REWIRED DECLARATION ON CONNECTIVITY FOR EDUCATION
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CHARTING A NEW COURSE

Connected technology must advance our aspirations for inclusive education based on principles of social and economic justice, equity, and respect for human rights.

We are convinced that, in addition to enlarging access to information and knowledge, connected technology can enrich educational processes and improve learning outcomes. From enabling anytime and anywhere learning, to assisting students with disabilities, to facilitating more immediate feedback and support, to bridging formal education with informal learning, technology is an important site of educational opportunity and innovation. When appropriately steered, it opens new and more inclusive avenues for teaching and learning.

But we are also clear-eyed about the risks that accompany our growing use of connected technology for education—many of them novel or still only coming into focus.

During the COVID-19 pandemic and the global turn to connected technologies, we saw how they can, without proper implementation, heighten learning inequality, increase student isolation, narrow educational experiences, and privatize education, undermining its standing as a public good. We have also seen connected technology deployed to constrain knowledge, polarize our societies, and spread misinformation in education and beyond it.

As signatories to this declaration, we commit to learning from the lessons of the pandemic response and finding more inclusive, equitable and sustainable approaches to integrate connected technology in education.

Our work in this area is framed by two interrelated challenges.

First, technical and material access to connectivity remains woefully insufficient with two out of every three children and youth having no internet access at home. This is an alarming shortage in our information and digital age, and it demands bold investment to assure universal access to the internet— a mobilization that includes but also extends well beyond the education sector. In addition to this global gap, digital divides between countries are staggering. In high-income countries 87 per cent of school-aged children and adolescents are connected. In low-income countries this figure is just 6 per cent. And scarcity aside, connectivity in poor countries tends to be slow and unreliable, hampering its educational potential.

Second, capacity gaps remain a persistent obstacle to connected education. A 2020 UNESCO-UNICEF-World Bank survey found that Ministries of Education rank inadequate digital skills and competencies as the single greatest barrier to technology use for education, and this regardless of a country's development status. Ministries of Education also consistently reported that digital skills gaps were most pronounced for parents, followed by teachers, followed by students, indicating that connected

education is dependent on digitally literate societies. Capacity development to leverage connected technology for learning and other socially beneficial purposes needs to be stepped up immediately, especially for girls and women who tend to have lower levels of digital skills than men and boys. Education is an important site of this capacity building and will also benefit from it. When learners, teachers and families have stronger digital skills and competencies, connected technologies become more versatile tools for education.

Within this context and in the aftermath of the educational disruption wrought by the COVID-19 pandemic, we resolve to better ensure that technology fulfills the diverse and ambitious objectives we ascribe to education. We cannot continue on a course of watching education contort to the often-exclusionary logics and business models of private sector technology companies. The educational promises of technology can be realized by adhering to principles that put technology at the service of learners, teachers, and educational institutions.

CORE PRINCIPLES

We, the signatories of this declaration, commit to three core principles and related commitments to help ensure that the digital transformation of education accelerates progress towards the education commitments of the 2030 Agenda for Sustainable Development. Operationalizing these principles will require a whole of government approach as well as cooperation and partnership with civil society and the private sector. We find inspiration in the UN Secretary General's broad Roadmap for Digital Cooperation and will work to implement its eight action areas in the education sector.

Principle 1: Center the most marginalized

Connectivity and technology must be deployed to help close growing educational divides. Too often, they benefit privileged learners and educators first. Only later do strategies emerge to make them more inclusive and accessible to those who are disadvantaged. Such approaches mirror and widen educational inequity. We must recalibrate our policies, actions, and investments to center learners most in need of opportunities. This will help bridge inequalities, spark needed innovation, and make solutions easier to 'scale out' to more privileged groups. Asking how approaches can work for refugees, for students with disabilities, for girls and women, for teachers in remote areas, and for other underprivileged learners and educators needs to be a point of departure. Universal or expanded connectivity has long been associated with strengthened economic output. Going forward it should also correlate with improved and more equitable learning outcomes.

   1a) <u>We commit to help ensure connectivity reaches all individual learners</u>. For connectivity to truly equalize educational opportunity, it needs to enable anytime, anywhere internet access for individual students and teachers. Connectivity initiatives should be guided by an ethic of inclusion and begin with those facing disadvantage. The urgent task ahead is ubiquitous connectivity—an internet connection that is always available. This 'untethered' access, powered by mobile networks and devices, opens far more possibilities for education than 'tethered' access. It also facilitates informal learning opportunities and can help out-of-school youth find pathways back to formal education. Efforts to assure connectivity reaches and follows learners and educators should be grounded in a rationale of educational equality. They must also be accompanied by expanded and improved digital skills training, so students and teachers can make productive use of connections for education. Giga and other initiatives are rightly using education as a cause and a means to move the world closer to universal connectivity.

1b) <u>We commit to help ensure sustainable financing of universal connectivity for education</u>. As connectivity becomes an increasingly vital portal to education and other essential rights and services, it has quickly transitioned from luxury consumer good to essential infrastructure. Yet public financing to assure universal connectivity remains tepid. More robust, predictable, and sustained investments are necessary to give every man, woman, boy and girl a reliable connection to the internet. This is not a one-time expenditure. Backsliding remains an ever-present risk. Around the world schools, teachers, and learners that were digitally connected to the internet, no longer are. Connectivity that is established and sustained will help assure wider and more equitable access to knowledge and information. The promise of connected technology to function as an educational equalizer hinges on universal and sustainable access to this technology.

1c) <u>We commit to help assure clear and affordable connectivity for education options</u>. The profusion of options for connectivity plans available on the market are often a source of confusion. Their mounting complexity presents challenges for people who want to link to the internet for educational purposes. The public, including people with limited literacy skills, should be able to quickly distinguish which connectivity plans provide a suitable portal to learning and educational opportunities—and likely other opportunities outside the purview of education—that advance the public good. Governments should consider mandating that internet and mobile service providers offer basic and easy-to-understand 'connectivity for education' plans or credits at fixed or subsidized-rates. People who want a basic connectivity option to support education should be able to find it. As education becomes increasingly reliant on connectivity, it must progressively be folded into state commitments to provide free and inclusive quality public education.

1d) <u>We commit to ensure that connected technology supplements, expands, and enriches high-quality, formal and in-person education, rather than replace it</u>. Schools and educational institutions, as well as teachers and educators, should remain the primary interface of education. This is especially important for disadvantaged students for whom schools often provide nutrition, protection, and other benefits beyond academic learning. Digital-only approaches do not fulfill a state's obligation to provide quality education with its associated services. With rare exception, compulsory schooling should require attendance at a physical school. While digital spaces may one day be able to serve as primary or even singular hubs of formal learning, this day is not yet here. We have made enormous investments to provide all children and youth opportunities to learn in schools with professional teachers - we must ensure technology supports this effort and does not hinder work to make in-person schooling universally available. Connected technologies will change and improve what happens at schools, but schools retain special importance as physical and social places that help societies realize their diverse goals for education.

Principle 2: Expand investments in free and high-quality digital education content

Connectivity is valuable for educational purposes to the extent that it opens doors to high-quality educational content and interactions that facilitate learning and development. Too often, technology initiatives stop and end with internet-connected devices. In the context of education, *meaningful connectivity* is connectivity that catalyzes learning experiences. Open, free, and high-quality digital learning content makes connectivity more valuable and establishes demand for it. While barriers to

connected education are often framed as supply problems, demand is also important. Building virtual destinations that are beneficial to students, teachers, parents, and educational institutions means that all these stakeholders will make greater effort to establish and maintain portals to these destinations. In this way, high quality online content helps sustain efforts to leverage technology for education.

2a) <u>We commit to finance the development and maintenance of robust public options for public education on the internet</u>. Freely accessible digital learning platforms aligned with national curriculum will include engaging, accredited, well-organized and easy-to-find digital learning content that is accessible to all from a wide range of internet connected devices. Offerings should enable and encourage collaboration and exchange between students and educators. User interfaces and functionality should also be optimized for use on mobile phones, in addition to laptop and desktop computers, due to the growing ubiquity of internet-connected mobile devices. Efforts will further be made to consolidate this state-provisioned educational content under a single roof—a one-stop-shop for education—rather than scattered across various sites and locations. This will help improve recognition and usability of learning content and assure trust and accountability for public resources. Finally, government provided digital learning platforms should, when possible, include functionality to recognize and validate learning.

2b) <u>We commit to provide differentiated educational resources for diverse audiences</u>. Publicly funded digital destinations for education should have, at a minimum, clear entry points for learners, teachers, and families and other caregivers. Content should be aligned with national curriculum, developed in consultation with educators, regularly accredited, and searchable by learning courses and grade level. Different languages should be supported whenever possible. Platforms should further allow teachers opportunities to collaborate with each other and tailor materials for students according to their professional judgement. Building communities of practice and curating, remixing, and creating digital learning resources should feature prominently in teacher training. As a public resource, digital education platforms must be iteratively developed and improved according to the needs of the diverse stakeholders in education.

2c) <u>We commit to monitor adaptation and application of digital education utilities</u>. Proxies beyond access to connected technology are needed to measure the intentional adaptation and meaningful application of connected technology for education. Novel forms of data monitoring and qualitative as well as quantitative research and information are needed to show whether and how connectivity access is (or is not) productively used to improve teaching and learning. Publicly provided repositories of learning content targeting learners, teachers and families can provide valuable data about what digital tools and resources are being used for educational purposes, by whom, and to what extent. This information should help guide the development of digital learning content and other resources to better leverage connected technology for education, as well as assess its value vis-à-vis other investments.

Principle 3: The digital transformation of education requires pedagogical transformation

Digital spaces can foster new and effective pedagogies that expand student knowledge, trigger new thinking, nurture creativity, and foster responsible digital citizenship. At the same time, digital spaces can place rigid limitations on students and teachers that constrain learning and intellectual freedom.

Efforts should be made to ensure that the digital transformation of education opens rather than closes learning possibilities and both models and teaches healthy use of connected technologies.

3a) <u>We commit to use digital spaces to advance new paradigms and possibilities for learning</u>. Much of the digital learning content currently available does not do enough to take advantage of the interactive and multimedia capabilities of computer-mediated mediums. Too much effort is expended trying to replicate models of in-person schooling in digital spaces. Online and virtual environments demand new types of learning content and new pedagogies. Teachers as well as families need to be involved in the development of digitally supported education and receive training to maximize the unique educational affordances of connected technologies, while also understanding the many limitations of these tools. This training should be device and platform agnostic, rather than outsourced to private sector technology corporations that tend to certify teachers only in the use of proprietary tools and services. More innovation is needed to develop and test new digital and hybrid pedagogies that are less reliant on the closed systems of private sector digital providers.

3b) <u>We commit to use technology to strengthen social and civic dimensions of learning.</u> While the personalization of education made possible by connected technologies holds potential to accelerate and enrich student learning, it can also distort understandings of education as a public and common good. In addition to empowering individuals, connected technology should function to strengthen social and civic goals for learning in online and offline spaces. There are many models for teaching and learning with technology, and not all of them are dependent on students having their own devices or working alone in front of screens. Efforts should also be made to better align digital and non-digital learning so that students and teachers feel they are working towards common and community-agreed educational objectives, regardless of medium. Connectivity is at the core of connected education, and this should mean connections to teachers, to peers, to a school, and to a community, in addition to connections to machine-mediated learning content.

3c) <u>We commit to protect student and educator data.</u> The ease of data capture, storage, and surveillance in digital spaces must be a primary concern for education. It should help improve teaching and learning rather than merely document and control it. Used appropriately data capture can clarify what interventions are more and less effective and guide their future development. Most data should be anonymized by default, particularly data used beyond the level of schools, so it cannot be traced back to individuals. Proper rules and protocols are needed to protect the rights of learners, particularly children. Education is a site of experimentation and identity formation, and students need freedom to take risks and make mistakes in online and offline environments built on trust and good will. An ethic of transparency and 'do no harm' should guide data policies. All stakeholders should be aware of what data is being captured and for what purposes. Educational institutions should work to pass ownership and control of personal data to the people this data concerns, and, in the case of children, families should be actively involved in decision making. When possible, learners should be able to 'opt-out' of data capture and still retain full access to educational opportunities.

3d) <u>We commit to promote safe and productive use of the internet through education.</u> A major reason to use connected technologies in educational contexts is to help students learn how to navigate the internet responsibly. An end goal of education should be to prepare learners to use

connected technology in healthy, safe, and productive ways. We will seek to gradually loosen restrictions on the use of connected technology as education advances, including for use during examinations. It is paradoxical to make massive investments in connecting learners only to insist that they disconnect whenever this learning is assessed. Efforts should also be made to help students build critical understandings of digital ecosystems and skills to use and create within these ecosystems, while remaining vigilant about their digital footprints and reputations. We will discourage blanket bans on the use of connected technologies in educational contexts because they tend to obstruct educational opportunities and inhibit innovation. We will also make efforts to more boldly experiment with controlled and uncontrolled uses of technology in formal education to better reflect a world in which connectivity permeates so many facets of our lives.

AFTERWORD

Connected technologies are rapidly altering the 'where', 'when', 'who', 'what', 'how', and 'why' of formal learning.

This declaration asserts that educational transformation accompanying the integrations of new technology, far from being inevitable or outside our control, can be steered with focused policies, actions, regulations, and incentives.

The principles put forward here will help ensure that this transformation, still in its early phases, will advance our highest aims for education and be guided by commitments to human rights, inclusion, equity, environmental sustainability, and social justice.

We call on each other and our respective organizations to support the practical implementation of the commitments in this Declaration. Through cooperation and shared ambition, we can help make connected education an on-the-ground reality for students and teachers everywhere.