

**Alliance for
Full Employment**

Rebooting Britain: Building Back UK Online

Rebooting Britain: Building Back UK Online

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Forewords

In the last year, we have managed the most technologically sophisticated task of all - to discover and then inject vaccines into the arms of millions.

But we are still far behind in the far simpler task of getting laptops into the hands of the thousands who need them and spreading access to the internet to everyone .

Britain now needs a robust national plan to deliver digital access and inclusion to all our citizens.

Few now doubt that first in this queue must be disadvantaged children - giving them the access to the devices and tuition they need to catch up on and continue their education after the pandemic. The Sutton Trust estimate that this will cost £750m.

While 94% of households have internet access at home, the costs less well-off parents must pay to be connected force them to choose between internet charges and food.

Ofcom should work with government to define eligibility criteria - perhaps those on Universal Credit with children - making it easy for operators to automatically check those criteria - and to create a mandatory social tariff in telecoms operators' general conditions of entitlement.

Putting digital skill learning targets on the same footing as literacy and numeracy at the core of the national education curriculum and supplying devices on which all children can learn in the classroom and remotely will future-proof our children against further damage to their education..

But we should also follow the advice of The Good Things Foundation, included in this report, which says for a £130m investment we can get at least 4.8 more million people online by the end of this Parliament. That will halve the UK digital divide within three years.

Meaningful digital connectivity and inclusion are now the strong foundations beneath any serious levelling up strategy.

A failure to fund it will not only perpetuate this systemic failure of children, it will also mean we will fail to build the future global workforce our nation needs. Failure cannot be an option.

As this report's recommendations set out building back a fully digitally united kingdom is now within our reach. The future wealth of our nations depends on it. And the time to build back digital is now.

Rt Hon Gordon Brown

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The pandemic has caused serious hardship around the world, upending economies and disrupting lives. But for all this struggle, imagine how much worse Covid-19 would have been if it came 30 years earlier, in the pre-web era.

Through this crisis the web has kept friends and families connected and given us access to real-time health information. It has allowed many to work from home and provided entrepreneurs tools to power their businesses, keeping economies afloat. It has enabled (some) students to stay on top of their education and keep their ambitions alive.

For those who have it, the web has been a lifeline, not a luxury.

But almost half the world's population still has no internet access — leaving billions without the tools that have helped so many of us endure in a year of lockdowns, difficult moments and tragic loss of life.

Across the world, students have been without devices and data they need to learn online, falling behind their peers. Parents without technology and jobs they can do remotely have had to choose between staying home and maintaining their livelihoods. Many elderly and other vulnerable people have suffered the loneliness of prolonged isolation.

This connectivity challenge is greatest in developing countries: across Africa only about 30% of people are online. However, every country on earth has digital divides, with women, people living in rural areas and those on low-incomes typically least able to connect. The UK is no exception.

This problem won't disappear post-covid. The critical importance of the web will only grow in the years ahead and so we must work urgently to ensure that everyone is included in our digital future. Otherwise the gap between the haves and have nots will only get bigger as the web becomes more powerful.

Basic access is just the beginning. Once people are online they must also have what we call “meaningful connectivity”, with the devices, data, speeds and skills they need to realise the full power of the web. At the same time, we must work to build a web that is safe and empowering, helpful not harmful, inclusive not exclusive.

As the web reshapes our world, we have a responsibility to make sure it works for all of humanity, not just a privileged few. We are currently falling far short.

We need action now from everyone — governments, companies, civil society, and citizens — to work together now to create a better digital future. A future where everyone has meaningful access to a safe and empowering web. A place where internet access is understood — and realised — as a basic human right.

Sir Tim Berners-Lee and Rosemary Leith

Founders, <https://WebFoundation.org>

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Imagine surviving the last year of appalling challenges without an ability or resources to use the internet? Imagine not being able to help your children to do their schoolwork or help shielding relatives get their shopping or find accurate health and vaccination information.

The last year has, sadly, just reinforced the digital inequalities that we have always known were there but have now been put into incredibly sharp focus.

The original promise of the internet was always to empower everyone to have access with no disadvantage because of time or place or background. And yet we are still a long way from fulfilling this vision.

Half the world is not online and here in the uk many millions of adults lack the digital skills, infrastructure, money or motivation to enjoy the benefits of the technology that the rest of us take for granted.

The intersection of poverty and vulnerability with this group is profound and so I believe that helping to close this divide is a matter of social justice. In a world where health and education services and employment opportunities are increasingly delivered online and sometimes only online, we cannot leave anyone behind.

We will increase societal dislocation and reduce individual empowerment and employment if we don't prioritise increasing digital inclusion.

Baroness Lane-Fox of Soho

Summary

To build a UK that is fit for the 21st century we need to fix the digital divide and support everyone to get online.

The statistics are stark. 17.1 million adults in the UK lack essential digital skills in the workplace, 11.7 million adults lack essential digital skills for life, and 9 million adults cannot use the internet without help¹.

Over the term of this parliament we can get 4.8 million more people online. This will create benefits for individuals, communities, businesses, the UK economy and society.

The pandemic showed us that things many had assumed would never go online in fact can go online and work well when they do. It brought more motivation for people to go online, but also exposed the amount of children without access to devices for remote learning, and drove more people into data poverty as they could not afford internet access.

Amidst the tragedy there has been incredible grass roots digital ingenuity to help people in need. We need to keep building on this, not slide backwards, and continue the momentum to bring the rest of the country online.

Because despite years of effort too many people in the UK are still digitally excluded. They cannot use the internet because they lack internet access, data, an appropriate device, or essential skills. While much has been done, some critical parts of the puzzle have been missed.

This has left a social and economic problem that affects millions of people, making it harder for them to lead fulfilling lives and get into good jobs. It reduces the impact of the government's investments in 21st century technology and public services. It hinders attempts to tackle the UK's productivity problems and weakens the UK's businesses, both large and small.

It will make it harder for the UK to build back after the pandemic, and it weakens our ability to respond to the next one. Ten years ago it might have been acceptable to think that not everyone needed to be able to get onto and use the internet, that is not the case now. This last year has taught us that we cannot move fast enough to bring people online in an emergency, we need to tackle the digital divide in normal times so that we have a stronger, more digitally capable society and economy when it is most needed.

There is no single magic fix for digital inclusion. Including people is not a one-off activity that can be completed and then forgotten about. People's situations are different and will change over time. If someone does not keep using digital technologies then their skills and motivation can fade. A project that works for one group of people in one location might be unsuitable elsewhere.

¹ Lloyds Consumer Digital Index 2020 <https://www.lloydsbank.com/banking-with-us/whats-happening/consumer-digital-index/key-findings.html>

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Governments at all levels, in all of the nations of the UK and of all political colours agree with the need to fix the digital divide. Yet we lack a guiding framework within which to achieve this.

Within such a framework all four nations of the UK need to work together to build a sustainable and broad response in every place of the UK. A response that provides support to help everyone get online as, where, and when they need it.

This needs vision, leadership and funding from all four nations. It needs a mix of activities in national governments, devolved administrations, city-regions, communities, and across the public, private and third sectors that forms a structural response meeting people where and when they need support.

The UK is not alone amongst democracies with this problem. The USA, Canada and Australia all have profound issues². The prize for the UK is to lead the way to a 100% digitally included nation and reap the competitiveness and social benefits that it will generate.

This report sets out 10 recommendations for the UK's national governments.

Let's tackle the digital divide. It will benefit us all.

² See USA - Pew, <https://www.pewtrusts.org/en/trust/archive/summer-2019/americas-digital-divide> Canada <https://makeway.org/news/covid-19-highlighting-canada-digital-divide/> Australia (Good Things Australia) <https://www.goodthingsfoundation.org.au/research-publications/digital-nation-australia-2020>

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Recommendation	Description
£130m investment programme	The upcoming Shared Prosperity fund should support a £130m programme of national and local digital inclusion projects that are designed to meet local needs and priorities
Improved social broadband tariffs	Ofcom should take the lead in improving social broadband tariffs by harmonising the eligibility criteria, working with operators and government to improve the customer journey, and mandating that all operators offer a social tariff to an agreed level of service
Essential public services should be free to access online	Government Digital Services (GDS) should work with other government bodies, Ofcom, telecoms service providers, and a range of civil society organisations - including specialists in digital inclusion and specialists in digital rights - to explore zero rating for essential public services and implement a long-term solution. This will allow citizens to access essential public services even if their data has run out.
The Plan for Jobs should include a digital inclusion strategy	The Plan for Jobs includes programmes like Kickstart, Restart, T-Levels and Apprenticeships that need to cater for people who are not currently digitally included. They should take advantage of the opportunity to get people online. Where regional or local initiatives, such as Connecting Scotland or the GMTech Fund, exist then these programmes should coordinate with those activities
Digital inclusion strategies for education in schools	All four nations should develop and implement digital inclusion strategies for education in schools which ensure every child has an appropriate device and that place essential digital skills targets on the same footing as numeracy and literacy
Commitment from all four UK nations to fix the digital divide	All four nations of the UK need to fully commit to fixing the digital divide, developing a strategy and accompanying programme of activity
New delivery groups to halve the digital divide by 2025	These delivery groups will take responsibility for halving the digital divide over the next four years and persistently eliminating it in the next four
Improve the evidence base	The UK Statistics Authority (UKSA) should assess the evidence on digital inclusion and recommend how to both fill immediate gaps and develop better evidence gathering methodologies for the future.
75% of employees to receive digital skills training from their employers	Government should set a target of 75% of employees receiving digital skills training from their employer. BEIS should work with business groups and trade unions to achieve this target.
New digital inclusion design guidelines for public services	To help create a sustainable environment where the need to fix the digital divide is built into new public services and programmes, advice on how to support and fund digital inclusion should be built into appropriate government guidance and checked during governance processes.

The size and shape of the problem

The UK Government's 2014 digital inclusion strategy stated that its goal was "*helping people become capable of using and benefiting from the internet*"³. The UK Government's 2017 digital strategy included digital skills and inclusion stating that "*it is crucial that everyone has the digital skills they need to fully participate in society.*"⁴.

These strategies have not delivered on those goals. Millions of people cannot use the internet because they lack internet access, sufficient data, an appropriate device, or essential digital skills for life and work.

Market failures in telecoms and skills

Successive UK governments have focussed on creating affordable and accessible internet access through an independent regulator, Ofcom, and a market of private sector suppliers.

Yet in 2020 Nesta found people having to choose between buying dinner or buying enough data to use essential services⁵. Citizens Advice found that 1 in 6 broadband customers struggled to pay their bill between March 2020 and January 2021, and reported that some groups have been disproportionately affected⁶. Disabled people, people on means-tested benefits, and people from ethnic minority backgrounds were finding it harder to pay.

More action is needed to make internet access affordable for everyone.

There also appears to be profound market failure in digital skills on both the demand and supply side.

Market failure in demand is characteristic of all educational goods and services, including essential digital skills. Many people do not realise the benefits that would accrue to them until after they have been educated. While digital inclusion does not only affect old people 77% of the over 70s have very low digital engagement, and have a lower participation rate in the education system⁷.

³ Digital inclusion strategy, 2014 <https://www.gov.uk/government/publications/government-digital-inclusion-strategy/government-digital-inclusion-strategy>

⁴ Government digital strategy, 2017 <https://www.gov.uk/government/publications/uk-digital-strategy/uk-digital-strategy#digital-skills-and-inclusion--giving-everyone-access-to-the-digital-skills-they-need>

⁵ Nesta, What is data poverty and why don't we know more about it?, 2020 <https://www.nesta.org.uk/project-updates/data-or-dinner/>

⁶ Citizens Advice, Broadband must be made affordable for everyone 2021 <https://www.citizensadvice.org.uk/about-us/our-work/policy/policy-research-topics/consumer-policy-research/consumer-policy-research/broadband-must-be-made-affordable-for-everyone/>

⁷ Lloyds Consumer Digital Index 2020 https://www.lloydsbank.com/assets/media/pdfs/banking_with_us/whats-happening/lb-consumer-digital-index-2020-report.pdf

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On the supply side the main providers of essential digital skills have been charitable organisations. These have done fantastic work but are under capitalised for the scale of the task. Where government funding has been made available there can be strict controls on how and where it can be used. Neither scale or flexibility are present, yet they are necessary to meet the varied needs of people.

There are ongoing efforts to bring in a legal entitlement to digital skills training in the further education system within England. This puts essential digital skills on the same footing as literacy and numeracy.

The rollout of the entitlement has only just started, does not come with any new investment and has been affected by the pandemic. It will require time before evaluation can understand if it is effective, whether there has been an adverse effect on other adult education due to competing calls on existing budgets, and how it complements other routes to digital inclusion within schools, businesses, community groups and public services.

This entitlement might be useful but it will not meet the needs of people who are not engaged with the education system, are faced with digital exclusion at the point of needing to use an essential service or lack the necessary funds for a device or internet access.

The market failure will continue.

As a result of these market failures too many people in the UK are still digitally excluded. They miss out on the better services, jobs and businesses that the government's other digital policies - such as digital public services and the various national AI strategies - are intended to create.

Meanwhile the UK continues to miss out on the social and economic benefits of a digital society.

The statistics of digital inclusion

The statistics of digital inclusion are stark. 17.1 million adults in the UK lack essential digital skills in the workplace, 11.7 million adults lack essential digital skills for life, and 9 million adults cannot use the internet without help⁸.

During the pandemic an estimated 1 to 1.8 million of children lacked a device that would help them learn at home. Ofcom report that 8% of mobile internet-only households had trouble paying their bills in the last month and 5% of households with children were mobile internet-only⁹.

⁸ Lloyds Consumer Digital Index 2020 <https://www.lloydsbank.com/banking-with-us/whats-happening/consumer-digital-index/key-findings.html>

⁹ Due to the small size of this group Ofcom are unable to reliably estimate the population size. Ofcom, Affordability of communications services: a summary of our initial findings, 2020 <https://www.ofcom.org.uk/phones-telecoms-and-internet/information-for-industry/policy/affordability-of-communications-services> Technology Tracker 2020: households with children access to internet and devices – data tables https://www.ofcom.org.uk/data/assets/pdf_file/0030/198138/tech-tracker-internet-and-device-access-children-data-tables.pdf

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	No access ¹⁰	Insufficient data ¹¹	No appropriate device ¹²	Lacking essential skills for life and work ¹³
Overall		Unknown ¹⁴		
school age	0	Unknown	1-1.8 million	
16-24	0-5% of households	Unknown	3%	17.1 million ¹⁵
25 or over (in workforce)	0-5% of households	Unknown	4%	
Non-workforce/retired	6-20% of households	Unknown	23% ¹⁶	

Figure 1: some of the statistics of digital inclusion, sources linked in figure

Only 23% of employees have received digital skills training from their employer yet during the pandemic almost half (2.7 million) of businesses state they would have ceased trading without digital technology, while 17% ran online meetings and 11% tried e-commerce for the first time^{17,18}.

If more people in more businesses had essential digital skills would more businesses have been saved, or even used digital technologies earlier?

Correlation with other inequalities

Digital exclusion correlates with social exclusion, regional inequalities and poverty.

¹⁰ Data only available at household level, ONS Internet access - households and individuals 2020

<https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/datasets/internetaccesshouseholdsandindividualsreferencetables>

¹¹ There "[by] data poverty we mean, those individuals, households or communities who cannot afford sufficient, private and secure mobile or broadband data to meet their essential needs" Nesta Futures Lab, What is data poverty, 2020

<https://www.nesta.org.uk/report/what-data-poverty/>

¹² All figures from Ofcom Technology Tracker 2020 https://www.ofcom.org.uk/_data/assets/pdf_file/0037/194878/technology-tracker-2020-uk-data-tables.pdf

¹³ Essential digital skills are defined in the Government Essential Digital Skills Framework

<https://www.gov.uk/government/publications/essential-digital-skills-framework>

¹⁴ Statistics for data poverty are only just being established. In 2020 Ofcom reported that households with somebody currently unemployed and looking for work (where 38%), young people aged 18-24 (29%), or a resident with an impacting or limiting condition (29%) have had an affordability issue in the last month while 8% of mobile internet-only households had trouble paying their bill in the last month <https://www.ofcom.org.uk/phones-telecoms-and-internet/information-for-industry/policy/affordability-of-communications-services>

¹⁵ Lloyds UK Consumer Digital Index 2020 https://www.lloydsbank.com/assets/media/pdfs/banking_with_us/whats-happening/lb-consumer-digital-index-2020-report.pdf

¹⁶ Data for adults 55+ in the Ofcom Technology Tracker, the data does not differentiate between in/out of workforce

¹⁷ Lloyds Consumer Digital Index 2020 <https://www.lloydsbank.com/banking-with-us/whats-happening/consumer-digital-index.html>

¹⁸ Lloyds Business Digital Index Report 2020 <https://www.lloydsbank.com/assets/resource-centre/pdf/businessdigitalindexreport2020.pdf>

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In 2019 the Office of National Statistics found that people who are on low incomes and in regions outside London and the South East are the most likely to be digital excluded¹⁹.

In 2016 the Carnegie UK Trust worked with Ipsos Mori to analyse the Scottish Household Survey (SHS) and found a high level of correlation between social exclusion and internet access²⁰.

The 2019 Oxford Internet Survey shows that between 2013 and 2019 use is stable for households with an income of less than £12,500/year, at about 60%, but has risen by about 20 percentage points for households with an income of between £12,500-£20,000/year²¹. Some progress has been made during this time, but not enough.

The Social Mobility Commission's Social Mobility Barometer 2021 report found that over half the public (56%) think the pandemic has increased social inequality and three quarters (74%) of adults believe there is a 'very' or 'fairly' large difference in the opportunities available in different parts of Britain today. Only 31% of people in the North East thought the opportunities for progression in their area were good compared to 74% in London²².

A report by the Carnegie UK Trust in 2019 highlighted that digital exclusion in children created both educational and social disadvantages as children increasingly learned and connected online²³.

As service providers have increasingly favoured online channels people who are digitally excluded can struggle to use essential services, including public services.

In normal times people might travel to use essential services in person or get help to use them digitally from a friend, at a library, a job centre, health centre, court, or bank branch. But the pandemic meant that almost everything had to move online and support became harder to access.

This will have led to the digitally excluded being unable to access vital services such as education, benefits, finance, healthcare and justice.

In its investigation into the constitution, Covid-19 and the courts the House of Lords Constitutional Committee stated that "*There should not be one law for the rich, legally represented or digitally well-furnished, and another for everyone else. To limit the potentially exclusionary effects of remote hearings, greater support for court users from HMCTS, judges and courts staff is required*"²⁴. Evidence of how many people will have been affected by lack

¹⁹ ONS, Exploring the UK's digital divide 2019

<https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigitaldivide/2019-03-04>

²⁰ Carnegie Trust, Digital Participation and Social Justice in Scotland, 2016

<https://www.carnegieuktrust.org.uk/publications/role-digital-exclusion-social-exclusion/>

²¹ "Perceived Threats to Privacy Online: The Internet in Britain" Oxford Internet Survey 2019

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3522106

²² Social Mobility Barometer 2021 <https://www.gov.uk/government/publications/social-mobility-barometer-2021>

²³ "Switched On", Carnegie Trust 2019 https://d1ssu070pg2v9i.cloudfront.net/pex/carnegie_uk_trust/2019/02/21143338/LOW-RES-3999-CUKT-Switched-On-Report-ONLINE.pdf

²⁴ Select Committee on the Constitution COVID-19 and the Courts, 2021

<https://publications.parliament.uk/pa/ld5801/ldselect/ldconst/257/25702.htm>

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of access to services is not consistently collected by government so the scale and impact of these problems are unknown^{25,26}.

Many of these services will always need a mix of online & offline delivery but unless we fix the digital divide existing inequalities could be reinforced while the state and businesses will need to continue to find money to provide services that could be phased out and replaced with 21st century digital alternatives.

Evidence of change during the pandemic is inconclusive

It is too early for there to be conclusive evidence on whether the pandemic has helped narrow the digital divide or widened it further. Many statistical releases are due to arrive later in 2021 and early 2022, and the data collection processes may have been affected by the pandemic²⁷. The evidence that is currently available paints a mixed picture.

Ofcom have found that the percentage of homes connected to the internet increased from 89 to 94%, but that one in five children who had been home schooling did not have access to an appropriate device all of the time²⁸.

A Lloyds survey during the pandemic found that 78% of adults agreed that the COVID-19 pandemic has escalated the need for digital skills, and 57% agreed that they would continue to boost their digital skills after the pandemic²⁹. Yet despite the motivation of only being able to perform some tasks - such as shopping or seeing family - over the internet, Age Concern report that the pandemic has not prompted substantial numbers of older people to get online³⁰.

Lloyds found that one in ten businesses moved online for the first time because of Covid-19³¹.

During the pandemic the real need for devices became visible as households realised that every member of the household needed to work, socialise or get educated at home.

²⁵ "Justice depends on data - and the pandemic shows why" Natalie Byrom, The Legal Education Foundation 2020 <https://www.lawgazette.co.uk/commentary-and-opinion/justice-depends-on-data-and-the-pandemic-shows-why/5106061.article>

²⁶ The Ada Lovelace Institute and the Health Foundation have started research exploring whether digital exclusion has led to some people being unable to benefit fairly from the use of data-driven health technologies, such as digital contact tracing apps, during the pandemic: "A data divide based on access" <https://www.adalovelaceinstitute.org/survey/data-divide-access/>

²⁷ Ofcom's Communications Market Report will be published in June, and Adults' Media Literacy Tracker in Winter 2021/22 <https://www.ofcom.org.uk/research-and-data/data/statistics/stats21>, ONS Internet Access statistics are usually published in August <https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/bulletins/internetaccesshouseholdsandindividuals/previousReleases>

²⁸ Ofcom children and parents: media use and attitudes report 2020/21

²⁹ Lloyds Consumer Digital Index 2020, page 20 and relevant appendices <https://www.lloydsbank.com/banking-with-us/whats-happening/consumer-digital-index.html>

³⁰ Digital inclusion and older people – how have things changed in a Covid-19 world?, 2021 <https://www.ageuk.org.uk/globalassets/age-uk/documents/reports-and-publications/reports-and-briefings/active-communities/digital-inclusion-in-the-pandemic-final-march-2021.pdf>

³¹ Lloyds, 2020 Transformation with Tech Report <https://www.lloydsbank.com/business/resource-centre/businessdigitalindex.html>

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But despite almost a year's worth of attention on the provision of devices to allow school children to study remotely in January 2021 the Sutton Trust found that 32% of teachers in the most deprived schools in England report more than 1 in 5 children lacking devices, this is just 5% at the most affluent state schools and even lower, 3%, at private schools³². They reported that this gap appeared to have increased since March 2020. In Scotland 20% of teachers reported that they had poor or no internet connection affecting their own ability to deliver online education³³.

Meanwhile anecdotal evidence from civil society is that the number of people who could not afford sufficient data for their needs increased. This seems a logical outcome given the increased demand for data, and the number of people who lost their jobs or had reduced income during the pandemic.

At the start of the pandemic, and following up on suggestions from service design agency Snook, the NHS reached an agreement with service providers to zero-rate all NHS services³⁴. Zero rating means that usage of these services would be free for citizens. This was intended to maximise the chance of people being able to receive essential public health information and use the NHS Covid-19 app. More recently zero-rating has been extended to two providers of educational services, the public sector BBC and the charity Oak National Academy³⁵.

The ClickZero campaign has called on this zero rating to be continued with a goal of providing free access to essential online public services³⁶. As yet there is no confirmation that this will happen and it is not clear which government body would take on this challenge.

Demos' People's Commission on life after the pandemic drew on the contributions of 50,000 citizens³⁷. It found that people were aware of the risks and harms of the digital divide and that 60% of citizens would support the government investing to help people to get online, with just 8% opposing³⁸.

It is time to make that investment.

³² Sutton Trust – Supplementary Evidence (LOL0134) <https://committees.parliament.uk/writtenevidence/23094/pdf/>

³³ Teaching During the Covid-19 Shutdown, The Educational Institute of Scotland 2020, <https://www.eis.org.uk/Content/images/corona/SurveyResults.pdf>

³⁴ Snook, Digital inclusion in times of crisis, 2020 <https://wearesnook.com/digital-inclusion-in-times-of-crisis> DHSC, Mobile networks remove data charges for online NHS coronavirus advice, 2020 <https://www.gov.uk/government/news/mobile-networks-remove-data-charges-for-online-nhs-coronavirus-advice>

³⁵ BBC, Mobile networks to make Oak lessons site data-free, 2021 <https://www.bbc.co.uk/news/technology-55719428>

³⁶ ClickZero <https://www.clickzero.uk/>

³⁷ Build Back Stronger, Demos 2021 <https://demos.co.uk/project/build-back-stronger/>

³⁸ Similarly a survey by Ipsos MORI commissioned by Good Things Foundation in 2020 found 75% of adults agreed every community should have a place where people can get help with internet skills. <https://www.goodthingsfoundation.org/sites/default/files/blueprint-for-a-100-digitally-included-uk-0.pdf>

Potential benefits

An investment in fixing the digital divide will create social and economic benefits.

Digital inclusion can increase social mobility, helping people into good jobs and leading more fulfilling lives. It creates economic benefits for individuals and businesses, and could create up to £21.9bn of economic value for the broader economy by 2028³⁹. It will help make the UK more resilient and improve the response to future pandemics.

Social benefits

There are numerous reports and articles on the advantages and benefits of being online and using digital services.

The pandemic brought these advantages into high visibility as those who were online were more likely to be able to continue to work, receive education, access essential services and receive public health advice.

A randomised control trial in 2018 found that supporting people to complete financial transactions online improved their financial capability and made them feel more confident⁴⁰.

A report by the Good Things Foundation on the Widening Digital Participation Programme with the NHS highlighted the benefits of digital to health and well-being⁴¹. Families of people living with dementia found practical, emotional, social and wellbeing benefits. In care homes, widening digital participation benefited staff and residents. Across older people, people dealing with homelessness, substance abuse or seeking asylum, digital inclusion opened up conversations about health and wider wellbeing. People with low trust in services felt able to use the internet to access reliable information.

The Lloyds Consumer Digital Index has found that people with high digital engagement report significant lifestyle and well-being benefits⁴²:

- 87% say it helps them to connect better with friends and family
- 84% say it helps them to organise their life
- 55% say it makes them feel more part of a community
- 44% say it helps them to manage physical and mental well-being

³⁹ CEBR report on the economic impact of Digital

Inclusion in the UK 2018 https://www.goodthingsfoundation.org/sites/default/files/research-publications/the_economic_impact_of_digital_inclusion_in_the_uk_final_submission_stc_0.pdf House of Commons Science and Technology Committee report on the digital skills crisis 2016 <https://publications.parliament.uk/pa/cm201617/cmselect/cmsctech/270/270.pdf>

⁴⁰ Good Things Foundation and Toynbee Hall, Changing behaviour around online transactions https://www.goodthingsfoundation.org/sites/default/files/research-publications/mas_condensed_report_v6.pdf

⁴¹ Digital Inclusion in Health and Care: Lessons learned from the NHS Widening Digital Participation Programme (2017-2020), Good Things Foundation, 2020 https://www.goodthingsfoundation.org/sites/default/files/research-publications/digital_inclusion_in_health_and_care-lessons_learned_from_the_nhs_widening_digital_participation_programme_2017-2020_0.pdf

⁴² Lloyds Consumer Digital Index 2020 <https://www.lloydsbank.com/banking-with-us/whats-happening/consumer-digital-index/key-findings.html>

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Equipping people with essential digital skills is increasingly essential to help people get into good jobs. A 2019 report by Burning Glass Technologies for DCMS found that two-thirds of occupations and 82% of the jobs advertised online required digital skills, and that jobs that required digital skills paid 29% extra per annum than jobs that did not⁴³. A 2021 report by the Learning and Work Foundation found that over nine in ten (92%) employers said that having a basic level of digital skills was important for employees at their organisation⁴⁴.

These are not necessarily jobs that require high levels of digital skills. Traditional manual jobs, such as supermarkets and warehousing, increasingly need digital skills as those environments are automated.

The 2020 Lloyds Consumer Digital Index found that⁴⁵:

- Manual workers with high digital skills earn around £2,160 more a year than those in the same jobs with low digital skills.
- Among those earning less than £20,000 per year, those with very low digital engagement spend 42% more (£720 annually) on utility bills than those with high digital engagement.

Economic benefits

There are significant economic benefits for individuals, businesses and wider society.

Macroeconomic studies in 2012 and 2018 estimated that a digitally included UK could contribute to closing a digital skills gap that is costing the UK an estimated £63 billion a year in lost additional GDP and create £21.9 billion of economic value by 2028⁴⁶.

Much of this potential gain in economic value is through large businesses, but small businesses will benefit too. Tech startups can often be a dominant topic in policy debates about small businesses, but in most small businesses the need will be for basic skills required to adopt and use technology effectively and responsibly, rather than the more advanced skills required to develop it.

In his budget speech the Chancellor highlighted the UK's productivity problem and how this is connected to uptake of digital culture, processes and technologies within smaller firms⁴⁷.

⁴³ Burning Glass Technologies, No longer optional: employer demand for digital skills, 2019 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/807830/No_Longer_Optional_Employer_Demand_for_Digital_Skills.pdf

⁴⁴ Learning and Work Foundation Disconnected? Exploring the digital skills gap, 2021 <https://learningandwork.org.uk/resources/research-and-reports/disconnected-exploring-the-digital-skills-gap/>

⁴⁵ Lloyds UK Consumer Digital Index 2020 https://www.lloydsbank.com/assets/media/pdfs/banking_with_us/whats-happening/lb-consumer-digital-index-2020-report.pdf

⁴⁶ CEBR report on the economic impact of Digital Inclusion in the UK 2018 https://www.goodthingsfoundation.org/sites/default/files/research-publications/the_economic_impact_of_digital_inclusion_in_the_uk_final_submission_stc_0.pdf House of Commons Science and Technology Committee report on the digital skills crisis 2016 <https://publications.parliament.uk/pa/cm201617/cmselect/cmsctech/270/270.pdf>

⁴⁷ Budget speech 2021, The Rt Hon Rishi Sunak MP <https://www.gov.uk/government/speeches/budget-speech-2021>

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A 2020 report by Oxford Economics highlighted that 16.6 million people work in the UK's small businesses, that those businesses account for 47.3% of the UK's turnover, yet only 47% have a website⁴⁸. The report stated that there would be a £9.9bn boost to GDP if the skills of workers in small businesses were raised to industry averages.

A 2020 report by Be The Business and Mckinsey found that employee openness to technology is the biggest predictor of success when small businesses adopt new technology⁴⁹. That would seem to be a barrier where digital inclusion would provide useful assistance. Lloyds reported that 73% of small businesses say they need support with technology adoption within the next 12 months⁵⁰.

Upskilling more people will help create both increased demand from a larger addressable market of digitally included citizens, and increase the number of digitally skilled workers who can help meet that demand. Essential digital skills are a vital component of digital transformation in a number of sectors that are key to the UK economy such as retail, services, manufacturing and construction.

Change across all sectors, 2017–30

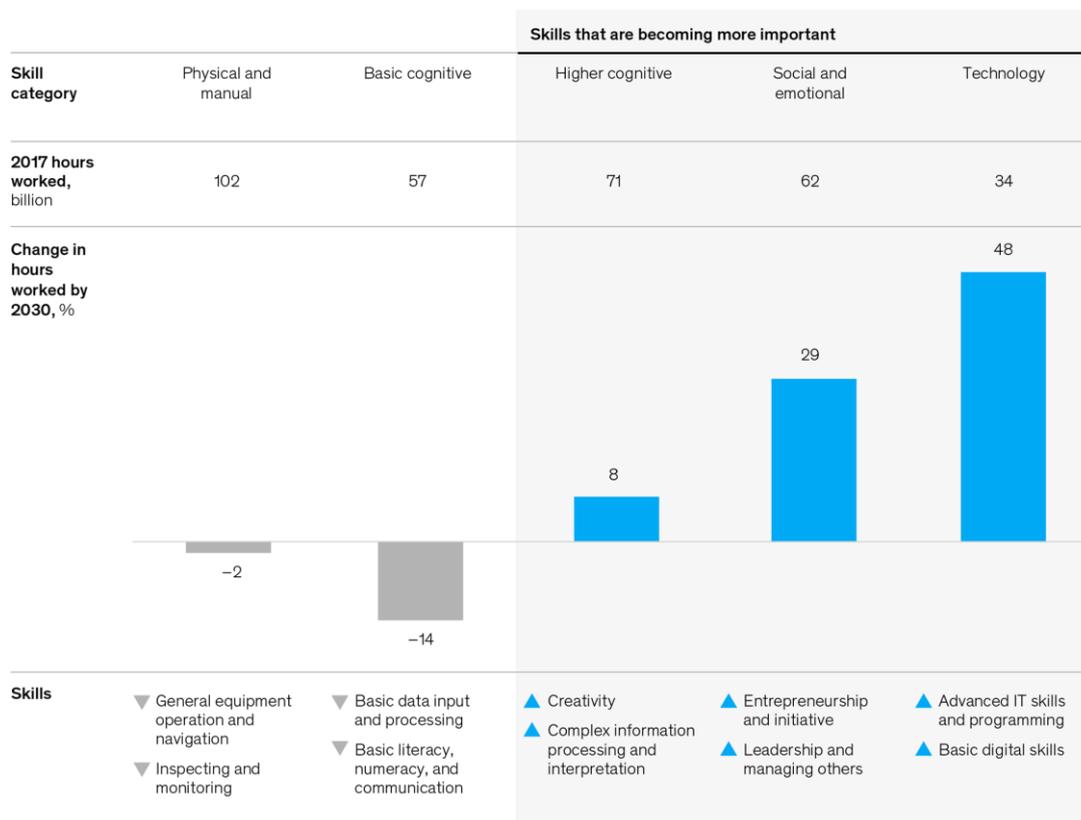


Figure 2: Projected change in skills demand across all sectors, McKinsey 2020⁵¹

⁴⁸ Oxford Economics, The digital opportunity for small businesses, 2020 <https://www.oxfordeconomics.com/recent-releases/The-Digital-Opportunity-for-Small-Businesses>

⁴⁹ "The UK's technology moment – why 2020 can be the year that changed our trajectory on tech", Mckinsey and Be The Business <https://www.bethebusiness.com/media/the-uks-technology-moment-why-2020-can-be-the-year-that-changed-our-trajectory-on-tech/>

⁵⁰ Lloyds, 2020 Transformation with Tech Report <https://www.lloydsbank.com/business/resource-centre/businessdigitalindex.html>

⁵¹ Thriving after COVID-19: What skills do employees need?, Mckinsey 2020 <https://www.mckinsey.com/business-functions/mckinsey-accelerate/our-insights/accelerate-blog/thriving-after-covid-19-what-skills-do-employees-need#>

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The various macroeconomic studies on digital inclusion show economic benefits accruing to individuals, businesses, Treasury and the UK economy with categories including:

- Time savings: doing things online can be faster than a physical trip, for example online banking compared to visiting a bank branch.
- Transaction benefits: on aggregate buying things online will be cheaper than buying in a physical outlet.
- Communications benefits: people who are online can find it easier to keep in touch with other people, this leads to increased spend on recreational activities.
- Increased earnings: people with greater digital skills have higher salaries which also leads to a rise in national insurance contributions and income tax payments.
- Increased employment: people who are unemployed or economically inactive are more likely to move into employment as their digital skills increase.
- Savings for the NHS: people who are online can use online services for medical help, bookings and prescription services which reduces costs for the NHS.
- Savings for other public services: people who are online will use other digital public services which are cheaper for the public sector to provide.
- Corporate benefits: it will be easier for businesses to find people with digital skills. This will lead to productivity gains.

Finally, the Government's investment in new technologies such as artificial intelligence are intended to increase both the need for digital skills and the availability of digital services. Investing in digital inclusion will complement those Government investments.

Current responsibilities and activities

It is important to understand which public sector organisations have responsibility for the different policies relevant to digital inclusion and what activities are already underway.

The responsibilities vary by tier of government. Some responsibilities are UK-wide, some are within devolved administrations, within England there is the growing role of city-regions, and across the UK there are local authorities and councils⁵².

Health brings in extra complications with differing structures and plans to change responsibilities between local health groups and national health departments in England⁵³. It is not covered in detail in this section.

Due to the differing nature of these responsibilities many digital inclusion activities work across a number of public sector bodies, calling on support from businesses and civil society, and drawing in funding and commitment from where they can.

UK-wide

Overall	HMT - funding			
	No access	Data poverty	Devices	Essential skills
Overall	DCMS - telecoms policy Ofcom - market regulation	DCMS - telecoms policy Ofcom - market regulation	DCMS - policy Ofcom - market regulation	
school age	-	Devolved	Devolved	Devolved
16-24	-	?	Devolved	DWP & Devolved
25 or over (in workforce)	-	?	-	DWP & Devolved
Non-workforce/ retired	-	?	-	Devolved

Figure 3: UK-wide responsibilities

The Department for Culture Media and Sport, DCMS, have responsibility for telecoms policy across the UK. Ofcom is the independent regulator for telecoms.

⁵² The tiers of government vary across the UK and can change over time. The ONS displays the tiers on the Local Authority Districts, Counties and Unitary Authorities Map in United Kingdom. The April 2019 version can be found at <https://geoportal.statistics.gov.uk/datasets/944355ae7a11446cb030ed6313554a00>

⁵³ White paper setting out legislative proposals for a Health and Care Bill, 2021 <https://www.gov.uk/government/publications/working-together-to-improve-health-and-social-care-for-all>

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Successive UK governments have focussed on creating affordable and accessible internet access through Ofcom and a market of private sector suppliers. In more recent years devolved national administrations and local bodies in England have been increasingly involved in the roll-out projects. In the superfast broadband scheme these tiers of government were required to contribute funding⁵⁴.

Due to these policies 95% of UK premises now have access to superfast broadband and 94% of households have internet access at home⁵⁵.

The government has recognised that despite this apparent success the market has failed to deliver digital infrastructure across the country. It has intervened with a £5bn investment to correct this market failure and deliver gigabit broadband to the geographically “hardest to reach” 20% of UK premises that will not be reached by commercial investment⁵⁶.

As well investing in physical digital infrastructure the government is investing in new digital technologies.

The UK Government has invested over £1 billion in AI through an industrial strategy sector deal and an NHS AI lab; £800 million in the Advanced Research & Invention Agency (ARIA); has developed a National Data Strategy and is developing a new strategy for digital public services⁵⁷. Scotland has developed digital and AI strategies, and Wales has a digital strategy⁵⁸.

Despite these initiatives some people still struggle to afford sufficient internet access for their needs.

Under their existing powers Ofcom have mandated that two broadband telecoms providers, BT and KCOM, implement social tariffs. Virgin Media and Hyperoptic have voluntarily implemented a social tariff, but with different eligibility criteria. This creates effort for citizens who need to navigate the different offers.

People applying for BT Basic need to ring a phone line, receive and return a paper form and then wait up to 30 days before learning if their application has been successful⁵⁹. This is an overly convoluted process when BT customers that are applying for other tariffs can apply and receive confirmation immediately. The effect of this customer journey on vulnerable

⁵⁴ Superfast broadband in the UK, House of Commons Library, 2021 <https://commonslibrary.parliament.uk/research-briefings/sn06643/>

⁵⁵ Ofcom, Online Nation 2020 https://www.ofcom.org.uk/data/assets/pdf_file/0028/196408/online-nation-2020-summary.pdf . Ofcom Technology Tracker 2021

⁵⁶ House of Commons Library, Gigabit-capable broadband in the UK 2021 <https://commonslibrary.parliament.uk/research-briefings/cbp-8392/>

⁵⁷ AI Sector Deal 2019 <https://www.gov.uk/government/publications/artificial-intelligence-sector-deal/ai-sector-deal#executive-summary> Health Secretary announces £250m investment in AI, 2019 <https://www.gov.uk/government/news/health-secretary-announces-250-million-investment-in-artificial-intelligence> UK to launch new research agency to support high-risk high-reward science 2021 <https://www.gov.uk/government/news/uk-to-launch-new-research-agency-to-support-high-risk-high-reward-science>

⁵⁸ Scotland AI strategy <https://www.scotlandaistrategy.com/> Scotland digital strategy <https://www.gov.scot/policies/digital/> Wales digital strategy <https://digitalanddata.blog.gov.wales/>

⁵⁹ “How do I found out more about BT Basic” 2021 <https://www.bt.com/help/landline/getting-set-up/help-people-with-impairments-or-with-particular-needs/how-do-i-find-out-more-about-bt-basic->

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consumers is the type of harm that Ofcom's fairness framework was intended to help resolve⁶⁰.

Meanwhile, as became more visible during the pandemic, an unknown number of people struggle to use essential services because their contract does not provide sufficient data for their needs.

The Department for Work and Pensions, DWP, have responsibility for a number of UK-wide public services, such as Universal Credit. These services provide the opportunity to digitally include people while providing them with a service that they need.

Universal Credit has been criticised for many things, including its digital-by-default approach. It was the first major government service to take this approach and generated significant problems for a number of citizens⁶¹.

Over time the programme has worked to improve the design of its online services, provided free wi-fi in job centres, trained job centre staff in how to help claimants gain essential digital skills, and provided funding to Citizens Advice to supply a Help to Claim service which provides support to claimants online, by telephone, and in person⁶².

The 2020 Lloyds Consumer Digital Index reports that Universal Credit users show higher digital engagement compared to the UK average⁶³. It is not yet clear if this is due to the characteristics of the people who have been moved onto Universal Credit so far, whether the effect will persist, or if this an effect of the service and Universal Credit is having a positive effect on digital inclusion.

Universal Credit is now the only option for any working-age individual or family wishing to apply for a means-tested benefit and, due to the effects of the pandemic, is processing claims for almost 6 million people⁶⁴. It is the entry point for the new Kickstart and Restart programmes that are part of the UK government's plan for jobs⁶⁵.

Because of these factors Universal Credit is creating both a need for digital inclusion and becoming an increasingly important mechanism for tackling it. Other public services, such as health and social care, provide similar needs and opportunities.

⁶⁰ Ofcom, Making communications markets work well for customers – a framework for assessing fairness in broadband, mobile, home phone and pay TV, 2019 <https://www.ofcom.org.uk/consultations-and-statements/category-2/making-communications-markets-work-well-for-customers>

⁶¹ A report carried out by IFF Research on behalf of the Department for Work and Pensions in 2018 found that "Three in ten (30 per cent) of those who registered a claim online found this difficult, and the process of verifying their identity online was seen as particularly difficult" https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/714842/universal-credit-full-service-claimant-survey.pdf

⁶² Help to Claim, Citizens Advice <https://www.citizensadvice.org.uk/about-us/contact-us/contact-us/help-to-claim/>

⁶³ *ibid*

⁶⁴ Coronavirus: Universal Credit during the crisis, House of Commons Library, 2021 <https://commonslibrary.parliament.uk/research-briefings/cbp-8999/>

⁶⁵ The UK Government's Plan for Jobs, 2021 <https://www.gov.uk/government/topical-events/plan-for-jobs>

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Approaches within the 4 nations

The devolved administrations of Northern Ireland, Scotland and Wales have responsibility for digital inclusion, digital services, education and skills in their regions. They interact with the UK-wide responsibilities shown in the previous table. UK Government departments have responsibility for digital inclusion, digital services, education and skills in England.

The following sections are not intended to be comprehensive. There are many more activities happening in civil society, some in businesses, and some larger initiatives in the public sector, particularly in the healthcare sector, which this report does not cover. Instead this section is trying to show the breadth of the differing approaches.

Scotland

The Scottish government has responsibility for digital inclusion, digital services, education and skills policy within Scotland. The recently published Digital Strategy for Scotland commits to leaving no one behind and emphasises the need for basic digital skills⁶⁶.

The Scottish Government announced the Connecting Scotland programme at the start of the pandemic. It has rapidly been recognised as one of the most well-designed and comprehensive digital inclusion programmes in the UK and forms part of the Scotland Digital Strategy.

The Connecting Scotland programme has designed digital inclusion responsibility and activity across the Scottish government, local authorities and civil society⁶⁷.

Overall	Connecting Scotland programme			
	No access	Data poverty	Devices	Essential skills
Overall	National bulk procurement of contracts by Connecting Scotland Allocation of funds by local authorities through civil society to citizens	Initial contracts provided as part of access provision	National bulk procurement of devices Allocation of devices by local authorities through civil society to citizens	Local authorities working with community groups to reach citizens SCVO helpline
school age	-	-	-	Education Scotland
16-24	-	-	-	DWP programmes Local authorities working with community groups
25 or over (in workforce)	-	-	-	DWP programmes Further education colleges

⁶⁶ "A changing nation: how Scotland will thrive in a digital world", 2021 <https://www.gov.scot/publications/a-changing-nation-how-scotland-will-thrive-in-a-digital-world/>

⁶⁷ Connecting Scotland <https://connecting.scot/>

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				Local authorities working with community groups
Non-workforce/ retired	-	-	-	Further education colleges Local authorities working with community groups

Figure 4: Some digital inclusion responsibilities in Scotland

The programme has a budget of £50m with a goal of connecting 55,000 people and providing them with a device, 24 months of unlimited data, and support to get online safely. The budget has come from reallocated existing Scottish Government funds. The target is a significant number of people, but may only reach to 5% of the adults in Scotland that are digitally excluded⁶⁸. There will be much left to do.

The programme has nationally procured devices and data, supports digital champions within organisations, provides funds to local authorities based on checks for need and capability to deliver, and provides a technical helpline.

Local authorities submit funding requests to the national level based on the size and range of needs in their area and the delivery capacity of the organisations they can work with to meet them. They estimate this need through a combination of their local knowledge and official statistics such as those on population and deprivation.

Local organisations then deliver skills and devices to people who need them through organisations in their communities. The programme prioritises organisations that are already working with vulnerable people, for example an organisation working with people in poverty might digitally include someone while helping them to manage their welfare payments.

As well as fixing the digital divide Connecting Scotland seems to be building stronger communities.

Local places have seen new local digital inclusion partnerships emerge. Some local partnerships have started their own local grant making schemes to complement the national activity. This will contribute to a sustainable response to the digital divide.

In addition to the Connecting Scotland programme, Education Scotland delivered access and devices during the pandemic investing £25 million in reducing the number of children and young people digitally excluded.

By December 2020 over 58,000 devices had been provided to children, against an original target of 70,000, and 10,000 internet connections. In March 2021 Audit Scotland reported

⁶⁸ The Lloyds Consumer Digital Index reports that 77% of people over the age of 15 in Scotland have essential digital skills, the National Records of Scotland mid-year population estimates for 2019 report 4.5 million adults over the age of 15 <https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2019>

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that there are still children, people and communities that do not have access to an affordable or reliable internet connection⁶⁹.

Northern Ireland

The Northern Ireland government has responsibility for digital inclusion, digital services, education and skills policy within Northern Ireland.

Go ON NI is a programme within the Northern Irish Government's Department of Finance which introduces digital technology to people who are not familiar with going online and supports beginners who want to improve their online skills⁷⁰.

In the pandemic Go ON NI has experienced increased demand and has had to change how they operate.

They previously provided digital skills training in libraries and community centres, but have switched to a model of providing training through online videos. This change has been successful enough that they hope to both continue and expand it after the pandemic.

Go ON NI has adopted a model of loaning free devices to people in need for the first time. Their budget was initially limited to 140 devices and they plan to evaluate effectiveness after a six month period. According to current statistics Northern Ireland is estimated to have 230,000 adults who are digitally excluded⁷¹.

More funding will be required to scale this initiative to either the levels of Connecting Scotland or the point where it might become self-sustaining through activity in local government, businesses and communities, but given budget pressures this programme will be competing with many other needs.

Wales

The Welsh government has responsibility for digital inclusion, digital services, education and skills policy within Wales.

In its digital strategy published during March 2021 the second of six missions is digital inclusion with a goal of equipping people with the motivation, access, skills and confidence to engage with an increasingly digital world, based on their needs⁷².

This mission is to be delivered through the Welsh digital inclusion strategy which looks to Connecting Scotland as an exemplar for how to connect together activities and needs⁷³.

⁶⁹ Improving outcomes for young people through school Education, Audit Scotland, 2021 https://www.audit-scotland.gov.uk/uploads/docs/report/2021/nr_210323_education_outcomes.pdf

⁷⁰ Go ON NI digital initiative, 2021 <https://www.nidirect.gov.uk/contacts/contacts-az/go-ni-digital-initiative>

⁷¹ The Lloyds Consumer Digital Index reports that 85% of people over the age of 15 in Northern Ireland have essential digital skills, the Northern Ireland Statistics and Research Agency's mid-year population estimates for 2019 report 1.5 million adults over the age of 15 <https://www.nisra.gov.uk/publications/2019-mid-year-population-estimates-northern-ireland>

⁷² Digital strategy for Wales, 2021 <https://gov.wales/digital-strategy-wales.html>

⁷³ "Digital Inclusion Forward Look: towards a digitally confident Wales", 2020 <https://gov.wales/digital-inclusion-forward-look-towards-digitally-confident-wales.html>

England

The Department for Culture Media and Sport, DCMS, have overall responsibility for digital inclusion in England.

The Government Digital Service, GDS, has responsibility for the service design standards for public services and how they meet the needs of all citizens⁷⁴. Their guidance is used by organisations in central and local government. GDS were responsible for digital inclusion before responsibility was passed to DCMS.

The Department for Education, DfE, have responsibility for the Essential Digital Skills Framework which forms the basis for other activities such as digital inclusion activities in community groups and businesses⁷⁵. With a few exceptions it is not widely used in other government departments and programmes.

The government has recently introduced a new legal entitlement to fully funded entry level and Level 1 digital skills qualifications for work and life⁷⁶. These qualifications are based on the Essential Digital Skills Standards developed by DfE. These standards differ slightly from the Essential Digital Skills framework. They will be available to people who go to a publicly funded educational establishment and will be provided by certified organisations⁷⁷.

This new legal entitlement is funded from existing Adult Education budgets, yet brings in the risk of legal action if it is not met. It is not clear whether the government has assessed the effects of this risk.

As education is a devolved matter this legal entitlement only applies in England. The devolved administrations in Northern Ireland, Scotland, and Wales have similar initiatives to make entry level digital skills broadly available across the further education system.

DfE are also responsible for providing education services to children in England. As education moved online during the pandemic it became clear that the capability for providing digital education was patchy across the country. The high expectations that education could continue at home proved to be misplaced.

The National Audit Office found that there was no pre-existing plan for dealing with disruption on this scale, and said that the Department's approach was largely reactive⁷⁸.

⁷⁴ Service Standard <https://www.gov.uk/service-manual/service-standard>

⁷⁵ National standards for essential digital skills, DfE, April 2019 <https://www.gov.uk/government/publications/national-standards-for-essential-digital-skills>

⁷⁶ "Improving adult basic digital skills" https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/796173/Improving_adult_basic_digital_skills_-_government_consultation_response.pdf

⁷⁷ "Digital qualifications: evaluation progress" <https://www.gov.uk/government/publications/digital-qualifications-evaluation-progress>

⁷⁸ National Audit Office "Support for children's education during the early stages of the Covid-19 pandemic" 2021 <https://www.nao.org.uk/report/support-for-childrens-education-during-the-covid-19-pandemic/>

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A court case was started to put pressure on the Government to provide all children with access to the internet and laptops they need to continue their education⁷⁹. The court case would have tested whether the Education Act 1996 meant that the appropriate authorities would need to provide the equipment that children need to access online education. The court case has not continued since the department committed £85m to fund digital devices for some children.

The department decided that the eligibility level for additional digital support was all children with a social worker and care leavers, alongside disadvantaged pupils in year 10 and delivered 212,900 laptops and tablets, and 49,700 routers by mid-July. In September 2020 the Children's Commissioner for England used their data gathering powers discovering that a third of trusts received fewer than 10 laptops for all of their year 10s, and 27 received just a single device⁸⁰.

This figure proved to be insufficient leading to a number of initiatives from local authorities, businesses and civil society to provide digital support to children.

Despite these challenges a legal direction was placed on schools requiring them to provide online education⁸¹. As with the legal entitlement for digital skills qualification this creates the risk of legal action.

One year into the pandemic the department is still struggling to understand how many devices are needed by teachers and children, let alone to supply the devices, the data needed to use them, and digital education services that mean they need to be used⁸².

Ofcom's 2021 Technology Tracker found that one in five children who had been home schooling did not have access to an appropriate device all of the time⁸³.

How many English schoolchildren still lack devices?

It is difficult to estimate how many English school children still lack devices. It is expected to be at least 400,000 children. Exploring the topic is useful to understand the difficulty in gathering statistics around digital inclusion, the variety of organisations that responded to the needs of children, and the need for a better strategy.

In early 2020, Ofcom's Technology Tracker was used to estimate that between 1.14 million and 1.78 million children under the age of 18 lived in households without access to a laptop, desktop or tablet in the UK⁸⁴.

⁷⁹ Good Law Project "Upholding the right to education", 2021 <https://www.equal.education/blog/the-right-to-education>

⁸⁰ Children's Commissioner for England "Children without internet access during lockdown", 2020 <https://www.childrenscommissioner.gov.uk/2020/08/18/children-without-internet-access-during-lockdown/>

⁸¹ Coronavirus - Temporary continuity directions etc: education, training and childcare <https://www.thegazette.co.uk/notice/3642261>

⁸² "How the school laptops scandal let down teachers and pupils", 2021 <https://www.newstatesman.com/politics/education/2021/01/how-school-laptops-scandal-let-down-teachers-and-pupils>

⁸³ Ofcom Technology Tracker 2021 https://www.ofcom.org.uk/_data/assets/pdf_file/0022/216733/technology-tracker-2021-cati-omnibus-survey-digital-exclusion-data-tables.pdf

⁸⁴ Ofcom Technology Tracker 2020 https://www.ofcom.org.uk/_data/assets/file/0023/202856/Population-estimates-for-UK-children-without-access-to-broadband-and-connected-devices.xlsx the technology tracker is due to be updated on 17 May 2021 <https://www.ofcom.org.uk/research-and-data/data/statistics/stats21>

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The Technology Tracker is produced using government statistical processes. Understanding children's need for devices was not a purpose that the Technology Tracker survey was intended for so these numbers are known to only be indicative. Due to these limitations it was not possible to provide a breakdown by local area or school age group that was a robust statistical estimate

Eligibility for free school meals is regularly used as a proxy for the number of disadvantaged children in the UK.

The most recent set of free school meals data for England dates from October 2020⁸⁵. This publication shows that 1.4 million children are eligible for free school meals in England. This is in the middle of Ofcom's estimated range of children in need across the UK. This provides a useful confidence check on Ofcom's figures.

While eligibility for free school meals can be a useful proxy it becomes less accurate for decisions at a more granular level. A child on free school meals may have a device, while a child who is not on free school meals may lack a device.

DfE decided that they would nationally procure devices so had to determine how many devices to buy. They defined an initial set of eligibility criteria that led to the conclusion that 540,000 children needed to be supplied with a device. This is significantly lower than either Ofcom's estimate or the number of children on free school meals.

The department then used a formula to assist them in deciding how to allocate these devices to individual schools. DfE have not published detailed information about how this formula was determined or evaluated^{86,87}.

In August 2020 the Children's Commissioner for England gathered their own data from schools to check if DfE's efforts were effective⁸⁸.

The Commissioner reported that a third of trusts received fewer than 10 laptops for all of their year 10s, and 27 received just a single device. One secondary school said that they had only enough for about half of the pupils in the year group who they knew actually needed one, and a primary school headteacher estimated that 70% of her pupils lacked adequate internet access but that only three received devices.

Subsequently the DfE expanded their eligibility criteria and in an ad hoc release of data have reported that 702,226 devices were delivered by 11 January 2021⁸⁹.

Meanwhile a number of city-regions, local authorities, businesses and charities also recognised the need for devices in schools and saw that the DfE was failing to meet every child's needs.

To understand demand some local authorities connected directly with local schools, and asked them to collect information from teachers, parents and children⁹⁰. They then tried to provide devices to meet the identified needs.

These schemes relied on donations and re-purposed budgets and delivered differing numbers of devices. In February 2021 London stated that they had delivered 100,000 laptops to schools, by comparison the North of Tyne Combined Authority had supplied 2,500 devices^{91,92}.

⁸⁵ Academic Year 2019/20 Schools, pupils and their characteristics <https://explore-education-statistics.service.gov.uk/find-statistics/school-pupils-and-their-characteristics> The next update to this data will be in June 2021 <https://questions-statements.parliament.uk/written-questions/detail/2021-03-22/173097>

⁸⁶ How laptops and tablets are allocated, 2021 <https://get-help-with-tech.education.gov.uk/devices/device-allocations>

⁸⁷ An FOI request revealed that in the Summer of 2020 the figures were based on data on free school meals collected in January 2019, a BESA ICT Survey 2019 data on the average number of laptops and tablets in primary and secondary schools, and a Teacher Tapp survey (March 2020) which showed the proportion of teachers provided with a device by their school "Covid-19 device provision: calculation data" https://www.whatdotheyknow.com/request/covid_19_device_provision_calcul#incoming-1706108, BESA ICT Survey 2019, (login required) <https://www.besa.org.uk/insights/ict-in-uk-maintained-schools-2019/> Teacher Tapp <https://teachertapp.co.uk/2020/03/> A co-founder of Teacher Tapp subsequently commented that "[DfE] based it on a tiny BESA survey, which they then inappropriately (and without asking us) combined with Teacher Tapp data in a spurious way. A pretty different situation" https://twitter.com/miss_mcinerney/status/1366326399083171842

⁸⁸ "Children without internet access during lockdown", Children's Commissioner for England, 2020 <https://www.childrenscommissioner.gov.uk/2020/08/18/children-without-internet-access-during-lockdown/>

⁸⁹ Laptops, tablets and 4G wireless routers progress data as of 12 January 2021 <https://www.gov.uk/government/publications/laptops-tablets-and-4g-wireless-routers-progress-data>

⁹⁰ Two authorities volunteered this methodology during research for the report. They reported that other authorities carried out similar activities.

⁹¹ FIRST LAPTOPS DISTRIBUTED IN DIGITAL INCLUSION DRIVE <https://www.northoftyne-ca.gov.uk/news/digi/> NB: this report states 900 devices, in an interview the NTCA stated 2,500

⁹² Mayor of London and London Councils work to help close digital divide <https://www.london.gov.uk/press-releases/mayoral/mayor-and-london-councils-tackle-digital-divide>

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There are also business and charity campaigns. The two most well-known are Mail Force and DevicesDotNow. Mail Force have supplied about 10,000 laptops by February 2021, while DevicesDotNow supplied 11,500 laptops⁹³.

Neither the number of devices that were locally delivered or the evidence of need that was established appear in DfE's statistics for device delivery. It is not clear if this evidence was collected by DfE to improve their decision making.

Meanwhile both DfE and some locally supplied devices were on loan. As schools have re-opened some devices have been returned and some may have been recycled to meet the needs of other groups of people, for example vulnerable adults. Some devices will have broken.

In January 2021 Schools Week reported that based on DfE figures 423,000 devices are still undelivered⁹⁴. The report states that 876,000 laptops have been delivered by DfE and assumes that 1.4million children should get devices.

These figures do not match the DfE's statistical releases, do not include locally supplied devices and do not factor in device failure or recovery.

If schools were forced to close again then it is not clear if there is a strategy in place to gather evidence on current needs at a national or local level, or a plan for how the national government would work more effectively with businesses, local authorities, charities and schools to get devices to children who need them.

The Sutton Trust has reported that in England 35% of households with the lowest incomes say that their children do not have access to a sufficient number of devices suitable for their online learning, compared with 11% of households with the highest incomes⁹⁵.

Meanwhile the legal status of the need for digital support remains untested and is an issue that could re-emerge either during the pandemic or afterwards⁹⁶.

Below the national English level the picture differs from the devolved administrations because of the role that city-regions play in between national government and local authorities in some areas of the country.

England city-regions

English city-regions have less power over policy and funding than the devolved administrations, sometimes they have to rely on soft power to bring together local authorities and local organisations to tackle common problems.

The recent Centre for Cities report on levelling up the UK's regional economies highlighted these, and other, issues calling for city-regions to be responsible for developing and delivering local skills plans based on local needs and inputs⁹⁷.

⁹³ "Mail Force buys £1m of laptops: Huge boost for schools as charity places order for 5,000 new computers" <https://www.dailymail.co.uk/news/article-9230099/Mail-Force-buys-1m-laptops-Boost-schools-charity-places-order-5-000-new-computers.html> DevicesDotNow <https://www.goodthingsfoundation.org/devicesdotnow>

⁹⁴ "Why the government's £400m laptops roll-out is crashing" <https://schoolsweek.co.uk/why-the-governments-400m-laptops-roll-out-is-crashing/>

⁹⁵ Sutton Trust, Learning in Lockdown, 2021 <https://www.suttontrust.com/our-research/learning-in-lockdown/>

⁹⁶ Given the growth in digital education services, the increased need for internet access to do homework and the reduction in availability of physical textbooks it seems likely that the extent of the rights in the Education Act will be explored further

⁹⁷ Centre for Cities, Levelling up the UK's regional economies, 2021 <https://www.centreforcities.org/reader/levelling-up-the-uks-regional-economies/the-allocation-of-powers-and-resources-to-mcas/>

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This approach would seem a way to make things easier but, despite the current challenges, city-regions like London, and the Greater Manchester and West Midlands Combined Authorities are starting to develop and deliver digital inclusion strategies.

The Mayor of Greater Manchester has committed to tackling digital inclusion and set out an ambition of a 100% digitally included Manchester⁹⁸.

As the pandemic exposed particular problems around young children and the government's attempts to tackle this problem through national initiatives struggled the Greater Manchester Tech Fund, or GM Tech Fund, was launched as an emergency response.

The GM Tech Fund relies on donations of funds, devices and contracts from businesses⁹⁹.

The London Mayor has allocated £1.5m to a new digital exclusion taskforce with the goal of understanding the levels of digital exclusion across London and helping Londoners access the devices and skills they need to get online¹⁰⁰. This taskforce is led by the Mayor but, in line with London's administrative structure, works closely with the London Councils.

As in Manchester the London taskforce has started by asking for donations from businesses and charities to support young children. It is scheduled to provide 200,000 devices but recognises that fully meeting the demand remains a huge challenge

The 2021 West Midlands Digital Roadmap commits the West Midlands Combined Authority to work with local authorities, the third sector, and community groups to form a digital inclusion coalition with a goal of reducing the number of internet non-users in the West Midlands from the highest level nationally down to the UK average (22% to 15%)¹⁰¹. It is not yet clear what funding will be allocated to this initiative or whether the region will try to lower the UK average.

Below the level of city-regions, places like Bristol have also risen to the challenge during the pandemic with a new cross-city digital inclusion group bringing together politicians, city officials, businesses, schools and charities to understand and tackle the problem. This group has decided to prioritise the needs of school children. If momentum continues and funds allow then it intends to expand to provide support to other groups.

Bristol is part of the West of England Combined Authority and will work with that combined authority to integrate with adult education initiatives and other local places.

Business and third sector

⁹⁸ Businesses respond to Mayor of Greater Manchester's call to support digitally excluded young people, 2021 <https://aboutmanchester.co.uk/businesses-respond-to-mayor-of-greater-manchesters-call-to-support-digitally-excluded-young-people/>

⁹⁹ Greater Manchester Technology Fund, 2021 <https://www.greatermanchester-ca.gov.uk/what-we-do/digital/digital-inclusion-agenda-for-change/the-greater-manchester-technology-fund/>

¹⁰⁰ "Mayor of London and London Councils work to help close digital divide", 2021 <https://www.london.gov.uk/press-releases/mayoral/mayor-and-london-councils-tackle-digital-divide>

¹⁰¹ West Midlands Digital Roadmap, 2021 <https://www.wmca.org.uk/media/4468/west-midlands-digital-roadmap.pdf>

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Businesses and third sector organisations play a role in most digital inclusion initiatives.

They can reach some people that the state cannot reach directly, for example providing digital skills training in the workplace, or supporting people who are not comfortable dealing with the state. In areas where there is no public sector leadership these organisations can take the lead, in some cases they provide funding where there is none.

A huge number of organisations including FutureDotNow, Good Things Foundation and the Online Centres Network, the Carnegie UK Trust, Citizens Advice, Lloyds, and the four national organisations for the voluntary sector coordinate, deliver and fund these activities¹⁰².

Much of the UK's expertise in how to build and deliver digital inclusion projects is in these third sector organisations. They have developed and published a number of how-to guides based on their work with different segments of the population.

Online Centres Network

In 1999 the UK Government launched a network of "ICT Learning Centres" (renamed "UK online centres" in 2000, and the Online Centres Network in 2016) to ensure the two thirds of the population without the internet at home had somewhere to access it, and the support to develop the basic skills needed to use the internet confidently. Funding was provided through a £252 million Capital Modernisation Fund. At the same time a significant investment was also made to the libraries to create a People's Network of internet connected computers in all libraries.

The Good Things Foundation has run the network since 2011. Since this time over 3.34 million people have been reached and supported by this network and Good Things Foundation.

Although some of the original partners from the early 2000s remain in the network the actual composition has evolved and developed over the years. There are currently over 5000 organisations in the network reaching deep into communities as they represent the local communities they are in. Centres are: community centres, community anchor organisations, public libraries, schools, GP surgeries, social housing providers; local small charities supporting, for example, disabled people, older people, homeless people, or people looking for work; local branches of national organisations such as Citizens Advice Bureaux, Age UK, or Salvation Army. About 10% of the Online Centres are entirely volunteer led and ran.

Survey data shows that once people have developed basic digital skills with the centres network then:

- 73% are more confident and independent internet users
- 86% agree they have increased either their general self-confidence or general independence, as a result of computer/internet skills learnt
- 90% have engaged in some form of further learning
- 66% of those supported have progressed to employment-related activity, with 17% entering full-time or part time employment
- 63% more confident using online health tools
- 65% happier as a result of more social contact
- 53% reduced the number of calls/visits to public service offices through use of online services
- 60% got information about central government service.

¹⁰²Good Things Foundation Online Centres Network <https://www.goodthingsfoundation.org/online-centres-network> , Carnegie Trust Digital Futures <https://www.carnegieuktrust.org.uk/theme/digital-futures/>, Citizens Advice and digital inclusion <https://www.citizenonline.org.uk/citizens-advice-digital-inclusion/>, Lloyds Bank Academy <https://www.lloydsbankacademy.co.uk/>, FutureDotNow <https://futuredotnow.uk/>, NCVO <https://www.ncvo.org.uk/>, SCVO <https://scvo.scot/>, WCVA <https://wcva.cymru/>, NICVA <https://www.nicva.org/>

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Civil society organisations originally started with mass digital inclusion activities. This worked for those motivated, interested or intrigued to improve their skills. While there are still people in this situation over time most of this cohort of people will, unless they have hit difficulties such as an inability to afford access, have become digitally included.

Many of the remaining people in this “motivated” cohort may be included by the new legal entitlement to digital skills that has been introduced in England, and similar initiatives in adult education in the other UK nations.

A growing number of recent projects have been designed to help people become digitally included while they use a service that they need. For example helping a citizen get the benefits that they are entitled to, helping someone move into education, helping an employee learn new skills, or helping businesses to become more productive.

Even if the service is a public service then some people will prefer to get support from the third sector, rather than the public sector. In these circumstances the state sometimes supports third sector organisations to provide that support, for example Citizens Advice’s Help to Claim service is funded by DWP and this approach is prevalent in the Connecting Scotland programme, but in other cases the third sector needs to seek other sources of funding such as from philanthropic funders.

These projects require a greater upfront investment in understanding the problems that people face and in trialling a range of different approaches to meet their needs. It also requires greater agility, as both people’s problems and the approaches that are effective will change over time.

FutureDotNow differs from other organisations by focussing on improving essential digital skills provision within businesses. It is earlier in its journey than the others, and is making the case that improving essential digital skills amongst staff and customers is an achievable and strategic business priority that creates business benefits.

Despite the efforts of these organisations there are too many people left behind and significant economic benefits left unrealised. There will always be some needs that the state cannot or will not provide, but it seems clear that the state could and should do more if the UK is to fix the digital divide.

Recommendations

Through the recommended actions it is estimated that the digital divide can be halved over the next 4 years, and persistently eliminated in the future.

Digital inclusion is not a one-off activity that can be completed and then forgotten about. People’s situations are different and will change over time. The UK needs to build a sustained and broad response that provides support to help everyone to get online as, where and when they need it.

This needs national vision, leadership and funding from all four nations of the UK, but that alone will be insufficient. It also needs leadership and a mix of activities in city-regions, communities, and across the public, private and third sectors.

This is a shared problem affecting millions of people with significant social and economic benefits.

The recommendations are intended to help create this kind of structural response and leadership. The following section provides more detail on each recommendation.

Overall	New national visions to halve UK’s digital divide over next four years New national Cabinet-level task and finish groups Assess and tackle evidence gaps Improve guidance for designing public services for digital inclusion			
	No access	Data poverty	Devices	Essential skills
Overall	A £130m fund to invest in national and regional digital inclusion strategies	Binding social tariff commitments for broadband operators Zero-rating scheme for essential public services See No Access	See No Access	See No Access
school age	Digital inclusion strategy in each nation	-	-	-
16-24	-	-	-	DWP to ensure Kickstart programme is designed to support digital inclusion BEIS to work with FutureDotNow to hit target of 75% of employees receiving training from employer
25 or over (in workforce)	-	-	-	DWP to ensure Restart programme is designed to support digital

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				inclusion BEIS to work with FutureDotNow to hit target of 75% of employees receiving training from employer
Non-workforce/ retired	-	-	-	-

Figure 5: Recommendation summary

A £130m investment programme

The upcoming Shared Prosperity fund should support a £130m programme of national and local digital inclusion projects that are designed to meet local needs and priorities

Programmes like Connecting Scotland and the Online Centres Network, operated by the Good Things Foundation, have shown what is possible when digital inclusion is invested in and local activity is designed to meet local needs. This activity needs to be complemented by other work, but it is an essential part of any digital inclusion strategy.

The Good Things Foundation has called for a £130m investment in skills to get 4.8 more million people online and halve the UK digital divide.

Our Great Digital Catch Up¹⁰³: £130m over 4 years, alongside support from businesses, so that every village, town and city has a trusted place to get support with digital inclusion.

Let's help 4.5 million more people across the digital divide, fire up the post-COVID economy and level up opportunity.

75% of adults agreed that every community in the UK needs a place where people can visit to get help with Internet skills, such as how to do online banking, or how to access online education¹⁰⁴.

This includes some activity to provide devices to the most vulnerable, but most of the people helped will already have both internet access and a device.

Connecting Scotland shows that a larger budget than £130m may be required. Connecting Scotland has a budget of £55m to get 55,000 of the most vulnerable people online with a device, 24 months of unlimited data, and support. As a secondary benefit it will also strengthen social infrastructure within communities.

Connecting Scotland has not yet been evaluated, and other recommendations in this report will reduce the cost of internet access. It is currently recommended that £130m is invested

¹⁰³ Good Things Foundation Blueprint for a digitally included UK
<https://www.goodthingsfoundation.org/sites/default/files/blueprint-for-a-100-digally-included-uk-0.pdf>

¹⁰⁴ Research by Ipsos MORI on behalf of Good Things Foundation. A nationally representative quota sample of 2,219 UK adults aged 16-75 using its online I:Omnibus between 28.08.20 and 31.08.20

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with the potential need to increase this figure as delivery programmes learn more about what is possible and required.

When considering who should determine how this funding is spent it is important to recognise that different places will face differing demands.

Some areas of the country will have more people who need essential digital skills to get into work, others will have more people who cannot afford a device or contract, others will have major gaps in physical infrastructure.

While the Northern Ireland, Scottish and Welsh governments have a close enough relationship with their local authorities, civil society organisations and populations to determine where to place capacity to meet demand, the challenge is an order of magnitude higher with England's 56 million citizens¹⁰⁵. Within England local places are better positioned to estimate the required level of investment and the capacity of local education services, businesses and communities to use it effectively¹⁰⁶.

Finally within the broader vision of fixing the digital divide it is important to allow political leaders to make many of the decisions about who to prioritise, how to do it and for their electorates to be able to hold them democratically accountable for those decisions. Some places will prioritise the elderly, others children, others vulnerable adults, or adults that struggle to find a job because of digital exclusion.

Unfortunately English city-regions, local authorities and, to a lesser extent, devolved administrations lack control over the funding and policy areas necessary to build and deliver digital inclusion programmes and have already suffered significant budget pressures in the face of growing demand for their services during the pandemic¹⁰⁷. It is particularly noticeable that within England local places have relied on donations to meet the education needs of children during the pandemic.

To unlock the potential of local digital inclusion programmes Government needs to put in place a funding model that allows both the national governments of Northern Ireland, Scotland and Wales and local places in England to build sufficiently scaled and sustainable digital inclusion programmes. This model should consider the Centre for Cities proposal for local skills plans and take learnings from successful digital inclusion initiatives¹⁰⁸.

The Government has launched a number of new funds that could be used for this purpose.

These include a £4.8bn Levelling Up fund focussed on physical infrastructure, and a 1-year £220m Community Renewal Fund which is a precursor to a Shared Prosperity Fund with an

¹⁰⁵ ONS, Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2019 <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2019estimates#population-growth-in-england-wales-scotland-and-northern-ireland>

¹⁰⁶ The final report of Labour's 2019 Lifelong Learning Commission emphasised the value of greater collaboration at local level <https://labour.org.uk/wp-content/uploads/2019/11/Lifelong-Learning-Report-2019.pdf>

¹⁰⁷ [English] Local government finance in the pandemic, National Audit Office, 2021 <https://www.nao.org.uk/press-release/local-government-finance-in-the-pandemic/>

¹⁰⁸ Centre for Cities, Levelling up the UK's regional economies, 2021 <https://www.centreforcities.org/reader/levelling-up-the-uks-regional-economies/the-allocation-of-powers-and-resources-to-mcas/>

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estimated budget of £1.5bn¹⁰⁹. The Shared Prosperity Fund seems the most appropriate vehicle to provide the £130m investment.

If the Shared Prosperity Fund does not have sufficient budget then additional funds should be secured from either public service programmes that create demand for digital inclusion (for example initiatives to modernise health and social care or the digital courts transformation programme) or technology investment projects (for example the AI Sector deal or the Gigabit Broadband programme) whose success will be reliant on fixing the digital divide.

Improve social broadband tariffs

Ofcom should take the lead in improving social broadband tariffs by harmonising the eligibility criteria, working with operators and government to improve the customer journey, and mandating that all operators offer a social tariff to an agreed level of service¹¹⁰.

Too many people cannot afford internet access. Telecoms policy is the responsibility of the UK government and most of the activity to address this problem needs to take place at this level.

While free basic broadband for all is an attractive prospect, due to its costs and impact on the telecoms market it is a matter for a broader public policy debate than one focussed on digital inclusion¹¹¹.

Instead better social broadband tariffs and zero rating of essential public services will provide national interventions that are more closely targeted without adding a significant administrative burden to the citizens that should benefit from them.

It can be difficult for citizens to get current social tariffs because they use differing eligibility criteria and are hard to apply for. The All-Party Parliamentary Group on Data Poverty held a roundtable with service providers where it was reported that eligibility criteria checks were performed manually by DWP¹¹². This is unnecessary when eligibility checks for other benefits, for example winter fuel payments, are performed electronically with payments automatically applied to people's accounts.

Ofcom should work with government to define eligibility criteria, make it easy for operators to automatically check those criteria, and put a mandatory social tariff into telecoms operator's

¹⁰⁹ The Community Renewal Fund includes support for projects on topics including digital inclusion, transition from unemployment to work, and digital infrastructure. It supports projects that must complete by 31 March 2022 and have a budget of up to £3m <https://www.gov.uk/government/publications/uk-community-renewal-fund-prospectus/uk-community-renewal-fund-prospectus-2021-22>

¹¹⁰ Darren Jones MP has proposed an Internet Access Bill with similar aims to this recommendation <https://hansard.parliament.uk/commons/2021-01-20/debates/BC61EF5A-5F96-4105-A64E-2039B5D48C76/InternetAccess>

¹¹¹ Free basic broadband supplied by democratically controlled digital infrastructure was a policy in the 2019 Labour Manifesto, Common Wealth continue to work on this policy area <https://www.common-wealth.co.uk/reports/democratic-digital-infrastructure>

¹¹² APPG Data Poverty 2021 <https://www.datapovertyappg.co.uk/news/first-social-tariff-roundtable-with-isp>

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general conditions of entitlement¹¹³. This tariff should be automatically applied to eligible customer's accounts and funded through a cross-market subsidy.

The tariff should provide a level of service that meets people's needs, such as the need of a typical citizen to access streaming video and upload content whether during normal times or in the conditions of a pandemic. Ofcom should determine this level of service in conjunction with telecommunications user groups and digital inclusion experts.

If Ofcom feel that their powers do not cover this policy then the DCMS Secretary of State should provide a direction under the the relevant regulations¹¹⁴.

Essential public services should be free to access online

GDS should work with other government bodies, Ofcom, telecoms service providers, and a range of civil society organisations - including specialists in digital inclusion and specialists in digital rights - to explore zero rating for essential public services and implement a long-term solution. This will allow citizens to access essential public services even if their data has run out.

An unknown number of people struggle to use essential public services because their contract does not provide sufficient data for their needs or they cannot afford a top-up voucher¹¹⁵. While social tariffs will alleviate this problem they will not eradicate it. Instead, as the ClickZero campaign recommends, essential public services should be free at the point of use¹¹⁶. Within telecoms policy this approach is called zero-rating.

In other countries the practice of zero rating has been controversial and in some cases has been found to be illegal¹¹⁷. These controversies have focussed on commercial practices, rather than on the use of zero rating by government to improve the delivery of essential public services to citizens.

The Open Internet Regulation, which has been maintained after the UK's exit from the European Union and is regulated by Ofcom, is the primary telecoms regulation tool that is intended to to define and prevent the type of illegal behaviour that has been seen in some cases of zero rating. Its aim is to “safeguard equal and non-discriminatory treatment of traffic in the provision of internet access services and related end-users' rights” and “guarantee the continued functioning of the internet ecosystem as an engine of innovation”¹¹⁸.

¹¹³ General Conditions of Entitlement <https://www.ofcom.org.uk/phones-telecoms-and-internet/information-for-industry/telecoms-competition-regulation/general-conditions-of-entitlement>

¹¹⁴ The Electronic Communications and Wireless Telegraphy (Amendment) (European Electronic Communications Code and EU Exit) Regulations 2020 <https://www.legislation.gov.uk/ukxi/2020/1419/signature/made>

¹¹⁵ In 2020 Ofcom reported that 8% of mobile internet-only households had trouble paying their bills in the last month and that 6% of households with fixed broadband faced affordability issues <https://www.ofcom.org.uk/phones-telecoms-and-internet/information-for-industry/policy/affordability-of-communications-services>

¹¹⁶ ClickZero <https://www.clickzero.uk/>

¹¹⁷ Digging into the Data: Is Zero Rating Connecting the Unconnected, Alliance for Affordable Internet, 2016 <https://a4ai.org/is-zero-rating-really-bringing-people-online/> Net neutrality, zero rating and the Minitelisation of the internet, Luca Belli, 2015 <https://www.tandfonline.com/doi/abs/10.1080/23738871.2016.1238954> CJEU applies net neutrality rules against 'zero rating', Out-Law News, 2020 <https://www.pinsentmasons.com/out-law/news/cjeu-applies-net-neutrality-rules-against-zero-rating>

¹¹⁸ Monitoring compliance with the net neutrality rules, Ofcom 2020 <https://www.ofcom.org.uk/research-and-data/internet-and-on-demand-research/net-neutrality>

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The UK's current and proposed scheme for essential public services does not appear to conflict with this aim or the regulation as a whole. These are typically services for which there is no market competition and where monitoring can ensure that other services are not adversely affected. While there are still risks they should be lower than in other cases.

Zero rating should be explored further in the UK context to develop a framework for when and how zero rating for essential public services should be implemented and monitored..

The Government Digital Service (GDS) are responsible for defining the strategy and standards for public services in England. Working with their counterparts in other UK nations this is an activity where they should lead.

Topics to be investigated include

- whether the NHS zero-rating scheme was effective at helping more people receive public health information and use the NHS Covid-19 app
- a definition of essential online public services
- A legal, operational and technical approach
- estimated costs and whether they should be funded by the government or through a cross-market subsidy
- potential harmful consequences and how they could be mitigated

The Plan for Jobs should include a digital inclusion strategy

The Plan for Jobs includes programmes like Kickstart, Restart, T-Levels and Apprenticeships that need to cater for people who are not currently digitally included. They should take advantage of the opportunity to get people online. Where regional or local initiatives, such as Connecting Scotland or the GMTech Fund, exist then these programmes should coordinate with those activities.

As part of its Plan for Jobs the government has announced three new programmes: Kickstart, Restart and T-Levels¹¹⁹¹²⁰. These new programmes are intended to help the additional 1.4 million people claiming unemployment benefit since the pandemic started¹²¹.

The Kickstart scheme provides funding to employers who create new jobs for young people. The Restart programme will provide “intensive and tailored support to over 1 million unemployed people”. The T-Levels are new 2-year qualifications for 16 to 19 year old¹²²s. Government has also given a boost to existing apprenticeship schemes¹²³. While new

¹¹⁹ House of Commons Library, Coronavirus: Getting people back into work, 2021 <https://commonslibrary.parliament.uk/research-briefings/cbp-8965/>

¹²⁰ The Alliance for Full Employment has already made a number of recommendations to improve the Kickstart and Restart programmes to support job creation and the unemployed across the UK. AFEE, Kickstart Kickstart, Restart Restart, 2021 <https://opec3a.myftpupload.com/wp-content/uploads/2021/02/Kickstart-Kickstart-Restart-Restart.pdf>

¹²¹ House of Commons Library, Coronavirus: Impact on the labour market, 2021 <https://commonslibrary.parliament.uk/research-briefings/cbp-8898/>

¹²² Introduction of T Levels <https://www.gov.uk/government/publications/introduction-of-t-levels/introduction-of-t-levels>

¹²³ “Apprentices to get jobs boost”, 2020 <https://www.gov.uk/government/news/apprentices-to-get-jobs-boost>

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guidance for designing public services for digital inclusion is required, these programmes should be seen as an urgent need and opportunity.

People will access these programmes through referrals from Universal Credit, a programme that has been learning how to improve its support for digital inclusion.

Designing these Plan for Jobs programmes to support digital inclusion would help fix the digital divide and help deliver higher social and economic benefits from these programmes.

This support should include assessments for internet access, device and essential digital skills and connecting people with existing national, regional or local initiatives suited to their needs. It may be discovered that additional funds are needed for particular initiatives.

To understand the likely costs it will be necessary to run some pilot projects. It is recommended that this start with one pilot project in Scotland, in conjunction with Connecting Scotland, and one in Greater Manchester, in conjunction with the GM Combined Authority and the GM Tech Fund.

These pilot projects should be funded from existing programme budgets.

Digital inclusion strategies for education in schools

All four nations should develop and implement digital inclusion strategies for education in schools which ensure every child has an appropriate device and that place essential digital skills targets on the same footing as numeracy and literacy

All four UK nations, and many other countries, have struggled to provide online education during the pandemic. Online education and essential digital skills will only become a stronger need for every country. Tackling digital inclusion will be key to making it happen. This will also help make the UK more resilient to future pandemics.

As education becomes increasingly digital the problem of digital inclusion will create ever greater challenges. Schools now provide links to online textbooks as they are cheaper than paper copies, while homework can be completed more easily by children with access to the internet. This risks either widening social inequalities or creating an unwanted brake on digital education due to the fear of those inequalities.

It is unclear whether the Department for Education has learned the lessons from education during pandemic and it does not appear that a strategy is in place to either improve digital inclusion in schools in more normal times or to respond to another lockdown¹²⁴.

The Sutton Trust has estimated that £750m is required to help disadvantaged students catch up after the pandemic. This £750m would provide both a combination of additional tuition

¹²⁴ Parliamentary Question from Chi Onwurah MP <https://questions-statements.parliament.uk/written-questions/detail/2021-03-15/168913/>

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and the remaining missing devices. The approach would target support at those most in need.

But, as with other digital inclusion activities, local needs and capabilities will differ around the country. While money can be given directly to schools, places might need to provide support to help them effectively use it - for example by connecting with local digital inclusion projects funded through the Shared Prosperity Fund.

All four nations should develop digital and implement digital inclusion strategies for education that recognise the impact of social inequalities, the benefits of online education, the need for resilience against future pandemics, and the needs and capabilities of local places.

These strategies should ensure that every child has an appropriate device and sufficient data to meet their needs. Every child does not need to be able to code, but these strategies should place essential digital skills on the same footing as numeracy and literacy.

The strategies should be developed with and approved by the Children's Commissions for each of the four nations.

New national visions with Ministerial leadership

All four nations of the UK need to fully commit to fixing the digital divide, developing a strategy and accompanying programme of activity.

The pandemic has shown everyone that the various digital inclusion strategies and visions that the four nations have tried so far have not been effective. But digital inclusion risks being seen as something that is "too hard" to do, rather than something that national governments still need to learn how to do effectively.

While different nations and places across the UK have differing needs and priorities including millions of citizens in the digital future must be a common mission with high visibility, priority, a strategy and a plan to make it happen. This vision is already in place in the Welsh and Scottish digital strategies.

The vision is to fix the digital divide, the strategy, and the plan needs to ensure that everyone in the UK has the essential digital skills for life and work, sufficient and affordable internet access and data, and an appropriate device to meet their needs.

This is not a one-off activity that can only ever be tackled by more money. It is an ongoing challenge which needs to be tackled through a structural response with interventions at multiple points.

Setting this holistic vision, making it a government priority and building a programme to deliver it will encourage organisations across the UK - from national administrations to local authorities to charities to businesses - to participate.

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New delivery groups to halve the digital divide over the next four years

These delivery groups will take responsibility for halving the digital divide over the next four years and persistently eliminating it in the next one.

Digital inclusion is an activity that interacts with many government policies including devolution, levelling up, telecoms, public service delivery, industrial strategy, research and development, future jobs, and skills. Some of these policy areas are UK-wide, some are national and some are devolved to city-regions and local authorities.

While DCMS, GDS - and their equivalents in Northern Ireland, Scotland and Wales - have done much to coordinate this activity, start projects¹²⁵, and ensure that digital inclusion is considered in each of these activities a group at the centre of government will be able to give greater weight and priority to the vision while continuing to use their strengths.

The groups should be chaired by either the respective national Prime/First Ministers or Finance Ministers. Due to the mix of devolved and UK-wide policy areas the four national groups will need to coordinate their activities.

Some initial activities are outlined in this pamphlet, others should be determined by the group based on what is learnt from delivery projects and with input from external organisations and experts. The role of the UK's public service broadcaster, the BBC, in assisting with digital inclusion as part of its duties is one area that should be investigated further¹²⁶.

Improve the evidence base

The UK Statistics Authority (UKSA) should assess the evidence on digital inclusion and recommend how to both fill immediate gaps and develop better evidence gathering methodologies for the future.

Across government and wider society there is increasing recognition of the importance of data, statistics and evidence to inform decision making¹²⁷. That decision might be to monitor progress towards delivering the vision, how much funding to provide a programme, how to design funding allocation schemes, how to design inclusive public services, or which type of intervention might work in a particular context.

There are some evaluation reports and longitudinal studies around digital inclusion, while civil society is developing new initiatives in the form of an Employment Data Lab and Data

¹²⁵ Digital Lifeline is a good example of a targeted digital inclusion project initiated by DCMS

<https://www.gov.uk/government/news/free-tablets-to-improve-lives-of-thousands-of-people-with-learning-disabilities>

¹²⁶ The Government has said that it may move the BBC to a subscription model once the fast broadband is universally available, this will not be achievable unless people are digitally included to a level sufficient to use internet TV services <https://www.ispreview.co.uk/index.php/2021/03/gov-may-scrap-bbc-tv-licence-once-fast-uk-broadband-is-universal.html>

¹²⁷ Michael Gove, Ditchley Lecture 2020 <https://www.gov.uk/government/speeches/the-privilege-of-public-service-given-as-the-ditchley-annual-lecture>

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Poverty Lab have been proposed that could trial and evaluate innovative new approaches^{128 129}.

But there are also clear gaps that will remain.

The Carnegie UK Trust has called for higher quality data, a robust baseline for understanding what it means to be digitally included in the UK and ongoing measurement of programme impacts¹³⁰. Nesta reported that there were few measurements of data poverty, the Department for Education has struggled to understand how many devices are required by children and teachers across England. Statistical publication at a regional level is sparse and not aligned with the administrative areas that are likely to take responsibility for local action.

The UK Statistics Authority (UKSA) has the expertise and remit to help with these kind of problems¹³¹.

They should be asked to assess evidence across the sector, recommending how to both fill immediate gaps and how to develop better evidence gathering methodologies for the future.

Target 75% of employees to receive digital skills training from their employer by 2024

Government should set a target of 75% of employees receiving digital skills training from their employer and BEIS should work with business groups and trade unions to achieve this target.

The 2020 Lloyds Consumer Digital Index reported that only 23% of employees had received digital skills training from their employer¹³². This is a missed opportunity for employees, employers and the government. A target of 75% is ambitious but, from some discussions with industry, is likely to be achievable.

To achieve this target it will be necessary to emphasise that as well as social and economic benefits there are benefits to individual businesses.

¹²⁸ For example the Carnegie Trust's evaluation of the Clever Clogs programme <https://www.carnegieuktrust.org.uk/publications/living-digitally-an-evaluation-of-the-cleverclogs-digital-care-and-support-system/>

¹²⁹ An Employment Data Lab has been proposed by charitable think tank NPC <https://www.thinknpc.org/examples-of-our-work/initiatives-were-working-on/data-labs/>, a Data Poverty Lab is being set up by Nominet and the Good Things Foundation

¹³⁰ Learning from Lockdown, Carnegie Trust, 2021 https://d1ssu070pg2v9i.cloudfront.net/pex/carnegie_uk_trust/2020/10/14161948/Carnegie-Learning-from-lockdown-Report-FINAL.pdf

¹³¹ Full Fact have called for the UKSA to anticipate the major societal questions the UK will face in the next five years, and provide the data and insights necessary to provide answers to those Questions. Digital inclusion is an example of those major societal questions. <https://fullfact.org/media/uploads/full-fact-report-2021.pdf>

¹³² Lloyds Consumer Digital Index 2020 <https://www.lloydsbank.com/banking-with-us/whats-happening/consumer-digital-index.html>

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Businesses receive a number of benefits including a more productive and happier workforce, higher retention rates, and more effective adoption of new digital technologies and services by employees and customers¹³³.

Many large businesses have training programmes that can be expanded to include essential digital skills, as well as the training required to carry out more complex digital tasks. Government could support training by SMEs through existing business-focussed organisations and the supply of free online training created by the education providers that it already funds.

Organisations like FutureDotNow and the TUC already work to help businesses expand their digital skills training¹³⁴. They recognise that businesses play a role in getting everyone to the digital start line equipped with the essential digital skills for life and work.

Clear support from government both in setting a target as part of their wider digital inclusion activities, and in providing training for SMEs from essential digital skills through to more complex skills will help businesses deliver on their potential to fix the digital divide and help create wider social and economic benefits.

New digital inclusion design guidelines for public services

To help create a sustainable environment where the need to fix the digital divide is built into new public services and programmes, advice on how to support and fund digital inclusion should be built into appropriate government guidance and checked during governance processes.

Public services are increasingly digital, not just in how they are accessed but in how they are delivered. There are some immediate priorities in the welfare and education systems but unless digital inclusion is tackled not just during the pandemic, but on an ongoing basis then the digital transformation of public services risks widening inequalities.

To tackle this systemically the Government needs to improve its guidance for designing public services, larger programmes of work, and policies to recognise that some people are not using the internet and to ensure that every opportunity is taken to tackle the digital divide¹³⁵.

Some guidance already exists, but it is insufficiently detailed and not rigorously applied. Better guidance and governance will help every programme and service understand the lessons that have already been learnt and that more opportunities to reduce the digital divide are taken.

¹³³ The Learning and Work Foundation found that 70% of young people say they want an employer that invests in their digital skills “Disconnected? Exploring the digital skills gap”, 2021, <https://learningandwork.org.uk/resources/research-and-reports/disconnected-exploring-the-digital-skills-gap/>

¹³⁴ FutureDotNow Digital Skills Playbook <https://futuredotnow.uk/digital-skills-playbook/> Delivering digital inclusion - a unionlearn webinar <https://www.tuc.org.uk/events/delivering-digital-inclusion-unionlearn-webinar>

¹³⁵ Due to a demand for digital inclusion in the third sector there is similar work ongoing there led by organisations like CAST <https://www.wearecast.org.uk/nonprofits> and Catalyst <https://www.thecatalyst.org.uk/>

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This guidance will need to encompass topics such as legal requirements for access to public services, how to include people who are digitally excluded in user research and service design, how to design services to be accessible for those who may have access or communication difficulties, and how to integrate access to essential digital skills training or local digital inclusion programmes that provide access and devices into a service¹³⁶. The last point will help join up delivery of public services with the delivery of digital inclusion activities and help reduce the digital divide.

The guidance should be clear on who should fund any incremental effort that this creates. Funding for digital inclusion activities might be per service, or could be by department based on total spending or proportion of services that support people who are digitally excluded. The latter approach would seem simpler and place less effort on individual projects. Funding should be directed to activities in national government, local government and civil society.

Governance processes, for example the new cross-government task and finish groups and service assessment processes, should then confirm that this guidance has been followed from policy development through to service design and implementation¹³⁷.

The goal is to ensure that the needs of all citizens are considered at each step of the public service design process and that every opportunity is taken to increase digital inclusion consistently and coherently.

¹³⁶ There are both general legislative requirements for public services such as the Equality Act 2010, the Disability Discrimination Act 1995 (in Northern Ireland), and Public Sector Bodies (Websites and Mobile Applications) (No. 2) Accessibility Regulations 2018, and service-specific regulation such as the Education Act 1996 that will dictate elements of service and programme design. The government's service design manual has detailed guidance for website accessibility but does not have a similar level of guidance on other legislative requirements <https://www.gov.uk/guidance/accessibility-requirements-for-public-sector-websites-and-apps#who-has-to-meet-the-2018-accessibility-regulations>

¹³⁷ Different UK nations have their own service assessments and standards (the governance model for England's Service assessments is on gov.uk <https://www.gov.uk/service-manual/service-assessments>), some services also have their own standards (for example the NHS England health service standard <https://service-manual.nhs.uk/service-standard>). The national task and finish groups will need to identify and update these governance processes

About this report

The Alliance for Full Employment was co-founded with the Metro Mayors of Manchester, Liverpool, Sheffield and Newcastle City Regions, the First Minister of Wales and the Mayor of Bristol to encompass all regions and nations of the United Kingdom and to bring people together in support of for nationwide economic recovery policies that can prevent rapidly-rising redundancies and unemployment.

We recognise the urgent need for working together – locally, regionally and nationally – to deal with the current jobs emergency and to meet the need for good employment that is well paid and fulfilling.

This report was written by Peter Wells. Peter is an independent technologist. He has twenty-five years' experience in the public, private and third sectors in a range of delivery and policy roles. Peter is a member of the organising committee for the Royal Statistical Society Data Ethics and Governance section and of the Digital Catapult's MI Garage Data Ethics board.

Peter was previously Director of Consulting at Cartesian Limited, Director of Public Policy at the Open Data Institute, and has advised local, national and multinational organisations on digital strategy. He is a big fan of books, Blackpool FC and being by the seaside. He hopes we can build a world where technology works for everyone and can be contacted on peterkwells@gmail.com or [@peterkwells](https://www.instagram.com/peterkwells).