



Advancing Girls' Education and Gender Equality through Digital Learning

December 2021

Our vision

Inclusive and transformative digital technology enhances girls' learning and skills development for work and life.

The challenge

Significant progress has been made to close gender gaps in education over the last 25 years. Between 1995 and 2018, the percentage of countries with gender parity in education rose from 56 per cent to 65 per cent in primary, from 45 per cent to 51 per cent in lower secondary and from 13 per cent to 24 per cent in upper secondary education.ⁱ Nevertheless, gender inequalities persist and education remains elusive for many girls, particularly those from poor households, living in crisis and conflict settings and living with disabilities. UNESCO estimates that 11.2 million girls and young women may drop out or not have access to school due the pandemic.ⁱⁱ

The pandemic led to a surge in the use of digital technologies in education. It also **revealed staggering gender gaps in access to and use of digital technology all around the world** – not just in contexts where there is no parity in education. Indeed, gender-based exclusion is present throughout the technological world. **Globally, women are 7 per cent less likely than men to own a mobile phone and 15 per cent less likely to use mobile internet in low- and middle-income countries.**ⁱⁱⁱ When it comes to digital skills, available data indicates that women are less likely than men to have advanced digital skills.^{iv} In the workplace, female workers make up an estimated 26 per cent of workers in Data and Artificial Intelligence roles, 15 per cent of workers in engineering roles and 12 per cent of workers in Cloud Computing roles.^v Gender stereotypes that STEM careers are for boys negatively affect girls' interest, aspirations, engagement and achievement in STEM.^{vi}

The opportunity

The pandemic showed that learning can occur anywhere and anytime. Innovative solutions are at our fingertips and we have an opportunity now to leverage global experience to deliver quality learning for girls, from high-tech to low-tech, to no-tech. With rapid technological advancements across all areas of life and work, every girl needs to be digitally literate and connected to unlock access to possibilities beyond her imagination. Digital learning presents an excellent opportunity to bridge the digital gender divide and bring quality education to every girl.

THE BENEFITS

- **Closing the digital gender gap** offers a **\$524 billion** increase in economic activity over the next five years.^{vii}
- If every girl in the world finished **12 years of quality education**, lifetime earnings for women could increase by **\$15 trillion to \$30 trillion.**^{viii}

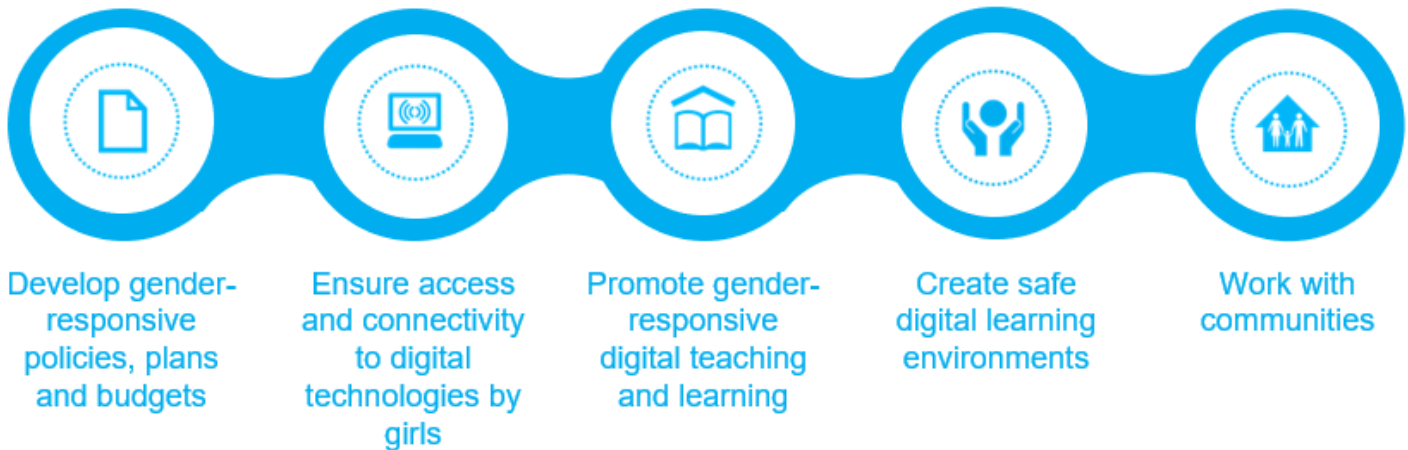
Our priorities

UNICEF works with governments, public and private sector partners, and civil society to ensure every girl learns, even in the most challenging settings. We support **evidence-based and scalable digital learning solutions to advance girls' education and gender equality**. Aiming to address the gender digital divide, we promote equitable and inclusive education systems that support **all children and young people** to engage in digital learning. Focusing on girls – some of the most marginalized people in society – helps build equitable education services that support all children. Our programmes adopt a gender-transformative approach and aim to tackle the root causes of gender inequalities.

UNICEF will prioritize systems strengthening to ensure equitable access to digital learning solutions and advance gender equality. In collaboration with partners, we will:

- Develop and implement gender-responsive digital learning policies and programmes in leading Reimagine Education countries.
- Continue to enhance the gender-responsiveness of the Learning Passport platform.
- Launch and rollout the guide on gender-responsive digital pedagogy.
- Deepen knowledge sharing and exchange across countries on the gender digital divide and promising solutions.

The solutions: How can we ensure that every girl has access to world-class digital learning solutions?



Meaningful girl engagement

- **Develop gender-responsive policies, plans and budgets** that are informed by data and evidence and include specific actions to tackle the digital gender gap, promote gender-responsive digital learning and address online violence.
- **Ensure access and connectivity to digital technologies by girls**, focusing on affordability, safety and security, and availability of gender-responsive and age-appropriate content and services.
- **Promote gender-responsive digital teaching and learning** by investing in teacher training on gender-responsive digital pedagogy, removing gender bias and stereotypes from curricula, digital books and learning materials, and supporting STEM education and digital skills development for girls.
- **Create safe digital learning environments** through comprehensive multi-sectoral approaches, from addressing gaps in policies and laws around privacy, safety, and security to developing mechanisms to prevent and respond to gender-based violence in digital learning environments.
- **Work with communities** to support digital learning for girls, raising awareness about the potential of technology to benefit girls' lives and informing them about the available safeguards and controls to protect girls online.

Engaging girls and young women in the design, implementation, monitoring and evaluation of digital learning solutions, as well as supporting innovations designed by girls, is critical to the development of responsive and sustainable solutions that close the gender digital divide.



As a co-lead of the Generation Equality **Action Coalition on Technology and Innovation**, UNICEF, alongside its partners, [committed to the following actions](#) over the period 2021-2026:

- I. Design sustainable financing mechanisms and leverage impact investing to close the gender digital divide and end gender-based violence.
- II. Invest in knowing more about girls' and young women's digital realities and supporting the learning solutions they design, fit for their digital world.
- III. Use technology as a solution to address gender-based violence.

UNICEF in action

UNICEF is leading [Reimagine Education](#), a global initiative on digital learning and skills, which aims to enable every child and young person – 3.5 billion by 2030 – to access world-class digital learning solutions that build the skills they need to leapfrog to a brighter future. The initiative focuses on five key areas: (i) world-class digital learning solutions, (ii) connectivity, (iii) devices, (iv) affordable data and content, and (v) young people's engagement.



UNICEF collaborates with Microsoft on the [Learning Passport](#) (LP), an online, mobile, and offline platform that enables continuous access to quality education—ensuring that the LP platform is gender-responsive and girl-focused is a key priority. UNICEF has developed a Gender Equality Package that covers five themes: gender equality, STEM, economic empowerment and entrepreneurship, GBV prevention, and comprehensive sexuality education. Countries deploying the GEP on their LP platforms include [Honduras](#), [Iraq](#), [Jordan](#), [Lebanon](#), [Nigeria](#), and [Zimbabwe](#).

In [Viet Nam](#), UNICEF works the Ministry of Education on the digital transformation of the education system. This focuses on addressing inequalities and championing gender inclusion. Ongoing interventions include building a Digital Literacy Framework as part of the new national education plan, using Augmented and Virtual Reality to provide access to STEM education for girls in remote, mountainous provinces, and to provide ethnic minority girls with STEM mentors.



As part of its Skills4Girls portfolio, UNICEF is leading a [Girls in Science](#) programme that aims to empower more than 15,000 adolescent girls from new settlements and rural areas in [Kyrgyzstan](#) to advance their STEM knowledge and skills and get more career opportunities. The programme provides mentorship, skills development, and professional coaching to girls. The girls are also supported to become peer educators and role models for younger girls in their communities.

In [Ghana](#), UNICEF supported the Ministry of Education with the development of the Digital Literacy Package, targeting 9 million pre-tertiary learners. The package aims to educate children and young people on different online risks and the importance of online security, as well as equip them with the knowledge and skills to protect themselves online.

UNICEF has collaborated with ITU [Asia and the Pacific](#) Regional Office and Code.org on Girls in ICT events in Bangladesh, Pakistan, and for the Asia Pacific Regional Dialogue on Digital Transformation. UNICEF is also working with ITU, Code.org and local partners such as Women in STEAM Nepal, on a resource hub, translating Hour of Code activities into South Asian languages, and organizing Hour of Code events that promote ICT for Girls, facilitated by young women working in ICT.

ⁱ UNESCO. 2020. Global Education Monitoring Report – Gender Report: A new generation: 25 years of efforts for gender equality in education. Paris, UNESCO.

ⁱⁱ UNESCO. 2021. When schools shut: gendered impacts of COVID-19 school closures.

ⁱⁱⁱ GSMA. 2021. Connected Women: The Mobile Gender Gap Report 2021.

^{iv} Sey, A. & Hafkin, N. (Eds). (2019). Taking stock: Data and evidence on gender equality in digital access, skills and leadership. United Nations University Institute on Computing and Society/International Telecommunications Union: Macau.

^v McKinsey Global Institute, 'The future of women at work: Transitions in the age of automation', MGI, Washington DC, June 2019.

^{vi} Wang, M.T and Degol, J. 'Motivational Pathways to STEM Career Choices: Using Expectancy-Value Perspective to Understand Individual and Gender Differences in STEM Fields' Dev Rev., 1 December 2013; 33(4).

^{vii} Alliance for Affordable Internet (2021). The Costs of Exclusion: Economic Consequences of the Digital Gender Gap. Web Foundation.

^{viii} Wodon, Quentin; Montenegro, Claudio; Nguyen, Hoa; Onagoruwa, Adenike. 2018. Missed Opportunities: The High Cost of Not Educating Girls. The Cost of Not Educating Girls Notes Series. World Bank, Washington, DC. © World Bank.