



Closing the Digital Divide for Good

An end to the digital exclusion of children and young people in the UK



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Over the past five years, the Carnegie UK Trust has been challenging the assumption that young people are ‘digital natives’ with innate digital abilities and universal digital access. Young people who are digitally excluded are more likely to experience disadvantage in other ways – and that lack of access to the digital environment has the added effect of exacerbating existing inequalities.

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The UK Committee for UNICEF (UNICEF UK) raises funds for UNICEF’s emergency and development work for children. We also promote and protect children’s rights in the UK and internationally. We are a UK charity, entirely funded by supporters. Our work covers child rights at home as well as abroad, with our mandate being to protect, uphold, and support the realisation of every child’s rights under the United Nations Convention on the Rights of the Child in every context, including online.

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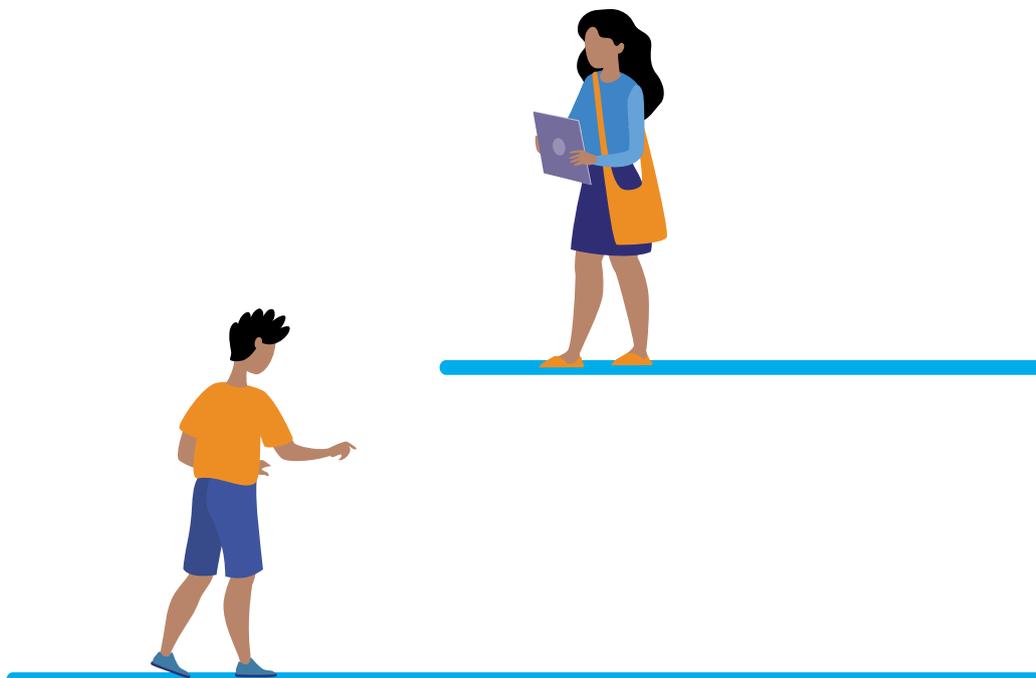
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FOREWORD

The COVID-19 pandemic has had a monumental impact on education for every child and young person in the UK. But while all children have been affected, the poorest and most marginalised were those who struggled the most. This is particularly true of children who were digitally excluded – an issue we can no longer afford to ignore.

Of course, school is the best place for most children to learn. Teachers are the backbone of our education system. Their professional expertise in the classroom cannot be replicated on a computer.

That is why we campaigned constantly for schools to reopen sooner rather than later. But even with pupils learning again, the need to close the digital divide only grows as the Fourth Industrial Revolution unfolds. This generation has already been disadvantaged by the pandemic, and evidence shows the attainment gap between better and worse off students is already growing.

It is crucial that the Government equip all young people with the skills and experience they need to succeed, making a strong commitment to the levelling up agenda through digital inclusion. Already, nine million adults in the UK lack basic digital skills essential for employability. If action is not taken now to support children and young people, it is estimated that there will be a gap of four million highly skilled workers by 2024.

“It is crucial that the Government equip all young people with the skills and experience they need to succeed, making a strong commitment to the levelling up agenda through digital inclusion.”



This means we can no longer rely on school-based connectivity to support children without access at home. Indeed, school closures during lockdowns highlighted the deepening digital divide for children and young people. In constituencies like Harlow and Mitcham & Morden, generous local initiatives provided pupils with the kit and connectivity they needed to get online but educational opportunity should not be dependent on local projects. It is a matter of social justice and opportunity that we ensure all children and young people are digitally empowered.

That is why we welcome this report, which sets out a clear and concrete way forward to end childhood digital exclusion.



The writers look beyond the end of the pandemic and set out an agenda for action that takes into account the skills and opportunities on the horizon. It calls for an inclusive approach that values children on par with educators and businesses, recognising that everyone has a role to play in ending the digital divide. It keeps a spotlight on an issue that is at risk of falling out of public discourse as schools reopen, leaving thousands of children behind.

This work should be part of a long-term plan for education, one that values skills and vocational learning alongside academic knowledge. This is also critical in the online context, as children live increasingly digital lives.



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“If we are truly serious about ensuring every child has equal opportunities to succeed in life and develop to their full potential, we must make sure they are digitally included.”



By setting out a long-term plan for education, developing a more comprehensive understanding of what digital inclusion is and why children are excluded, and ensuring there is comprehensive data collection, monitoring, and evaluation systems in place, the Government can improve standards, skills, social justice and support for the teaching profession. If we are truly serious about ensuring every child has equal opportunities to succeed in life and develop to their full potential, we must make sure they are digitally included. This paper sets out clearly how and why this must be done.

Rob Halfon

**MP for Harlow
& Chair of
the Education
Select Committee**

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**MP for Mitcham
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EXECUTIVE SUMMARY

The United Nations Convention on the Rights of the Child (UNCRC) sets out that every child has the right to education, to culture, to information, and to be heard. And yet, here in the UK, the increasingly digital world we live in does not offer equal opportunities to realise these rights. Digital exclusion is holding back children in some of the most marginalised situations, including the poorest children and those living in remote rural locations, from developing to their full potential and enjoying the highest standard of wellbeing. **Inequality is deepening as digital inclusion increases in importance.**

All this was true before the onset of the Coronavirus pandemic in 2020, though the pandemic shone a spotlight on the challenges faced by digitally excluded children. As the UK moves cautiously down the roadmap to recovery and begins to 'build back better' from the pandemic, **this spotlight must not be lost.** Taking action now to close the digital divide will not only help children and young people to realise their rights under the UNCRC; it will also help to address broader issues of inequality and ensure equitable access and social justice for all.

A STORY OF INEQUALITY

Even before COVID-19, the myth of children as digital natives permeated media narratives, driving children without access and skills further out of the spotlight. This narrative, coupled with the challenges of the at-pace development of digital technologies and limited use of a child rights framework, meant that the additional challenges presented by the pandemic arrived at a time of already-established need.

While a large proportion of children and young people can access digital devices, **8% of children aged 5-15 do not have access to an internet-enabled desktop computer, laptop, or netbook at home.** These children represent those who already experience compounding disadvantage due to their socioeconomic status and are consequently at risk of falling further behind their peers. Without access to the internet at home, these children and young people are not only missing opportunities to realise their rights under the UNCRC, but are

also unable to develop their digital skills to the same degree as their peers. **This could, in turn, hold back their engagement in the Fourth Industrial Revolution and reduce their future opportunities.** At the same time, their ability to access critical social services to support their wellbeing is limited, further embedding their level of disadvantage.

In addition to unequal access to the digital world, legislation to develop a safe online environment was limited before the pandemic. Though efforts were in train, the need for stronger online safety resulting from the impacts of COVID-19 remains outside of the scope of current legislation or guidance. But without a safe online environment, children and young people are unable to fully realise their rights in the online world.

THE RESPONSE TO COVID-19

Since the pandemic began, there has been widespread and increased awareness of digital exclusion, particularly the importance of digital access for children and young people. **The UK Government took welcome steps to address this issue at the height of the emergency response.** Indeed, as of 11 May 2021, over 1.3 million devices, over 76,000 wireless routers and over 33,000 increases to mobile data plans have been provided to support children's learning. **Communities across the UK similarly stepped up support at rapid pace to the benefit of thousands of children.**

However, while both necessary and welcome in its ambition and speed, **the rollout of support was not without challenges.** These included delays in delivery, lack of skills and support for educators, safety and security issues, challenges with the responsible engagement of businesses, and a lack of at-home support and space. These gaps are understandable, given the unfamiliarity of the situation and the scale of need. But **understanding these challenges, and identifying solutions for future planning, is critical to securing a comprehensive programme of digital inclusion in the future.**

HOW CAN WE DEFINE DIGITAL INCLUSION?

Currently, there is no nationally agreed definition of digital inclusion, yet understanding and defining the concept is critical. It is widely recognised that being digitally connected is not as simple as owning any internet-connected device. Rather, **digital inclusion requires 5 key components, all of which taken together should inform the definition of 'digital inclusion'**. The five components are:

-  **A device:** one computer, laptop or tablet per child or young person in education with licensed word processing software and appropriate safeguarding software with any additional equipment required to meet accessibility needs.
-  **A strong connection:** a connection to the internet through home broadband, a wireless router or other connector with a minimum download speed of 10 Mbit/s and an upload speed of 1 Mbit/s.
-  **Skills and support:** the skills and support to effectively participate online as active, critical, and engaged digital citizens. This means the skills to contribute through video call; upload, create, and consume age-appropriate material online; communicate with friends and family online; and explore online leisure opportunities safely and securely.
-  **A safe online environment:** an online environment that is safe for children and young people, free from bullying or abuse, fraud, or misinformation.
-  **Sustainability of access:** digital devices and connections that work reliably and are maintained and upgraded as technology progresses.

These **5 key components of digital inclusion are designed to describe the type of inclusion which ensures that children and young people are fully included in the digital world, both for the purpose of educational outcomes and their broader development and wellbeing.**

These components, however, are not enough to secure an adequate definition of digital inclusion. **A definition of digital inclusion must also be agreed in partnership with the involvement of children and young people themselves, as well as school staff, parents, support organisations, other relevant third sector organisations, and technology companies.** This should include a **measurable baseline for inclusion**, related to each of the five components.

HOW DO WE MEASURE DIGITAL INCLUSION?

One of the many challenges in the effort to ensure that all children and young people are digitally included is quantifying how many children and young people do not have 'adequate digital access' and therefore could not be seen to be sufficiently digitally included. A consistent, accurate, and regular system of data reporting on the level of digital inclusion amongst children and young people is thus essential moving forward. The design of the system for data reporting should be aligned with the definition of digital inclusion – that is, it should be based on the 5 key components outlined in the definition of digital inclusion. This should be monitored through two new mechanisms:

- 1. A national measure for digital inclusion:** A regular, robust and reliable form of measurement that indicates the proportion of children and young people in the UK who are digitally included – that is, those that have adequate digital access based on the definition and measurable minimum standard.
- 2. A local authority- level digital inclusion tracker:** A regular and consistent way of identifying those children and young people who are not digitally included at a local level, recognising that this is something that can change over time.

Together, these elements allow for a comprehensive and evidence-based approach to closing the digital divide in the UK, for all and for good.

THE ROAD AHEAD

If digital exclusion is not tackled effectively, **there is a risk that technology will continue to deepen inequalities**. There is widespread agreement that technology was essential to delivering education during the Coronavirus pandemic, but there is less clarity on how this approach will be used in the long-term. As the pandemic subsides, the need for technology will only grow – in turn demanding a long-term approach that delivers digital inclusion as a key enabler to realising children’s rights to education, information and to leisure, play and culture.

A successful long-term approach requires proactive interventions, collaboration and leadership to ensure resilience is built into the UK’s education system. **A fully funded, long-term strategy to tackle digital exclusion for all children and young people must include clear actions, targets and timelines, and must be established in partnership with children and young people themselves, families, educators and third sector organisations.** Concretely, the strategy should:

- Set out the ambition and vision for digital inclusion;
- Include measurement and accountability with clear departmental responsibilities;
- Be developed in partnership with children and young people, families, teaching staff, educational representatives and digital inclusion organisations;
- Support the responsible engagement of businesses, including in relation to procurement and infrastructure;
- Align with wider educational and social ambitions including the literacy strategy and anti-child poverty strategies;
- Be costed to ensure that it provides the resources and support that are required;
- Set out clear commitments and timelines for eliminating digital exclusion including the scheduling of regular updates on progress; and
- Be evidence-based, building on the interventions deployed prior to, and in response to, COVID-19.

Critical to the successful implementation of the long-term strategy and its components is the ability to identify and measure success. A simplistic analysis, such as exam results or hours spent learning online, is tempting but presents a narrow understanding of the multitude of benefits the internet has to offer or the importance of other factors in determining outcomes. Instead, the measurement of success of the long-term strategy should cover:

- The **additional number of children** with adequate access to the internet;
- Improvement in **academic engagement and outcomes**, measured in terms of hours spent in online lessons or completing online assignments and academic attainment;
- The **young person’s confidence online**, including in relation to accessing resources and accurate information; and
- The **young person’s experience online** in terms of their positive mental health and wellbeing and their ability to play and engage in entertainment.

THE 10-POINT ACTION PLAN

Truly ending the digital exclusion of children and young people in the UK will require a strategic and comprehensive approach; one that responds to the digital needs of children as a core foundation of social justice. To guide this work, this report sets out a 10-point Action Plan that the Department for Education can and must complete, in coordination with other departments and partners, to close the digital divide for all, and for good. This Action Plan sets out a comprehensive roadmap to ensure no child has their future hopes, opportunities or potential held back by exclusion from the digital world.

A 10-POINT ACTION PLAN TO CLOSE THE DIGITAL DIVIDE

1 Undertake a **comprehensive review of online safeguarding and privacy guidance** for educators and schools, updating the relevant policy accordingly.



2 Undertake a **comprehensive review of online safeguarding and privacy legislation for education technology companies**, utilising the Online Safety Bill to further reduce the possibility of harm to children and their rights.



3 Undertake a **comprehensive and public review of COVID-19 emergency initiatives** to gather lessons learned and inform best practice for the future.

4 Work with teachers and education staff to **identify gaps in skills and support**, using this to revisit national teacher training requirements and curricula, develop Continuing Professional Development (CPD) opportunities for educators to strengthen their digital skills and pedagogy, and improve support to schools.

5 Work with children, young people, parents, school staff, civil society, and technology providers to **establish a shared definition of digital inclusion** including a measurable minimum standard, and commitment to a regular review process.



6 Establish a **consistent, accurate and regular system of data reporting** on the level of digital exclusion amongst our children and young people in the UK.



7 Undertake research to **better understand the drivers of digital exclusion and how to address these**, with a focus on key data gaps including experiences of young people with disabilities and young people from ethnic minority communities.



8 Develop guidance and resources to **establish a local authority level digital inclusion tracker** which identifies digitally excluded children and young people.

9 Deliver a **fully-funded long-term strategy** for how the Department for Education will work across Government to tackle digital exclusion for all young people with clear actions, targets and timelines.



10 Work with children, parents, school staff, social workers to **develop a monitoring and evaluation framework** for the long-term strategy that addresses the additional number of children online, academic outcomes, and children's confidence and experience online.

INTRODUCTION

The United Nations Convention on the Rights of the Child (UNCRC) sets out that every child has the right to education, to culture, to information, and to be heard. And yet, here in the UK, the increasingly digital world we live in does not offer equal opportunities to realise these rights. Digital exclusion is holding back children in some of the most marginalised situations, including the poorest children and those living in remote rural locations, from developing to their full potential. **Every day spent without adequate access to the digital world at home is seeing these children fall further behind their peers.** Even before COVID-19, evidence suggested that digitally excluded young people aged 11 to 18 could be spending 60 fewer hours every year learning online at home, compared to their peers.¹ **Inequality is deepening as digital inclusion increases in importance.**

The outbreak of the COVID-19 pandemic led to renewed attention on the issue of digital exclusion, highlighting that **access to the digital world can no longer be seen as a luxury.** The increased reliance on digital access, not only for education but also for other local authority-led support services that had moved online, shone a spotlight on the disadvantages faced by digitally excluded children and young people and the way in which this severely impacts their learning, their life chances and their broader social development. During the pandemic, Ofcom found that one in five children who had been homeschooled did not have access to what their parents considered ‘an appropriate device’ for their online home-learning needs all of the time. Meanwhile, 2% of school-aged children relied on smartphone-only internet access in order to get online.²

In response to the pandemic and the increased need for access to the digital world, governments, businesses, charities, and community organisations developed national and local digital inclusion interventions. These initiatives are welcome both as a mechanism of support for children and as a **demonstrable reminder of our nation’s capacity to come together in times of emergency to support those in critical need.** However, emergency responses inherently have gaps due to their reactive nature, and in this case factors include the extent of available budgets, the number of and suitability of devices that can be procured, and the time limitations of each specific scheme.

The pandemic highlighted what was already clear to children everywhere: digital inclusion must be seen as a key enabler for the realisation of every child’s rights under the UNCRC. Digital inclusion must be supported and invested in as a mechanism that enables children and young people to climb the ladder of opportunity, facilitates social justice for all and allows them to flourish throughout their life. **Now is the time to come together to close the digital divide once and for all.**

This report sets out why and how the UK Government can work with partners to end digital exclusion of children for good. Using a 10-point Action Plan, it offers a comprehensive set of actions for use by the Department for Education and all relevant stakeholders to ensure that all children and young people can realise their rights through adequate digital access. As a signatory to, and duty bearer of, the UNCRC, in an increasingly digital world **the UK Government has a responsibility to address the challenge of digital exclusion for all, and for good.** This paper sets out a roadmap to success.

1 Lloyds Bank (2018), *UK Consumer Digital Index 2018*. [Statistic calculated using figures published in the *UK Consumer Digital Index 2018*, created by Lloyds Bank. An average number of minutes spent online across the two age groups (11-15 and 16-18) doing schoolwork per week was calculated, totalling 97 minutes. This was multiplied by the number of term-time weeks in an academic year (39). This totals 3,783 minutes, or 63 hours.]

2 Ofcom (2021), *Children and parents: media use and attitudes report 2020/21*, <https://www.ofcom.org.uk/research-and-data/media-literacy-research/childrens>.

AIM AND SCOPE

This paper aims to set out a comprehensive action plan to tackle the digital exclusion of children and young people, for all and for good. The report is grounded in the experiences of the 2020/2021 COVID-19 pandemic, aiming to draw on these experiences and initiatives and set out why and **how a long-term strategy on digital inclusion should be developed.**

Throughout this report, the term ‘children and young people’ refers to school-aged young people, including up to the end of compulsory education. However, there are also specific situations in which provisions should be made to support young people beyond this age bracket, including (but not limited to) young people within or leaving the care system.

Given the focus on improving outcomes for children and young people, the devolved nature of education policy in the UK, the unique social context of each nation, and the ambition of this paper to present practical actions, the **report focuses on the context in England.** The actions are primarily aimed at the UK’s **Department for Education (DfE)**, recognising its role in setting both education and wider child rights policy. Some recommendations and actions may also or exclusively be the responsibility of other departments, including the Department for Culture, Media, and Sport (DCMS) or Her Majesty’s Treasury (HMT). We encourage the DfE to work across Whitehall to ensure a holistic and comprehensive strategy to end digital exclusion. Though the focus is on England, the recommendations are relevant for other jurisdictions of the UK.



TAKING A CHILD RIGHTS APPROACH

In order to end digital exclusion comprehensively, strategically, and effectively, it is important to take a child rights approach.

Taking a child rights approach means grounding efforts to deliver digital inclusion for all in line with the UNCRC. This ensures consideration of the child and their development in the round, challenging policymakers to go beyond siloed thinking and be balanced in their solutions. It is also relevant in terms of balancing children’s rights and parental responsibilities; the concept of ‘evolving capacities’ is included in the UNCRC and sets out the need to support children as they outgrow the need for protection and gain capacity in relation to decisions affecting their lives.

Furthermore, a child rights approach means children are considered as democratic citizens in the online space. Their rights to be heard (Article 12), to information (Article 17), and to leisure, play and culture (Article 31) can all be exercised online in a way that encourages informed democratic participation. This in turn can effectively set the stage for responsible engagement online in the long-term. Getting it right from the start is an important element in the package of interventions needed to address other online concerns that reach beyond childhood, such as misinformation or online harassment.

Finally, the internet is increasingly the place where children access services to which they have a right, including quality education (Articles 28 and 29), as demonstrated during the national lockdowns and school closures experienced as a result of COVID-19. **Beyond at-home learning, however, elements of the right to health (Article 24) and social security (Article 26) are also accessed – at times exclusively – online.** Guided by the UNCRC, the UK Government and all stakeholders can ensure that children are realising all of their rights and, importantly, that no child is left behind.

Digital inclusion recognised as a child rights issue

In 2021, the **UN Committee on the Rights of the Child confirmed the importance of the digital environment for child rights by adopting the General Comment on children's rights in relation to the digital environment.**³ In this Comment, the Committee recognises that meaningful access to digital technologies can support the realisation of children's rights, but a lack of digital inclusion could increase existing inequalities or create new social injustices.⁴

TAKING A WELLBEING APPROACH

The evidence is now incontrovertible: a lack of digital rights affects all other areas of children's wellbeing. **An individual can only be seen to be flourishing in their wellbeing when their social, economic, environmental and democratic needs are being met.**⁵ **Without digital inclusion, it is harder to reach a basic standard in each of these domains.** While wellbeing has a different origin to that of human rights, associated with different purposes and schools of thought, the rights of children are inherently tied to the achievement of the wellbeing goals set out in the Carnegie UK SEED framework. The minimum standard beneath which no child should be allowed to fall resonates with the notion of meeting basic needs that are core to a wellbeing approach. Furthermore, the obligation of the progressive realisation (continuous improvement) for socio-economic rights aligns with the social justice values that are so integral to wellbeing agendas.⁶

3 United Nations Human Rights Office of the High Commissioner (2021), *General Comment on children's rights in relation to the digital environment* <https://www.ohchr.org/EN/HRBodies/CRC/Pages/GCChildrensRightsRelationDigitalEnvironment.aspx>.

4 Ibid.

5 Carnegie UK Trust uses a SEED framework for understanding social progress – Carnegie UK Trust (2018), *Wellbeing – what's in a word?* <https://www.carnegieuktrust.org.uk/publications/wellbeing-whats-in-a-word/>.

6 Trebeck, K, (2021), *Being Bold: Building Budgets for Children's Wellbeing* <https://childrenscotland.org.uk/wp-content/uploads/2021/03/BeingBold-Report.pdf>.

WHY NOW?

Schools reopened in England for full-time education on 8 March 2021. This decision was welcome as **the classroom is the best place for the majority of children to receive their education.** School-based education offers not just academic support, but also a platform through which to deliver the holistic needs of children.

However, the return to the classroom risks a de-prioritisation of efforts to close the digital divide. **As the pandemic abates, the need to end digital exclusion will not.** Children and young people are living increasingly digital lives, and while their school-day education may be classroom-based, extracurricular and non-academic work will only become increasingly digitally focussed. Homework, exam preparation and group work are all elements of education that are likely to move online, particularly as EdTech has accelerated at an unprecedented pace during the pandemic. These online aspects will also build students' digital skills, a critical element of their future employability as the Fourth Industrial Revolution unfolds.

Access to social services – including mental health support, access to information about support schemes, and applications for support – will likely move or stay online. Social engagement, such as interactions with friends and family, will also continue to take place online, as will access to information and cultural content. In this context, digitally excluded children will only see their vulnerability compounded if tackling the digital divide does not remain a priority for the UK Government.



SECTION 1

THE STORY SO FAR

Digital exclusion is not a new issue. Though the COVID-19 pandemic laid bare the challenges children face, years of evidence have indicated an increasingly consequential digital divide for disadvantaged children.⁷ The myth of children as digital natives has permeated media narratives, driving children without access and skills further out of the spotlight. This narrative, coupled with the challenges of the at-pace development of digital technologies and limited use of a child rights framework, meant that the additional challenges presented by the pandemic arrived at a time of already-established need.

A large proportion of children and young people can access digital devices – in fact 92% of children aged 5 – 15 have access to a desktop computer, laptop or netbook which is connected to the internet at home.⁸ However, the remaining 8% represent children who already experience compounding disadvantage due to their socioeconomic status, and are at greater risk of falling behind their peers. Already, a ‘large and concerning attainment gap between disadvantaged pupils and non-disadvantaged pupils’ has become apparent as a result of the first COVID-19 lockdown.⁹ The way in which these inequalities have been borne out during the pandemic has been closely analysed by the Institute for Fiscal Studies which highlighted a lack of digital access as one of several factors which created an increase in inequality: ‘Our findings suggest that there is a real risk that time spent learning at home since schools closed in March 2020 has widened educational inequalities between poorer and richer students, especially among

primary school students’.¹⁰ And this is without taking into account existing geographic inequalities in broadband or mobile coverage¹¹ or considering digital inclusion holistically.

Prior to the pandemic, a narrative of ‘mostly managing, most of the time’ presented less of a challenge for policy makers as there were wider opportunities for digital access and support available in educational and community settings including schools and libraries, and through family and friends. The social distancing restrictions enacted as a result of the pandemic have brought to light previously hidden experiences of young people attempting to complete their education without adequate digital access. This includes those children and young people faced with challenges such as trying to complete essays on mobile phones or being reliant on library opening times to finish homework. Compounding these challenges are the varying level of support children and young people receive to help navigate and realise the benefits of the digital world, as well as assumptions around teacher’s, parent’s or carer’s digital access and skills.

While there have been positive interventions and many examples of good practice both pre- and post-pandemic, there has been little systemic action to tackle the issue of young people’s digital exclusion. A lack of investment in the digital skills and confidence of education professionals, and the fact that there is no nationally agreed definition of what digital inclusion actually means for young people in the UK, further exacerbate this challenge.

Moreover, there is no meaningful data set which comprehensively assesses the level of, and reasons behind, digital exclusion for children and young people in the UK.

7 See for example publications by Carnegie UK Trust including Bowyer, G. (2019), *Switched On*, Carnegie UK Trust <https://www.carnegieuktrust.org.uk/publications/switched-on/> and Wilson, G. and Grant, A. (2017), *A digital world for all?*, Carnegie UK Trust <https://www.carnegieuktrust.org.uk/publications/digitalworld/>.

8 Ofcom (2020), *Media Literacy Tracker 2020* https://www.ofcom.org.uk/__data/assets/pdf_file/0018/214470/ofcom-media-literacy-tracker-2020-survey-1-aged-5-15-data-tables.pdf, [Table 14, page 36, QP3C. EQUIPMENT IN THE HOME – Desktop computer / laptop/ netbook – with internet access]

9 Education Endowment Foundation (2021), *New research on the impact of Covid-19* <https://educationendowmentfoundation.org.uk/news/eef-publishes-new-research-on-the-impact-of-covid-19-partial-school-closure/>.

10 Institute for Fiscal Studies (2020), *Inequalities in Children’s Experiences of Home Learning during the COVID-19 Lockdown in England* <https://onlinelibrary.wiley.com/doi/10.1111/1475-5890.12240>.

11 Ofcom (2020), *Connected Nations 2020* https://www.ofcom.org.uk/__data/assets/pdf_file/0024/209373/connected-nations-2020.pdf.

These factors have led to a fragmented understanding of digital exclusion and an equally fragmented response. As the COVID-19 pandemic subsides and the national recovery to 'build back better' continues, a comprehensive and strategic approach is both necessary and possible.

LACK OF LEGISLATION: A CHALLENGE BEFORE COVID-19

This fragmented understanding translates into the realm of legislation. Legislation to develop a safe online environment was limited before the pandemic, though efforts were in train. However, these efforts were too slow to match the rapid pace of technology development and the significant increase in time spent online as a result of the pandemic.

Safeguarding and legislation duties, both for education stakeholders and businesses, are far from comprehensive to cover the digital lives children lead today. There is little understanding of these duties for educational actors translate online, leaving gaps in current safeguarding guidance, policies and laws. This includes, in particular, in relation to children's safety and their data. Protecting data is already challenging, as many schools monitor children's online behaviour when connected to school servers in order to protect their safeguarding. This monitoring continues on children's laptops even outside of school hours and activities. The boundary between privacy and safety is thus being blurred, with little parental knowledge nor involvement. While teachers are experts in their field and should be rightly respected for this expertise, the lack of guidance leaves them vulnerable.

ACTION

Undertake a comprehensive review of online safeguarding and privacy guidance for educators and schools, updating the relevant policy accordingly.

In addition, a lack of legislation means devices and service providers may not prioritise the security, privacy, and safety of children and their data. Despite calls from prominent children's rights

organisations,¹² education technology has been excluded from scope of the draft Online Safety Bill, adding to concerns that this "*outsource[s] the cost of mitigating harm onto the education sector*"¹³. Comprehensive legislation aimed at education technology companies to protect children's data is necessary to ensure their safety moving forward.

The opportunity to support a safe online environment through the Online Harms proposals:

In May 2021, the UK Government published the draft Online Safety Bill which contains provisions to establish world-leading and effective regulations based upon a duty of care model which would be backed by an independent regulator. These proposals are welcome as a positive risk-based mechanism to support the safety of children and young people online but the UK government must keep up the momentum and introduce the Bill to Parliament as soon as possible and review the inclusion of education technology to the scope of the Bill. The systemic duty of care approach will tackle online harms at a system design level, reducing individuals' exposure to harm while promoting a safer online environment for all users. A well-designed Bill should also allow for a dynamic approach to assessing risk of harm, recognising the constantly evolving nature of the digital world.¹⁴

Critically, children and young people cannot be determined to be digitally included if the online space they access is fundamentally not safe for those young people to be in. As such, the need for better legislation has only grown due to the pandemic, and now represents a point of urgent action.

ACTION

Undertake a comprehensive review of online safeguarding and privacy legislation for education technology companies, utilising the Online Safety Bill to further reduce the possibility of harm to children and their rights.

12 5 Rights Foundation (2021), *Ambitions for the Online Safety Bill* https://5rightsfoundation.com/uploads/Ambitions_for_the_Online_Safety_Bill.pdf.

13 Ibid.

14 More on Carnegie UK Trust's work to address online harms is available at: <https://www.carnegieuktrust.org.uk/project/harm-reduction-in-social-media/>.

SECTION 2

COVID-19 RESPONSES AND CHALLENGES

Since the pandemic began, there has been widespread increased awareness of digital exclusion, and particularly the importance of digital access for children and young people. Across the UK, the UK Government and devolved administrations have responded admirably and at speed. The table below outlines the UK Government's response to support children and young people in England.

The UK Government digital inclusion response during the covid-19 pandemic	
Eligibility	<p>Devices have been made available for disadvantaged children struggling with access to the digital world during the pandemic.</p> <p>The eligibility criteria has varied over the course of the pandemic. In the Summer Term 2020, local authorities were responsible for ordering and distributing laptops and tablets to care leavers and children with a social worker, and Year 10 pupils who did not have a social worker and were in maintained schools, including voluntary-aided schools. Academy trusts were responsible for ordering and distributing laptops and tablets to Year 10 pupils who did not have a social worker and did not have access to a laptop or tablet through another source.</p> <p>In the Autumn Term 2020 and Spring Term 2021, devices were provided to those: in Years 3 to 13 who do not have access to a device and whose face-to-face education is disrupted; those aged 16 to 19 who receive free meals in further education; those over the age of 19 with an education, health and care plan (EHCP) who also receive free school meals; those in any year group who have been advised to shield because they (or someone they live with) are clinically extremely vulnerable; and those in any year group, including 16 to 19 education, attending a hospital school.¹⁵</p>
Devices	Number of devices delivered or dispatched since start of scheme: 1,313,449 [11 May 2021] ¹⁶
Connection	<p>4G wireless routers delivered or dispatched to schools and colleges since the start of the scheme: 76,245</p> <p>Number of mobile data increases completed since start of scheme: 33,362 [11 May 2021]¹⁷</p>
Skills	The DfE has produced and disseminated a number of resources in the response, including a dedicated site for teachers and school leaders to get help with remote education ¹⁸ and guidance on good practice for remote education. ¹⁹ Furthermore, the DfE established the Oak National Academy, which provides online teaching resources and training sessions for teachers and education professionals. ²⁰

15 Department for Education (2021), *Get help with technology during coronavirus (COVID-19)* <https://www.gov.uk/guidance/get-help-with-technology-for-remote-education-during-coronavirus-covid-19>.

16 UK Government (2021), *Laptops and tablets data* <https://explore-education-statistics.service.gov.uk/find-statistics/laptops-and-tablets-data/2021-week-19>.

17 Ibid.

18 UK Government (2021), *Get help with remote education* <https://get-help-with-remote-education.education.gov.uk/>.

19 Department for Education (2021), *Remote education good practice* <https://www.gov.uk/government/publications/remote-education-good-practice/remote-education-good-practice>.

20 See Oak National Academy, <https://www.thenational.academy/>.

As well as the initiatives rolled out at national level, there have also been a range of local and tailored responses aimed at supporting children and young people's digital access coordinated by the third sector, local authorities, technology industry, and community groups. For example, In England the *Great British Tech Appeal*, co-ordinated by Barnardos and Vodafone, appealed to the public to donate devices which would then be allocated to support "disadvantaged" children, their families and support workers. Similarly, initiatives like *Every Child Online* have appealed for donated devices from members of the public which are then refurbished and distributed to schools. At the hyperlocal level, organisations like Spark & Co are working in partnership with The Wickers charity to deliver tablets to young people in their community who they identified as having to share a device between multiple people in the household.²¹ Responding to the needs of particular communities of young people, the *Keep Care Leavers Connected* campaign led by the Care Leavers National Movement, and supported by organisations like Catch22, called for extended provision of digital devices and internet access for care leavers. This has seen success with the likes of Islington Council committing to provide free WiFi for twelve months to all young people leaving care in the borough when living independently for the first time.

REFLECTING ON THE EMERGENCY RESPONSE

The emergency response, while both necessary and welcome in its ambition and speed, was not without challenges. These challenges are understandable, given the unfamiliarity of the situation and the scale of need. Understanding these gaps, and identifying solutions for future planning, is critical to securing a comprehensive programme of digital inclusion.

Outlined below are some of the key challenges presented through the centralised emergency response delivered in England. The analysis of these challenges is based on discussions held at a Carnegie UK Trust and UNICEF UK roundtable

²¹ Forthcoming publication for Spark and Co. <https://sparkandco.co.uk>.

in November 2020, in addition to sources as highlighted in the text. Understanding these challenges in more detail could help to identify a long-term, strategic approach to digital inclusion.

- **Delays in delivery:** Many children and young people faced delays in receiving support. This included delays in determining eligibility criteria to enable the roll-out of technology, even if companies had the technology in place and ready. Young people aged 16-19 years were only eligible for support through the DfE's *Get help with technology* service as of January 2021.
- **Lack of skills and support for educators:** Some teachers did not have the skills and pedagogy to effectively utilise technology to its full extent to meaningfully engage pupils through online teaching. Teachers also experienced high degrees of stress and pressure during remote teaching and blended learning.²²
- **Safety and security challenges:** There was limited guidance published to support the challenges of teaching online, such as recognising and reporting safeguarding issues and intellectual property rights.
- **Ensuring responsible engagement of businesses:** Understandably, given the need to provide at scale and pace, choice was limited for children and families in need of government-provided support, however this could set the stage for a potential monopoly on preferred suppliers. There was also a lack of coordinated engagement with technology companies at a central level, leading to a series of individual interventions limited in scope and outreach and in some cases, delays in interventions.
- **Lack of at-home support and space:** Education was delivered with the expectation of parental engagement and parental skill that was not always met in practice. Some children may also have had little physical space to engage comfortably in remote learning.

²² See Skills for Children and Educators section below.

LEARNING FROM THE EMERGENCY RESPONSE

The COVID-19 pandemic and resulting school closures shone a much-needed spotlight on the challenge of digital exclusion. The emergency efforts implemented – and the necessary challenges and limitations resulting from them – offer a rich and unprecedented resource for learning about digital inclusion. **This learning must not go to waste.** Critical to moving forward comprehensively and strategically to end digital exclusion for all and for good will be learning from these measures.

ACTION

Undertake a comprehensive and public review of COVID-19 emergency initiatives to gather lessons learned and inform best practice for the future.

ENSURING SKILLS FOR EDUCATORS

In addition to the gap in access to resources during the pandemic, remote teaching was, to many educators, a novel experience. One survey of teachers found that half of primary school teachers had not used remote learning platforms at their school before lockdown.²³ This same survey found that almost one in three teachers – and more than two in five over the age of 55 – felt they did not have enough access to digital skills in their role.²⁴ While clearly more support is needed to develop teachers' skills, only around half felt they had access to enough training.²⁵

In addition, teachers experienced lower wellbeing and additional workload during school closures. In one study, half of respondents reported an increase in workload and highlighted challenges

23 Microsoft (2020), *The Acceleration of Hybrid Learning – Preparing Schools for a Digital Future* <https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE4GyBG>.

24 Ibid.

25 Ibid.

with technology as impacting on their wellbeing.²⁶ Another poll found that one in five teachers highlighted 'Teaching remotely using technology' as an issue causing them stress.²⁷

With almost 75% of teachers believing that 'online/digital learning platforms will be critical moving forward', the need to address the skills gap, workload, and stress is clear.²⁸ To do so, schools must have access to the financial, human, guidance, and policy-related resources they require. A core element of this is additional training and support for educators throughout all stages of teacher education and professional development. This requires engaging with Schools Direct and Postgraduate Certificate in Education (PGCE) programmes to include remote learning and technology, as well as ensuring educators have the opportunity to participate in school-time Continuing Professional Development (CPD). The school-time element is critical, as educators should not be expected nor required to undertake training outside of working hours.

In order to inform training needs and gaps in skills, the DfE should work with teachers and all school staff to undertake a comprehensive assessment of their needs. This should be used to guide the development of teacher training programmes, CPD, and guidance on remote teaching.

ACTION

Work with teachers and education staff to identify gaps in skills and support, using this to revisit national teacher training requirements and curricula, develop Continuing Professional Development (CPD) opportunities for educators to strengthen their digital skills and pedagogy, and improve support to schools.

26 Chartered College of Teaching (2020), *Education in times of crisis* https://my.chartered.college/wp-content/uploads/2020/07/EducationInTimesOfCrisisII_FINAL20200708.pdf.

27 Education Support (2020), *Wellbeing Index 2020* https://www.educationsupport.org.uk/sites/default/files/teacher_wellbeing_index_2020.pdf.

28 Microsoft (2020), *The Acceleration of Hybrid Learning – Preparing Schools for a Digital Future*.

SECTION 3

DEFINING DIGITAL INCLUSION

Learning the lessons of the past are critical for designing solutions for the future. This starts with understanding the goal of this work, in other words defining digital inclusion. Though elusive, a definition is a necessary starting point for any strategic approach. It is now widely recognised and understood that being digitally connected is not as simple as owning any internet-connected device. Rather, digital inclusion requires

five key components to be in place: **a device, a connection, skills, a safe online environment, and sustainability of access.** These components are designed to describe the type of inclusion that ensures that children and young people are fully included in the digital world, both for the purpose of educational outcomes and their broader development and wellbeing. Together, they form the basis for a definition of digital inclusion.





1. Device

One computer or laptop per child or young person in education, with a processor specification suitable for everyday use and including (but not limited to) a keyboard, licensed word processing software, virus protection, safeguarding software appropriate to the age of the user and any additional equipment required to meet accessibility needs.²⁹



2. Connection

A connection to the internet, through home broadband, a wireless router or dongle, with a minimum download speed of 10 Mbit/s and an upload speed of 1 Mbit/s.³⁰ Whilst data requirements will vary, not least depending on the age and developmental stage of the child, we suggest the optimum is an unlimited data allowance. This would ensure full provision for video calls and video viewing, which are both commonly required for educational purposes – and alleviates the risk of families feeling pressured to purchase additional data for the sake of a child's education or wellbeing.



3. Skills and skills support

The child or young person is able to access and use the hardware and software required to realise all their rights, including education, information, and culture. Fundamentally, their skills and support should enable them to participate online as active, critical, and engaged digital citizens, rather than solely passively consuming content. This should include being able to respond and contribute through video call and via uploading and creating material online, as well as reading and listening. As appropriate to their age, children should be able to communicate with friends and family

29 This is a guide based on a school-aged child using a device for educational purposes. The exact requirements for children are likely to change over time and according to age and needs.

30 In line with the UK Government's definition of 'decent broadband service'. Available at: Ofcom, <https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/broadband-uso-need-to-know>, Accessed May 2021.

online and have the skills required to explore online information and leisure opportunities safely and securely. Depending on the age and developmental stage of the child, they may require adult support to develop and enhance these skills. Access to this support (either from within or outside of the household) is an essential element of a child's inclusion in the digital world.³¹



4. A safe online environment

Skills and support are only effective within the context of a safe online environment – the responsibility for which sits with governing bodies and those that design digital spaces. An individual cannot be effectively included if the digital environment is not a safe space for them to be – that is, if it is a space where they experience harmful interactions online such as bullying or abuse, fraud or misinformation. These experiences have been shown to have negative effects on wellbeing and, as well as serious emotional and physical harm, can lead to self censorship or not going online at all.³²



5. Sustainability of access

Digital devices and connections need to work reliably but also require maintenance and upgrades. Digital skills also require renewed learning in order to adapt to rapidly changing technologies and develop as appropriate to the age and learning-stage of the child. To ensure continued sustainability of access on an ongoing basis, some children and young people will require ongoing material provision and skills support. Without assurance that a child's digital access is sustainable on an ongoing basis, they cannot be considered fully digitally included.

31 More on digital use at each age and stage can be found in the Information Commissioner's Office's, *Age appropriate design: a code of practice for online services, Annex B: Age and developmental stages* available online at: <https://ico.org.uk/for-organisations/guide-to-data-protection/key-data-protection-themes/age-appropriate-design-a-code-of-practice-for-online-services/annex-b-age-and-developmental-stages/>.

32 See Bowyer, G. (2019), *Switched On*, Carnegie UK Trust <https://www.carnegieuktrust.org.uk/publications/switched-on/>.

CO-PRODUCING A DEFINITION

Given **there is currently no nationally agreed definition for digital inclusion**, a starting point for ending digital exclusion should be developing an agreed definition, comprising the five key components outlined above. Clarifying what is meant by this term is essential to understanding the end goal and being able to design approaches that can achieve digital inclusion for all and for good.

Agreeing and refining the definition of digital inclusion must involve children and young people themselves, as well as school staff, parents, support organisations other relevant third sector organisations, and technology companies. The positive engagement of technology companies would also be of great value and allow the opportunity for the co-production of new and innovative products and services. However, this would also require careful facilitation and the process should be developed sensitively, and be phased and facilitated to ensure that all parties have their voice represented. **A meaningful and holistic consultative process will ensure a nationally agreed definition of digital inclusion that has integrity and longevity.** It would also demonstrate where variants of the definition of digital inclusion are needed, for example by age or additional needs.

While the five key components of digital inclusion are necessary, simply agreeing their relevance is not sufficient to creating a definition. The definition must carry with it an agreed measure for each component, one that sets out a **measurable minimum standard**.³³ This would enable a recognised baseline for what it means to be a digitally included child or young person in the UK, and allow for monitoring and tracking of progress on an annual basis. This means being specific about what is required for each key component (for example the standard of device, the speed of connection, or the range of skills). **The definition, including the minimum standard, should be renewed on a regular basis, ideally between 3-5 years, reflecting the rapidly changing nature of digital technology.**

ACTION

Work with children, young people, parents, school staff, civil society, and technology providers to establish a shared definition of digital inclusion including a measurable minimum standard, and commit to a regular review process.

³³ Carnegie UK Trust (2020), *Learning from Lockdown* <https://www.carnegieuktrust.org.uk/publications/learning-from-lockdown-12-steps-to-eliminate-digital-exclusion/>.



SECTION 4

MEASURING DIGITAL INCLUSION

One of the many challenges in the effort to ensure that all children and young people are digitally included is quantifying how many children and young people do not have “adequate digital access” and therefore could not be seen to be sufficiently digitally included. This is especially true if those who do not have their own (i.e. not shared) digital device are not considered, but also if those who do not have one that is good enough for the requirements of home learning, who do not have a reliable internet connection or who do not have the adequate digital skills or support at home to access and carry out tasks set by their teachers are not considered either.

A consistent, accurate and regular system of data reporting on the level of digital exclusion amongst children and young people is essential for ending digital exclusion. The design of the system for data reporting should be consistent with the co-produced definition of digital inclusion – that is, it should be based on the five key components.

There are also two layers of insight that are required:

- A) A national measure for digital inclusion:** A regular, robust and reliable form of measurement which indicates the proportion of children and young people in the UK who are digitally included – that is, those that have adequate digital access based on the co-produced definition and measurable minimum standard.
- B) A local authority-level digital inclusion tracker:** A regular and consistent way of identifying those children and young people who are not digitally included at a local level, recognising that this is something that can change over time.

A NATIONAL MEASURE FOR DIGITAL INCLUSION

The process of establishing a national measure for digital inclusion starts with a national review on available statistics, identification of gaps or

limitations, and a plan put in place for strengthening data and evidence. Mechanisms which could be used to support this review include the schools census, Ofcom research and the Oxford Internet Survey. As well as helping to identify the level of outstanding need, this would also enable the UK Government to track progress and to better understand the impact of initiatives that are rolled out.

Pages 20 and 21 represent a **summary of the best available data** on four of our **five key components** of digital inclusion for children and young people in the UK: device, connection, skills, and safety. The fifth component, sustainability of access, would ideally be measured and tracked also. This may be measured through recording the age of the device that a child is using, or the level of support available to them. These aspects have not been included in the panel of indicators as no reliable nor comprehensive data exists at present.

The panel of indicators provides a glimpse of what a national measure might look like. However, there are complexities and challenges in how statistics are selected and presented, and this should not be viewed as a finished piece of work. Critically, final indicators should include disaggregated data, broken down into relevant collection categories for children from communities and backgrounds currently underrepresented in the evidence, including children with disabilities and ethnic minorities.³⁴ More and better indicators, driven by best practice, are needed to ensure all children are included in efforts to end digital exclusion.

ACTION

Establish a consistent, accurate and regular system of data reporting on the level of digital exclusion amongst children and young people in the UK.

³⁴ The ONS provides guidance on recommended ethnic group question for use on a survey in England: <https://www.ons.gov.uk/methodology/classificationsandstandards/measuringquality/ethnicgroupnationalidentityandreligion#ethnic-group>.

DIGITAL EXCLUSION OF CHILDREN AND YOUNG PEOPLE IN THE UK: PANEL OF INDICATORS

This table offers a summary of the best available data on four of our five key components of digital inclusion for children and young people in the UK. Sources are noted in the footnotes, with most statistics derived from Ofcom's work.

 Key Component 1: DEVICE			
Device – no home access at all	Device – does not have own laptop	Device – does not have own tablet	Device – no use of technical tools or controls for safety
8%	62%	39%	17%
The proportion of children aged 5 – 15 who do not have home access to a desktop computer, laptop or netbook which is connected to the internet. ³⁵	The proportion of children aged 5 – 15 who do not have home access to their own desktop computer, laptop or netbook which is connected to the internet – and is not shared with other family members. ³⁶	The proportion of children aged 5 – 15 who do not have home access to their own tablet. ³⁷	The proportion of parents who report that they do not have any technical tools or controls to manage their child's access to online content. ³⁸

 Key component 2: CONNECTION		
Connection – inadequate internet connection	Households – no fixed internet connection	Affordability – cannot afford ongoing digital costs
2%	20%	5%
Proportion of UK properties unable to access a download speed of 10Mbit/s and an upload speed of 1Mbit/s (Universal Service Obligation minimum). ³⁹	Proportion of UK properties without a fixed internet connection. ⁴⁰	Proportion of those not confident about their ability to pay for communications services over the next few months. ⁴¹

35 Ofcom (2021), *Media Literacy Tracker 2020* [Parents of children aged 5-15 and children aged 8-15 – 26th October 2020 to 15th January 2021, PDF Data Tables, Table 14] https://www.ofcom.org.uk/__data/assets/pdf_file/0018/214470/ofcom-media-literacy-tracker-2020-survey-1-aged-5-15-data-tables.pdf.

36 Ibid. PDF Data Tables, Table 20.

37 Ibid. PDF Data Tables, Table 20.

38 Ibid. PDF Data Tables, Table 41.

39 Thinkbroadband reporting of Universal Service Obligation standard of connection (below 10 Mbps, 1.2 Mbps up), <https://labs.thinkbroadband.com/local/uk>, accessed 16 March 2021.

40 Ofcom (2020), *Communications Market Report 2020* https://www.ofcom.org.uk/__data/assets/pdf_file/0026/203759/cm-r-2020.pdf.

41 Ofcom (2020), *Affordability of communications services – A summary of initial findings* [Findings taken from survey data in June and September 2020] https://www.ofcom.org.uk/__data/assets/pdf_file/0021/209613/affordability-of-communications-services-initial-findings.pdf.

 Key Component 3: SKILLS			
Skills – lack basic skills	Accessing school work online – going online is not supporting education	Privacy and security – no rules about going online	Privacy and security – no conversation with parents about online safety
16%*	20%	8%	8%
Proportion of adults in the UK unable to use their device and the internet by themselves. ⁴² <i>* Statistic refers to adults as a proxy measure since there is not a suitable measure referring to children.</i>	Parents whose children are online who did not agree that going online helps their child with school work or homework. ⁴³	Parents of children age 5-15 who DO go online, and who report that they do not have any rules in place about going online (suggestions of rules included around spending money, who they can contact, and which websites they visit). ⁴⁴	Parents of children age 5-15 who have not talked to their child about how to stay safe online. ⁴⁵

 Key Component 4: A SAFE ONLINE ENVIRONMENT	
Concerns for online safety	Experience of online harms
29%	19%
Proportion of children age 5 – 15 who have seen something online that they found worrying or nasty in some way. ⁴⁶	Proportion of children aged 10 – 15 years in England and Wales who experienced at least one type of online bullying behaviour in the year ending March 2020. ⁴⁷

42 Lloyds Bank UK (2020), *Consumer Digital Index 2020*, https://www.lloydsbank.com/assets/media/pdfs/banking_with_us/whats-happening/lb-consumer-digital-index-2020-report.pdf.

43 Ofcom (2021), *Media Literacy Tracker 2020* [Parents of children aged 5-15 and children aged 8-15 – 26th October 2020 to 15th January 2021, PDF Data Tables, Table 61] https://www.ofcom.org.uk/___data/assets/pdf_file/0018/214470/ofcom-media-literacy-tracker-2020-survey-1-aged-5-15-data-tables.pdf.

44 Ibid. PDF Data Tables, Table 34.

45 Ibid. PDF Data Tables, Table 37.

46 Ibid. PDF Data Tables, Table 87.

47 Office for National Statistics (2020), *Online bullying in England and Wales: year ending March 2020* <https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/onlinebullyinginenglandandwales/yearendingmarch2020>.



Once there is an agreed national measure for digital inclusion there are actions other stakeholders will need to take to ensure the data is utilised effectively and the value is fully realised. For example, to ensure digital inclusion is fully embed in thinking on wellbeing measurement we recommend the ONS should include this digital inclusion data within its dashboard on [national wellbeing](#).

QUALITY AS WELL AS QUANTITY

Quantitative measures, such as those detailed above, should sit alongside qualitative work in order to capture a more nuanced understanding of the degree to which children are digitally included, which young people are more likely to be at risk of digital exclusion, and the reasons behind gaps in access. This should be designed to capture a broad range of experiences including those currently under-represented in the data. Understanding the reasons behind digital exclusion can help to highlight barriers to access that may otherwise be hidden, allowing for evidence-led and targeted interventions to better support educational attainment and skills-based learning.

This panel should also include an outcome that measures skills needed for future jobs. Importantly, this should not be narrowly focused on technical jobs or just within the technology sector but should reflect an understanding of the digital and holistic skills needed for a range of employment opportunities.⁴⁸ The measure must be established to create a deeper, more comprehensive, universally recognised baseline for what it means to be a digitally included young person in the UK.

ACTION

Undertake research to better understand the drivers of digital exclusion and how to address these, with a focus on key data gaps including experiences of young people with disabilities and young people from ethnic minority communities.

⁴⁸ We align with the *Skills for Holistic Development* framework set out by the Lego Foundation, which recognises that holistic skills include creative, social, physical, emotional, and cognitive skills. See <https://www.legofoundation.com/en/why-play/skills-for-holistic-development/>.

A LOCAL AUTHORITY DIGITAL INCLUSION TRACKER

During the pandemic, schools and local authorities have been using their own methods of assessing which pupils are digitally excluded. Whilst this local approach is fast and effective in a crisis, there is a need to standardise this so that it becomes a routine part of local service provision. To do so, **local authorities and schools should be provided with guidance about how digital exclusion is defined and provided with the appropriate tools for identifying those who require support on a regular basis.** This involves identifying not only those without their own laptop (or other suitable device), but those without a decent internet connection or lacking the appropriate skills and support (including in terms of access to adult education programmes for those adults without digital literacy).

Regular data gathering would mean that those whose device becomes inadequate over time or who can no longer afford an internet connection can also be identified as problems occur. Methods of gathering this information are likely to involve surveying carers, but where surveys are used, they should be carefully designed to ensure consistency and not unintentionally be digitally exclusive themselves. Issues with self-reporting should also be considered in the design of such a system, as some families may not wish to identify themselves as 'digitally excluded'.

ACTION

Develop guidance and resources to establish a local authority level digital inclusion tracker which identifies digitally excluded children and young people.

SECTION 5

A LONG-TERM STRATEGIC APPROACH

A VISION FOR A LONG-TERM APPROACH

If digital exclusion is not tackled effectively, **there is a risk that technology will continue to deepen inequalities.** Estimates suggest that those who acquire digital skills can expect a 3-10% increase in earnings,⁴⁹ be better able to protect that income through increased ability to protect themselves against scams⁵⁰ and are more able to navigate the justice system⁵¹ and other key government services.⁵² Digitally included individuals are also more likely to experience better health outcomes,⁵³ including reduced loneliness.⁵⁴ Digital exclusion therefore harms both individual and societal outcomes and risks undermining the UK Government's commitment to improve the life chances for every child.

49 Office for National Statistics (2019), *Exploring the UK's digital divide* <https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigitaldivide/2019-03-04>.

50 Stone, E. et al. (2020). *Digital inclusion and online safety for adults in the UK*. Good Things Foundation. <https://www.goodthingsfoundation.org/insights/digital-inclusion-and-online-safety-for-adults-in-the-uk/>.

51 Finlay, A. (2018) *Preventing Digital Exclusion from Online Justice* <https://files.justice.org.uk/wp-content/uploads/2018/06/06170424/Preventing-Digital-Exclusion-from-Online-Justice.pdf>.

52 UK Parliament (2020), *Covid-19 and the Digital Divide* <https://post.parliament.uk/covid-19-and-the-digital-divide/>.

53 Public Health Wales (2020), *Digital Technology and Health Inequalities – A Scoping Review* <https://phw.nhs.wales/publications/publications1/digital-technology-and-health-inequalities-a-scoping-review/>.

54 Iriss (2020), *Digital inclusion, exclusion and participation* <https://www.iriss.org.uk/resources/esss-outlines/digital-inclusion-exclusion-and-participation>.

Success demands **proactive intervention, collaboration, and leadership.** A coordinated, long-term, and comprehensive strategy to deliver on the ambition of ensuring the digital inclusion of all children and young should drive this work, and:

- Set out the ambition and vision for digital inclusion;
- Include measurement and accountability with clear departmental responsibilities;
- Be developed in partnership with children and young people, families, teaching staff, educational representatives and digital inclusion organisations;
- Support the responsible engagement of businesses, including in relation to procurement and infrastructure;
- Align with wider educational and social ambitions including the literacy strategy and anti-child poverty strategies;
- Be costed to ensure that it provides the resources and support that are required;
- Set out clear commitments and timelines for eliminating digital exclusion including the scheduling of regular updates on progress; and
- Be evidence-based, building on the interventions deployed prior to, and in response to COVID-19.

The nature of what children and young people will require to be truly digitally included will continue to develop and change. England needs an approach that recognises that **action to prevent and tackle digital exclusion will be required for the long-term.** This furthers the case for a collaborative approach, which can bring resilience into the national effort to address digital exclusion on an ongoing basis and not rely on reactive or emergency-response solutions in the future.

ACTION

Deliver a fully-funded long-term strategy for how the Department for Education will work across Government to tackle digital exclusion for all young people with clear actions, targets and timelines.

In addition to a long-term strategy on digital inclusion, which will be central to achieving the **devices, connection, and sustainability** components of digital inclusion highlighted above, additional areas of work are needed to comprehensively deliver the **skills and safety** components of digital inclusion. These must include developing skills for educators and online safety.

MEASURING SUCCESS OF THE LONG-TERM STRATEGY

Critical to the successful implementation of the long-term strategy and its components is the ability to identify and measure success. However, assessing the impact of digital inclusion is as complex as assessing digital inclusion itself. A simplistic analysis such as exam results or hours spent learning online are tempting but present a narrow understanding of the multitude of benefits the internet has to offer or the importance of other factors in determining outcomes. Furthermore, these limited analyses can place an undue burden on children and educators and limit the realisation of a holistic education (Article 29 of the UNCRC) in favour of “teaching to the test”. It may also have the potential to overplay the impact of digital access in a child or young person’s life and unhelpfully obscure other issues.

Instead, a shared measurement of the benefits of digital inclusion should be created with children, parents, school staff, social workers, and the UK Government. This would accommodate the increase in the number of children with adequate access to the internet at home (as detailed above in the five components), as well as the experience of young people online. This measurement would also help to ‘level-up’ opportunities for every child. The measurement of success of digital access initiatives should take into account:

- The **additional number of children** with adequate access to the internet;
- Improvement in **academic engagement and outcomes**, measured in terms of hours spent in online lessons or completing online assignments and academic attainment;
- The young person’s **confidence online**, including in relation to accessing resources and accurate information; and
- The young person’s **experience online** in terms of their positive mental health and wellbeing and their ability to play and engage in entertainment.

Success of the long-term strategy should be measured against these four areas. Monitoring and evaluation frameworks should be set up beforehand that explore all areas, ensuring no one area is favoured over another.

ACTION

Work with children, parents, school staff, social workers to develop a monitoring and evaluation framework for the long-term strategy that addresses the additional number of children online, academic outcomes, and children’s confidence and experience online.



CONCLUSIONS AND 10-POINT ACTION PLAN

The digital divide is not a product of the COVID-19 pandemic and nor will it subside as the virus abates. Without clear and concerted action, a long-term vision, and a commitment to inclusion, underpinned by adequate financing and youth engagement, the challenge of digital exclusion will persist. This not only limits children's ability to learn at home during disruption, it also holds back at-home learning (such as homework and revision) when schools are open. At the same time, children's rights to play and to access information are limited if they are digitally disconnected. By taking action now to close the childhood digital divide once and for all, the UK Government can ensure every child is digitally included, to the benefit of all.

THE 10-POINT ACTION PLAN

In order to build on the success of its emergency initiatives and produce a long-term solution to the digital divide for all children, the Department for Education should work with partners, including other government departments, to deliver the following ten actions:

-  Undertake a **comprehensive review of online safeguarding and privacy guidance** for educators and schools, updating the relevant policy accordingly.
-  Undertake a **comprehensive review of online safeguarding and privacy legislation for education technology companies**, utilising the Online Safety Bill to further reduce the possibility of harm to children and their rights.
-  Undertake a **comprehensive and public review of COVID-19 emergency initiatives** to gather lessons learned and inform best practice for the future.
-  Work with teachers and education staff to **identify gaps in skills and support**, using this to revisit national teacher training requirements and curricula, develop Continuing Professional Development (CPD) opportunities for educators to strengthen their digital skills and pedagogy, and improve support to schools.
-  Work with children, young people, parents, school staff, civil society, and technology providers to **establish a shared definition of digital inclusion** including a measurable minimum standard, and commitment to a regular review process.
-  Establish a **consistent, accurate and regular system of data reporting** on the level of digital exclusion amongst our children and young people in the UK.
-  Undertake research to **better understand the drivers of digital exclusion and how to address these**, with a focus on key data gaps including experiences of young people with disabilities and young people from ethnic minority communities.
-  Develop guidance and resources to **establish a local authority level digital inclusion tracker** which identifies digitally excluded children and young people.
-  Deliver a **fully-funded long-term strategy** for how the Department for Education will work across Government to tackle digital exclusion for all young people with clear actions, targets and timelines.
-  Work with children, parents, school staff, social workers to **develop a monitoring and evaluation framework** for the long-term strategy that addresses the additional number of children online, academic outcomes, and children's confidence and experience online.

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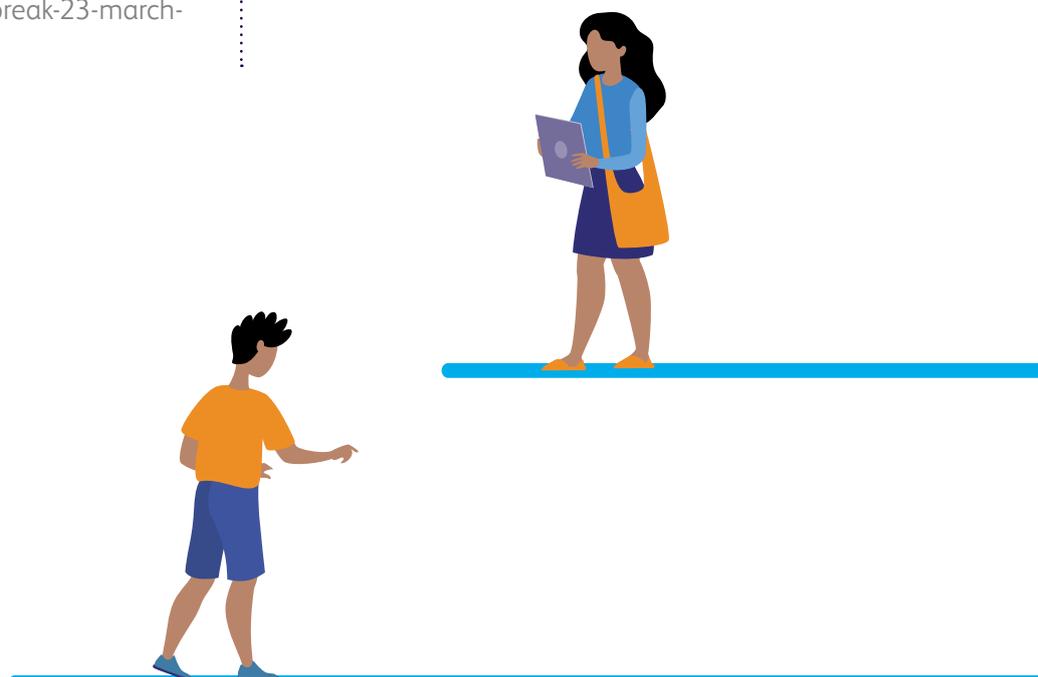
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