Think piece

Towards a new vision of digital learning and well-being for children

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William Doyle and Pasi Sahlberg are authors of the green paper for public discussion, 'Towards a new vision of digital learning and well-being for children' (UNICEF, forthcoming). Pasi Sahlberg is a Professor of Educational Leadership at the University of Melbourne, Australia, and William Doyle has served as a Fulbright Scholar and as an advisor to Finland's Ministry of Education. This think piece outlines their child-centred, rights-based vision for navigating the double-edged nature of childhood digitalization. It is included here to help shift the focus of conversation from simply preventing harm to also promoting well-being, grounding current contentious issues such as smartphone bans within the broader context of a child's right to play and thrive.

Introduction

"There can be no keener revelation of a society's soul than the way in which it treats its children."[476]

– Nelson Mandela, 1995

Today, that test is being administered around the world by smartphones, tablets and laptops in the hands of young people – devices given to them by their parents, teachers and policymakers. The digital well-being of children has become a defining question for the world's families and schools. As parents of young and teenage children ourselves, we have grappled with the complexities, risks and benefits of childhood digitalization on a near-daily basis.

For children, digitalization is a double-edged tool. It opens pathways for learning, expression and human connection, but poses real risks to childhood health, safety and development. A tablet in a refugee camp may be the only way to access a maths or science lesson. A smartphone in a classroom may hijack a child's attention. A laptop may offer a teenager life-saving health information or unlock the dangers of sleep loss, sexual exploitation, social media overuse and misinformation.

Nations are wrestling with hot-button issues such as smartphone bans, social media limits and the unknowns of AI in the hands of young people. Yet research on the risks and benefits of digital devices to childhood learning and well-being remains incomplete and preliminary. The digitalization of society, childhood and education are fast-moving subjects undergoing astonishing change. The sudden mass adoption of generative AI platforms in 2022–2026 illustrates the speed of these transformations. Fortunately, the path to childhood learning and well-being in the digital age has already been illuminated, in the form of key United Nations documents.

A rights-based vision

We propose a new child-centred, rights-based vision of digital learning and well-being for children, grounded in the United Nations Convention on the Rights of the Child,[477] the United Nations Committee on the Rights of the Child's General Comment No. 25 on children's rights in relation to the digital environment,[478] and the work of UNICEF, UNESCO, the World Health Organization and the United Nations Human Rights Council's Special Rapporteur on the right to education.

The rights of every child must be honoured in the digital environment. Under the Convention on the Rights of the Child, children have the rights to education, to privacy, to the highest attainable standard of health, to expression of their views and to protection from economic exploitation and all forms of physical or mental violence, abuse, negligent treatment, maltreatment or exploitation. The United Nations Special Rapporteur on the right to education has further identified both the right to safe and equitable internet and AI access, and the right "to opt out and disconnect" as "emerging twenty-first century fundamental human rights".[479] General Comment No. 25 instructs nations to ensure that, in all actions regarding the digital environment, the best interests of every child are a primary consideration.

In high-income countries, conversations increasingly centre on the need to protect well-being and learning by placing health, safety and distraction limits on children's access to technology through classroom smartphone restrictions, social media age limits and a new pushback by some parents against the unchecked roll-out of EdTech products. At the same time, in LMICs, the urgent question is often the opposite: the lack of digital access, especially for children living in poverty and with limited educational opportunity. If a child in very-low-resource conditions can only access education through a smartphone, then a blanket smartphone ban is a bad idea. And if a child of 7 or 17 cannot resist the compulsion to scroll through algorithmically powered feeds on a school-issued laptop through the day and night at the expense of learning and well-being, then such unlimited access is a bad idea too.

Notably, some leaders of Western technology companies have judged the risks of digital misuse and overexposure so severe that they have sent their own children to low-tech schools and restricted their children's use of digital devices.[480] Yet for a child who cannot attend traditional classes because of remote location, community restrictions, conflict, poverty, special needs or disability, an internet-connected tablet, smartphone, television or radio that can deliver essential lessons can be a lifeline. For a child in a marginalized or vulnerable community seeking information on mental health or physical safety, screen time can save a life.

Children in LMICs should be protected from the dangers of digital overuse, misuse, cyberbullying, sexual and criminal exploitation and loss of privacy no less than children in high-income countries.



General Comment No. 25 observes that the digital environment can meaningfully widen children's access to quality, inclusive education – supplying resources for formal, informal, peer-to-peer and self-directed learning, and offering distance or mobile learning to those outside school, in remote regions or facing disadvantage or vulnerability.[481] The Committee also notes that digital technologies can support children's health and well-being, provided that use is balanced against time for rest, physical activity and face-to-face contact with peers, family and community. General Comment No. 25 further recommends:

The use of digital devices should not be harmful, nor should it be a substitute for in-person interactions among children or between children and parents or caregivers. Training and advice on the appropriate use of digital devices should be given to parents, caregivers, educators and other relevant actors, taking into account the research on the effects of digital technologies on children's development, especially during the critical neurological growth spurts of early childhood and adolescence … States parties should ensure that the use of digital technologies does not undermine in-person education and is justified for educational purposes.[482]

The limits of EdTech as currently delivered

In 2023, when UNESCO published a major report on technology in education, it noted that technology "can improve some types of learning in some contexts", but the "learning benefits disappear if technology is used in excess or in the absence of a qualified teacher". The report stated that "there is little robust evidence on digital technology's added value in education" and that "intensive technology use negatively impacts student performance and increases disruption".[483]

Four problems influence the underperformance of EdTech. First, products are too rarely tested independently for effectiveness or risks of harm before being sold to schools. Second, the dominant delivery model isolates each child in front of a screen, in an era when society and the workplace demand collaboration, communication and creativity. Third, digital devices generate enormous distraction, and many children cannot reliably self-regulate against features designed by behavioural scientists to capture attention.[484] Fourth, traditional analogue tools such as paper books, pen and pencil, chalkboards and in-person instruction retain measurable strengths that the rush to digitization has overlooked.

None of this argues against technology in education. It argues for a different design.

UNICEF's Tinkering with Tech and AI[485] initiative – being implemented in schools in Honduras, the Maldives, Montenegro and Viet Nam and expanding to the Lao People's Democratic Republic, Ukraine and Uzbekistan – places small groups of children around shared devices, where they take turns, negotiate roles and build projects together using AI,

robotics and coding. Teachers receive training and ongoing mentorship; girls are deliberately centred in spaces where global gender gaps in STEM begin early. The technology is not the focus; it is the medium through which collaboration, problem-solving and digital fluency are practised. This is the form EdTech should increasingly take: human relationships at the centre, and devices as enablers.

The voices most often missing

In a 5Rights Foundation consultation with more than 700 young people across 27 countries, children expressed views that were complex and sometimes contradictory but unmistakably their own. They want to be part of the digital world, not only as users but as creators and decision makers. They want affordable, equitable access to digital opportunities. They want protection from harm but resent restrictions imposed on them without consultation. They want privacy. They are clear-eyed about the commercial machinery beneath the platforms they use. And they want the adults around them to model the behaviour they preach.[486]

A new vision: Three priorities

We propose a vision that moves from technology-driven to more child-centred, evidence-informed approaches to deliver better learning and well-being to children.

First, put children's rights and best interests first. All decisions and recommendations about digital devices in children's lives should be grounded in the Convention on the Rights of the Child and General Comment No. 25: rights to education, health, expression, privacy, protection from exploitation, and participation in decisions that affect them. The precautionary principle should govern. As the UNICEF Innocenti research team noted in May 2025 in a recommendation on AI chatbots that can apply equally to all digital device use by children: "The precautionary and do-no-harm principles should apply: in case of doubt, aspects of the technologies should not be made available to children."[487] Governments should require digital education platforms to be safe by design and by default – with embedded time and content controls, strong age-appropriate privacy protections and the removal of features known to drive compulsive use. Independent evaluation and alignment with good-practice standards, not vendor marketing, should determine what reaches classrooms.

Second, treat digital well-being as an essential school outcome. Schools should equip every child with a comprehensive digital education that teaches not only how to use digital media and technologies but how to live safely, responsibly and wisely with and without them. Digital tools should be deployed in schools only where there is strong independent evidence of pedagogical benefit, and should support rather than replace human teachers and in-person collaboration. Effective analogue tools such as paper, pen, physical books and human conversation should be honoured and strengthened, not phased

out. Teachers and parents should be supported to model the digital behaviour they hope to see. Digital well-being should be part of the future metrics for measuring the performance of schools and education systems.

Third, guarantee regular play and physical activity for every child, in and out of school. Article 31 of the Convention on the Rights of the Child guarantees every child "the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts". The World Health Organization recommends that children and adolescents aged 5–17 "should do at least an average of 60 minutes per day of moderate-to-vigorous intensity, mostly aerobic, physical activity, across the week" and "limit the amount of time spent being sedentary, particularly the amount of recreational screen time". It noted that "evidence indicates that greater time spent in sedentary behaviour, especially recreational screen time, is related to poorer health outcomes". On the positive side, it reported that physical activity reduces the risk of experiencing depression, and has positive effects on cognitive function and academic outcomes such as school performance, memory and executive function in children and adolescents.[488] Regular recess, fun and inclusive physical education, and free play and movement are not luxuries; they are foundations for children's learning and well-being.[489]

Three contested issues

Three critical issues are now being debated in schools, homes, the media and the halls of government: banning smartphones in schools, setting a minimum age for social media, and designing the role of AI in education. We propose that each issue be addressed in light of the priorities outlined above, by the best available evidence and by how to advance the priorities of children's rights, voices, well-being and learning.

1 **Smartphone bans in schools.** As of March 2026, UNESCO's Global Education Monitoring (GEM) Report team counted 114 education systems – 58 per cent of countries worldwide – with a national ban on mobile phones in schools, up from 24 per cent when the policy was first monitored for the 2023 GEM Report.[490] The evidence on the academic and well-being effects of such bans remains mixed. We support context-sensitive policies that reduce distraction without severing learning lifelines – particularly in LMIC settings where a phone may be a child's only path into education.

2 **Social media age limits.** The status quo on social media is failing children, and recent legislation reflects legitimate concerns over the risks of harm. But age limits alone, without



redesigned platforms and meaningful support through the education of children, educators and parents, risk pushing children into less regulated spaces and reducing incentives for companies to build safer products. Early evidence suggests age limits are very difficult to enforce: Australia's online safety regulator found that three months after its under-16 ban took effect, nearly 82 per cent of under-16s were still using at least one restricted social media platform, compared with 86 per cent before the ban.[491] Protection must come through platform accountability, not exclusion alone. Children should be deeply involved in both the process of reviewing the evidence and the design of solutions.

3 **AI.** AI is being marketed to children as a tutor, coach and companion, often without safety testing or age-appropriate design. We support the deployment of AI in education only where there is credible evidence of pedagogical benefit and where risks to children's rights are identified and minimized. Companion chatbots that mimic intimacy raise particular developmental and safety concerns. Children must be meaningfully included in shaping the AI systems that will shape them. AI literacy should be framed not as 'how to use AI well' but as 'how to know when not to use it, and what the risks are'.

Build the digital world in partnership with children

The path forward is not through adult-imposed rules alone. Children and adolescents are not passive users of technology, or problems to be managed. They are creators, learners, citizens and rights-holders. They are also, in many parts of the world, increasingly pulled between school, family, peer pressure and platforms engineered to be inescapable. The most hopeful task ahead is to give them agency in the design of the digital world, real information on risks and benefits, and the skills, support and adult example they need to navigate both. **A better, fairer, safer digital world will not be created for children unless it is also created with them.**