given some disabled young people access to more job opportunities, as the number of employers advertising home-based roles has increased, allowing young disabled applicants to no longer worry about their disability or condition being a concern in a workplace setting. Professor Abigail Marks et al also suggested that an increase in home working has brought some benefits to disabled people, as 73 per cent of disabled workers report being more, or equally, productive whilst working from home due to better pain management and ability to adjust working times to better suit their lives.[206]

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201 Q 101 (Professor Abigail Marks)
202 Written evidence from Scope (LOL0094)
203 *Ibid.*
204 Q 92 (James Taylor)
205 Written evidence from Scope (LOL0094)
206 Written evidence from Professor Abigail Marks et al (LOL0070)

177. Moreover, the Access to Work programme can be used to provide disabled people with the technology needed to overcome some of those barriers to employment. To improve the long-term employment prospects of disabled people, James Taylor, Executive Director of Strategy, Impact and Social Change at Scope, recommended that the Government's Access to Work programme, which provides funding for employers and disabled people to get kit and equipment, should be promoted better to employers and disabled people, as there are still far too many people who do not know about it.[207] James went further in recommending that the Department for Work and Pensions should upskill employers much more coherently and cohesively than it does at the moment, perhaps through an online information portal or hub where employers can go to get the information they need.[208] In addition to Access to Work, James told us that some employers do not know that they need to make reasonable adjustments for disabled people under equality legislation, and that there is a definite gap in the amount of information for employers and in their development of that knowledge.[209]

178. Lastly, James noted that some particular groups, such as those who are deaf, hard of hearing or have a visual impairment, have found that when they interact with the Access to Work scheme those assessing their needs are not always up to speed with the latest support or the latest assistive technology that could benefit that person in the workplace.[210] James emphasised that there is not only a need to promote the scheme better to employers and disabled people, but also to upskill assessors on exactly what technology is available so that disabled people do not receive equipment that is unusable.

179. ***The Government should work with disabled people's organisations to develop a campaign to increase awareness of the Access to Work scheme amongst both employers and disabled people, and ensure that Access to Work assessors have the skills and knowledge required to offer the most appropriate solutions for increasingly digitalised workplaces.***

Potential future uses of technology and preparing for the hybrid world

180. We held several evidence sessions which explored how different digital trends were reshaping the world of work, and the impact that might have on our wellbeing. Three issues that arose repeatedly were:

- Platform working;

- Digital monitoring and surveillance; and

- Technology as an enabler of an 'always on call' culture.

181. Each of these will have implications for the employment rights needed in the hybrid world.

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207 Q 94 (James Taylor)
208 Q 100 (James Taylor)
209 *Ibid.*
210 *Ibid.*

Platform working

Box 10: What is platform and gig work?

The European Observatory of Working Life defines platform work as an employment form in which organisations or individuals use an online platform to access other organisations or individuals to solve specific problems or to provide specific services in exchange for payment. [211]

The UK Government has used the following definition of the gig economy— the gig economy involves exchange of labour for money between individuals or companies via digital platforms that actively facilitate matching between providers and customers, on a short-term and payment by task basis.[212]

182. In September 2020, the Fairwork Project published a report exploring the relationship between platform working and the COVID-19 pandemic.[213] The report suggested that half of gig workers had lost their jobs, and those still working had on average lost two-thirds of their income. However, Dr Kelle Howson, a researcher at Fairwork , suggested that any future increase in unemployment will also lead to an increased supply of platform workers.[214] The Fairwork Project's report also argued that as those platform workers who continued to work performed functions essential to society, the pandemic deepened the fracture lines of inequality by placing additional pressures on the women, migrants, and minority ethnic groups who form a core part of the platform workforce. Dr Howson noted that as platform work has relatively low barriers to entry, compared with other sectors of the labour market, it is performed disproportionately by people who experience high barriers in other areas:

> "Migrant workers, for example, may not have transferrable certificates and qualifications in their background professions. We also know that Black and minority ethnic minority communities have been overrepresented in more precarious and lower-paid work. Women who are more likely to have domestic care duties and need flexible working arrangements are more likely to turn to the gig economy."[215]

183. Dr Jamie Woodcock, a Senior Lecturer at the Open University, explained that platform working, and its practices, are spreading to other sectors:

> "We often think of platform work as being predominantly male— delivery drivers, taxi drivers and so on—but the largest growth area for platform work is health and social care. Arguably, more people work on platforms in this sector than elsewhere. The stress on the health service through the pandemic is likely to exacerbate the platformisation of parts

211 Eurofound, 'Eurwork: European Observatory of Working Life' (25 June 2018) https://www.eurofound.europa.eu/observatories/eurwork/industrial-relations-dictionary/platform-work [accessed 12 April 2021]

212 Department for Business, Energy & Industrial Strategy, *The Characteristics of those in the Gig Economy* (February 2018): https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/687553/The_characteristics_of_those_in_the_gig_economy.pdf [accessed 12 April 2021]

213 The Fairwork Project, *The Gig Economy and COVID-19: Looking Ahead* (September 2020): https://fair.work/wp-content/uploads/sites/97/2020/09/COVID-19-Report-September-2020.pdf [accessed 12 February 2021]

214 Q 108 (Dr Kelle Howson)

215 *Ibid.*

of health and social care, which will have a hugely detrimental impact on predominantly women workers, and BAME women workers, post pandemic."[216]

184. Dr Howson noted that many platform workers have faced income loss during the COVID-19 pandemic, as a result of lockdown restrictions and an inability to work.[217] Dr Howson explained that as platform workers do not have basic employment rights and protections, such as sick pay, the only way of improving their circumstances is through regulatory reform. Dr Howson advocated for a review of the current legislative framework serving platform workers, and argued that there is a need for clarity about employment status and, potentially, a review of the definition of workers to include platform workers. Dr Woodcock suggested that the existing regulation should be effective as it is, as long as all workers, including platform workers, are classified correctly as having employed status, worker status or self-employed status.[218] Dr Howson agreed, stating that platforms have the ability to misclassify their workers as self-employed, and that steps should be undertaken to address misclassification, possibly by placing the onus on firms to prove self-employment instead of workers proving that they are misclassified.[219] When asked what steps they would like to see taken to tackle misclassification, Dr Howson stated that "in the short to medium term, simply better enforcement of existing legislation."[220]

Box 11: The regulation of gig work

Most gig workers fall into a regulatory blind spot. Their conditions do not necessarily resemble what we would traditionally think of as self-employed workers. They tend to be quite dependent on platforms for their livelihood. Generally, they do not have an ability to set rates of payment for their work, and, while there is a promise of flexibility and autonomy, often what we see in practice is quite sophisticated and elaborate systems of incentives and penalties that govern the work of gig workers. We advocate a review of the current legislative framework serving gig workers. We think there is much more need for clarity about employment status and, potentially, reviewing the definition of workers to include platform workers, who are generally dependent on platforms for their security and for their livelihood.

Source: Q 103 (Dr Kelle Howson)

185. Since our oral evidence sessions discussing platform working, the UK Supreme Court has ruled that Uber drivers are workers, rather than self-employed.[221] Following this judgment, Uber has announced that it will guarantee its UK drivers a minimum wage, holiday pay and pension.[222]

186. **At present, it is difficult to anticipate the exact implications of the recent UK Supreme Court judgment in relation to Uber drivers —whether it will lead to voluntary improvements in the working**

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216 Q 108 (Dr Jamie Woodcock)
217 Q 103 (Dr Kelle Howson)
218 Q 103 (Dr Jamie Woodcock)
219 Q 104 (Dr Kelle Howson)
220 *Ibid.*
221 UK Supreme Court, *Uber BV and others v Aslam and others*, [2021] UKSC 5 (19 Feb 2021)
222 'Uber to pay UK drivers minimum wage, holiday pay and pension', *The Guardian* (16 March 2021): https://www.theguardian.com/technology/2021/mar/16/uber-to-pay-uk-drivers-minimum-wage-holiday-pay-and-pension [accessed 22 March 2021]

conditions of platform workers, whether those working for other platforms will bring similar court cases, or whether the Government will now enforce existing legislation, or introduce new legislation to protect the employment rights of platform workers. However, we welcome the UK Supreme Court's judgment as a first step towards ensuring employment rights certainty for platform workers.

187. ***The Government should introduce new legislation to provide platform workers with defined and enhanced employment rights.***

Digital monitoring and surveillance

188. Louise Marston, Director of Ventures at the Resolution Foundation, noted that there is a risk that employers may try to bridge the management gap created by increased remote working with technological tools.[223] Employers may decide to observe what employees are doing and try to monitor productivity remotely. This may lead to tracking what people are working on and how many things they are doing, in quite an instrumental, transactional way that does not necessarily capture the quality of their work.[224] There are already reports of some companies introducing increased monitoring and surveillance for staff working from home.[225] Louise noted that workplace surveillance and monitoring has already been in place for some workers for some time:

> "Call centres have had very close monitoring in place, whether you were at home or in the call centre. Lots of surveillance tools have been developed over the last few years and used in warehouses and call centres, and even for care workers moving between jobs and driving between houses."[226]

189. Louise explained that with the adoption of remote working, workplace monitoring has become more visible and is now affecting workers on higher incomes in more professional workplaces, and referred to a survey which found that one in five firms has already implemented such software or is considering it.[227] Kate Bell noted that a TUC survey had found that 22 per cent of workers said they had experience of artificial intelligence technology for absence management, 15 per cent said they had been rated by technology, and 14 per cent said they had experience of these technologies for work allocation.[228]

190. Louise told us that without consultation and discussion with staff about which data are being used, and how they should be used to support people, such technology can be a very blunt tool and can cause people considerable anxiety about whether it is monitoring things that are actually relevant.[229] Kate Bell suggested that new legislation is required to ensure stronger rights for workers to be informed of the use of this type of technology at work,

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223 Q 94 (Louise Marston)
224 *Ibid.*
225 'Call centre staff to be monitored via webcam for home-working infractions', *The Guardian* (26 March 2021): https://www.theguardian.com/business/2021/mar/26/teleperformance-call-centre-staff-monitored-via-webcam-home-working-infractions [accessed 29 March 2021]
226 Q 96 (Louise Marston)
227 *Ibid.*
228 Q 103 (Kate Bell)
229 Q 96 (Louise Marston)

stronger rights to collective decision-making over the use of this type of technology, and stronger rights to privacy and anti-discrimination.[230]

191. The ELA agreed, noting that whilst the UK's data privacy and employment laws limit what employers can do in this regard, with appropriate policies and data security in place a significant degree of employee surveillance and monitoring may be permissible.[231] It suggested that such action presents particular issues in the context of remote working and a worker's right to respect for private and family life. The ELA recommended that guidance should be prepared to deal with employee monitoring, a view shared by Anna Thomas, who raised concerns about the lack of guidance about the application of data protection regimes to workplace monitoring, and suggested that there are "real gaps" in the legal protection of workers.[232] Anna suggested that it is important not only to understand and apply existing rights under the data protection regime, but also to increase workers' rights to be involved in the process of workplace monitoring.

192. Louise Marston explained that employee's data could be used to improve their working lives and, in suggesting potential recommendations for the Committee, discussed making that data more accessible to individual workers.[233] Louise suggested that, in some cases, workers could take the data with them to another job to prove the level of competence they have achieved in the role: a delivery driver could share their rating from an app with a future employer, for example, or individuals could use data to document the workplace skills they have acquired.

Technology as an enabler of an 'always on call' culture

193. Concern around work-life balance as a result of increasing remote working was a common theme among witnesses, with the British Psychological Society stating that work-life balance can be threatened when it is difficult to maintain physical and psychological boundaries between work and personal life.[234] Carnegie UK Trust also emphasised that for those working remotely, working almost exclusively via digital platforms during the pandemic, it has brought new strains and expectations, isolation from co-workers and an often unhealthy blurring of boundaries between home and work.[235] There is also evidence to suggest that people are working longer hours (one study suggested an eight per cent rise in working hours),[236] which could be detrimental to wellbeing.

194. Professor Abigail Marks explained that employees are increasingly aware of the emails and messages they receive telling them how long they spend online.[237] As a result of these messages, employees feel that they are being monitored, and feel the need to spend more time online and undertaking work in their own time. Professor Marks noted that they had found an increase of between 20 per cent and 25 per cent in people's working hours,

230 Q 103 (Kate Bell)
231 Written evidence from the Employment Lawyers' Association (LOL0076)
232 Q 96 (Anna Thomas)
233 Q 100 (Louise Marston)
234 Written evidence from British Psychological Society (LOL0044)
235 Written evidence from the Carnegie UK Trust (LOL0096)
236 Andy Haldane, Chief Economist Bank of England, Speech on is home working good for you, 14 October 2020: https://www.bankofengland.co.uk/-/media/boe/files/speech/2020/is-home-working-good-for-you-speech-by-andy-haldane.pdf [accessed 12 February 2021]
237 Q 96 (Professor Abigail Marks)

in response to a real or perceived pressure to be online, and to be seen to be online. In response to such concerns, some have proposed a 'right to disconnect', which would enshrine in law a worker's right to not be contacted by their employer outside of working hours. This type of legislation already exists in a number of countries, including France, Italy and the Philippines.[238] Kate Bell noted that the TUC supports a 'right to switch-off', explaining that such a right would require management to have a conversation with its workforce to negotiate policies about when workers can switch-off.[239] Kate explained:

> "It is not a regulation that says that nobody must be emailed after 5 o'clock, but it is a regulation that says that you have to have that conversation with your staff, and you have to set safe limits."[240]

195. Kate recommended that a similar policy should be introduced in the UK, with the requirement for collective consultation and a collective discussion about working practices.[241]

196. Beyond recommending a right to switch-off, some witnesses suggested that there is a need to introduce new digital rights for employers to reflect our hybrid world. In relation to digital monitoring, for example, Kate Bell stated that:

> "This is an area where we will need new legislation … we certainly think we will need stronger rights to information over the use of this kind of technology at work, stronger rights to collective decision-making over the use of this kind of technology and stronger rights to privacy and antidiscrimination."[242]

197. **Our growing reliance on digital technology has caused, and will continue to cause, a huge shift in the nature of work, which, in turn, will change the nature of our relationship with our employers. For example, the growth of platform working, digital monitoring and 'epresenteeism' poses significant risks for our wellbeing in work. However, it seems clear that employment practice, policy and legislation have failed to catch up with the hybrid reality of today's workplace. As a result, we believe that the Government must intervene to introduce new employment policies and regulation to deal with the current, and future, changes to our working conditions, and the relationship between employee and employer. We do not believe we can rely on existing legislation, even if more forcibly implemented, or on individual legal initiatives such as the Uber court case.**

198. *We believe that, alongside its new hybrid strategy, the Government should consult on strengthening the current legislative framework for employment rights, to ensure it is suitable for the digital age (including consideration of a right to switch-off, responsibilities for meeting the costs of remote working, rights for platform workers, the use of workplace monitoring and surveillance, and giving workers a right to access data about their performance).*

238 Autonomy, *The New Normal: A blueprint for remote working* (October 2020): https://autonomy.work/wp-content/uploads/2020/10/2020_OCT26_RWB.pdf [accessed 13 April 2021]
239 Q 103 (Kate Bell)
240 *Ibid.*
241 *Ibid.*
242 *Ibid.*

CHAPTER 6: SOCIAL INTERACTION

199. Prior to the pandemic, for most of us, much of our social interaction happened face-to-face, but the COVID-19 restrictions have had a dramatic impact on our ability to interact and socialise with others, and we have been increasingly relying on digital communication methods to stay in touch. Many people are eagerly awaiting the relaxation of restrictions to allow increased socialising with family, friends and colleagues, and it is unlikely that digital communication will ever replace our desire to spend time with others face-to-face. As has already been emphasised throughout this report, "nothing on earth ever replaces face-to-face."[243] However, a long-term hybrid approach may improve the opportunities for some people, particularly those who struggle to access physical spaces, to establish and maintain relationships.

200. Public Health England has explained that the quality and quantity of social relationships can affect health behaviours, physical and mental health, and the risk of mortality.[244] For example, social isolation is associated with increased risk of coronary heart disease, in part, because social isolation and feelings of loneliness can be a physical or psychosocial stressor resulting in behaviour that is damaging to health, such as smoking.[245] On the other hand, positive social relationships and networks can promote health by:

- Providing individuals with a sense of belonging and identity;

- Sharing knowledge on how to access health and other public information and services;

- Influencing behaviour, for example through support from family or friends to quit smoking, reduce alcohol intake, or to access healthcare when needed; and

- Providing social support to cope with challenges such as pressures at school or work, life changes such as becoming a new parent, redundancy, or retirement.

Box 12: Social interaction, health and wellbeing

The best predictor of everything to do with your health and well-being—your mental health, your mental well-being, your physical health, your physical well-being, how susceptible you are to simple winter coughs and colds, how quickly you recover from major surgery, even your risk of dying and even the risk of your children's morbidity, falling prey to diseases, and indeed mortality—are a simple consequence of the number and quality of close friendships you have.

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243 Q 72 (Professor Robin Dunbar)

244 Public Health England, *Local Action on Health Inequalities: Reducing Social Isolation Across the Lifecourse* (September 2015): https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/461120/3a_Social_isolation-Full-revised.pdf [accessed 3 March 2021]

245 Public Health England, *Public Health Matters blog—Loneliness and Isolation: Social Relationships are Key to Good Health* (8 December 2015): https://publichealthmatters.blog.gov.uk/2015/12/08/loneliness-and-isolation-social-relationships-are-key-to-good-health/ [accessed 3 March 2021]

> If you always or often feel lonely, you are far more likely to attend A&E, you GP or local authority residential care, be unemployed, lose your job or not be productive, so there is a real cost incentive to investing in schemes to tackle loneliness. A recent study commissioned by the Government … estimates that the cost to public services per person who always or often feels lonely is about £9,500 a year, and that is quite a conservative estimate. We would be saving a lot by investing in our connections.

Source: Q 72 (Professor Robin Dunbar) and Q 75 (Olivia Field)

The impact of the pandemic on the use of digital technology

201. Many of us have responded to the pandemic-related restrictions on social contact by moving our social interactions online. Ofcom's annual Online Nation report found that more than seven in ten adults in the UK are now making video calls at least once a week, an increase from 35 per cent pre-pandemic. It suggested that this trend is particularly noticeable in older internet users, where the proportion of online adults aged 65 and over, who make at least one video-call a week increased from 22 per cent in February 2020 to 61 per cent by May 2020.[246]

202. Many organisations that previously offered face-to-face services that aim to tackle loneliness and social exclusion also started operating digitally. Jane East, Managing Director of the Cares Family, explained that it had replaced its activity clubs with Zoom phone-in clubs,[247] which bring together small groups for meaningful conversations, and Olivia Field, Head of Health and Resilience Policy at the British Red Cross, noted that many of its community-based services have had to shift from face-to-face provision to online or over the phone provision throughout the pandemic.[248]

203. At the same time, many of the day-to-day activities that incidentally offer social contact—travelling to and being in a workplace, shopping, banking etc—also moved online. For example, the latest ONS statistics, from November 2020, show a 75 per cent growth in the value of online retail sales compared to the same period the year before.[249] A recent survey by Waitrose found that 20 per cent of those doing their grocery shopping online had not considered it before.[250] Ian Macrae also referred to data from Lloyds Bank, showing that the number of over-70s who had signed up for online banking had tripled.[251]

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246 Ofcom, 'UK's internet use surges to record levels' (24 June 2020): https://www.ofcom.org.uk/about-ofcom/latest/media/media-releases/2020/uk-internet-use-surges [accessed 12 April 2021]

247 Q 68 (Jane East)

248 Q 68 (Olivia Field)

249 Office for National Statistics, 'Retail sales, Great Britain: November 2020': https://www.ons.gov.uk/businessindustryandtrade/retailindustry/bulletins/retailsales/november2020 [accessed 11 February 2021]

250 Waitrose and partners, *How Britain shops online*: https://www.waitrose.com/content/dam/waitrose/Inspiration/HOW%20BRITAIN%20SHOPS%20ONLINE%20FOOD%20&%20DRINK%20EDITION.pdf [accessed 11 February 2021]

251 Q 5 (Ian Macrae)

Box 13: Digital technology and social interaction in rural communities

Digital technology undoubtedly helps most rural residents to stay in contact with relatives and friends. It (as well as non-digital solutions) can play an important role in addressing the isolation and loneliness to be found within rural communities. Physical isolation can be an added dimension in rural areas for those living in small or outlying settlements. This may be compounded by … a lack of local facilities where people might typically meet and interact.

Source: Written evidence from the Rural Services Network (LOL0038)

What we have learned

204. Olivia Field stated that digital technology platforms, such as Twitter and Facebook have helped organisations like the British Red Cross to reach new audiences that are known to be struggling emotionally, and have also helped to give some people an opportunity to open up about their feelings.[252] Olivia explained that as these platforms provide people with a level of anonymity, this can give a more honest and accurate insight into some people's experiences. Olivia also emphasised that certain groups have benefited from the shift to online, particularly those who are "housebound or near housebound, because they have caring duties, or a lack of mobility, or a long-term health condition that prevents them getting out and about."[253]

205. However, Jane East explained that the move to offering support online has not been without its drawbacks, and that in its experience fewer young people have engaged with its projects, despite being able to access them online, as they did not feel that the online connection was as meaningful as a face-to-face connection.[254] Olivia Field also described how many British Red Cross service users have reflected on the fact that their online connections, and even their over-the-phone connections, have not been as meaningful as face-to-face connections. Olivia noted that many people have reported that it is much harder to broach difficult conversations, particularly about people's emotional needs and feelings, online.[255] Olivia also emphasised that many of the British Red Cross' frontline staff and volunteers reported that it is much more difficult to build a meaningful connection with service users online as these interactions often feel more transactional.

206. Barnardo's evidence concentrated on some of the positive impacts of 'living online' on young people's lives, such as increasing social connections, reducing social isolation and loneliness, accessing information and peer support networks, developing knowledge and learning through wider access to information, and enabling young people to develop an identity and express themselves freely and creatively.[256] Scope also discussed some of the positive implications of an increasing reliance on digital technology for disabled children and young people, including that the move online has meant less pressure to socialise in person, or in new places, and that friends and family have been more understanding of their concerns and willing to socialise online.[257] It noted that for others, the increase in online hangouts has also opened up new opportunities to join groups and meet new people

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252 Q 80 (Olivia Field)
253 *Ibid.*
254 Q 68 (Jane East)
255 Q 68 (Olivia Field)
256 Written evidence from Barnardo's (LOL0075)
257 Written evidence from Scope (LOL0094)

that they would not have met before. Jane East agreed, explaining that the Cares Family's projects have been able to bring people together online who would not usually use its activity clubs, particularly disabled people or people who are housebound.[258]

207. Young Minds also emphasised that digital technology can be beneficial in allowing young people to connect with others with similar experiences, identities and interests.[259] Notably, it suggested that social media has been shown to play an important role in young people feeling less lonely through the connection with like-minded peers. As part of work conducted by Young Minds, young people told it that having access to forums and social media platforms allowed them to develop friendships with people from different communities, town and countries in a way that they did not feel able to do otherwise. Young Minds noted that this may be particularly important for young people who experience marginalisation and discrimination in their communities. For example, research shows that online spaces can provide young LGBTQI+ people with opportunities to access important knowledge and information, as well as connect them with young people with similar experiences.

208. On the other hand, the Cares Family stated that online, people tend to seek out people who are like, or similar, to themselves, and that algorithms tend to connect people with people who think in a similar way.[260] It suggested that this can lead to reduction in the breadth of social connections, compared to those connections people might make in a workplace, at community centres, in pubs or libraries. Professor Robin Dunbar agreed, stating that one issue with online interactions and online environments is that they very quickly become silos or echo chambers, because people gravitate together.[261] Professor Dunbar argued that this is in contrast to traditional places where people meet each other, such as pubs or community centres, where people are "forced, whether you liked it or not, to talk to people who did not necessarily agree with you and whom you had not necessarily met before."[262]

209. Statistics on the prevalence of loneliness certainly suggest that restrictions on face-to-face interactions have had an impact. The What Works Centre for Wellbeing have stated that: "Prior to Covid-19, the Understanding Society (USoc) Survey found that 8.5% of people in the UK answered that they were often or always lonely."[263] A similar survey undertaken between March and May 2020 found that 18.5 per cent of people were often or always lonely. The Centre also stated that "people who felt most lonely prior to Covid in the UK now have even higher levels of loneliness", and found that those who "are young, living alone, on low incomes, out of work and, or with a mental health condition" were most at risk of being lonely.[264]

210. Professor Dunbar suggested this could have serious consequences: "The problem comes when people's natural socialisation processes are interrupted because they are unable to meet up, which kickstarts this steady decline in

258 Q 68 (Jane East)
259 Written evidence from Young Minds (LOL0099)
260 Written evidence from The Cares Family (LOL0115)
261 Q 74 (Professor Robin Dunbar)
262 *Ibid.*
263 What Works Centre for Wellbeing, *How has Covid-19 and associated lockdown measures affected loneliness in the UK*: https://whatworkswellbeing.org/wp-content/uploads/2020/08/COVID-LONELINESS-2020.pdf [accessed 4 March 2021]
264 *Ibid.*

relationships … The knock-on consequences will inevitably be increased rates of general diseases. The ones that seem to be most key here are some but not all cancers, particular coronary-type diseases, and dementias, which are hugely affected by whether or not you are well embedded in a network of social relationships."[265]

211. **For many people the option of maintaining relationships online during the pandemic has been better than nothing; but for those who are unable to leave their houses, perhaps because of a disability or caring responsibility, the growth in online social activities has been a real benefit that they will hope to maintain. It is also clear that most people are keen to resume 'real world' social interactions as soon as possible, and that loneliness has increased significantly while our only real outlet for interaction has been digital.**

Potential future uses of technology and preparing for the hybrid world

212. Witnesses working for organisations that support social inclusion recognised that the future would be hybrid. Olivia Field emphasised that despite the fact that "online services are here to stay to an extent", there is also a need to ensure that offline services are available, particularly to meet people's non-clinical needs, such as loneliness.[266] The Children's Society recommended that digital services should be provided in addition to other options for engaging with services, explaining that as society becomes increasingly digital, there should be options for people to become 'digital by choice', rather than forced to adapt to new ways of living overnight.[267] It explained that a blended approach, with both digital and face-to-face support available, would allow people to find support that is suitable for them, depending on their skills and circumstances. Jane East noted that in future the Cares Family will be offering hybrid services, as "some online engagements have been really useful and enabled people to engage who have never been able to before."[268]

213. **Throughout our inquiry, we have heard that essential services, such as healthcare, as well as opportunities to socialise with others, will increasingly be provided online. As such, providing individuals with digital rights will become increasingly more important, as discussed in more detail in Chapter 2.**

214. Witnesses expressed concern that, without local and national Government intervention, a hybrid world risks being one with few physical spaces within communities that allow for social interaction. Jane East emphasised that:

> "We risk looking back a few years from now and wondering how we got here. That will be the day when there are only self-service tills in shops, and some are already like that; when there are no banks for miles around—it is already like that; when post offices are hard to find—it is already like that. Libraries are closing, and all these communal spaces are closing."[269]

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265 Q 74 (Professor Robin Dunbar)
266 Q 68 (Olivia Field)
267 Written evidence from the Children's Society (LOL0085)
268 Q 74 (Jane East)
269 Q 80 (Jane East)

215. Olivia Field agreed, explaining that it is vital that we not only protect existing physical spaces, but also invest in new ones and re-imagine them so that they foster connections. Olivia stated that:

> "Those social spaces, the places where people go to maintain existing relationships and to build new ones, are essential in connecting our communities, protecting our resilience and protecting against loneliness."[270]

216. Olivia went on to suggest that there are already mechanisms such as regeneration funds and the Towns Fund, which could be used to invest in physical spaces, and that there is the potential to consider the social, as well as economic, impact of these investments.[271]

217. Olivia also explained that under-utilised places, such as shops that have closed, can be used by grass-roots community organisations, who often struggle to afford or access spaces to carry out their activities.[272] The Relationship Project discussed similar ideas, and outlined the opportunities offered by an increasing reliance on digital technology to change how physical spaces and facilities are used, explaining that the increase in online shopping could see:

> "'fulfilment centres' - the collection points in shops - could be reconfigured to include some facility for community interaction or perhaps they could be relocated into existing community facilities eg libraries, community centres, places of worship or the new Hubs which many councils established in lockdown. The service would not only increase foot fall but more importantly become a community meeting point and generate income which could pay for, for example, drop ins and coffee mornings."[273]

218. The government in Brussels is supporting initiatives where older people offer a room in their homes to a younger person, to help combat loneliness and issues around housing affordability. Projects are already under way to create 350 new intergenerational homes as part of the city's public housing policies.[274]

219. **Our increasing reliance on digital technology has only underlined the importance of protecting those physical spaces in communities which provide people with opportunities to meet face-to-face and provide digital infrastructure for communities. Neighbourhoods need to have spaces for social interaction, where people can go about their daily activities in proximity to each other; the modern equivalent of the old 'town square'. We know that many neighbourhoods have lost libraries and other community spaces in recent years, and the combination of the pandemic and the growth in e-commerce is now resulting in the closure of the sorts of places—shops, banks, cafes, pubs—that allow for incidental social interaction and enable people to feel more connected. We will explore these issues in more depth during our forthcoming inquiry on towns and cities but, given the relationship between social connection and wellbeing, this is a significant threat.**

270 Q 80 (Olivia Field)
271 *Ibid.*
272 Q 78 (Olivia Field)
273 Written evidence from The Relationship Project (LOL0120)
274 Future Generations Commissioner for Wales, *The Future Generations Report 2020: Executive Summaries*: https://www.futuregenerations.wales/wp-content/uploads/2020/07/Chapter-3_-A-Wales-of-Cohesive-Communities.pdf [accessed 13 April 2021]

More support is needed to facilitate local authorities, third sector organisations and businesses coming together with local communities to rethink how public spaces need to adapt to the hybrid world.

220. *As part of its post-pandemic recovery plans, the UK Government should bring together elements of the Future High Streets Fund, Towns Fund, and additional funding, to specifically protect the future of physical and communal spaces, such as libraries and neighbourhood centres, in villages, towns and cities in England. Local authorities should also be encouraged to use this funding to trial new types of community infrastructure, including digital infrastructure, such as the remote working 'hubs' mentioned in Chapter 5. Such remote working hubs could also be used to provide space for the community, for local clubs and societies, regular community events and adult learning classes.*

221. In October 2018, the Government published *A Connected Society: A Strategy for Tackling Loneliness*,[275] which had three goals:

    • To improve the evidence base to better understand what causes loneliness, its impacts and what works to tackle it;

    • To embed loneliness as a consideration across government policy, recognising the wide range of factors that can exacerbate feelings of loneliness and support people's social wellbeing and resilience; and

    • To build a national conversation on loneliness, to raise awareness of its impacts and to help tackle stigma.

222. While the strategy recognised that "society is changing rapidly" and that we are moving "towards a more digital society,"[276] there was no way of foreseeing how the COVID pandemic would dramatically change our relationship with digital technology, and each other.

223. In considering interventions that may help to tackle the impact of our increasing reliance on digital technology on loneliness and social isolation, Olivia Field explained that NHS England, in its first loneliness strategy, had committed to rolling-out social prescribing Link Workers. Olivia noted that this was:

    "based on a lot of work that the voluntary and community sector has been doing to tackle loneliness and connect individuals who have been isolated and lonely for long periods."[277]

224. Olivia described the social prescribing model, stating that it is a temporary service, rather than a long-term service, and that the social prescribing Link Worker typically works with an individual for three months. Olivia went on to state that:

    "We provide one-to-one tailored person-centred support, which involves really getting to know the individual, getting to the root of their issues

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275 Department for Digital, Culture, Media and Sport, *A Connected Society: A Strategy for Tackling Loneliness* (October 2018): https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936725/6.4882_DCMS_Loneliness_Strategy_web_Update_V2.pdf [accessed 9 March 2021]

276 *Ibid.*

277 Q 74 (Olivia Field)

and working with them to co-develop small, achievable goals that over that three-month period can raise their confidence and independence."[278]

225. Olivia emphasised that the social prescribing model has been effective in building people's confidence and independence, and that the social prescribing of one-to-one support can "make a massive difference."[279]

Box 14: Self-isolation, loneliness and reintegration

Many people have been isolating for the whole period since March—almost a year, now. I am really concerned about those people's ability to take up opportunities to reintegrate and have the confidence to connect with those around them, even when it is safe and there is an opportunity to do so. We have been calling for the Government to think about explicitly incorporating tackling loneliness into their recovery plans at national and local level. We are also calling for them to think about what sort of confidence and reintegration support will be available for people who have been most affected, and whose relationships have been most affected, by Covid to allow them to reintegrate into society in the aftermath.

Source: Q 73 (Olivia Field)

226. **The Government's Loneliness Strategy for England states that it does not "attempt to resist how society is changing or try to turn back time,"[280] but rather "looks at what can be done to design in support for social relationships in this changing context."[281] We have heard evidence that the smart use of digital technology can decrease loneliness, but we also acknowledge that the experience of the pandemic shows the importance of face-to-face interaction and that the Government's work to address loneliness is more important than ever. The approaches taken in the Loneliness Strategy, and by organisations working in this field, will need to recognise that we are living in a hybrid world, while also acknowledging the importance of face-to-face interaction.**

227. *In developing its new hybrid strategy, the UK Government should ensure that it interacts with, and complements, its existing Loneliness Strategy for England.*

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278 *Ibid.*
279 *Ibid.*
280 HM Government, *A Connected Society: A Strategy for Tackling Loneliness* (October 2018): https://assets. publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936725/6.4882_ DCMS_Loneliness_Strategy_web_Update_V2.pdf [accessed 9 March 2021]
281 *Ibid.*

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Introduction

1. *While we welcome the UK Government's commitment to developing a new Digital Strategy, we believe that it must go far beyond the traditional silo of 'digital' and recognise that all aspects of our lives are, and will increasingly be, a hybrid blend of online and offline interactions. In common with other critical issues that affect all Government departments, and that are embedded into all aspects of government policy, responsibility for a new hybrid strategy, and developing a wider hybrid approach, should sit with the Cabinet Office and the Prime Minister. This central oversight of the hybrid approach should ensure the consideration of its impact on inequality and the evaluation of what services should be delivered remotely or face-to-face.* (Paragraph 15)

Overarching themes

2. The COVID-19 pandemic has highlighted and exacerbated the deep inequalities that have existed in society for some time. Digital inequality is one vivid example of this. (Paragraph 28)

3. Throughout our inquiry, we have heard concerns that our increasing reliance on digital technology is having a detrimental impact on certain groups and communities, and is leading to some people being left behind. This cannot be allowed to continue. There are more analytical tools for Government to measure the unequal impact of digital technology than ever before, and we believe that the Government must use these analytical tools to understand which groups and communities are, or are not, using digital technology. This data must then be used to develop specific programmes to ensure that all groups and communities have the opportunity to benefit from the increasing use of digital technology, and that the hybrid world is one that tackles, rather than exacerbates, existing inequalities. (Paragraph 29)

4. *The Government should ensure that using digital technology to tackle existing inequalities is a key strand running through its new hybrid strategy. It should also publish a detailed equality impact assessment alongside its strategy, explaining the effect of its plans on different communities and how it will mitigate any negative consequences identified.* (Paragraph 30)

5. In today's society, home broadband is an essential utility in the same way as water or electricity: without it, people are excluded from employment opportunities and access to vital services. No one should be without access to the internet for reasons of cost or location. (Paragraph 38)

6. *We urge the Government to consider introducing a legal right to internet access and digital infrastructure, which is regulated in a way that gives individuals a suitable right to redress. We note that the Digital Economy Act 2017 included the creation of a broadband Universal Service Order, giving all premises in the UK a legal right to request a minimum standard of broadband connectivity.* (Paragraph 39)

7. *However, to tackle the immediate lack of digital access we believe that just as those in receipt of income-related benefits can access social tariffs and additional payments to help cover water and electric bills, as part of its new hybrid strategy, the Government should work with internet providers to develop a scheme to provide affordable internet, and suitable, safe devices (not necessarily just a smartphone), on which to use it, to those in poverty and on low incomes.* (Paragraph 40)

8. We welcome the UK Government's introduction of a legal entitlement to digital skills training in England, and agree that such skills are now as essential as basic literacy and numeracy. Undertaking formal qualifications, however, will not be the right solution for everyone. (Paragraph 41)

9. *The Government must make a commitment (and an ambitious target) to improve digital literacy central to its new hybrid strategy, and work with charities, skills providers and local authorities to deliver a comprehensive digital skills programme, informed by the knowledge these organisations have about how to meet effectively the varied needs of different communities. (Paragraph 42)*

10. *The Government should put investment in digital skills at the heart of its new hybrid strategy and ensure that both the school curriculum and adult skills provision adequately meets the needs of the hybrid world. One element of this should be the development of a new Digital Skills for Work Framework for England (and ideally in agreement with Scotland, Wales and Northern Ireland), to tackle the radically altered employment landscape resulting from the COVID-19 pandemic. The Framework must consider the different requirements of different communities and include specific action to tackle the low levels of digital skills amongst disabled people. (Paragraph 50)*

11. While we understand that many workplaces, including health settings and schools, were required to introduce online services urgently during the COVID-19 pandemic, we believe that it is unacceptable to expect people to continue to provide digital services without adequate training and resources. (Paragraph 51)

12. *The Government should work with training providers and professional bodies to ensure that both the initial training of workers such as teachers and medical professionals and their Continuing Professional Development reflects how digital technology will be an integral part of their working lives. (Paragraph 52)*

13. Throughout our inquiry we identified a lack of research on specific issues. We noted that there was insufficient evidence about the experiences of women, and that there was a striking gap in research on the experiences of Black and Asian communities. These communities have been disproportionately affected by COVID-19, and we cannot allow people to be further marginalised because policies and interventions designed to prepare for the hybrid world have not been developed to meet their needs. It is only by having comprehensive data, and using the right analytical tools, about the experiences of different communities, and particularly Black and Asian communities, that the Government can formulate policies that are inclusive and deliver for all. As such, we must emphasise that the Government's new hybrid strategy can only be effective if there is sufficient, accurate data and research to underpin it. (Paragraph 60)

14. *The Government should work with UK Research Councils and Higher Education funding bodies to identify and address gaps in the evidence base for both how our increasingly hybrid world is impacting on different communities, and on the effectiveness of policies and interventions developed in response to the digital future. The lack of data on Black and Asian communities' experiences, alongside those of other minority ethnic communities, should be a particular priority. (Paragraph 61)*

15. There is no doubt that digital technology is playing an increasing role in the provision of healthcare services, and will continue to do so. While we welcome the potential for digital technology to allow patients to monitor

their own health and for the NHS to develop innovative medical treatments, witnesses consistently told us that there were no clear processes in place for developing, evaluating and implementing these digital healthcare interventions. Without a robust evaluation method it will be very difficult to decide which interventions should be scaled-up and rolled-out nationally, risking some ineffective interventions being rolled-out and some effective interventions not being rolled-out. (Paragraph 62)

16. *The Government should ensure that the processes in place to develop, test and evaluate digital health interventions are as robust as those used for physical health interventions.* (Paragraph 63)

17. We agree with those witnesses who emphasised the importance of working with the intended audience when developing new skills initiatives and new technology, as well as the innovative use of existing tools and technologies. A single approach to tackling digital inequality or the digital skills gap is bound to fail. Communities have a wealth of knowledge about what will work best for their members, and it is by listening to their views and experiences that we can ensure that interventions will have the biggest, and best, impact. (Paragraph 67)

18. *In its hybrid strategy, the Government must commit to listening to the views and experiences of communities and working with them to discuss, develop and implement solutions that meet their needs.* (Paragraph 68)

19. In the hybrid world, a safe and reliable internet will become increasingly important for everyone—individuals, businesses, Government—and any threat to digital infrastructure will threaten our ability to work, access essential services, buy groceries online, and access our money through online banking. As such, it is vital that the Government takes action to protect our digital infrastructure from threats, such as cyber-attacks, in the same way that other aspects of Critical National Infrastructure are monitored and protected. (Paragraph 77)

20. *As part of its new hybrid strategy, the Government should commit to reviewing the resilience of the UK's digital infrastructure every two years and to report to Parliament on this review and the action being taken to ensure it is adequately robust for the hybrid world.* (Paragraph 78)

21. *We have not received much evidence on regulation and digital rights and these issues have not been considered in detail throughout our inquiry. We do not underestimate the complexity of digital regulation and digital rights, but believe that these issues, including digital rights, must be considered by the Government in developing its hybrid strategy.* (Paragraph 83)

22. Treating the internet as an essential utility will include regulating it in the same way as other utilities. This will involve challenging the international private sector internet corporations and their supply and pricing policies. Until now, European and North American governments have achieved very little in this area, but the United Kingdom should use its 'soft power' strengths to take the lead in developing a new strategy. (Paragraph 84)

23. Given the ever-increasing prevalence of the internet in our lives, there is an urgent need for comprehensive research to explore the relationship between digital technology and wellbeing, particularly amongst children and young people. This research must go beyond screen time alone, and must also

consider the experiences of marginalised and vulnerable young people. (Paragraph 89)

24. There is a vast framework of legislation and policy designed to keep us safe in the offline world. Part of preparing for the hybrid world must involve considering how to ensure the same levels of protection in the online world, particularly for children and vulnerable adults. This needs to encompass issues such as child protection, privacy and safeguarding. (Paragraph 90)

25. *We welcome the Government's commitment to publishing an Online Harms Bill and urge it to bring this legislation forward in the next session of Parliament. It will need to reflect the central role that the internet plays in our education, work and social lives, and ensure that provisions are put in place to protect children and vulnerable people online which are at least as robust as those in place offline.* (Paragraph 91)

Health

26. COVID-19 resulted in a dramatic shift to healthcare services being delivered online. While this was driven by necessity, some people have benefited from this approach and will want it to continue. Digitally delivered services also present opportunities to save time and treat more people; given the significant existing pressures on mental health services, for example, which are only expected to grow as a result of the pandemic, the increasing adoption of digital interventions may be the only realistic way of providing a service to those who need help, but always ensuring that face-to-face consultations are available as an alternative when clinically preferable or desired by patients. (Paragraph 97)

27. *The Government must commit to ensuring health professionals have the training and equipment needed to deliver digitally effective services in the most appropriate way.* (Paragraph 98)

28. There is clearly significant potential to improve our health and wellbeing by harnessing both the day-to-day technology that many of us use and by developing healthcare specific products and tools. However, some people may be wary of such technology due to concerns about data privacy and data sharing. As highlighted earlier in this report, these benefits will only be realised if there is a robust system in place for developing, testing and evaluating such approaches, and if significant progress is made on tackling digital inequality and making these technologies accessible to all. (Paragraph 107)

29. We heard from witnesses that some conditions may be missed during remote consultations, while other medical specialisms may not be suitable for virtual appointments. However, digital technology and patient data can also be used to help ensure that a patient's medical needs are understood more fully. As such, we believe that the hybrid healthcare service must be underpinned by an acknowledgement of the potential opportunities and current shortcomings of digital provision in certain circumstances and a commitment to ensure that all patients receive the very best healthcare service. (Paragraph 114)

30. *As part of its new hybrid strategy, the Government should work to develop a genuinely hybrid healthcare service. In implementing a hybrid healthcare service the Government should work with the NHS to evaluate what treatments are suitable to be offered digitally, and provide further funding to research new digital interventions for those specialisms that currently cannot be provided remotely. The Government should also work with the NHS to ensure that current, and future, healthcare systems*

and processes reflect the new hybrid reality, including the importance of face-to-face provision, and enable patients to move seamlessly between online and offline service provision. (Paragraph 115)

31. *The digitally hybrid healthcare service in England should be underpinned by a code of practice giving patients the right to receive services online or offline, as well as guaranteeing a minimum service standard for both online and offline healthcare services, including a right to contact their doctor digitally. In developing this code of practice, the Government should undertake a review of patients' rights in hybrid healthcare provision, including its impact on accessibility, privacy and the triage between face-to-face and digital provision.* (Paragraph 116)

Education in schools

32. We are deeply concerned by the impact of the prolonged period of disrupted study on pupils' educational outcomes, future education, employment opportunities and their long-term wellbeing. We note that many of our witnesses were unconvinced that the measures announced by UK Government so far are sufficient to address the scale of the problem. (Paragraph 131)

33. *The Government must prioritise mitigating the long-term impact of the prolonged period of disrupted learning on children's life-chances and wellbeing. This should include undertaking research to understand the very different experiences of children from different communities, ensuring that specific funding and support is available to address the growing attainment gap between advantaged and disadvantaged pupils, and establishing a support programme focused on the wellbeing of children and young people post-pandemic. The Government must also recognise the impact that a lack of space to work from home has had on children's learning, and ensure that this is recognised in their 'catch-up' plans for pupils.* (Paragraph 132)

34. The pandemic has highlighted that large numbers of children do not have the internet connections, access to devices, or quiet space to be able to work effectively online from home. This does not become irrelevant when schools return: unless action is taken to address this, these children's inability to complete online homework assignments, undertake additional study and develop the familiarity with working online that will be expected in their future working lives, will lead to an ever widening inequality between them and their more advantaged peers. Unless and until all children have access to the internet, and the skills they need to make use of digital technology, the Government cannot consider itself prepared for the hybrid world. (Paragraph 138)

35. *The Government should work with local authorities and schools to fund a specific support programme to ensure that all children have an adequate internet connection and suitable digital devices to work effectively online from home. It must also provide funding to ensure that teachers and schools can make the most of the benefits that an increasing role for online learning offers. The Government should ensure that the curriculum reflects the increasing need for digital skills and provides all children and young people with the skills needed for our hybrid world.* (Paragraph 139)

36. *In common with the other areas of life considered in this report, it will be important that those who have benefitted from the rapid shift to online—in this case, young disabled people in particular—do not find the option for more flexible, digital study withdrawn once schools are able to fully reopen.* (Paragraph 140)

Work

37. The combination of the pandemic and increases in automation and other digital trends is radically changing the number and types of jobs available in different sectors. It is too soon to know how many people will lose their jobs and be unable to quickly gain new ones but it is clear that a very great number of people will need both financial support whilst unemployed and access to training to enable them to obtain new skills fit for the digital/AI era and employment. (Paragraph 157)

38. *There will clearly need to be significant action from the Government to tackle future increases in unemployment. We fully endorse the recommendations of the House of Lords Economic Affairs Committee's report Employment and COVID-19: Time for a New Deal.* (Paragraph 158)

39. Just as with other aspects of the increasing reliance on digital technology, remote working has the potential to bring both benefits and risks and will impact different people in different ways. If the Government is committed to improving people's wellbeing, it should consider how to ensure those who would benefit from the continued ability to work more flexibly, including remotely, are enabled to do so. It should also ensure that the tax system does not create barriers to remote working. Employers will also need to consider how to mitigate the risks of any increases in remote working exacerbating inequalities, including the particular impact on women and younger people. (Paragraph 166)

40. *The Government should work with employers and trade unions to ensure that decisions about job locations are equality impact assessed, so that people are not excluded from employment opportunities because of their living situation.* (Paragraph 167)

41. Many people's experience of working life has changed significantly in the last year—with many people working from home and others on furlough or working reduced hours. Many others have lost their jobs entirely and there are many more job losses expected in the months and years ahead. (Paragraph 174)

42. *The Government should work with disabled people's organisations to develop a campaign to increase awareness of the Access to Work scheme amongst both employers and disabled people, and ensure that Access to Work assessors have the skills and knowledge required to offer the most appropriate solutions for increasingly digitalised workplaces.* (Paragraph 179)

43. At present, it is difficult to anticipate the exact implications of the recent UK Supreme Court judgment in relation to Uber drivers—whether it will lead to voluntary improvements in the working conditions of platform workers, whether those working for other platforms will bring similar court cases, or whether the Government will now enforce existing legislation, or introduce new legislation to protect the employment rights of platform workers. However, we welcome the UK Supreme Court's judgment as a first step towards ensuring employment rights certainty for platform workers. (Paragraph 186)

44. *The Government should introduce new legislation to provide platform workers with defined and enhanced employment rights.* (Paragraph 187)

45. Our growing reliance on digital technology has caused, and will continue to cause, a huge shift in the nature of work, which, in turn, will change the

nature of our relationship with our employers. For example, the growth of platform working, digital monitoring and 'epresenteeism' poses significant risks for our wellbeing in work. However, it seems clear that employment practice, policy and legislation have failed to catch up with the hybrid reality of today's workplace. As a result, we believe that the Government must intervene to introduce new employment policies and regulation to deal with the current, and future, changes to our working conditions, and the relationship between employee and employer. We do not believe we can rely on existing legislation, even if more forcibly implemented, or on individual legal initiatives such as the Uber court case. (Paragraph 197)

46. *We believe that, alongside its new hybrid strategy, the Government should consult on strengthening the current legislative framework for employment rights, to ensure it is suitable for the digital age (including consideration of a right to switch-off, responsibilities for meeting the costs of remote working, rights for platform workers, the use of workplace monitoring and surveillance, and giving workers a right to access data about their performance).* (Paragraph 198)

Social interaction

47. For many people the option of maintaining relationships online during the pandemic has been better than nothing; but for those who are unable to leave their houses, perhaps because of a disability or caring responsibility, the growth in online social activities has been a real benefit that they will hope to maintain. It is also clear that most people are keen to resume 'real world' social interactions as soon as possible, and that loneliness has increased significantly while our only real outlet for interaction has been digital. (Paragraph 211)

48. Throughout our inquiry, we have heard that essential services, such as healthcare, as well as opportunities to socialise with others, will increasingly be provided online. As such, providing individuals with digital rights will become increasingly more important, as discussed in more detail in Chapter 2. (Paragraph 213)

49. Our increasing reliance on digital technology has only underlined the importance of protecting those physical spaces in communities which provide people with opportunities to meet face-to-face and provide digital infrastructure for communities. Neighbourhoods need to have spaces for social interaction, where people can go about their daily activities in proximity to each other; the modern equivalent of the old 'town square'. We know that many neighbourhoods have lost libraries and other community spaces in recent years, and the combination of the pandemic and the growth in e-commerce is now resulting in the closure of the sorts of places—shops, banks, cafes, pubs—that allow for incidental social interaction and enable people to feel more connected. We will explore these issues in more depth during our forthcoming inquiry on towns and cities but, given the relationship between social connection and wellbeing, this is a significant threat. More support is needed to facilitate local authorities, third sector organisations and businesses coming together with local communities to rethink how public spaces need to adapt to the hybrid world. (Paragraph 219)

50. *As part of its post-pandemic recovery plans, the UK Government should bring together elements of the Future High Streets Fund, Towns Fund, and additional funding, to specifically protect the future of physical and communal spaces, such as libraries and neighbourhood centres, in villages, towns and cities in England.*

Local authorities should also be encouraged to use this funding to trial new types of community infrastructure, including digital infrastructure, such as the remote working 'hubs' mentioned in Chapter 5. Such remote working hubs could also be used to provide space for the community, for local clubs and societies, regular community events and adult learning classes. (Paragraph 220)

51. The Government's Loneliness Strategy for England states that it does not "attempt to resist how society is changing or try to turn back time," but rather "looks at what can be done to design in support for social relationships in this changing context." We have heard evidence that the smart use of digital technology can decrease loneliness, but we also acknowledge that the experience of the pandemic shows the importance of face-to-face interaction and that the Government's work to address loneliness is more important than ever. The approaches taken in the Loneliness Strategy, and by organisations working in this field, will need to recognise that we are living in a hybrid world, while also acknowledging the importance of face-to-face interaction. (Paragraph 226)

52. *In developing its new hybrid strategy, the UK Government should ensure that it interacts with, and complements, its existing Loneliness Strategy for England.* (Paragraph 227)

APPENDIX 1: LIST OF MEMBERS AND DECLARATIONS OF INTEREST

Members

Lord Alderdice
Baroness Benjamin
Baroness Chisholm of Owlpen
Lord Duncan of Springbank
Lord Elder
Lord Hain
Lord Harris of Haringey
Baroness Jay of Paddington
Baroness Lane-Fox of Soho (Chair)
Baroness Morgan of Cotes
Lord Pickles
Baroness Young of Hornsey

Declarations of interest

Lord Alderdice
> *Retired NHS Medical Practitioner*
> *President and Director, ARTIS (Europe) Ltd*

Baroness Benjamin
> *Chair, Internet of Toy - Children and Parents Panel*

Baroness Chisholm of Owlpen
> *No relevant interests declared*

Lord Duncan of Springbank
> *Member, Court of St Andrews University*

Lord Elder
> *No relevant interests declared*

Lord Hain
> *No relevant interests declared*

Lord Harris of Haringey
> *Chair, National Preparedness Commission*
> *President, Institute for Strategic Risk Management*
> *Member of Board, Cyber Security Challenge Ltd*
> *Chair, National Trading Standards*
> *Chair, Fundraising Regulator*
> *Co-President, London Councils*

Baroness Jay of Paddington
> *No relevant interests declared*

Baroness Lane-Fox of Soho (Chair)
> *Chair, wetransfer*
> *Board Member, Twitter*

Baroness Morgan of Cotes
> *No relevant interests declared*

Lord Pickles
> *No relevant interests declared*

Baroness Young of Hornsey
> *Co-chair, Foundation for Future London*
> *Chancellor, University of Nottingham*

A full list of Member's interests can be found in the Register of Lords Interests:
https://members.parliament.uk/members/lords/interests/register-of-lords-interests

Nancy Hey (Specialist Advisor)
Executive Director, What Works Centre for Wellbeing

APPENDIX 2: LIST OF WITNESSES

Evidence is published online at https://committees.parliament.uk/committee/460/covid19-committee/ and available for inspection at the Parliamentary Archives (020 7219 3074).

Evidence received by the Committee is listed below in chronological order of oral evidence session and in alphabetical order. Those witnesses marked with ⋆⋆ gave both oral evidence and written evidence. Those marked with ⋆ gave oral evidence and did not submit any written evidence. Any other witnesses submitted written evidence only.

Oral evidence in chronological order

⋆⋆	Richard Hart, Deputy Head of the Library Service, Leeds City Council, and Team Manager, 100% Digital Leeds	QQ 1–14
⋆⋆	Douglas White, Head of Advocacy, Carnegie UK Trust	
⋆⋆	Helen Milner, Group Chief Executive, Good Things Foundation	
⋆	Ian Macrae, Director of Market Intelligence, Ofcom	
⋆	Benedict Evans, Independent Analyst	QQ 15–24
⋆	Gerard Grech, CEO, Tech Nation	
⋆	Hanna Johnson, Chief Operating Officer, Public	
⋆	Professor Helen Margetts, Programme Director for Public Policy, Alan Turing Institute	
⋆	Dr Ruth Chambers, Staffordshire Sustainability and Transformation Partnership	QQ 25–36
⋆⋆	Dr Farah Jameel, Executive Member of the General Practioners Committee, The British Medical Association	
⋆	Chris McCann, Director of Communications, Insight and Campaigns, Healthwatch	
⋆⋆	Dr Pritesh Mistry, Policy Fellow for Digital Technology, The King's Fund	
⋆⋆	Tim Copley, Director of Insight, Technology and Data, London Sport	QQ 37–48
⋆⋆	Dr Charlie Foster, Reader in Physical Activity and Public Health, University of Bristol	
⋆⋆	Dr Sally Fowler-Davis, Associate Professor, Advanced Wellbeing Research Centre	
⋆	Joe Lyons, CEO, West Ham United Foundation	
⋆	Professor Kate Cavanagh, Professor of Clinical Psychology, University of Sussex	QQ 49–66
⋆	Tom Foley, Honorary Senior Clinical Lecturer, Newcastle University	

★★	Dr Richard Graham, Consultant Psychiatrist, Good Thinking	
★	Akiko Hart, CEO, National Survivor User Network	
★★	Dr Bernadka Dubicka, Chair of the Faculty of Child and Adolescent Psychiatry, Royal College of Psychiatrists	
★★	Dr Linda Kaye, Chair of Cyberpsychology section, British Psychological Society	
★	Professor Robin Dunbar, Professor of Evolutionary Psychology, University of Oxford	QQ 67–80
★★	Jane East, Managing Director, Cares Family	
★★	Olivia Field, Head of Health and Resilience Policy, British Red Cross	
★	Josh Abey, Researcher, Fabian Society	QQ 81–90
★	Verity Davidge, Director of Central Policy, Make UK	
★	Andrew Goodacre, Chief Executive Officer, British Independent Retailers Association	
★	Fabian Wallace-Stephens, Senior Researcher in the Economy, Enterprise and Manufacturing Team, RSA	
★★	Professor Abigail Marks, Principal Investigator, Working@home Project, and Professor of the Future of Work, Newcastle University	QQ 91–101
★★	Anna Thomas, Director, Institute for the Future of Work	
★★	James Taylor, Executive Director of Strategy, Impact and Social Change, Scope	
★	Kate Bell, Head of Rights, International, Social and Economics, TUC	QQ 102–111
★	Jon Boys, Labour Market Economist, CIPD	
★	Dr Kelle Howson, Researcher, Fairwork Foundation	
★★	Dr Jamie Woodcock, Senior Lecturer, Open University	
★	Margaret Mulholland, SEND and Inclusion Specialist	QQ 112–122
★	Natalie Perera, Chief Executive, Education Policy Institute	
★	Richard Sheriff, President, Association of School and College Leaders	
★★	James Turner, Chief Executive, Sutton Trust	

Alphabetical list of all witnesses

★   Josh Abey, Researcher, Fabian Society (QQ 81–90)

Ada Lovelace Institute, The Health Foundation   LOL0105

Addressing Poverty with Lived Experience (APLE)   LOL0031

★   Dr Sally Fowler-Davis, Associate Professor, Advanced Wellbeing Research Centre (QQ 37–48)

Age UK   LOL0043

Professor Paul Allin   LOL0020

Amazon UK   LOL0136

Ask Research   LOL0026

Association of British Insurers   LOL0114

Asthma UK and British Lung Foundation Partnership   LOL0088

Ms Katie Atmore   LOL0055

Authors' Licensing and Collecting Society   LOL0050

Barnado's   LOL0075

Professor Stephen Bevan   LOL0027

Miss Olivia Blair   LOL0037

Dr Philip Blakelock   LOL0095

The British Association for Counselling and Psychotherapy (BACP)   LOL0049

★   Andrew Goodacre, Chief Executive Officer, British Independent Retailers Association (QQ 81–90)

★★   British Psychological Society (QQ 49–66)   LOL0044

    LOL0119

★★   British Medical Association (QQ 25–36)   LOL0077

★★   British Red Cross (QQ 67–80)   LOL0130

Cambridge Centre for Housing and Planning Research, University of Cambridge   LOL0008

The Cambridge Housing Society   LOL0009

★★   The Cares Family (QQ 67–80)   LOL0115

★★   Carnegie UK Trust (QQ 1–14)   LOL0096

★   Professor Kate Cavanagh, Professor of Clinical Psychology, University of Sussex (QQ 49–66)

Dr Marta E Cecchinato   LOL0066

Centre for Ageing Better   LOL0051

Centre for Educational Neuroscience   LOL0132

★   Dr Ruth Chambers, Staffordshire Sustainability and Transformation Partnership (QQ 25–36)

	Chartered Management Institute	LOL0057
	Mr Dharmesh Chauhan	LOL0013
	Children and Families, Leeds City Council	LOL0112
	The Children's Society	LOL0085
★★	Tim Copley, Director of Insight, Technology and Data, London Sport (QQ 37–48)	LOL0014
	David Cook	LOL0066
	Professor Anna L Cox	LOL0066
	Ms Antoinette Davey	LOL0055
	Department of Digital, Culture, Media & Sport	LOL0122
	Department of Finance (DoF) in Northern Ireland	LOL0118
★	Verity Davidge, Director of Central Policy, Make UK (QQ 81–90)	
	Diabetes UK	LOL0104
	Digital Policy Alliance (EURIM)	LOL0103
★	Dr Bernadka Dubicka, Chair of the Faculty of Child and Adolescent Psychiatry, Royal College of Psychiatrists (QQ 49–66)	
★	Professor Robin Dunbar, University of Oxford (QQ 67–80)	
	Durham University	LOL0110
		LOL0060
	Employment Lawyers Association	LOL0076
	Viktoria Erlacher	LOL0010
★	Benedict Evans, Independent Analyst (QQ 15–24)	
★	Josh Abey, Researcher, Fabian Society (QQ 81–90)	
	Facebook	LOL0089
	Professor Alan Felstead	LOL0034
	Ms Louise Fisher	LOL0055
	Mirika Flegg	LOL0010
	Dr Guy Fletcher	LOL0062
★	Tom Foley, Honorary Senior Clinical Lecturer, Newcastle University (QQ 49–66)	
★★	Dr Charlie Foster OBE, Reader in Physical Activity and Public Health, University of Bristol (QQ 37–48)	LOL0015
★	Dr Sally Fowler-Davis, Associate Professor, Advanced Wellbeing Research Centre (QQ 37–48)	
	FutureDotNow	LOL0131
	Ms Jessica R Gates	LOL0017

	General Medical Council	LOL0123
	Dr Kate Gibson, Population Health Sciences Institute, Newcastle University	LOL0060
	Professor Simon Gilbody	LOL0042
	Girlguiding	LOL0033
	Glitch	LOL0068
★	Andrew Goodacre, Chief Executive Officer, British Independent Retailers Association (QQ 81–90)	
★★	Good Things Foundation (QQ 1–14)	LOL0080
★★	Good Thinking (QQ 49–66)	LOL0125
	Dr Victoria Goodyear	LOL0093
	Dr Sandy JJ Gould	LOL0066
★	Gerard Grech, CEO, Tech Nation (QQ 15–24)	
	Professor David J Hand	LOL0020
	Professor Angie Hart	LOL0010
★	Richard Hart, Deputy Head of the Library Service, Leeds City Council, and Team Manager of 100% Digital Leeds (QQ 1–14)	
★	Akiko Hart, CEO, National Survivor User Network (QQ 49–66)	
★	Chris McCann, Healthwatch (QQ 25–36)	
	Paul Heron	LOL0042
	Mr Mervyn Hogg	LOL0067
	Professor Louise Howard	LOL0055
	Ieso Digital Health	LOL0116
★	Anna Thomas, Director, Institute for the Future of Work (QQ 91–101)	
	Institute for Social and Economic Research, University of Essex	LOL0064
	Intergenerational Foundation	LOL0108
	Mr Nigel Jacklin	LOL0084
	Dr Niklas Johannes	LOL0047
★	Hanna Johnson, Chief Operating Officer, Public (QQ 15–24)	
	Dr Rebecca Jones	LOL0023
	Just Fair	LOL0035
★★	The Kings Fund (QQ 25–36)	LOL0113
	Koka	LOL0006
	Lancaster Digital Skills Partnership	LOL0126

	Lancaster University	LOL0069
	Learning Disability England	LOL0102
	Dr Ines Lee	LOL0030
★	Richard Hart, Deputy Head of the Library Service, Leeds City Council, and Team Manager of 100% Digital Leeds (QQ 1–14)	
	The LEGO Group	LOL0107
	Professor Pauline Leonard	LOL0002
	Professor Feng Li, The Business School, City, University of London	LOL0019
★★	Tim Copley, Director of Insight, Technology and Data, London Sport (QQ 37–48)	LOL0014
	Loughborough University	LOL0124
★	Joe Lyons, CEO, West Ham United Foundation (QQ 37–48)	
★	Ian Macrae, Director of Market Intelligence, Ofcom (QQ 1–14)	
	Dr Suna Eryigit-Madzwamuse	LOL0010
	Ms Jo Maitland	LOL0055
★	Verity Davidge, Director of Central Policy, Make UK (QQ 81–90)	
	Dr Oliver Mallett	LOL0070
	The Manchester Metropolitan University	LOL0106
★★	Professor Abigail Marks, Principal Investigator, Working@home Project, and Professor of the Future of Work, Newcastle University (QQ 91–101)	LOL0070
	Dr Hannah R Marston	LOL0017
	Mastercard	LOL0078
	Mencap	LOL0082
	Mental Health First Aid England	LOL0117
	Maternal Mental Health Alliance (MMHA)	LOL0032
	NHIR Mental Health Policy Research Unit	LOL0056
	Mesothelioma UK	LOL0018
	Mr Motin Miah	LOL0025
★	Helen Milner, Group Chief Executive, Good Things Foundation (QQ 1–14)	
	Mind	LOL0087
	Professor Suzanne Moffat, Population Health Sciences Institute, Newcastle University	LOL0060

	Professor Wendy Moncur	LOL0061
	Professor Henrietta Moore	LOL0083
	Dr Deborah J Morgan	LOL0017
	Dr Sarah Morgan-Trimmer	LOL0055
	Professor Victoria Nash	LOL0047
	National Autistic Society	LOL0097
	The National Centre for Social Research	LOL0058
★	Akiko Hart, CEO, National Survivor User Network (QQ 49–66)	
	Dr Joseph Newbold	LOL0066
★	Tom Foley, Honorary Senior Clinical Lecturer, Newcastle University (QQ 49–66)	
★★	Professor Abigail Marks, Principal Investigator, Working@home Project, and Professor of the Future of Work, Newcastle University (QQ 91–101)	LOL0070
	Population Health Sciences Institute, Newcastle University	LOL0060
	Dr Emma Nicol	LOL0061
	Nottingham Centre for Children, Young People and Families, Nottingham Trent University	LOL0041
★	Ian Macrae, Director of Market Intelligence, Ofcom (QQ 1–14)	
	Alyssa O'Keefe	LOL0010
	Professor Heather O'Mahen	LOL0055
	The Open University	LOL0090
	Dr Amy Orben	LOL0047
	Parent Zone	LOL0039
	Parkinson's UK	LOL0045
	Dr Jane Parry	LOL0027
	Dr Emily Peckham	LOL0042
	Professor Tessa Pollard, Department of Anthropology, Durham University	LOL0060
	Power to Change	LOL0121
	Professor Andrew Przybylski	LOL0047
★	Hanna Johnson, Chief Operating Officer, Public (QQ 15–24)	
	Pupils 2 Parliament	LOL0059
	Professor Gurch Randhawa	LOL0007
	Dr Merten Reglitz	LOL0074

	Rethink Mental Illness	LOL0100
	Reunite Families UK	LOL0004
	Dr Sean Rintel	LOL0036
	Dr Karina Rodriguez	LOL0010
	Royal College of Nursing	LOL0022
	Sam Richardson	LOL0010
	RNID	LOL0063
	David Robinson	LOL0120
	Royal College of Physicians	LOL0073
★★	Royal College of Psychiatrists (QQ 49–66)	LOL0101
★	Fabian Wallace-Stephens, Senior Researcher in the Economy, Enterprise and Manufacturing Team, RSA (QQ 81–90)	
	Dr Anna Rudnicka	LOL0066
	Rural Services Network	LOL0038
	Scottish Older People's Assembly	LOL0052
	Scottish Parliament	LOL0109
★★	Scope (QQ 91–101)	LOL0094
	Professor Jane Seale	LOL0054
	Michel Serafinelli	LOL0003
	Dr Lucas Seuren	LOL0036
	Professor Helen Sharp	LOL0055
	Sheffield Hallam University, Advanced Wellbeing Research Centre	LOL0012
	Simplyhealth	LOL0065
	Skills Development Scotland	LOL0133
	Skills for People	LOL0127
	Dr Lila Skountridaki	LOL0070
	Dr Panagiotis Spanakis	LOL0042
★	Dr Ruth Chambers, Staffordshire Sustainability and Transformation Partnership (QQ 25–36)	
	Dr Volker Stocker	LOL0071
	Professor Elizabeth Stokoe	LOL0036
★★	The Sutton Trust (QQ 112–122)	LOL0048
		LOL0134
	Professor Monideepa Tarafdar	LOL0016
★	Gerard Grech, CEO, Tech Nation (QQ 15–24)	
	techUK	LOL0091

★	Anna Thomas, Director, Institute for the Future of Work (QQ 91–101)	
	Dr Eileen Tipoe	LOL0030
	Dr Maggie Toner Edgar	LOL0001
	Turning Point	LOL0079
	Uber	LOL0135
	UCL Department of Anthropology	LOL0111
	University College London	LOL0128
	UK Interactive Entertainment	LOL0053
	UNICEF	LOL0081
	University of Bath	LOL0069
	University of Leeds	LOL0129
	Professor Feng Li, The Business School, City, University of London	LOL0019
	University of Stirling	
	Vodafone UK	LOL0046
	Wales Co-operative Centre	LOL0098
★	Fabian Wallace-Stephens, Senior Researcher in the Economy, Enterprise and Manufacturing Team, RSA (QQ 81–90)	
	We Are Digital	LOL0086
	Welsh Government	LOL0092
★	Joe Lyons, CEO, West Ham United Foundation (QQ 37–48)	
	Miss Isabel Weston	LOL0011
	Professor Jason Whalley	LOL0071
	Pauline Wigglesworth	LOL0010
	Dr Gemma Wilson	LOL0017
	Professor Geoff Wong	LOL0055
	You Are Not Alone (YANA)	LOL0040
	Dr Zoe Young	LOL0027
	YoungMinds	LOL0099
	Youth Sport Trust	LOL0024
	Dr Dann Zschomler	LOL0070

APPENDIX 3: ACRONYMS AND ABBREVIATIONS

APLE	Addressing Poverty with Lived Experience
BACP	The British Association for Counselling and Psychotherapy
BMA	The British Medical Association
CCHPR	The Cambridge Centre for Housing and Planning Research
CEO	Chief Executive Officer
CIPD	The Chartered Institute of Personnel and Development
DoF	Department of Finance
EDSQ	Essential Digital Skills Qualifications
ELA	Employment Lawyers Association
EURIM	Digital Policy Alliance
LGBTQI+	lesbian, gay, bisexual, transgender, queer (or questioning), and intersex
MMHA	Maternal Mental Health Alliance
ONS	Office of National Statistics
RCN	The Royal College of Nursing
RCGP	Royal College of General Practitioners
RCPsych	The Royal College of Psychiatrists
RNID	The Royal National Institute for Deaf People
RSA	The royal society for arts, manufactures and commerce
UCL	University College London
UNICEF	United Nations International Children's Emergency Fund
USoc	Understanding Society
YANA	You Are Not Alone