2024

YOUTH REPORT

Technology in education

A tool on our terms!

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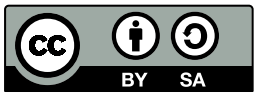
Sustainable Development Goals

Global Education Monitoring Report

RESTLESS DEVELOPMENT



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Youth Reports of the *Global Education Monitoring Report* series:

2022	Non-state actors in education: Who chooses? Who loses?
2020	Inclusion and education: All means all
2019	Migration, displacement and education: Building bridges, not walls
2017/8	Accountability in education: Meeting our commitments
2016	Education for people and planet

The Education 2030 Incheon Declaration and Framework for Action specifies that the mandate of the *Global Education Monitoring Report* is to be 'the mechanism for monitoring and reporting on SDG 4 and on education in the other SDGs' with the responsibility to 'report on the implementation of national and international strategies to help hold all relevant partners to account for their commitments as part of the overall SDG follow-up and review'. It is prepared by an independent team hosted by UNESCO.

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SHORT SUMMARY

How can we keep learners at the center in choices about technology in education?

This report is the result of an extensive consultation process in partnership with Restless Development involving over 1,500 youth and students across 8 regions. The consultations invited participants to reflect on the key challenges and opportunities for the use of technology in education in their regions through the lens of the recommendations in the *Global Education Monitoring Report* (the GEM Report) on technology in education: *Technology on our terms*.

The report calls for decisions about technology in education to prioritize learner needs after an assessment of whether its application would be appropriate and equitable and provides a compass to use for youth and students from around the world when using technology in education.

It includes a call to action for governments to ensure the use of technology in education places learners' best interests at the center. Through this call to action, youth and students from around the world were invited to describe what technology in their terms would look like. They asked their governments, for technology to be affordable and universally accessible from an early age, to work jointly to develop personalized learning approaches and to reduce barriers to girls' access to technology products and services. They also asked for technology to be appropriate by making education content suitable for the local context, for youth and teachers to be trained, for youth to be involved in decisions about the design, implementation and evaluation of technology in education. This evaluation should include monitoring the impact of technology on well-being and on the privacy and safety of young people when online.

Even in the world's richest countries, only 10% of 15-year-old students used digital devices for more than an hour per week

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"Since wars begin in the minds of men and women, it is in the minds of men and women that the defenses of peace must be constructed"

GLOBAL EDUCATION MONITORING REPORT

YOUTH REPORT

Technology in education

A tool on our terms!

Acknowledgements

This report would not have been possible without the valuable contributions of numerous young people and institutions. The *Global Education Monitoring Report* (GEM Report) team would like to acknowledge their support and thank them for their time and effort.

Special thanks go to the GEM Report Advisory Board's members and its chairperson Jutta Urpilainen and to our engaged and committed funders whose financial support ensures the preparation, release and dissemination of the GEM Report's outputs.

The GEM Report would like to thank the youth consultants who led the consultations for this regional report (Yasmein Abdelghany, Dawsher Charles, Rosario Díaz Garavito, Ellen Dixon, Adelisa Sejtanic, Titiksha Vashist, Phuong Trang and Bradley Yombon-Copio) for their continued engagement and support. Our thanks also go to the over 1,500 youth from around the world whose contributions during the regional consultations helped inform the development of this report.

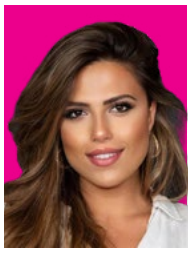
We are grateful to the UNESCO SDG Youth and Student Network and the Global Student Forum for their support in organizing the global consultation to inform the call to action included in this report. We are also grateful for the support from the Assistant Secretary-General for Youth Affairs (Felipe Paullier) and his office.

Special thanks go to Restless Development for their partnership and continued support (Natalie Agboeze, Sarah Bafumba, Moufeeda Haidar, Alice Mukashyaka, Julie Nakazibwe, Primrose Manyalo, and Freya Seath). This report would not have been possible without their contributions.

Our thanks also to Andy Quan for editing, Daniel Sharrat and Optima for the production of this report, and to Sylwia Ulicka and Oncevocales for the preparation of the overarching video of the call to action.

Africa

Consultation lead. Primrose Nanchani Manyalo is the Senior Youth Collective Manager at Restless Development. She is part of Restless Development's Global Leaders Group as strategic lead for the Global Youth Collective with over 4,600 youth civil society organizations from over 187 countries. Primrose is a former Global Steering Committee member for Youth for Our Planet, a global movement for climate action. She is passionate about youth leadership, using a power-shifting approach, and has a strong track record in building and managing global networks, governance, campaigning, advocacy, policy-shaping and practice.



Co-lead. Moufeeda Haidar is a passionate advocate for gender equality and social inclusion with over eight years of experience. Currently, she leads the MENA region's Youth Collective at Restless Development, focusing on sexual and reproductive health rights within the We Lead programme. Moufeeda previously served as the Lead Gender Integration Specialist at the Lebanese American University's Arab Institute for Women. She has also provided consultancy services to international organizations and UN agencies. A recognized leader, Moufeeda has participated as a panellist and moderator in various UN and international conferences. In 2023, she was named one of the 20 NGO CSW Global Youth Fellows for Gender Equality. She also served on the board and chaired the Sweden Alumni Network in Lebanon. Moufeeda holds a Bachelor's degree in Law from the Lebanese University and a Master's degree in Interdisciplinary Gender Studies from the Lebanese American University.

Rapporteurs
Chimburuoma Chinda, Restless Development UK
Caleb Masusu, Restless Development Zambia
Nour Nahhas, Restless Development Young Leader, Lebanon

Participants: There were 563 youth and students registered to the two African consultations from Burundi, Cameroon, Central African Republic, Côte d'Ivoire, the Democratic Republic of Congo, Ethiopia, the Gambia, Kenya, Lesotho, Malawi, Mauritius, Nigeria, Rwanda, Sierra Leone, South Africa, South Sudan, Tanzania, Uganda and Zambia.

Photo: Primrose Nanchani Manyalo © Primrose_2024GEMYouthReport
Photo: Moufeeda Haidar © Moufeeda Haidar

Arab States

Consultation lead. Yasmein Abdelghany from Egypt has more than six years of experience working as an educational technology specialist and teaching assistant. She has extensive experience in leading regional and global youth-led organizations with Restless Development and Dubai Cares as part of the Rewired Summit, UNESCO's SDG 4 Youth Network, UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC) and the UN Global Compact among others. Currently she is the UNESCO Middle East and North Africa (MENA) region youth representative for the UNESCO SDG 4 Youth Network for the period 2023–2025. Yasmein is currently pursuing a master's in educational technology at Zagazig University.

Rapporteurs
Hayatte Bellakehal, Algeria
Abdelrehim Baallaa, Morocco
Shaikha Al Marri, Qatar
Mohamed Saad, Syria
Maimouna Abdallah, Yemen

Participants: 118 youth and students from Algeria, Bahrein, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, the United Arab Emirates and Yemen.

Caribbean

Consultation lead. Dawsher Charles from Trinidad and Tobago is the founder of the Survival Scholars organization, which empowers and equips students through the arts and storytelling with quality education in social and emotional skills. Survival Scholars works closely with parent organizations, teachers and school principals across different countries from the Caribbean. Their network extends to institutions like the Caribbean Development Bank and the Future Leaders Network, ensuring access to relevant expertise and resources. They have also established connections with the 12 USAID Youth Ambassadors from various Caribbean nations, allowing access to a wide range of perspectives and experiences.

Rapporteurs
Rachel Hunte, Trinidad and Tobago

Participants: 53 youth and students from Antigua, Dominica, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Lucia and Trinidad and Tobago.

Photo: Yasmein Abdelghany © Yasmein Abdelghany_2
Photo: Dawsher Charles © Dawsher Charles_2

Europe

Consultation lead. Adelisa Sejtanic is originally from Bosnia and Herzegovina and is now based in Madrid. She is an International Relations graduate with experience in digital skills development for primary education teachers and students in vulnerable environments. Her previous work experience as a global partnerships and international relations intern at ProFuturo, a Spanish digital education programme, allowed her to gain experience on the use of technology in education in different regions around the world. Adelisa holds a master's degree in Decision Making and Innovation from the Camilo José Cela University in Madrid.

Rapporteurs
Lucía Villegas, Spain
Mikko Eloholma, Finland

Participants: 64 youth and students from Albania, Austria, Belgium, Bosnia and Herzegovina, Croatia, Cyprus, Finland, France, Germany, Hungary, Italy, Ireland, Luxemburg, Montenegro, Norway, Serbia, Spain, Portugal and the United Kingdom.

Latin America

Consultation lead. Rosario Diaz Garavito is a SDGs activist, Founder & Executive Director of The Millennials Movement a youth-led civil society organization that promotes citizens' engagement through education on sustainable development and advocacy around the SDG 4. The organization is a member of the ESD for 2030 Global Network of UNESCO and their actions are delivered in 16 countries in Latin America and the Caribbean region through their network of over 300 local and regional allies. Rosario served as Member of the Youth Advisory Board (2022) for the Partnership on Youth and Human Rights of the Office of the High Commissioner of Human Rights, Education Above All and Silatech, and as Focal Point (2020 – 2022) for the Children and Youth Latin American and the Caribbean Regional Mechanism for the review of the 2030 Agenda. Rosario holds a Master of Arts in International Development and Policy at the Harris School of Public Policy from the University of Chicago and currently serves as Member of the Group of Advocates for the Right to Development of University of Peace and the Office of the High Commissioner of Human Rights.

Rapporteurs
Marilynn Holguin Clover, Colombia
Daniela Fuentes Torres, Mexico
Hanna Mireli Wong Bobadilla, Peru

Participants: 162 youth and students from Argentina, Brazil, Bolivia, Colombia, Chile, Ecuador, El Salvador, Guatemala, Haiti, Mexico, Nicaragua, Panama, Peru, Uruguay and Venezuela.

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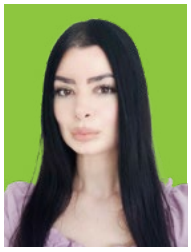
Photo: Rosario Díaz Garavito © Rosario Diaz Garavito

Pacific

Consultation lead. Dr Bradley Yombon-Copio from Papua New Guinea serves on the Steering Committee of the Global Student Forum representing the Commonwealth Student Association (CSA). He is the CSA Pacific Regional Representative. He holds a Bachelor in Dental Surgery, and is former Student Council President of the University of PNG. Bradley is deeply committed to student issues, education quality and health care. He is a health educator and advocate for education policy reform, both domestically and across the Pacific.



Co-lead. Ellen Dixon from New Zealand is the Youth Representative on the Global Education Monitoring Report Advisory Board. She is an Education2030 High-Level Steering Committee Member for the UNESCO SDG4 Youth & Student Network, for which she is Executive Committee Member for the Asia-Pacific region. Ellen is a former Steering Committee Member for the Global Student Forum in the Consociate Seat, where she represented 300 million students worldwide. Ellen has advised on education to UN agencies, ministerial panels, commissioners and governmental bodies, with specialized work in the Pacific region. She is a PhD student at the European Graduate School in Philosophy, Art and Critical Theory.

Rapporteurs

Grace Franco, Australia
Tangihaere Gardine, New Zealand
Ni Yumei Paul, Papua New Guinea
Charles Bilgan, Papua New Guinea
Ernest Kera, Solomon Islands
Melisha Siapu, Solomon Islands
Mahoney Mori, Federated States of Micronesia
Christopher Siliva, Nauru
Baniti Semilota, Kiribati
Lakena Gasologa, Tokelau
Broderick Mervyn, Fiji
Nano Bule, Vanuatu
Vailaua Loto'anui, Tonga
Audrey Natasha Lee Hang, Samoa

Participants: 423 youth and students from Australia, Fiji, Kiribati, the Federated States of Micronesia, Nauru, New Zealand, Papua New Guinea, Solomon Islands, Vanuatu and Tonga.

Photo: Bradley Yombon-Copio © Bradley Yombon-Copio_2
Photo: Ellen Dixon © Ellen Dixon_2

South Asia

Consultation lead. Titiksha Vashist from India is the co-founder and lead researcher at the Pranava Institute which works at the intersection of emerging technology, public policy and society. Her work focuses on emerging technology regulation and the socio-political implications of the use of technology in education. She also leads the work on Youth and Digital Media at the Institute, which seeks to create Open Educational Resources (OERs) for youth to co-create a better digital future for everyone. Titiksha has a Master of Art in Political Science and International Relations from the Jawaharlal Nehru University.

Rapporteurs
Shyam Krishnakumar, India
Deepangna Singhi, India
Kamal Madishetty, India

Technical Coordinator: Dhanyashri Kamalakkannan, India

Participants: 72 youth and students from Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka.

Southeast Asia

Consultation lead. Phuong Tran is pursuing her PhD at the School of International Development and Global Studies at the University of Ottawa, Canada. Her research interests include higher education scholarships for developing countries, aid to education, soft power, educational equity and decolonial studies with a focus on Southeast Asia. Phuong has been involved in several youth programmes including the Youth Southeast Asian Leaders Initiative in the Philippines, the Indian Youth Exchange Program in India as an ASEAN Delegate and the ASEF Youth Leader Program.

Rapporteurs
Thanh Binh, Viet Nam
Nguyen Ho Minh Phuc, Viet Nam
Huong Vu, Viet Nam
Anj Maramag, Philippines
Vo Nguyen Minh Thuy, Viet Nam
Thu Thao, Viet Nam
Soaphorn Khit, Cambodia

Participants: 165 youth and students from Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Timor-Leste, Thailand and Viet Nam.

Photo: Titiksha Vashist © Titiksha Vashisht_2
Photo: Phuong Tran © Phuong Trang_2

Foreword

The Global Education Monitoring Report's Youth Report 2024 for *#TechOnOurTerms*, reveals that technology – in the eyes of youth and students – is fundamental to the success of our education, while also creating unique and complex challenges in our lives.

We live in an age of digital opportunity and digital reason. Digital opportunity provides young people with new technologically-mediated jobs, further accessibility of ICT and STEM subjects, across-borders resource sharing, and connection for vulnerable communities and rural areas. Digital reason – on the other hand – provides a privatised, algorithmic world that only some can access, where the "information society" permeates the classroom or the lecture hall with content that may be selective, inconsistent, invasive, and ethically questionable.

The relationship between technological advancement and education is ever evolving, from radio to the ballpoint pen, the calculator, to video and the first computers. Yet no period in time saw such a dramatic upskilling as during the COVID-19 pandemic, where remote and e-learning became necessary for the 1.2 billion children out-of-school. While the EdTech market matured, gaps in digital participation based on household wealth, locality, and literacy emerged. An unprepared education sector grappled with the complex challenges of altered pedagogical and assessment tools amidst burnout, while students struggled with access to technology, impacting wellbeing.

But, for a generation of young people whose education has been disrupted by various crises, many were left with the remaining question: *What type of tomorrow will technology bring?* While young people often discuss our digital opportunities, anxiety remains concerning uncertainties. What cultural meaning is in the use of Zoom? How could widespread equity be achievable with affordable data? What will our assessments look like with ChatGPT? What are the parameters of our safety and freedom on social media? What type of democracy will we have in the post-digital world of clicktivism and "fake news"?

In the words of critical education theorist Henry Giroux: "All education is a struggle over what kind of future you want for young people." It is often thought that the struggle is: to *implement* technological change in the classroom; to *ensure equity* through the use of technology; and, to *comprehend* its application and regulation through legislation and policy. Yet for young people, our struggle is more fundamental: How does the classroom or the lecture hall interact with the realities of our actual and digital citizenship? And, will we have a say on what this citizenship looks like?

The Youth Report 2024 identifies that in order to effectively engage technology in the classroom, it is essential to put students at the centre. It is a prelude to GEMR's engagement in creating the Global Youth Indicator in the follow up to the Transforming Education Summit, to ensure meaningful youth engagement and leadership in education policy making.

#TechOnOurTerms is a rallying cry to uphold a collective, intergenerational project for a technologically inclusive education sector, for young people now and in the future.

Ellen Dixon
Youth Representative for the Global Education Monitoring Report's Advisory Board
Member of the Education2030 High-Level Steering Committee
Former Consociate Steering Committee Member at the Global Student Forum

Foreword

Young people from around the world have come together to demand "Tech On Our Terms" in education from world leaders, funders and their governments. At Restless Development we support the collective power of young leaders to create a better world. We want all young people to have the skills, knowledge, resilience and opportunities that enable them to thrive. We take a youth-led approach to ensuring that every young person has a quality education, and access to training and opportunities that set them up for life. We want all young people, especially women and girls, to be able to stay in school, and be able to make a sustainable fulfilling living when they leave.

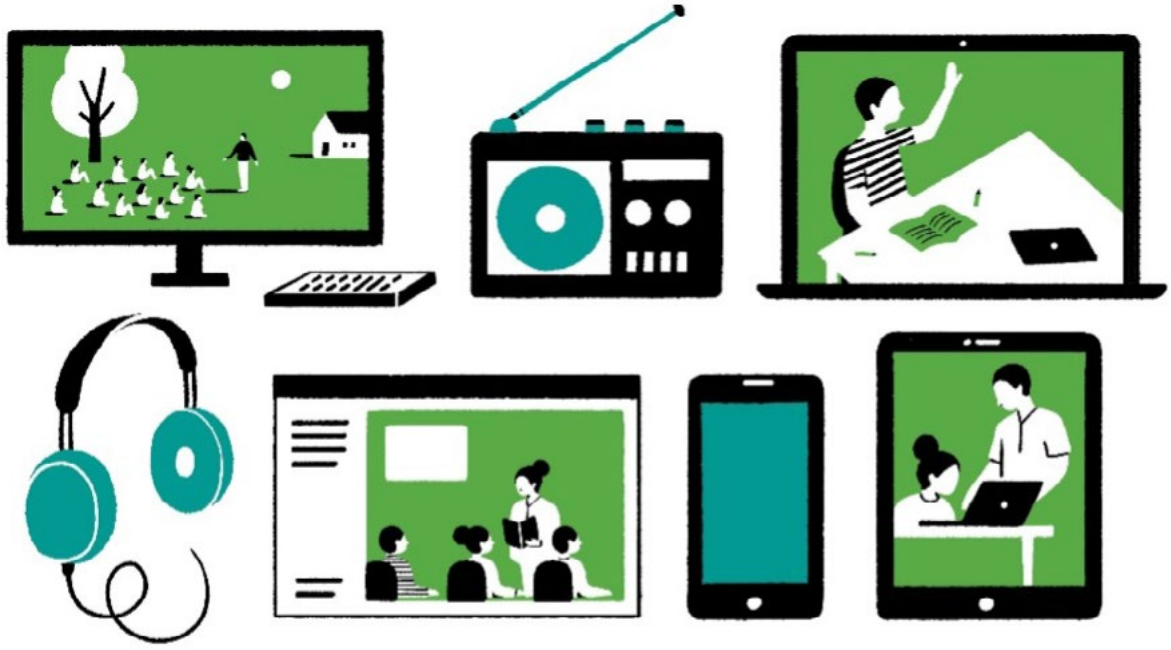
World leaders promised inclusive, equitable and quality education and lifelong learning for all by 2030, yet progress towards this remains low. Covid-19 led to more than 1.6 billion learners being affected world-wide, with the learners (especially young girls and women) in rural communities, with disabilities and from the majority world being greatly affected. Overnight, schools migrated to remote learning, integrating technology and AI in learning, transforming the classroom experience for learners to blend physical and virtual ways of learning. These developments however, are marred with stark disparities as the quality and reach of education varies depending on location, status and gender. New UNESCO data shows that the global number of out-of-school children has risen by 6 million since 2021 and now totals 250 million. High costs, inadequate infrastructure, and limited access to technology exacerbate the issues.

At Restless Development, we have seen how young people continue to be at the forefront, activating their youth power to solve the education challenges they face. Their Youth Power is rarely silent, yet you hardly hear about it. This report is a celebration of their agency and demonstration of commitment towards access to quality education for all children and young people, in their diversity! Leveraging on our Youth Collective and Global Youth Networks, we spoke to over 1,500 young people in 8 regions to capture young people's vision for technology in education, that is equitable, appropriate, learner-centred, safe, and collaborative.

This report is a testament to the power of young people's voices and their desire to shape the future of education. It is a call to action for policymakers, educators, and technology developers to prioritise learners' needs and create a more inclusive, effective, and sustainable approach in pedagogy.

We invite world leaders, funders and stakeholders supporting education to join us in creating a future where technology enhances education for all, without leaving anyone behind.

Primrose Nanchani Manyalo
Youth Collective Lead, Restless Development



Introduction to the 2023 GEM Report

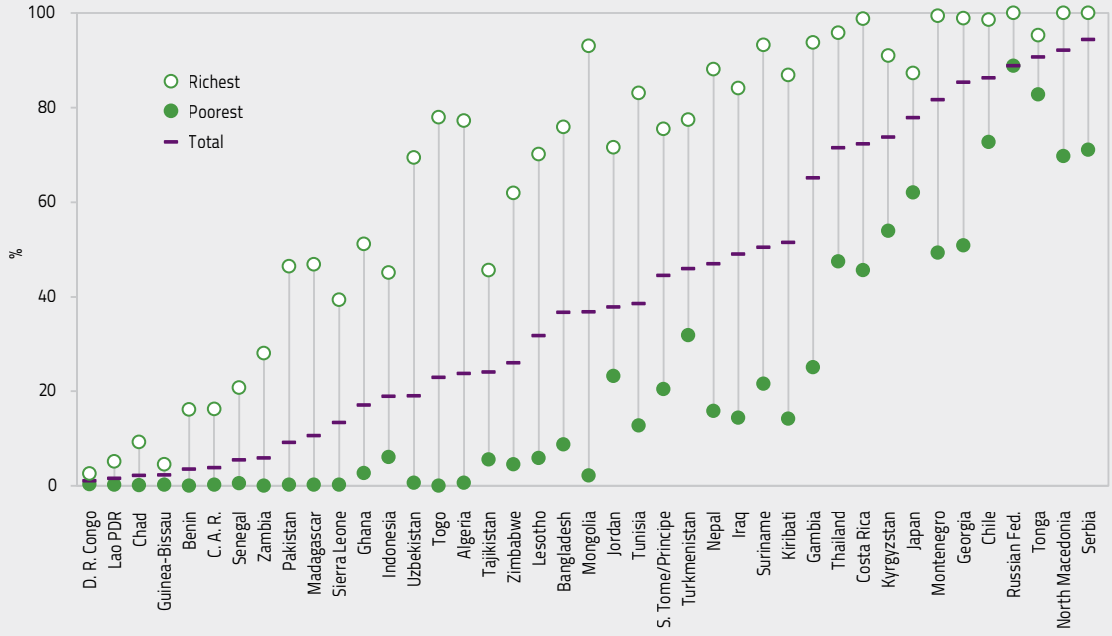
Digital technology is changing education systems. From learning management systems to tutoring tools powered by artificial intelligence (AI), the presence of technology in education is evolving at a breakneck speed. Those who develop the technology are always a step ahead of the evaluators and decision makers. Research on technology in education is as complex as the technology itself. Are the results influenced by the commercial interests of those who developed the technology? What are the implications of research which shows that education technology is not being realized to its full potential? Ultimately, are we asking the right questions about education before proposing that technology be one of the solutions? And more importantly, are we involving the main users of technology – learners and teachers – in discussions around the use of technology in education?

Globally, the percentage of internet users rose from 16% in 2005 to 66% in 2022. But only 40% of primary schools, 50% of lower secondary schools and 65% of upper secondary schools were connected to the internet for pedagogical purposes.

Source: 2023 GEM Report.

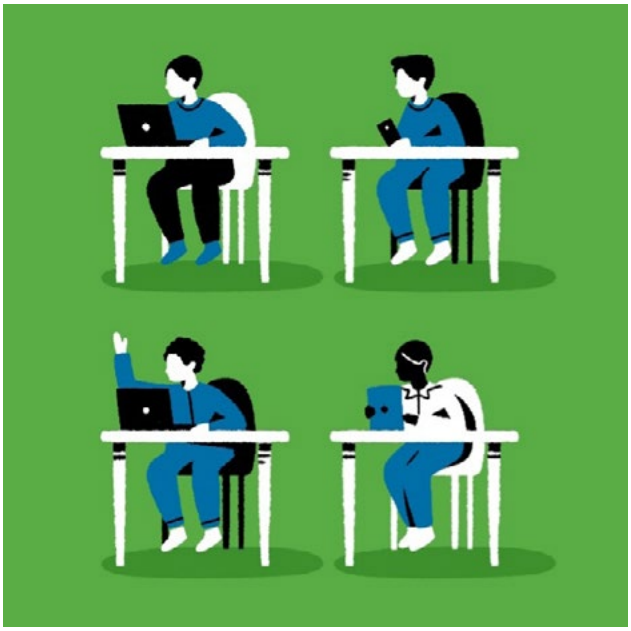
Information and communication technology (ICT) has been used for 100 years in education, ever since the popularization of radio in the 1920s. But it is the use of digital technology over the past 40 years that has the most significant potential to transform education. An education technology industry has emerged and focused, in turn, on the development and distribution of education content, learning management systems, language applications, augmented and virtual reality, personalized tutoring, and testing. Most recently, breakthroughs in AI have increased the power of education technology tools, leading to speculation that technology could even supplant human interaction in education.

FIGURE 1:
Internet connectivity is highly unequal
Percentage of 3- to 17-years-olds with internet connection at home, by wealth quintile, selected countries, 2017–19



GEM StatLink: https://bit.ly/GEM2023_fig1_1
Source: UNICEF database.

In the past 20 years, learners, teachers and schools have widely adopted digital technology tools. In 2021, there were at least 220 million students in massive open online courses (MOOCs) and Wikipedia had 244 million page views per day. In 2023, the language learning application, Duolingo, had 20 million daily active users. The 2018 Programme for International Student Assessment (PISA) found that 65% of 15-year-old students in OECD countries were in schools whose principals agreed that teachers had the technical and pedagogical skills to integrate digital devices in instruction and 54% in schools where an effective online learning support platform was available; these shares increased during the COVID-19 pandemic.



The adoption of digital technology has resulted in many changes in education. The set of basic skills that young people are expected to learn in school, at least in richer countries, has expanded to include a broad range of new ones to navigate the digital world. In many classrooms, paper has been replaced by screens and pens by keyboards. COVID-19 can be seen as a natural experiment where learning switched online for entire education systems virtually overnight. Higher education is the subsector with the highest rate of digital technology adoption. The use of data analytics has grown in education management. Technology has made a wide range of informal learning opportunities accessible.

Distance learning had a potential reach of over 1 billion students but during COVID-19, it failed to reach at least half a billion, or 31% of students worldwide – and 72% of the poorest.

Source: 2023 GEM Report.

Yet the extent to which technology has transformed education is debatable. Change resulting from the use of digital technology is incremental, uneven and bigger in some contexts than others. The application of digital technology is not universal. It varies by community and socioeconomic level, by teacher willingness and preparedness, education level and country income. Except in the most technologically advanced countries, computers and devices are not used in classrooms on a large scale. Technology use is not universal, and evidence is mixed on its impact. *Some* types of technology seem to be effective in improving some kinds of learning.

The short- and long-term costs of using digital technology appear to be significantly underestimated. We are moving further and further away from achieving the global education goal, SDG 4, if resources are spent on technology, rather than on classrooms, teachers and textbooks for all children in low- and lower-middle-income countries lacking access to these resources. Some of the world's richest countries have ensured universal secondary schooling and minimum learning competencies before the advent of digital technology. Children can learn without it. Therefore, rather than ask what technology can help address education problems, we first need to ask what the main education problems are. For instance, how can technology address major education challenges that relate to access, equity, inclusion, quality and efficiency?

Clear objectives and principles are needed to ensure that technology use is of benefit and avoids harm. The negative and harmful aspects of using digital technology in education and society include distraction and a lack of human contact. Unregulated technology even poses threats to democracy and human rights, for example, through invasion of privacy and stoking of hatred. Education systems need to be better prepared to teach about and through digital technology, a tool that must serve the best interests of all learners, teachers and administrators. Impartial evidence shows that technology is being used in some places to improve education. Good examples of such use need to be shared more widely so that we can deliver technology in the best way for each context.

2023 GEM Report Recommendations

The key recommendation of the 2023 *Global Education Monitoring Report* is that any decisions on or discussions of technology in education should put learners and teachers at the centre. The focus should be on learning outcomes, not digital inputs. The report tried to avoid an overly technology-centred view of education and refuted the claim that technology is neutral. It also offered a reminder that much technology was not designed for education; therefore, its suitability and value need to be proven and not taken as given.

The report invited policymakers to ask four questions when integrating technology into education systems:

Is this use of education technology appropriate for the national context? Education technology should strengthen education systems and support their learning objectives.

Is this use of education technology leaving learners behind? Although technology use can enable access to education for some students, digitalization risks benefiting already privileged learners and further marginalizing others, thus increasing learning inequality.

Is this use of education technology scalable? There is an overwhelming array of technological products and platforms in education, but decisions are often made about them without sufficient evidence of their benefits or their costs.

Is this use of education technology sustainable? Digital technology should not be seen as a short-term project. It should be leveraged to yield economic, social and environmental benefits on a sustainable basis.

Place youth at the centre of discussions on technology in education

The GEM Report, in partnership with Restless Development, mobilized youth globally to inform this youth edition. Building on the findings from youth consultations in the run-up to the RewirED Summit in 2021, a series of eight youth-led regional consultations was organized between 2023 and 2024, which brought together more than 1,500 young people to better understand the challenges and opportunities faced by young people from around the world when using technology in education and to hear their recommendations for reform. In addition, a global survey of more than 500 youth and students identified the need for technology in education to be equitable and appropriate as their two priorities among the four 2023 GEM Report recommendations.

The Restless Development Youth-led Research and Youth Hack Methodology was applied to Youth-Led Virtual Qualitative Consultations, which were held online in each of the world's regions with young people. The consultations were led by young people and applied interactive methods such as breakout groups, use of slide decks and Mentimeter to encourage inclusive and in-depth conversations. A digital safety plan was used for each consultation to safeguard participants from online harm.

These young people were members of the Restless Development Youth Collective Network – a global platform with 4,600 members from 189 countries – that exists to supercharge youth, members of national and regional youth organizations and students' representatives. Young rapporteurs provided a report summarizing the key discussions from each region, which are the main source for this report. The consultation process concluded with a global consultation in partnership with UNESCO's SDG4 Youth & Student Network, which coincided with the first International Day for Digital Learning.

This report summarizes the findings from the regional consultations and outlines concrete actions that governments should take with a call to action to ensure that the use of technology in education places young people at the centre in an appropriate and equitable way. By calling on governments to ensure that technology in education puts learners' best interests at the centre, youth and students called for policymakers to ask themselves the following questions before deploying technology in education:

1. **Are the tools appropriate?**
2. **Who do they leave behind?**
3. **Are they affordable and are decisions being taken based on sufficient evidence?**
4. **What kind of tomorrow will they build?**

Involving young people through consultations and in the decisions that ultimately affect them can ensure that decisions made about the use of technology places their interests at the centre. By partnering with young people as experts in the consultations and production of this report, their voices will be elevated to be heard by government officials responsible for education policy. Their call to be heard in policy design echoes their youth power and resonates through this publication: 'Nothing about us, without us!'

Summary

While the key findings from the consultations were specific to the regions in which they were held, here are some of the cross-cutting issues that emerged from the eight consultations:

1. **Technology engages learners, enhances collaboration and improves chances in the world of work**. Multiple types of devices bring education to many who did not have access before.

2. **But technology is of no use without teachers**. Approaches that combine infrastructure, content and capacity building are far more likely to be sustainable and effective. The right balance needs to be found between digital and in-person learning.

3. **Digital divides leave many learners behind**. Limited access to technology, infrastructure and digital literacy skills hinders effective technology integration in education. The costs of technology and the internet are often prohibitive, especially in rural and poor areas. Policies are top-down and sometimes inappropriate for the context. There are linguistic, social and resource barriers to digitalizing education for everyone. The COVID-19 pandemic worsened the digital divide, leaving some learners behind due to their location, class and disability.

4. **Decisions about technology are often made without consultation**. There is insufficient collaboration between teachers, learners, decision makers and technology providers, which limits the potential of technology in education. There is little engagement with the users of technology to hear their opinions on what has been effective and what could be improved.

5. **Digital skills need to be improved**. Many learners and their teachers lack digital literacy skills, which are essential for effective technology integration.

6. **Online safety is not protected**. Privacy and safety are at risk online with the spread of digital learning and there are limited protocols, guidance and training in place.

Call to action

Young people from around the world are calling for #TechOnOurTerms.

The 2023 GEM Report called for decisions about technology in education to prioritize learner needs after an assessment of whether its application would be appropriate, equitable, evidence-based and sustainable. It is essential to learn to live both with and without digital technology; to take what is needed from an abundance of information but ignore what is not necessary; and to let technology support, but never replace, the human connection on which teaching and learning is based.

Technology should not be viewed as the solution but as a supportive tool in overcoming certain barriers to education access, quality and efficiency. Given the overwhelming number of technology products and platforms available, governments need to base their procurement decisions on reliable evidence that looks at the long-term effects. The most effective interventions are those that are backed up by strong evidence that prove they respond well to the identified needs. It is not enough to just deliver materials without contextualizing them and providing support. Teachers need to be integrated into these efforts. Positive impact often depends on strong pedagogical alignment and teacher input.

Through this youth report, young people have described what technology on their terms would look like.

#TechOnOurTerms means to:

1. Make it equitable!

Youth and students in all regions called for more affordable and universally accessible technology for education from an early age to reduce the digital divide and to enshrine it in law as a human right.

a. **Improve access**. Invest in and improve infrastructure for improved access to technology for all. Address connectivity challenges, especially for those in low-resource or remote locations. Improve access to relevant, appropriate and safe devices in all schools, no matter their location, with computer lab access or ICT hubs. Improve mobile-friendly educational content and platforms in line with the curriculum and implement blended learning approaches that provide online and off-line resources, which are suitable for all.

b. **Make it affordable**. Provide financial assistance and introduce innovative ways of reducing internet costs for end users. Overcome the cost barriers for purchasing specialized equipment, such as braille keyboards, through tax subsidies and public–private partnerships.

c. **Develop personalized learning approaches**. Ensure policies and initiatives follow universal design principles and are inclusive of learners in all their diversity, including girls, learners in rural and hard-to-reach communities, indigenous people, displaced populations, refugees and learners with disabilities.

d. **Reduce barriers to girls' access to technology products and services**, including through awareness raising and community dialogue to combat harmful social norms.

2. Make it appropriate!

Make it appropriate: Young people must be consulted, and their ethnicity, language, socioeconomic and cultural background, age, ability and location must be considered when developing and deploying technology in education.

a. **Make education content suitable for the local context**, including its availability in local languages.

b. **Monitor whether it works**: Young people in two regions called for improved and increased monitoring of the impact of technology on education and well-being over long periods, including by considering the views of teachers and learners.

c. **Train us to use it**: Young people in four regions called for digital literacy skills training by developing comprehensive programmes and considering school technology clubs and training workshops. Content should cover online security and privacy, as well as technology entrepreneurship to align digital skills training with the requirements of labour markets. Curricula should be reviewed frequently to make sure that they are updated and adapted to new challenges and new ways that students learn

... and our teachers: Young people in five regions called for building the capacity of teachers to effectively leverage technological tools and platforms in classrooms, ensuring that digital literacy programmes focus on inclusivity and personalized learning approaches, covering both technical and pedagogical skills. Free opportunities and scholarships could be provided to help upskill teachers and better guidelines provided for effectively integrating digital tools into teaching.

d. **Collaborate and consult with us!** Learners must be kept at the centre of all decisions on the design, implementation and evaluation of technology used in education to ensure that it is appropriate. Young people in three regions called for multi-stakeholder approaches to designing and implementing technology in education between educational institutions, technology companies, governments, non-governmental organizations, donors, youth and local communities. Improved regional collaboration is needed to enable knowledge exchange, including on the effectiveness of solutions and pilot programmes. Youth initiatives should be recognized, supported and expanded so that youth associations and groups can drive appropriate technological development and innovation.

e. **Protect us**: Technology in education will never be appropriate if it is not safe and does not protect young people's well-being. Governments must create strict policies, guidelines or protocols based on digital ethics to prevent violence, misinformation, biased data sources, data privacy violations and cybercrime. They should fund youth civil society organizations to act as watchdogs. Awareness campaigns and cybersecurity workshops should be created to teach about online privacy and security. Online safety modules should be integrated into curricula. Time outs, offline activities and well-being checks should be applied in schools to minimize screen time and its impact.

Join the call to action here:

Africa

The COVID-19 pandemic catalysed the use of technology in education but worsened the digital divide, leaving some learners behind due to their location, class and disability. Girls and women, people with disabilities and refugees seem to be the hardest hit.

The underlying causes widening the digital gap between learners must be addressed. Measures to reduce costs include increasing public spending to support context-relevant and appropriate technology for learning, and public–private partnerships to bring internet costs down and increase coverage, especially in rural communities.

Powershifting approaches can ensure relevant, context specific and culturally sensitive technologies. Shifting power from decision makers to users and addressing their needs will make sure that new technology aligns with the level of technological development in different communities.

Technology on its own will not transform education. Access to technology should not be viewed as the ultimate answer to education problems. Technology should be used only when there is evidence showing that it has a positive effect on learning outcomes.

Main findings

Multiple types of devices are used to help hard-to-reach learners access education. The COVID-19 pandemic increased the use of technology in schools and other learning institutes as a vehicle for learning at all levels. This includes mobile phones, laptops, white boards and in some contexts, the use of AI. Digital libraries and resource centres located in urban and rural communities are particularly useful for those with no access to physical libraries. They have increased access to learning resources, such as textbooks and research facilities. Various platforms are being used to connect young people to learning, including WhatsApp, Zoom, Microsoft Teams and Google Classroom.

Almost half a billion students worldwide from pre-primary to upper secondary level could not be reached by remote learning during the pandemic. The region with the highest share of children (49%) who could not be reached during school closures was sub-Saharan Africa.

Source: 2023 GEM Report.

> In Uganda, we are only able to use apps like Zoom in urban schools. Devices like smartphones and computers are used but on a small scale. Although the recently introduced competence-based curriculum encourages technology adoption, access to resources is very limited, especially in rural Uganda. In conclusion, there's a growing gap in adoption of technology in education between rural and urban populations."
> **Male participant, Uganda**

Digital divides remain wide: Despite the widespread use of technology, stark disparities in use were noted between locations, socioeconomic classes and different groups of people, which are widening the digital divide. Traditionally excluded groups, such as learners living in rural communities; in refugee camps, satellite and peripheral towns; young people with disabilities; and those in absolute poverty are being left behind.

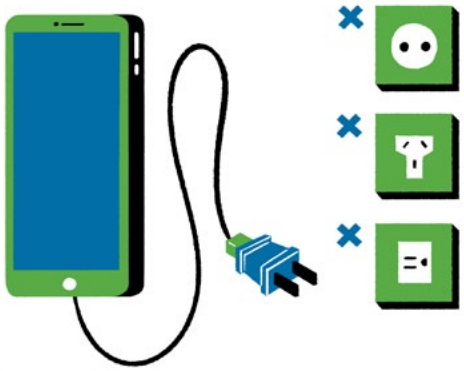
> Our organization, Youth for Impaired Persons, makes use of virtual schools and long-distance learning and sharing opportunities for online scholarships with their networks. They offer mobile basic computer skills training, although there are not suitable computers for all types of disabilities. They are mobilizing resources to promote artificial intelligence technology as one way of enhancing full inclusion of persons with disabilities in education systems. Artificial intelligence will help persons with disabilities in many ways, such as interpretation and screen readers.
> **Tapiwa, Zimbabwe**

Today, two in three people in the world use the internet, ranging from 26% in low-income to 92% in high-income countries. Among young people, the ratio increases to three in four globally, ranging from 39% in low-income to 99% in high-income countries.

Source: 2023 GEM Report.

There are cost barriers to accessing technology for learning: Young people noted the high cost to access learning technology and a lack of appropriate infrastructure. The divides are fuelled by poverty and low budgets for investment into education reform by governments.

> Technology is something needed but not fully used. In refugee camps, many young people want to learn ICT and computers but there is no access, and in different zones there is no power. Places where you can use your laptop or charge your phone are few and far between. Laptops are not for everyone. Maybe different partners can set up different ICT centres for people so that they can use technology. This would be very good.
> **Male participant, Uganda**



There are 244 million fewer women than men using the internet worldwide. A survey of girls and their parents in Ethiopia, India, Jordan, Kenya, Nigeria, Rwanda and the United Republic of Tanzania showed that parents tended to believe that girls require more protection than boys from potential online distractions and temptations.

Source: 2024 Gender Report.

Some areas lack coverage, as internet base stations are concentrated in urban areas or hotspots are accessible only by roads or in main towns and cities. People located in deep, inaccessible areas are often left behind, and must travel long distances to access technology-based learning platforms. In urban areas, erratic power supplies, load shedding and a lack of alternative forms of reliable energy means that even if young people have access to digital learning platforms and technology, they can be left behind. The situation is worse for young girls and women and other diverse groups that continue to be marginalized.

> Despite the rural electrification programme that was run by the government, most schools don't have access to electricity, making students in rural areas miss out on digital learning.
> **Male participant, Zambia**

Hardware on its own will not improve learning. Teaching and learning methods adopted in schools are failing to match up to the fast-changing technologies. When initiatives, mostly by governments, are introduced to education systems, follow-up training for teachers, parents and learners is not always adequate, limiting the effectiveness of technology in learning.

Technology can do more harm than good if it is not safe. Participants noted reduced online safety, privacy and data security risks were major concerns. Using the internet risks interacting with negative individuals or technology. It can fuel online bullying using digital technology – cyberbullying, the invasion of privacy, identity theft, and young people exposed to offensive images and messages and strangers who aim to 'groom' them. The participants noted how online learning can lead to fatigue and burnout, compromising their wellness. With very limited regulation and control, sometimes learners wander and go to non-learning platforms such as TikTok, Instagram, Facebook and X, among others, for hours non-stop. Without screen time limits, controls or robust digital safety protocols, the participants felt that access to technology and the internet could end up doing more harm than good to learners.

In order for technology in education to be on the terms of youth and students in Africa:

1. Make it equitable!

Introduce tax subsidies and other innovative ways of reducing internet costs for end users, including by increasing budgets and exploring public–private partnerships.

> "There is a need to broaden internet access, as even if you have a computer with internet, you cannot use it.
> **Female participant, Kenya**

2. Make it appropriate!

a. **Make it work for everyone**: Ensure that technological advancements and innovations introduced in education systems factor in the diverse needs of learners, particularly young people with disabilities, young girls and women, and those living in rural communities. Address the mismatch between new technology and teaching methods and curricula, which are not aligned to the demands of learners.

b. **Keep learners at the centre!** The introduction of technology must be bottom-up, chosen after consulting with learners, teachers, parents and grass-roots organizations to ensure that it is contextualized and tailored to learners' needs, culturally sensitive and safe, ensuring zero harm to learners. This will increase uptake and optimal use.

c. **Protect us!** Promote safe technology to aid learning with controls and robust digital safety protocols. Make sure that policies factor in accountability mechanisms to ensure that schools respond to appropriate data management and the digital safety of learners.

> "Laptops are introduced late, as someone only starts encountering a laptop at secondary or tertiary level, that is, if they can afford it. This will be too late, and efforts should be made to intensify ICT learning and appreciation at early childhood development.
> **Participant from the consultation**

> "We need to reinvent the wheel. We need to ensure cybersecurity and educate learners on how to utilize the digital services well and build the capacity of all teachers, rural and urban, so that they can effectively deliver quality services. We also need to design devices that favour people with disabilities so that they are not left behind.
> **Juan Pierre, Mauritius**

Arab States

While technology has demonstrated its potential to support education, especially during crises, there remains a significant digital divide within and between countries, especially for girls and young people from the most disadvantaged backgrounds.

Many factors contribute to limited connectivity in the region, with infrastructure being the major challenge. Alternative tools that could be used in low- and lower-income contexts where electricity and connectivity are not widely accessible – like radio and TV programmes and offline platforms – have the potential to improve learning for youth.

Technology cannot replace human interactions. Holistic approaches ensure equitable and appropriate use of technology in education, from infrastructure, content and capacity building to systems management and sustainable finance, while finding the right balance between digital and in-person learning.

Main findings

Technology does not have to be advanced to be effective for learning: Despite the lack of access of most marginalized youth to education and technology, Arab youth shared that there are alternative tools that are being used at a small scale to support refugees or young learners in crisis-affected communities. Many shared their personal experiences in using broadcast and pre-recorded lessons on TV channels, podcasts, radio lessons and offline platforms to support their learning.

> During my studies at university, I relied heavily on digital learning to help sustain my university education. The benefits I received and the features I experienced played a huge role in guiding my desire to share this benefit and alleviate the suffering I personally endured, as well as the suffering of my colleagues. This was represented by the scarcity of books and study materials available in electronic copies, and the availability was limited to financially expensive paper copies – amidst a severe economic crisis.
>
> **Bashar, Yemen**

There is a large digital divide leaving learners behind. According to Arab youth, the region is suffering from a significant digital gap between and within its countries. This is detrimental to societal well-being and cohesion, as it affects access to young people's education, decent work and a decent future.

Young people noted that in the Arab States region, there is a growing disparity in digital development, with the Gulf region leading in digital infrastructure investments while North Africa and the Levant face bigger obstacles in ensuring that technology in education reaches all learners. This leaves young people in the region without the skills they need to engage in meaningful and dignified work.

Photo: Bashar, Yemen © Bashar Nabil

In our region, access to technology remains a hurdle for many students. It is essential to invest in technological infrastructure but also to provide training for teachers and students on effective technology use.

Mohammed, Syria

Vulnerable learners, including refugees, internally displaced youth, youth with disabilities, youth in crisis-affected communities and learners in low-resource contexts, face a more significant digital divide, preventing their meaningful participation in learning through digital learning opportunities.

In this digital age, the imperative to nourish minds and bodies is not merely a choice, it has evolved into a sacred duty, underscored by the transformative impact of technology on my educational and career journey.

Dalia, Jordan

Biased social and cultural norms inhibit equitable access to technology and the internet at home, in school and in society. Attitudes and perceptions that girls are more vulnerable to online risks can severely restrict girls' access to technology, leading to restrictive practices that limit their engagement with digital technology.

Source: 2024 Gender Report.

Young people noted that structural inequalities and social and cultural norms continue to hamper girls' access to education and digital technologies across the region. Social and cultural norms that prioritize boys' education over girls' education, social stigma associated with girl's use of mobile phones and the internet, and gender-based violence in crisis-affected communities continue to limit girls access to education in Arab States including Libya, Sudan and Yemen.

Young people noted that the main barrier to accessing and utilizing digital learning was related to infrastructure issues, from electricity cuts, network accessibility, lack of access to affordable devices or data plans, and accessibility issues for young people with disabilities.

I dream of unlocking the door to limitless knowledge, but for many Syrian youth like me, digital education remains frustratingly out of reach. Various digital educational platforms put deadbolts on the door to knowledge, denying us access to the empowering opportunities within. Education is a right, not a privilege. Syrian youth have the right to access all educational opportunities equally to their peers from around the world.

Komait, Syria

The digital gap widened during the COVID-19 pandemic. Countries that had preparedness plans for distance learning in place before the crisis were successfully able to shift from in-person to distance digital learning while the learners in countries that were not prepared suffered the consequences.

The COVID-19 pandemic pushed the entire world to reconsider education systems. This pandemic also forced education systems to adopt and discover new patterns of teaching and learning to ensure learning continuity for the 1.5 billion children who were out of school.

Raghad, Palestine

Photo: Mohammed, Syria © Mohammed Bassel
Photo: Komait, Syria © Komait Masood

In order for technology in education to be on the terms of youth and students in the Arab States:

1. Make it equitable!

Ensure that equity is at the heart of the use of technology in education.

2. Make it appropriate!

a. **Ensure that the use of technology in education is appropriate for local, national and regional contexts**, with accessible, affordable, culturally acceptable and age-appropriate content and resources, and the right balance between online and in-person learning.

b. **Keep learners at the centre!** Place youth at the centre of design and implementation of technology use in education. Recognize, support, collaborate with and expand youth initiatives and best practices to ensure that youth are the drivers of technological development and innovation.

Caribbean

There is a lack of collaboration between teachers and learners when designing education technology policies. This limits the full potential which technology could bring to learners. Young people noted the generational gaps in technology comprehension and urged decision makers to consider the perspectives and potential impacts on the younger generation.

The use of technology in education is often not appropriate and equitable. Young participants advocated for personalized education over a one-size-fits-all approach and emphasized the necessity to reassess the educational purpose of digital inputs to better cater to student needs.

There is a lack of access and infrastructure, impeding learners from benefiting from technology in education.

Many lack digital literacy that enable links to entrepreneurship and other fields of work and enable youth to prosper in work.

Main findings

Globally, 30% of countries had policies to provide each student with a laptop or tablet. The share was as high as 61% in Latin America and the Caribbean but has since fallen to 15%.

Source: 2023 GEM Report.

Infrastructure and cost barriers are restricting many from being able to benefit from technology in education. Young people noted that access and infrastructure challenges remain a major barrier to effectively leveraging technology in education across the Caribbean region. The lack of devices, high costs, unreliable internet connectivity and limited access to resources in remote and rural areas were repeatedly cited as obstacles.

Financial barriers to accessing educational technology were also highlighted, including device costs and internet subscriptions and the need for community support from both government and the private sector to address these challenges and ensure equitable access to technology for education.

> Every facet of our lives in the 21st century is rooted in technology, from simple communication to complex global trade and business. It is irrefutable that education – formal and informal – drives and augments all these facets of our lives by shaping their stakeholders. Therefore, the biggest issue for me is not the question of whether we should use the latest available technology in educating our population, but a question of whether all citizens have equal access to the latest available technology as part of their education. We can utilize technology to ensure that no one is left behind.
> **Rol-J, Saint Kitts and Nevis**

Photo: Rol-J, Saint Kitts and Nevis © ROL-J WILLIAMS

Youth, teachers and parents need support in acquiring digital skills for work. Young people noted that it is not enough to learn how to use technology in education. Entrepreneurship and business skills should be coupled with technology education to help youth capitalize economically. Participants emphasized equipping students not just with technology skills but the know-how to turn them into income-generating opportunities.

"I believe business education technology should be taught in schools to enhance entrepreneurship in youths in the Caribbean region to combat unemployment."
Christena, Jamaica

Young people need support protecting themselves against digital risks. Young people agreed that training on digital literacy and awareness is needed for students, teachers and parents to promote safe and effective use of technology. This includes understanding online risks, developing critical thinking skills, avoiding overreliance on technology and managing information overload. Training is needed to help youth incorporate technology as a learning tool rather than a replacement for traditional methods.

Globally, 16% of countries have adopted legislation to prevent and act on cyberbullying with a focus on education; of those, 38% have done so since the COVID-19 pandemic.

Source: 2023 GEM Report.

It was noted that young learners lack cybersecurity skills to protect themselves against online risks including hacking, scams, fake information and lack of data protection. Young learners require critical thinking to minimize overreliance on search engines or AI tools like ChatGPT, Gemini and others without risk assessment.

It was noted that technology impacts on young learners' mental and emotional well-being, especially unlimited and unfiltered access to social media. This calls for the establishment of safe digital spaces. In addition, learners' online privacy is compromised, increasing the potential of online risk.

Young people also noted that overexposure to technology impacts their physical health, causing eye strain and posture issues, prompting calls for awareness and mitigation strategies.

"Technology can positively transform education if used wisely."
Mikaila, Trinidad and Tobago

1. Make it equitable!

In order for technology in education to be on the terms of youth and students in the Caribbean:

a. **Make it affordable:** Explore innovative financial models that address the cost barriers associated with technology in education. Strategies could include government programmes to provide laptops and tablets, computer lab access, ICT hubs and public–private partnerships. Encourage community involvement and support to address financial challenges and ensure equitable access to technology in education.

b. **Develop personalized learning approaches** to ensure that no learner is left behind. Technology policies and initiatives should be inclusive of learners with disabilities through providing assistive devices and accessible software and hardware and using universal design principles.

Photo: Christena, Jamaica © Christena Williams
Photo: Mikaila, Trinidad and Tobago © Mikaila Ramlagan

2. Make it appropriate!

a. **Protect us!** Governments must develop policies that promote safety and protect learners' privacy online that are based on digital ethics. The policies should involve monitoring and limiting screen time to reduce technology dependence and to deal with short attention spans and mental health impacts. Schools must employ time outs, activity breaks and well-being checks for learners. Young people suggested digital literacy courses, school technology clubs, online training workshops for students and stakeholders, and the development of online data protection policies for learners.

b. **Keep learners at the centre**: Youth voices should be included in policymaking, aiming for a balanced approach that harnesses the power of technology to enrich education while mitigating any potential downsides. Consider implementing a more iterative and dynamic approach to education technology policies. Enhance regional collaboration with regional platforms and resources to enable collaboration and knowledge exchange on technology in education, as well as to share research on implementing proposed solutions and pilot programmes.

c. **Train us to use it**. A standardized technology competency curriculum can ensure students meet digital literacy benchmarks. Programmes were suggested, including the ICDL (International Computer Driving Licence). Recommendations included teaching technology entrepreneurship, providing internships and mentorships, and supporting youth technology start-ups and businesses .

... and our teachers: Provide training for teachers on how to practically integrate technology into curricula and to effectively leverage technology tools and platforms in classrooms across various subjects.

"

Technology in education should be a tool of empowerment, not just advancement. As we integrate digital solutions into learning, our focus must be on shaping these tools to serve every person, especially in diverse contexts like Guyana and the Caribbean. It's about ensuring that technology speaks on our terms – terms of inclusivity, accessibility and cultural relevance – to truly enrich and democratize education globally.

Stephon, Youth Advocacy Movement, Guyana

Photo: Stephon, Youth Advocacy Movement Guyana © Stephon Gabriel

Europe

Technology should not be an end goal in education but a means to improve quality. Technology should be used to learn and to improve our approach to different subjects or issues. We need to first identify our learning objectives and afterwards decide which technology we will use to achieve them.

There are major differences between countries in the region in terms of technology infrastructure, access and digital skills. Some countries are in the advanced stages of integrating technology into education, while others are still defining their strategies to address this issue.

Students and teachers should be at the centre of educational planning. They should have a key role in decision making and the design of educational programmes, especially for students with disabilities or from marginalized backgrounds.

Main findings

Technology helps improve access to education for many who would otherwise be left behind. Young people pointed out that some European countries like Austria have set a good standard by providing a laptop to every child entering secondary education, thus providing a strong platform for teaching and learning. The introduction of digital skills from the first grade demonstrates a commitment to raising a technology-literate generation and the transitioning to computer science education in later grades emphasizes a holistic and forward-looking approach. Furthermore, Austria is building a national platform integrating open education resources in English and German.

> "Providing access is expensive, but the potential implications of not doing it are more expensive, considering the amount of skilled labour force that states may be missing out on. It is important to shift the perspective when we talk about funding programmes. **Milosh, North Macedonia**

The COVID-19 pandemic exacerbated a pre-existing digital divide. The COVID-19 pandemic exposed the disparities in access, especially for students from lower socioeconomic backgrounds. While high-tech solutions played a pivotal role, they simultaneously underscored real digital disparities. Luxembourg is an example of widespread digital integration in schools. However, the country faces other barriers such as the diagnosis of special educational needs and delays in the process of accessing appropriate support measures or assistive technology for pupils with special needs.

One young participant highlighted a project in Serbia, focusing on inclusive education where assistive technologies were introduced, extending beyond equipment provision to comprehensive skills-building initiatives for teachers and education staff.

Specific minority groups, such as the Roma population, are particularly vulnerable, requiring targeted interventions. For example, in the Balkan countries, children are not even inscribed in the civil register, nor enrolled in schools. Action

is needed to ensure their educational rights are met before discussing their access to technology or their digital skills. On the other hand, public agencies such as UNICEF and private companies like HP have donated devices for Ukrainian students and teachers to ensure learning continuity during the war or in refugee settings.

Another young participant highlighted regional disparities within the United Kingdom, underlining the need for tailored strategies to increase access to education technology, especially in rural areas facing challenges. The digital gap is also evident between private and public schools in terms of access and digital skills, which point to the need to introduce robust and comprehensive digital literacy programmes in public schools.

Technology is often seen as a panacea for educational quality, instead of addressing the root causes or poor quality learning. Participants pointed out the need to shift perspectives, urging stakeholders to view technology not as an end goal but as a means to enhance educational quality. The following questions should be asked before decision making, legislating or launching new programmes: How do we want to use technology? What is our goal? What do we want to achieve and what are the means we have to achieve those goals? What kind of technology do we want to use in education? What will we improve by introducing technology?

Nearly 90% of content in higher education repositories with open education resource collections was created in Europe and Northern America; 92% of content in the OER Commons global library is in English.

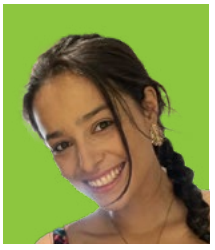
Source: 2023 GEM Report.

Teachers lack the support to drive digital transformation in education. The content is not appropriate and relevant for all learners. A paradigm shift is needed in societal perceptions of the teaching profession, along with the development of digital literacy and skills among educators so they can transfer knowledge to students. Universities must introduce digital literacy courses for future teachers so that they are better prepared to integrate technology in their learning methods.

Resources that are more inclusive, accessibility of non-English resources, free educational resources in multiple languages and the possibility for teachers to modify content: all of these measures can contribute to a more inclusive educational environment. Peer networks for sharing good practices, knowledge and experiences can help support teachers.

> If teachers had the opportunity to discuss and share knowledge it would be easier to promote good practices and to introduce technology in education. Also, it is essential to include students in this process of trying new technologies, platforms and activities and hear from them how they feel, did they like it and what would they change.
>
> **Michael, Austria**

There is a lack of collaboration with teachers and students when designing policies on technology. Youth participants emphasized the need to involve local communities, parents and learners in developing sustainable reform strategies. Researching cultural needs, adequate funding and meaningful community participation with teachers and learners are critical for successful initiatives, particularly in marginalized settings.



> Decisions should be made from the bottom up rather than the contrary. To achieve long-lasting impact, you have to include all actors from the base. Education is quite hermetic. Teachers and students never have a voice in education.
>
> **Celia, Spain**

Technology evolves faster than it is possible to evaluate it: Education technology products change every 36 months, on average. Most evidence comes from the richest countries. In the United Kingdom, 7% of education technology companies had conducted randomized controlled trials, and 12% had used third-party certification.

Source: 2023 GEM Report.

Photo: Michael, Austria © Michael Jemetz
Photo: Celia, Spain © Celia Gueto

There is not enough evidence that technology solutions for education are making a difference. Monitoring and evaluation are essential components for the success of educational interventions. Evidence-based strategies are needed to analyse programmes as well as to structure the responsibilities of the various stakeholders in the monitoring process. There is often not enough time to carry out these evaluations, and evaluating initiatives or programmes when they have been implemented for one year is meaningless. Governments must invest in thorough evaluations to determine the effectiveness of technology in education and key lessons for adapting approaches. Evaluation can lead to transparency and accountability of public spending and the private agreements and education commitments signed by governments.

> In the absence of good monitoring and evaluation, it would be difficult to know whether the desired results are being achieved and whether the initiative is making a good contribution, as well as identify what we need to change to achieve what we are looking for.
>
> **Raquel, Spain**

In order for technology in education to be on the terms of youth and students in Europe:

1. Make it equitable!

a. **Make it accessible**: Prioritize equitable access to technology by implementing programmes that provide laptops to all secondary school students, ensuring that learners from all socioeconomic backgrounds (especially those from rural communities and in public schools) have equal opportunities to benefit from digital education.

2. Make it appropriate!

a. **All providers should create and provide access to educational resources in multiple languages and formats**, ensuring that content is adaptable and accessible to diverse learner populations including those with special educational needs, learners with disability and from minority groups.

b. **Train our teachers**: Develop comprehensive digital literacy programmes for educators, focusing on both technical skills and pedagogical approaches, to effectively integrate technology in the classroom.

c. **Keep learners at the centre!** Involve students and teachers in decision making by actively including educators, parents and learners in the planning, implementation and evaluation of education technology policies and initiatives. This bottom-up approach ensures that the needs and perspectives of key stakeholders are considered.

d. **Monitor, monitor, monitor**: Establish robust, qualitative evaluation mechanisms that assess the impact of technology integration over extended periods, rather than relying on short-term, quantitative metrics.

Photo: Raquel, Spain © Raquel Valencia

Latin America

Technology is bridging the digital divide and enriching learning experiences: Free internet in some countries and online learning portals, libraries and learning apps are enhancing learning experiences for young people. However, there are still stark disparities in access to technology, with infrastructure that is not fit for purpose and some learners still unsafe online.

Hardware alone will not transform education but a holistic approach will. Infrastructure and connectivity complement teachers and humanity, but are not enough to transform education. Teacher training and capacity building on technology literacy for teachers and students are priorities. Evidence, sustainability in financing, collaboration between state and non-state actors and adequate implementation can ensure that technology in education reaches its potential.

The focus should be on learning outcomes, not on digital inputs. In Peru, when over 1 million laptops were distributed without being incorporated into pedagogy, learning did not improve.

Source: 2023 GEM Report.

> Technology is not a substitute for education but a powerful tool to democratize it and make it more accessible, inclusive and relevant for new generations.
> **Carlos, Mexico**

Main findings

Technology is enriching learning and helping many who are left behind to access education. In some countries, access to the internet is free in schools, parks and on some streets. In other countries, optical fibre is available, computing courses are covered as part of the school curricula, and devices and tools such as computers and phones are used in schools.

Young people highlighted that positive experiences connecting different technology tools are facilitating students' experiences. Students use a wide range of technology, information and data sources in schools. These include online courses, tools and libraries; applications including WhatsApp and Zoom, Microsoft Office, modelling systems and virtual reality, which are helping students to learn, access materials and interact with others, even while in different locations.

> Technology in education not only broadens access to knowledge, but also osters collaboration, creativity and critical thinking among young people.
> **Maria, Peru**

Asynchronous educational methodologies and certified and non-certified online courses are helping other students to access education. Some schools have online campuses with personal student IDs to access and review educational materials, while others offer online exam opportunities.

Photo: Maria, Peru © María Claudia Marimón Vela

Almost 40 countries around the world use radio instruction. In Mexico, a programme of televised lessons combined with in-class support increased secondary school enrolment by 21%.

Source: 2023 GEM Report.

Public and private initiatives are providing devices to students, as well as investing in connectivity in rural areas. Traditional technologies such as community radios and television are used for learning, especially in rural, peri-urban and indigenous areas.

Digital divides exist and are widening. While efforts have been made to increase young learners' access to subsidized internet and other digital learning services, limited infrastructure and low capacity of devices and bandwidth hinder access to basic services in some countries and territories. Moreover, platforms, tools, materials and other educational assets are not contextualized to reflect different languages and cultural and socioeconomic backgrounds.

While technology developments are advancing rapidly, educational methods and tools remain the same, widening the skills gap and affecting students' and teachers' capacity to use devices and access and utilize data. This also leads to schools rejecting the use of tools such as AI, since students and teachers cannot use them.

Technology became an indispensable tool in education, and everyone needs to have access to it, especially young people from rural communities.
Everilda, Guatemala

Cyberbullying is common and more so for girls and non-binary students. A global poll of children aged 7 to 18 showed that a higher share of those of unspecified gender (50%) than girls (37%) and boys (29%) consider it very likely they will encounter online harm.

Source: 2024 Gender Report.

Youth and students do not feel safe online. Online spaces are not completely safe for students, who are vulnerable to diverse forms of violence such as cyberbullying and hate speech, scams, misinformation, misrepresentation of different groups and bias, as well as invasion of data privacy. The use of AI can compromise the dignity of students, generating fake material using their images. There is no process to identify which online platforms are the most safe and adequate for education. The overexposure to, overstimulation by and inadequate use of technological tools, platforms and devices also impact youth and students mentally, educationally, physically and personally.

Youth and students are not often consulted on technology in education and which technology to use. Limited student engagement in decision-making processes regarding technology in education limits the opportunities and ability for decision makers to cater for students' individual needs or to hear their views on technology in relation to well-being, its meaningful inclusion in education, and more. Current policies do not consider the inclusion of families in learning processes and awareness of technology and still lack monitoring and evaluation of the impact of technology on education.

It's not just about having access to technology, but how we use it to enhance our learning.
Heidi, Peru

Photo: Everilda, Guatemala © Everilda Felisa Pérez Tzul
Photo: Heidi, Peru © Heidi Dayany Lapa Yucra

In order for technology in education to be on the terms of youth and students in Latin America:

1. Make it equitable!

Ensure universal internet access to all learners in all their diversity, and make its provision a right for learners, enforceable by law. Democratize information about available tools and build alliances with technological providers to facilitate the use of premium functions of programs or apps in education.

2. Make it appropriate!

Ensure that ethnicity, language, location and socioeconomic and cultural background are considered when developing and deploying technology in education.

a. **Keep learners at the centre**: New processes are needed to ensure participatory processes in decision making around technology in education and curricula, including consulting parents, students and those traditionally left behind, such as those with disabilities and from indigenous communities.

b. **Monitor, monitor, monitor**: Governments must invest in rigorous monitoring of implementing technology and the effects on learners, and then adapt continuously, dynamically and appropriately, with accountability and transparency. They must disaggregate data about the way that technology is used in different contexts and collect the reflections of teachers and students, including about the way that culture and ancestral knowledge is respected in the process.

c. **Protect us!** Governments should create and implement cybersecurity policies, programmes and actions to identify and fight insecure spaces (inside and outside schools) and protect wellbeing. They should address violence, hate speech, cybercrime, data privacy, misinformation and biased information as well as confirm the data sources used by artificial intelligence in educational and decision-making processes are sound. Non-digital educational methodologies should be provided to also accompany any proposed online processes.

d. **Train us**: Expand basic skills for all and integrate soft skills within digital skills frameworks to improve learning. Ensure that digital skills training is aligned with work requirements in labour markets, including the use of artificial intelligence. Governments need to ensure that curricula are constantly updated and adapted to new challenges and new ways students learn, while also making sure that technological tools teach about education for sustainable development and human rights, which otherwise do not get enough space in the curriculum. The time allocated to digital literacy courses in the curricula should be increased.

... and our teachers: Free capacity-building opportunities and scholarships for teachers and students are needed on using technology in education utilizing a life skills approach.

Pacific

For many young people across the Pacific region, the internet and data are neither accessible nor affordable.

Technology could be better integrated into the wider school environment and education system, for example, access to hardware and teacher training in pedagogy using technology.

Government funding for infrastructure plays a key role in the success or failure of integrating technology into education across the region.

Main findings

Technology is increasing access to education for many in the region. The integration of digital tools in the education system has not always been equitable. During the consultation, representatives from the Pacific Youth Council and the Pacific Disability Forum advocated for this from the perspective of minority communities and persons with disabilities.

The installation of undersea fibre cables in 2018 and 2019 expanded internet use in Samoa. Despite this, prior to the COVID-19 pandemic, only 40% of primary and 57% of secondary schools had access to a reliable internet connection.

Source: 2023 GEM Report.

Yet digital divides remain. Young people from all the Pacific islands except from Australia and New Zealand, especially in rural areas, expressed their concern that internet and data are not accessible or affordable. The lack of undersea cables, lack of Wi-Fi coverage in rural areas and regular internet disconnections remained issues of concern. For example, the lack of internet prevented many from doing their schoolwork at home. Even during the consultation, 62% of participants reported having poor internet connectivity which impeded them from fully taking part in the discussions. Moreover, the lack of access to affordable hardware and tools such as computers, tablets and smartphones was seen as contributing to the digital divide.

Participants shared initiatives from governments and civil society to promote equitable access to technology, such as satellite internet, the Government of Tonga's Laptop Initiative and the Kiribati project for undersea cables. But concerns remain about difficulties on some islands, where government custom fees, registration fees and yearly renewal fees remain obstacles for accessing quality internet. Participants stated that their governments needed to invest more in infrastructure but suggested that technology in education was not a government priority.

> "In our region, the biggest challenges to accessibility of technology in education include the lack of adequate infrastructure in remote areas, limited internet connectivity, and disparities in access to devices and digital resources among students.
> **Niko, American Samoa**

Learners and teachers lack digital skills and training to effectively integrate technology into education. Participants agreed that equity was also related to how digital tools were integrated in schools, with various students and teachers affirming that they needed technology for upskilling and that digital training for teachers was essential for ensure equitable classrooms. This would ensure that digital tools remained as useful support for teachers in the classroom but did not replace human interaction.

> One thing that is really important to me when it comes to technology in education is its potential to create equal opportunities for all students. Technology can bridge gaps in access to resources and provide personalized learning experiences, allowing students to explore their interests and learn at their own pace. It's all about ensuring that every student, regardless of their background or location, has the chance to thrive and succeed in their education journey.
> **Saralee, Solomon Islands**

Overwhelmingly, young people identified that government action was key to achieving the successful integration of technology in education. Adequate funding was seen as necessary to implement comprehensive digital literacy programmes for educators and students, support the development of culturally relevant digital content, and encourage partnerships between technology companies and schools to enhance technology integration in education.

> Invest in infrastructure, prioritize digital literacy training and foster partnerships with tech companies for accessible and innovative educational tools.
> **Abel, Solomon Islands**

> Technology is only effective and efficient if you know how to use it, and if it is used under the enforcement of regulations, policies or guidelines; and if it is not abused to take away the human nature of innovation, creativity and social awareness.
> **Lovanchor, Papua New Guinea**

In order for technology in education to be on the terms of youth and students in the Pacific:

1. Make it equitable!

a. **Make it affordable**: Invest in mobile learning infrastructure and applications and expand and improve satellite internet networks to provide more reliable internet, video conferencing and broadcasting capabilities to students across the region, helping to overcome connectivity challenges in remote island areas. Given the widespread use of mobile phones in the Pacific, developing mobile-friendly educational content and platforms could significantly increase access to learning resources, especially in remote areas.

b. **Implement blended learning approaches** that combine online and offline resources. This can help bridge the digital divide by ensuring all students have access to learning opportunities, even those without reliable internet access.

2. Make it appropriate!

a. **Train us**: Develop comprehensive digital literacy programmes for both teachers and students, creating guidelines for the integration of digital tools into the curricula. This should be supported by adequate government funding.

b. **Collaborate**: Foster partnerships between schools and technology companies to enhance technology integration in classrooms. These collaborations can lead to the development of innovative, culturally relevant digital content and tools tailored to the specific needs of Pacific Island students.

South Asia

There are linguistic, social and resource barriers to digitalizing education for everyone. This necessitates a more inclusive, multi-stakeholder regional approach.

Many uses of technology are not building more sustainable education systems. More than 50% of participants believe that making sure that technology helps build more sustainable education systems is a key priority for their region.

Strategic technology integration is necessary to address multifaceted challenges: Successful regional strategies are multifaceted and include specialized budgets, state-level policies, innovative approaches and teacher training.

Policy efforts are needed to address multifaceted challenges faced by young people. This includes community-building for resource sharing and decentralized, affordable solutions for financial barriers which emphasize the dynamic and comprehensive nature of technology integration in education. These concerns require coordinated efforts from policymakers.

Main findings

Technology can increase access to education for hard-to-reach learners. In India, successful low-tech and offline interventions, along with personalized and adaptive learning, highlight the potential of technology in education. For example, one state-level ICT policy mandates the digitalization of at least 10% of schools, incorporating cost-effective solutions like interactive whiteboards and tablets. Innovative approaches, such as scannable QR codes with pre-recorded materials and activities, help education reach young girls in slums and low-income families. Bangladesh's hub-and-spoke model introduced digital labs inside schools to further digital education in the country. WhatsApp-based chatbots were shown to be efficient tools for inclusive education in West Bengal, India. AI can be harnessed to enhance educator capacity and bridge accessibility gaps.

Accessible technology and universal design have opened up opportunities for learners with disabilities. About 87% of visually impaired adults indicated that accessible technology devices were replacing traditional assistive tools.

Source: 2023 GEM Report.

Learners with disabilities benefit from AI solutions that create closed captions in online modes. In states like Uttar Pradesh in India, blended media technology is employed to address engagement challenges faced by marginalized learners.

Integrating technology in student assessments can create a deeper, holistic understanding of students and facilitate personalized learning approaches.

One participant had collaborated with the Azim Premji Foundation and Piramal Foundation in schools in Mathura, India, integrating technology into government schools, enabling one-on-one mentorships for students through the programme.

Technology does not have to be advanced to help make education more inclusive and accessible to all learners. Community radios and interactive voice response systems (IVRS) are used for community-based entrepreneurship education.

Digital divides remain despite government efforts. Infrastructure challenges were mentioned by 39% of participants as one of the biggest challenges to using devices for learning. Language barriers remain in linguistically diverse countries like India. A student from IIT Bombay highlighted working in a tribal region in Maharashtra, India, where the community spoke Dhangi, a language not officially listed in the state.

> For an equitable society, digital access has to be ensured for all, across age groups and sections of the society on a war footing, to make it as normal as the air we breathe.
>
> **Aparna, India**

> Access to technology is not a silver bullet for India's educational challenges. It is like building a library in a village and expecting every villager will turn out to be a scholar.
>
> **Mayukh, India**

Collecting insights for user-friendly development and addressing disinterest in feedback sharing among teachers and learners are crucial for ensuring the appropriate use of technology in education. Collected data should be anonymized and openly shared for the improvement of the system. Policies designed to focus on sparking learners' curiosity should be implemented. Videos and animations seem to be effective at enhancing engagement among young learners. Due to the dynamic nature of technology integration in education, continuous training is required for teacher adaptation.

> 
>
> Technology in education should serve as a catalyst for empowering teachers and not as an agent of their replacement. It should supplement the process of real learning, going beyond mere managerial ideologies.
>
> **Aishwarya, India**

Technology needs to be better integrated into teaching and learning. A multi-stakeholder approach is needed to effectively deploy technology in education. Technology needs to be integrated into the curriculum and teachers given training with an emphasis on inclusivity. Mobilizing teachers in tribal regions is considered crucial, emphasizing foundational literacy skills and free learning networks. Collaboration between government ministries is suggested for effective technology dissemination in rural areas. For example, Kerala's inclusive approach involved the active participation of stakeholders at different levels in developing textbooks, ensuring the incorporation of a diverse range of perspectives and inputs.

Digital skills are needed for the world of work. Providing incentives for learners, such as employability, is crucial, as highlighted during the pandemic. The upskilling programme (Nan Mudhalvan) introduced by the Government of Tamil Nadu in India ensures colleges adopt curriculum from the upskilling platform, which is created in collaboration with companies to impart modern-day skills and electric mobility. This enables learners to have access to cutting-edge technology and contemporary skills, with which to later seek out lucrative careers.

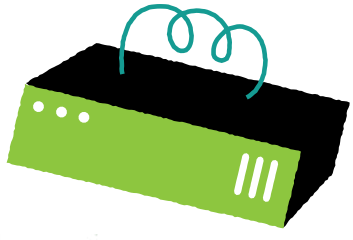


Photo: Aishwarya, India © Aishwarya Sharma

> Embracing the potential of AI in education empowers children to not just interact with, but to actively shape and redefine their understanding of the world, fostering a generation uniquely equipped to navigate the complexities of the future.
> **Salik, India**

Young people and students do not feel safe online. Privacy concerns arise from students' lack of awareness about data sharing, influencing their decisions and causing harm. Regulatory measures are needed, such as heavy sanctions for third-party data sharing, requiring consent from children and parents, and creative interventions such as unique student IDs.

Well-being concerns were raised related to screen time. Safeguarding personal content, addressing information overload and countering potential distractions are essential measures to ensure the appropriate use of technology in education for young learners.

In order for technology in education to be on the terms of youth and students in South Asia:

1. Make it equitable!

a. **Make it affordable and accessible**: Governments must improve infrastructure and provide financial assistance to improve internet access in underserved communities and to overcome the cost barriers for purchasing specialized equipment like braille keyboards and adaptive software. Consider decentralized platforms, affordable generative AI solutions and a focus on content rather than infrastructure in rural digital libraries in order to address financial barriers.

b. **Prioritize the development of user-friendly educational technology solutions that cater to the diverse needs of learners**, including those with disabilities, from marginalized communities and those speaking minority languages, to enhance accessibility and engagement. Share community resources and user manuals to address language, gender disparities and urban–rural digital gaps.

2. Make it appropriate!

a. **Keep learners at the centre**: A multi-stakeholder approach in digital education is needed, with policy recommendations that incorporate comments and suggestions from individuals of diverse backgrounds and professions for an inclusive approach.

b. **Protect us**: Enforce stringent data protection policies, prioritizing cybersecurity, clear guidelines for data sharing and safeguarding students' privacy to build trust and ensure the responsible use of technology in education.

c. **Train us and our teachers**: Implement structured training programmes to equip educators with the necessary skills to effectively integrate technology in the classroom, with a focus on inclusivity and personalized learning approaches.

d. **Collaborate**: Foster partnerships between government bodies, education institutions, technology companies and local communities to ensure a holistic approach to technology implementation, addressing the needs of diverse learners.

Southeast Asia

Technology should contribute to the development of more sustainable education systems. It should be guaranteed that its use does not leave learners behind. The majority of participants expressed concerns about access to technological devices and digital literacy skills.

Limited access to technology is a pervasive challenge in Southeast Asian countries; its cost makes it unattainable for many individuals. In rural areas, households often share a single device among parents and children or among siblings, exacerbating difficulties, especially for families with multiple siblings trying to participate in online classes simultaneously, a problem magnified during the COVID-19 pandemic.

The role of technology in education is twofold. Firstly, it supports teachers by reducing their workload and enhancing the curriculum. Young people emphasized that technology not only diversifies learning experiences but also sparks students' interest, ultimately improving teacher capacity and fostering enthusiasm among students. Secondly, the integration of technology in schools allows students from different places to connect – promoting cultural understanding – and facilitates students' access to global knowledge, creating tech-savvy individuals with international connectivity through online learning and virtual meetings. This opens doors for skills development and job opportunities, contributing to better living standards.

Main findings

Technology improves access to education for hard-to-reach learners and prepares youth and students for work. Technology can support learners from diverse backgrounds and in conflict situations. In countries where political instability impacts students' learning opportunities, children and university students find themselves lagging in educational progress. Using technology then becomes essential to help them get a regular education, even when access to classrooms is difficult, and thus ensuring their right to education.

Technology needs to be appropriate to be effective. Bringing technology into schools can make classes more interesting with the latest lessons. It also lets students from different places connect and talk to each other, helping them understand different cultures better. In this way, schools can use technology to make learning more fun and prepare students for a technology-driven world.

Yet digital divides remain. In remote areas, the absence of internet access and poor connectivity are significant hindrances to using technology for learning.

> "Technology is ideal for educators to enhance lessons and promote interaction but may be a distraction for students who bring their own. Not every student may have their own learning devices and this may affect their self-worth and in turn their mental health.
> **Diana, Brunei Darussalam**

High costs make technology unaffordable for many individuals but this can be addressed. For example, in Brunei Darussalam, students can purchase Wi-Fi vouchers at a reasonable price ($0.50 for 24 hours in school) to access the internet.

Photo: Diana, Brunei Darussalam © Diana Ang

Access to devices is a challenge. In many households in the Southeast Asian region, particularly in rural areas, parents and children must share a single device. In families with multiple siblings, sharing a device hampers engaging in online classes simultaneously, and did so particularly during the COVID-19 pandemic. Some students have to use their parents' devices, such as tablets or phones, but must wait until they return home from work. Moreover, parents not always being available at home to guide their children to use technology for educational purposes. Finally, disabled students also have problems accessing devices, impeding their ability to complete certain tasks, particularly those involving writing.

> I had students who could not join online classes because they only had one smartphone shared between four kids.
> **Participant from Brunei Darussalam**

There is unequal distribution of technological resources between the rich and the poor, which is not only about who owns the devices but also about the early exposure of children to technology. Children from more privileged backgrounds often have access to devices from a young age, facilitating early familiarity and proficiency in technology – and they get support from parents and siblings. This early exposure creates a growing gap in technological skills and knowledge based on socioeconomic status.

Technology doesn't need to be advanced to be effective. In China, high-quality lesson recordings delivered to 100 million rural students improved student outcomes by 32% and reduced urban–rural earning gaps by 38%.

Source: 2023 GEM Report.

Young people shared that the governments in some countries have paid more attention to digital education since the pandemic. However, despite progress, applications are lacking in quality and user-friendliness.

Gendered digital divides remain persistent. Beyond socioeconomic disparities, gender dynamics play a significant role in the uneven distribution of technological devices. In certain mountainous regions of Viet Nam, entrenched gender discrimination norms persist within families, especially when they are financially constrained.

> Where gender inequality still exists, parents often favour giving educational opportunities to their sons, while daughters typically find themselves relegated to household chores and income-earning responsibilities from a young age.
> **Thuy, Viet Nam**

Young people and students need support acquiring digital literacy skills. Students need support to access knowledge and become tech-savvy, able to connect with each other through online learning and virtual meetings. This opens doors for skills development and job opportunities, leading to better living standards. It makes education more global, allowing students to learn about different countries, cultures, food and travel.

Most children rely on their parents' guidance on how to use devices. However, not all parents have the needed knowledge and skills in digital literacy. For example, in countries including Brunei Darussalam, many children have no available assistance from adults, who may lack experience using technology. Technology training in schools for parents can help, but one participant from Brunei Darussalam described organizing a workshop for parents to support their children's studies where about half of the participants were not fully engaged.

> My sister is an example. In the pandemic, my mom didn't know how to use the smartphone to install Zoom and help my little sister with her lessons. It is too hard for the older generation who didn't touch any internet devices in almost all their lives.
> **Tang, Viet Nam**

Photo: Thuy, Viet Nam © Tran Thuy Anh

In the absence of support from parents, students must depend on teachers for guidance, but teachers may find this challenging to provide after school, if digital literacy is not part of the curriculum. Young people agreed that teachers need more support and training and that their workload remains a cause of concern. They discussed how technology could help alleviate the workload for teachers and improve teacher capacity. Moreover, technology can facilitate communication between teachers and students and promote students' enthusiasm.

> The biggest challenge faced by young people when they use technology in education is that their privacy and safety are at stake. Young people need to be supervised by adults when doing work online so that they don't wander to the 'not safe for work' sites and learn unnecessary information.
>
> **Nurul, Malaysia**

In order for technology in education to be on the terms of youth and students in Southeast Asia:

1. Make it equitable!

a. **Improve access**: Invest in robust infrastructure and connectivity so that no one is left behind. Ensure that all children have access to devices from a young age, facilitating early familiarity and proficiency in technology for later use. Provide schools with equipment, such as interactive whiteboards, no matter where they are located.

b. **Combat social norms** that prevent students from benefiting from technology in education and address gender gaps in the use of technology in education.

c. **Make it affordable**: Technology centres could be established in villages to help address basic financial issues related to technology in education. Other ways to help include through public–private partnerships, corporate social responsibility projects and other initiatives, such as offering affordable Wi-Fi vouchers.

2. Make it appropriate!

a. **Train us**: Support students to access knowledge and become tech-savvy.

... and our teachers: Support teachers in implementing the curriculum and reduce their workload through the use of technology.

b. **Protect us**: Cybersecurity workshops by qualified professionals should be integrated into school curricula as well as mandatory digital literacy and online safety modules. Organize workshops to educate youth about privacy, address the shortage of privacy experts in schools, and consider Two-Factor Authentication for enhanced account security on educational platforms. 'Digital detox days' can be instituted in schools to minimize screen time and mitigate the adverse effects of prolonged digital exposure on overall well-being.

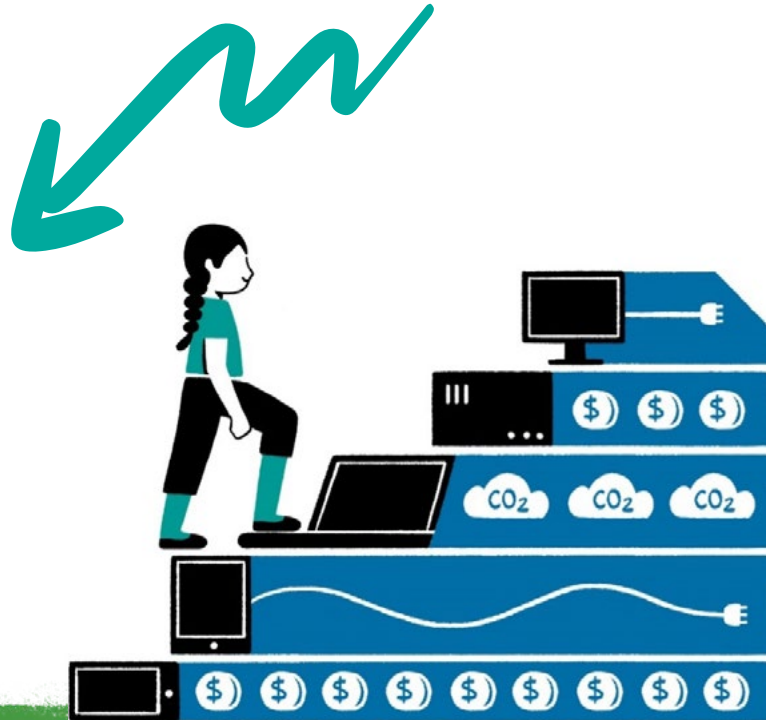


Photo: Nurul, Malaysia © Nurul Husni Binti Mohd Nari

2024

YOUTH REPORT

Technology in education

A tool on our terms!

While information and communication technology (ICT) has been used for 100 years in education, the increased use of digital technology and recent breakthroughs in AI have brought to the table the debate about the transformative power of technology in education.

Education technology generates a passionate debate. Does technology offer countless opportunities for youth or is it reducing opportunities, taking us down a technology-dependent trajectory from which there will be no return? Does education technology help countries leapfrog stages of development and promote equality; or does it exacerbate inequality – between and within countries? Should technology-related competencies be embedded in young children's care and education, or are there serious risks to young children's cognitive, social and emotional development? Ultimately, are we asking the right education questions before confirming whether technology should be one of the solutions?

Through a series of regional consultations, youth from around the world were invited to provide answers to these questions under the lenses of relevance, equity, scalability and sustainability. Written in partnership with Restless Development, over 1,500 young people from around the world reflected on the findings of the 2023 *Global Education Monitoring Report*. This youth report contains their call to action for governments to ensure the use of technology in education places learners' best interests at the center.

By calling for #TechOnOurTerms, youth around the world are asking for governments to view technology not as the solution, but as a supportive tool in overcoming certain barriers to education access, quality and efficiency. Framed as a call to action, young people describe in this report what technology on their terms would look like.

Download all materials at
Bit.ly/2024youthreport

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Sustainable Development Goals

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