

PART 1

In July 2024, the UK Government announced an independent review into the existing national curriculum and statutory assessment system, including qualification pathways – Improving the Curriculum and Assessment System. As part of this Review, a call for evidence was announced on 25 September 2024.

Call for evidence description:

1. The [Curriculum and Assessment Review](#) are asking for suggestions and proposals to help them improve the curriculum and assessment system.
2. The review panel want to hear:
 - feedback on what works in the current system
 - what doesn't work or isn't helpful
 - suggestions for potential improvements
3. They would like to hear from a wide range of people including:
 - students, pupils and learners
 - parents and carers
 - teachers, tutors and lecturers
 - headteachers and senior leaders
 - the wider school, college or university workforce
 - researchers, academics and education experts
 - employers
 - local authority officers
 - anyone with an interest in the curriculum
4. This is not a consultation and we are not seeking views on specific recommendations at this stage.
5. This call for evidence is an important step in the review process. Any information you provide will feed into the review and help the panel to make its first recommendations.

The call for evidence has asked for feedback from a wide range of people to assist in the deliberations of what works well and what does not, as well as suggestions for potential improvements.

We are a small group of individuals, acting in a personal capacity, who have worked in the fields of data protection, information rights and education for many years. We share the view that the way in which the fourth industrial revolution has impacted (and will continue to impact) children and young people has not been adequately considered from a wider strategic perspective by government and policy makers. Education is a critical element but needs to be viewed in the wider context of the reality for children living in this digital era which is being so profoundly shaped by social media, big tech and big data.

Digital skills and rights cannot be consigned to half an hour of PSHE, it must be front and centre in ensuring all children are able to realise their potential in a safe and nurturing environment.

This Review is an opportunity for us to contribute to the conversations about how the environment can be improved and our children and young people better served.

Areas of the Review relevant to this submission

- Refreshing the curriculum to ensure it is 'cutting edge, fit for purpose and meeting the needs of children and young people to support their future life and work ... (enabling them to) adapt and thrive in the world and workplace of the future'.
- Embedding digital skills into learning

Government responsibilities

The UN Declaration of Human Rights (Article 26) sets out that –

“Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms”

The Department for Education describes its role –

“ ... at our heart we are the department for realising potential”

One of their priority outcomes is –

“ ... to provide the best start in life through high quality education”

In a post-election statement¹, CEOs from the Children’s Charities Coalition said –

“Prime Minister, we recognise the scale of the challenge before you this morning. But our children deserve better. We urge you to become a champion for the UK’s children and to take ambitious action now to secure their futures.”

Curriculum reform *must* –

- ⇒ Be ambitious
- ⇒ Realise potential
- ⇒ Provide the best start
- ⇒ Support the full development of young people
- ⇒ Ensure the strengthening of respect for rights and freedoms
- ⇒ Contribute meaningfully to building a better digital world grounded in human values

“The biggest policy problems facing the UK rarely fit neatly into the siloed structures of government ... nearly every department, tier of government and public service have a stake in and responsibility for children’s policy, making it a prime example of the need to be able to organise policy and delivery across organisational boundaries” Institute for Government (September 2023)

Every tier of government has a stake, every tier of society, and every citizen has a stake. We need a vision with no organisational or social boundaries.

Where we are

There is a wealth of evidence about the impact the digital age is having on children. The Resource Library we have compiled gives a snapshot. Much of the content is directly relevant to education. All of it relates to the wider context of children's lives. It is not possible to separate the different areas as they all overlap in increasingly complex and profound ways because technologies are now woven into all aspects of our lives.

If we want to ensure the curriculum is '**cutting edge, fit for purpose and meeting the needs of children and young people to support their future life and work ... (enabling them to) adapt and thrive in the world and workplace of the future**' we need to understand the wider experiences that influence what children need from their education, and what form that education needs to take if it is to be meaningful for them.

This list of resources is only a fraction of what has been published. There are so many examples of individuals and groups pointing to the desperate need for change, as well as countless examples of people and initiatives that are truly innovative and impactful. These experts need to be heard. The pockets of good practice, innovation and excellence need to feed into a nation-wide strategy with a clear, holistic and coordinated vision. EdTech, as a nascent sector, has the 'potential to make life-changing differences' (Digital Futures) but needs to be directed by the vision to ensure those life changing differences are positive.

We have the expertise for change, and we have the desire for change, but it is too great a task to remain fragmented and siloed.

Why we cannot afford to stay where we are.

If there is going to be any meaningful progress, we urgently need to improve digital literacy, but it is critical to frame it more broadly than curriculum changes. We need to be cognisant of our children's lived experiences and as difficult as it is, we need to face the disturbing realities of some of those experiences. Diverting our eyes is the easy thing to do. It is also the wrong thing to do.

- ⇒ The mental and physical health and wellbeing of our children is impacted by the fourth industrial revolution.
- ⇒ The mental and physical health and wellbeing of our children is impacting their ability to engage with education and realise their potential.
- ⇒ The mental and physical health and wellbeing of our children will impact their ability to contribute to economic growth.
- ⇒ The world is changing. Our approach to education needs to change with it.

Why are we resistant to calls for change?

What, when, and how we engage our children in formal education is probably one of the most powerful and impactful influences on individuals and society. We need the curriculum to equip our children for their current and future lives. That means supporting their wellbeing as much as it does teaching them new skills. Without wellbeing, skills are useless.

There is an embarrassment of riches when it comes to experts calling for change and evidence showing why that change is needed. The Resources Library attached to this submission is far from the whole picture. But we have become desensitised to the problems, we have normalised the current situation, and we have resigned ourselves to being powerless in the face of the enormity of the task. Whilst that is understandable, it is a trajectory that can and must be changed.

The expertise is there, the evidence is there. We do not need to reinvent the wheel; we just need to make sure the wheel gets fitted.

There is not an evidence or expertise problem, there is a culture problem.

Potential for change

The way we teach children does not reflect the world they are living in, it does not support them for the world they are living in, and it does not equip them for the world they will grow up in.

This Review can and must mark the beginning of a new chapter for education. It is a wonderful opportunity for this country to be bold, visionary, innovative and creative, but most of all to show that it cares.

Our Open Letter sets out a broad ‘call to arms’ for government and educators as well as the whole of society to encourage a ‘shift in social conscience’ that in turn can lead to real change. This is not something that the education system or teachers can do in isolation. It must feed into a wider social reframing of what it is we want for our children, and what it is they need from us.

Part 2 of this document sets out some provisional ideas about where there may be opportunities to build a better framework of education, support, protection and care around our children in their school years. They need the skills to navigate the digital world and they need the skills to contribute to it in the future.

We must be clear about our vision because where we are today is not where we have to be tomorrow. Elements of the digital world are profoundly unsafe, particularly for the young and vulnerable in our society. **Teachers** are frustrated and we have spoken to many who are worried about the effects of social media use on pupils and themselves. **Parents**, many of whom are struggling to contain the explosion in the use of social media and find it difficult to regulate its use, are also asking for help but there is nowhere obvious to turn. They are asking teachers for help in areas that are often parenting matters, but what options do they have? We are too often leaving children to navigate much of their world alone. Worse still, the algorithms that sit behind sites and platforms are often **actively pushing harmful content to young people** and are, **by design**, compulsive and addictive. The drivers for many of these platforms are money and profit, not the flourishing of human potential.

There are few, if any, other areas of their lives that we would abdicate our responsibility to children in that way, especially when the risks and harms, both physical and psychological, are in plain sight.

The impacts are far reaching for individuals and for society so before we spend time and money, is it not incumbent upon us all to reflect on where there may be opportunities to articulate a better vision, build a better digital world, and structure an education system around that?

Actions

It is acknowledged that the call for evidence for this Review has not asked for specific recommendations.

We do, however, wish to take this opportunity to set out some actionable suggestions which we hope are constructive –

- The Government must prioritise children’s protections and ensure a clear strategic and policy vision that includes education but also recognises the wider economic, social, emotional, safeguarding, physical, mental and public health issues. This Review is the perfect opportunity to build something better.
- There should be a Government lead with a clear remit for this wider view on children’s rights and protections, including, but not limited to, education.
- Data and technologies play a fundamental role in all aspects of a child’s life, from personal safety to future career options. Digital and media literacy should be in the curriculum from primary school age, rather than an add-on to PSHE (please refer to Part 2).
- Resources have been invested in positioning the UK as a leader in AI, with a focus on the economic opportunities it presents. The same is required if we want to position ourselves as a leader in children’s digital rights and education.
- Repeat calls to address the UN Committee’s recommendations by developing a robust children’s rights action plan that also considers the profound impacts of life in the digital era.
- Government and policy makers must commit to dedicating time and resources to genuine engagement with and response to the calls from stakeholders and civil society. We cannot talk of how we seek to protect, support and educate children without acknowledging and responding to the real-world experiences of children living through this revolution.
- Government and policymakers must continue to proactively challenge exploitative and harmful practices of big tech and social media platforms.
- Digital and media literacy must be embedded into all areas of public policy.

Overview

Our world is now dominated by digital technologies and we need to ensure that our young people are given the skills, knowledge and expertise they need to learn, work, live and thrive. Digital literacy needs to be positioned at the heart of our approach to education but we must take the time to ask the right questions and articulate a clear vision of what success looks like.

There are examples within school timetables where digital literacy/IT/online safety sessions are offered within other subjects or, frequently, within PSHE classes. These sessions are rarely treated with the gravitas and importance that they deserve. There is a plethora of resources and great work going on to offer this experience and education to children, but the approach is disjointed and lacks vision. The result is a patchwork of content, quality and expertise, whereby children may gain different skills and insights more by luck than judgement.

We need to recognise the value and importance of embedding digital literacy into our education system and give it the same value as Maths and English. It is the language that the modern era is being built upon and it is woven into almost every aspect of our lives. If children are without these skills, their vulnerabilities will be exploited and their opportunities diminished.

There is an opportunity to coordinate and combine the resources already available to support a new qualification. For example, some schools offer the ICDL (International Computer Driving Licence) www.icdl.org. The internationally accredited organisation offers a variety of courses for all ages.

Offering a level 2 or GCSE (or a level 1) as a **core subject** (including elements such as coding, software, AI, robotics, social media, internet, data and critical thinking) would signal the importance of this learning and lead to greater inclusion, equality, consistency and opportunity.

This qualification could sit alongside a government-led, comprehensive and long-term **public information campaign**¹ that recognises the importance of digital skills to support education as well as personal safety and wellbeing.

There are wide ranging negative impacts of ignoring this gap in our education policy. Teaching digital literacy is not just important for education and employment prospects but also to support citizens to live safe and fulfilled lives.

¹ Recalling the impact of the Green Cross Code as an example of impactful public information campaign that had reach and longevity.

Supporting a digital curriculum – summary suggestions

Target audience	Key knowledge targets	Resources/guidance	Desired outcomes
Parents of young children	<ul style="list-style-type: none"> • Understand how use of screens affects development <ul style="list-style-type: none"> - Physical – including the impact on the brain, fine motor skills, eyesight - Psychological – lack of social skills - Changes in the brain • Understanding and awareness of need and reason for age restrictions. • Understand that parents and carers must help young people to use tech appropriately including age-appropriate content etc. • Ability to set-up parental controls and access limitation on devices. • Understand the risks of public accounts and how grooming and exploitation can occur through online platforms. • Share responsibility of young people's access to devices and content. • Reinforce the need for adult supervision online. • Introduce the understanding of time limits for devices and the importance of time away from them. • Be aware of the risks associated with 'sharenting'. 	<ul style="list-style-type: none"> • Key targets to restrict screen time and encourage face to face interaction with other people/family members. • Highlight how important it is to engage even with babies so that development is not impaired. Many parents will be 'with' their children physically but not mentally. • Alternative suggestions/options to screens through usual health/advice routes (health visitors, school nurses etc) • Advice/resources about how much information they are giving out through their own social media. (Ella video (Deutsche Telekom) is a good example of a powerful public information initiative.) • Guidance and advice on setting up shared devices to support privacy and security. • Guidance on what settings to enable and best practice for using devices with young children. 	<ul style="list-style-type: none"> • Reduce negative impacts on social and other development in young children. • Reduce mental health illness. • Children will be positively encouraged to interact in person with parents/carers. • Parents and carers will help children to use and access tech appropriately and safely. • Reduction in 'sharenting' and online presence from very young age. • Less risk of grooming or exploitation of young children online. • Parents/carers know what settings are available to help keep devices secure and children safer online. • Parents/carers will be more engaged with digital literacy and better able to support and guide their children safely in the digital world.

Target audience	Key knowledge targets	Resources/guidance	Desired outcomes
	<ul style="list-style-type: none"> • Use devices for positive experiences and know how to set up appropriate security settings. • Provide basic digital literacy education for parents. 	<ul style="list-style-type: none"> • Guidance on sources that are useful/suitable with adult supervision. • Parent craft classes or health visitors including digital literacy awareness and skills. • Dr Sanjiv Nichani OBE² (consultant paediatrician) 	
KS 2 Y3 and Y4 (ages 7-9)	<ul style="list-style-type: none"> • A basic awareness of technologies and social media including benefits and risks. • Understand some of the impacts on their health and wellbeing from excess use of digital devices and media. • Be aware of age limits and understand why they are needed. • Introduce awareness of STEM subjects and encourage inclusive approach to careers and study of these subjects. • Begin to link STEM subjects and discussions to the basic concepts of social, economic, environmental and philosophical areas of study. • Know to ask for guidance from adults/parents/carers if going online. • Directed to providers of 'safe' and 'child appropriate' online content. 	<ul style="list-style-type: none"> • Fun informative age-appropriate videos/activities/colouring books. • Offer alternatives to screen time. • Easy to read, pictorial and simple guides explaining security and age limits on apps and devices. • Introduce simple coding through games and problem solving. (In the Channel Islands, 'Hive Hackers'³ from PWC go into schools to support skills development in this area.) • Opportunity to join club or collect knowledge points through public awareness 	<ul style="list-style-type: none"> • Children less likely to want to use or access content that isn't appropriate. • Willingly and independently seek out other forms of communication or entertainment. • Reduce mental health illness. • Understand how to ask for help and have an idea of what is and isn't appropriate online. • Know about private accounts and why they're important. • Talk to their own parents and carers about their online presence through sharenting. • Able to understand simple coding and the

² Dr Nichani is at the coalface of what he describes as a 'screendemic'. He is a powerful advocate for supporting healthier screen time for children and could be involved in a public information video/campaign for parents.

³ <https://www.pwc.com/jg/en/about-us/community-engagement/pwc-hive-hackers.html>

Target audience	Key knowledge targets	Resources/guidance	Desired outcomes
	<ul style="list-style-type: none"> Basic knowledge of what personal data is, how it is used and created and the rights around its use. 	<p>campaign linked to fun character and activities.</p> <ul style="list-style-type: none"> Resources and activities explaining personal data. E.g. 'Warro goes on an adventure'⁴, other session plans and activities available from ICO etc. Digital Citizenship Education⁵ from Council of Europe – Diginauts etc. 	<p>science/technology behind our modern devices.</p> <ul style="list-style-type: none"> Be aware of the opportunities and risks of the digital revolution, recognise the impact it has had and will continue to have on their lives. First steps in supporting digital skills and literacy. Appreciate existence and importance of personal data and the importance of its protection. Offering insights into possible career options.
KS 2 Y5 and Y6 (ages 9-11)	<ul style="list-style-type: none"> Understanding and awareness of the digital world and social media with further consideration of opportunities and risks. Understand that it is unhealthy to spend all their spare time on electronic devices. Understand some of the impacts on their health and well-being from excess use of digital devices and media. Be aware of age limits and why they are needed. 	<ul style="list-style-type: none"> Examples of opportunities and risks of electronic devices and online activity. Introduce idea of screen breaks and rationing of screen time through fun activities/videos/games. Age-appropriate stories, examples and thought experiments of scenarios that might pose a risk with opportunities to learn about how to deal with issues. 	<ul style="list-style-type: none"> Not want to use or access content that isn't appropriate Educate people around them about harms of inappropriate social media/online activity. Begin to make own decisions about use of tech. Reduction in cyber-bullying and understanding that opportunity for harm is just as real online as offline.

⁴ <https://blueormer.gg/product/warro-goes-on-an-adventure/>

⁵ <https://www.digitalcitizenship.net>

Target audience	Key knowledge targets	Resources/guidance	Desired outcomes
	<ul style="list-style-type: none"> • Know how to use simple safeguards and security settings on devices and apps. • Develop STEM subjects incorporating social, economic, environmental and philosophical areas of study. • Understand basic concepts about how technologies work. • Introduction to coding. • Understand the historical context of the development of the digital era including discussions/debates about how it has changed individuals, societies and the world. • Introduction to the basics of AI and machine learning. • Knowledge of personal data and associated rights, understanding how data are created and used in the online world. 	<ul style="list-style-type: none"> • Videos/stories about new technologies and how they can help as well as an introduction to potential risks and harms. • Resources explaining how programming and coding sits behind AI as well as other digital resources such as social media. • Resources and activities supporting understanding of personal data and associated rights. • Opportunity to join club or collect knowledge points through public awareness campaign linked to fun character and activities. 	<ul style="list-style-type: none"> • Voluntarily take screen breaks and seek more physical/real social interactions. • Be aware of the skills and attributes that may be more desirable for future employment. • Able to continue to build on digital skills and literacy. • Coding skills and links to future career options. • Be aware of the existence of AI and machine learning and how it impacts our lives now and will in the future. • Able to protect and allow safe use of personal data and have the confidence to challenge. • Support better mental and physical health.
KS 3 Y7 – Y9 (ages 11-14)	<ul style="list-style-type: none"> • Understand that every individual has rights in respect of personal data, understanding the foundations for those rights and how they can be exercised. • Be aware that content is not always reliable, true or safe. • Know how to verify information. 	<ul style="list-style-type: none"> • Support information and guidance/resources/agencies – where to get help. • Checklist on signs that they may be over reliant/overusing social media. Can they identify traits in themselves or how they have changed? 	<ul style="list-style-type: none"> • Confident to moderate their own use of social media/online activity with support from parents/carers/teachers. • Make their feelings about what is shared about them online known to parents and carers/schools and clubs.

Target audience	Key knowledge targets	Resources/guidance	Desired outcomes
	<ul style="list-style-type: none"> • Know how to restrict the information they share – creation and use of personal data. • Know where to go for help and support if online activity is making them unhappy. • Introduce further technical AI knowledge and skills. • Be aware of generative AI applications and how it may not always be trustworthy as a resource. • Introduction to the ethics of machine learning and AI – how AI ‘learns’ and how is it programmed. • Introduction to how modern technology and AI is changing employment opportunities and recruitment. • Understand the opportunities available in the development of modern technology and the skills that will be needed in the future. • Enhance understanding of STEM subjects, coding, AI and how they support the modern world. • Understand the role and impact of software, data, and coding etc. on life and the modern world. Be aware of personal data, its creation storage and processing. Explore the 	<p>Do they spend very little time outside or physically active?</p> <ul style="list-style-type: none"> • Resources explaining where coding is used in everyday life and how AI will change employment and recruitment. • Where is AI used? Activities and resources showing the applications of AI. • Ethical dilemma activities for discussion and debate. Use of modelled scenarios and examples of unconscious bias in programming. • Resources showing what jobs are available for people with knowledge of coding, software development and what GCSE options are needed. Emphasise the skills that will be in demand in the future. • Formal offering of training in STEM subjects and coding. • Introduction to level 2/GCSE course on Digital Literacy. • Inclusion of data protection in Digital Literacy qualification. Many resources available e.g. ICDL, Council of Europe Digital Citizenship, ICO etc. 	<ul style="list-style-type: none"> • Better understanding and awareness of online presence and information shared. • Better able to critically evaluate information to establish veracity. Understand the nature, scale and impact of mis/disinformation. • Actively aware of coding and algorithms and how they are used to operate and control modern technology – social media, driverless cars etc. • Be aware of unconscious bias in machine learning and programming. • An awareness of how the employment and recruitment landscape is changing and how this may impact them now and in the future. • Be digitally aware and actively engage with modern technology whilst being protected, as far as possible, from risks and harms. • Support better mental and physical health.

Target audience	Key knowledge targets	Resources/guidance	Desired outcomes
	role it plays in the business models of technology and other businesses.		
KS 4 Y10 – Y11 (ages 14-16)	<ul style="list-style-type: none"> • Understand the wider context and impacts of extensive social media activity. • Understand the impact of certain technologies/platforms/activities on mental and physical health. • Know how to recognise when someone else may need help and support. • Know what help and support is available and how to access it. • Understand the impact technologies are having on individuals, societies and the world. • Explore the opportunities and risks of new technologies and AI. • Explore how governments and laws are responding to new technologies and AI. • Be aware of how AI can distort the truth, spread mis/dis information and the risks it poses to society locally and globally. (e.g. anti-vax groups, incels etc.). Explore who, why and how such information is spread and some of the impacts. 	<ul style="list-style-type: none"> • Directed discovery through case studies or real-world examples to explore the opportunities and risks of social media. • Resources/activities that support safe and moderate use of tech and online. • Guidance and resources on where to find support. • Timelines that show the exponential growth of technology in tandem with human development. Be aware of how fast moving the development has been from a historical perspective. • Resources examining what jobs will be available and how they may change. Particular emphasis on recruitment and use of AI screening of CVs and interviews. Workshops and practice to prepare students. • Roleplay activities, ethical debates and thought experiments in classes. 	<ul style="list-style-type: none"> • As active members of society they can be the drivers for change. • Ability to make informed decisions about technologies. • Know how to verify information and identify false information. • Be prepared for the changes in recruitment and the workplace. • A workforce that has the skills needed for the future but are also balanced, healthy and happy individuals. • Aware of digital divide and able to consider the impact on own life and that of others. • High level of digital and computer literacy, implications, uses etc. • Critical thinking and problem-solving skills promoted to support future employment opportunities. • Support better mental and physical health.

Target audience	Key knowledge targets	Resources/guidance	Desired outcomes
	<ul style="list-style-type: none"> • Further exploration and analysis of the ethics of technologies and AI. • Understand the impact of technologies and AI on the current and future world of work. • Aware of development and use of robotics in society and industry. • Understand the digital divide and how it can impact individuals, culture and society. • Understand websites and social media apps, how they work and what their business model looks like. 	<ul style="list-style-type: none"> • Case studies of how digital connectivity can impact social mobility and education opportunities. For example, how differently people managed during Covid. • GCSE/Level 2 formal study of Digital Literacy begins. Graded through coursework or presentations and research etc. • Sessions and coursework involving coding/programming, creation and use of websites, simple robots etc. 	
KS 5 Y12 – Y13 (ages 16-18)	<ul style="list-style-type: none"> • Mature outlook on opportunities and risks of technologies. • In-depth knowledge and understanding of individual, societal and global impacts of new technologies, including social, economic, environmental and philosophical contexts. • Ability to better distinguish between real and fake content. • Verification of news and resources available on all platforms. • Continue to build on knowledge and understanding of digital technologies. 	<ul style="list-style-type: none"> • Discussion and study of more serious side to social media and digital harms – content that would not be suitable for younger age groups. • As part of coursework/study – write their own frameworks. What digital future do they want? This can be discussed and debated within moderated classes with relevant support for potentially upsetting content. • Research and discuss how digital divide impacts societies across the world and how it may 	<p>As above but also:</p> <ul style="list-style-type: none"> • Become advocates for a safer digital future for all citizens. • Be able to support others in the safe use of devices, platforms and settings etc. • Help protect and support friends and family. • Continue to develop technology so that it benefits society and humanity. • Help advocate for digital equality and inclusivity. • Able to use digital technology safely and productively in all areas of life.

Target audience	Key knowledge targets	Resources/guidance	Desired outcomes
	<ul style="list-style-type: none"> • Prepare for the changes to recruitment and employment that AI and other technologies are bringing. • Greater understanding of the digital divide in the UK and abroad. How does it differ across the world and at times of change, unrest and conflict? • Understand how prevalent digital technology is and how reliant we are on systems and software in everyday life. • Understand implications of advancement and reliance on technologies, exploring examples of successes and failures. 	<p>change during times of change, unrest and conflict.</p> <ul style="list-style-type: none"> • Introduction to referencing systems. • As part of all courses of further education and training – continue to provide digital skills education. Use of internet, databases, information storage and retrieval etc. • Sixth Form Pathways⁶ (parallel curriculum). 	<ul style="list-style-type: none"> • Provide the foundations for our future leaders and innovators.

⁶ <https://www.ladiescollege.com/our-school/sixth-form/pathways>