Innovation and technological change and education in the digital age for achieving gender equality and the empowerment of all women and girls

Digital technology is a necessity in public and private life all over the world today, bringing significant opportunities as well as challenges. Access to digital technology depends on financial capacity, whether one lives in a developed or less developed country, age, ethnicity, health and gender.

The COVID-19 pandemic has shown first-hand how digital technologies help to confront the threat and keep people connected. At the same time, the technological challenges posed by COVID-19 have been tremendous. Even as digital technology makes it possible for people in countries with high connectivity to learn and work from home, not all people have access to it. Less privileged people who have to be either physically present for their jobs, or have lost their jobs, those that do not have access to internet and digital technology, especially poor and vulnerable people, are not in a position to use these tools. With less access to the internet and technology, women and girls are disproportionately affected. Although digital technology has enormous potential for positive change, it can also reinforce and magnify existing fault lines, worsening economic and other inequalities.

According to the UN Secretary General's 2021 report Science, technology and innovation for sustainable development (A/76/236), in 2019 close to 87% of people in developed countries used the internet compared to 19% in the least developed countries. 93% of the world's population live within reach of mobile broadband or internet services but only 53.6% use the internet. 3.6 billion people are without internet access. The least developed countries are also the least connected, at only 19% of their populations.

Studies on digital deprivation show that in some European countries, around 20% of children live in families who cannot afford a computer or internet connection at home. According to a new European Union strategy for a Better Internet for Kids (2022), 40% of rural households do not have access to fast broadband. In some areas, more than 15% of young people at the age of 15 feel digitally disengaged, and Europe-wide 8% of that age group lack digital confidence.

On a global level, the situation is even worse: 1.3 billion children aged 3 to 17 years old are estimated not to have an internet connection in their homes. Digital deprivation in childhood can result in a lack of digital skills and digital confidence in adult life, reinforcing the digital divide.

Women and girls often do not have the financial means to use digital technology of high standard, not only in least developed countries but also in developed countries. When women's income is not high enough or they are financially dependent on family members or employers to give them access. Older women often experience that employers do not support them to undertake training in the use of digital technology and some are not equipped with digital equipment in the workplace.

According to a report by the International Telecommunication Union (ITU), Measuring Digital Development, Facts and Figures 2021: The gender gap in global Internet use, in two out of three countries, more men use the Internet than women. This gender gap has been growing to 17% in 2019, and was even larger in the least developed countries, at 43%. In 2019, the regional gender gap was largest in the least developed countries (43%) and smallest in the Americas (1%). According to the 2021 Report of the UN Secretary General, similar challenges affect migrants, refugees, internally displaced persons, older persons, young people, children, persons with disabilities, rural populations and indigenous peoples.

In 2021, the UN General Assembly recognized that a gender digital divide persisted, as 55% of men used the Internet compared with 48% of women. In the least developed countries, only 15% of women used the Internet, compared with 29% of men. The UN called upon all stakeholders to ensure the full participation of women in the information society and women's access to information and communications technologies for development, including new technologies.

The UN General Assembly Resolution 76/213 underlines that addressing barriers to equal access for women and girls to science, technology and innovation requires a comprehensive, sustainable, multidisciplinary and multisectoral approach. It urges Member States to mainstream a gender perspective in legislation, policies and programmes, and encourages efforts to mentor, attract and retain women and girls in science, technology, engineering and mathematics (STEM) education and research, and enable them to acquire better job opportunities, equal payment and empowerment. It emphasizes the importance of the participation of women and girls in science, technology and innovation, and further encourages the United Nations development system to support efforts to reduce gender disparities in these areas, with the cooperation of Member States and international collaborative research organizations.

According to the 2021 Report of the UN Secretary General, in 2018, women and girls were 27 times more likely to be harassed online than men. In addition to the impacts on health and dignity, the threat of online abuse is leading many women to "log off" of social media, perpetuating and entrenching inequalities in the space. They are facing persistent harassment and violence online, including death threats, threats of sexual and gender-based violence and defamation and disinformation campaigns. Harassment and hate speech online can lead to physical violence offline. Increased digitalization owing to the current global health crisis has increased such threats.

It is important that the Internet provide a safe space for information-sharing, education, expression, mobilization and participation. Cyberbullying, online sexual harassment and hate speech are serious problems women and girls face. In the last decades, there has been a rise in hate speech and hate crime impacting targeted individuals and communities. Globally, more than a third of young people have reported being victims of cyberbullying. Children may be exposed to and participate in toxic, aggressive behaviour or be targets of inappropriate, sexist or racist content. This can in turn discourage participation in online activities by girls, and impact children's rights.

Online child sexual abuse must not be considered less severe than offline child sexual abuse. Laws must be adopted, and legal protection in the digital environment must be improved.

Member States and businesses, including cross-industry initiatives, should advocate for transparent and accountable content governance frameworks that protect freedom of expression, avoid incentives for overly restrictive moderation practices, and protect the most vulnerable.

The undersigned non-governmental organizations (NGOs) in consultative status with the Economic and Social Council (ECOSOC), members of the NGO Committee on the Status of Women Vienna, call upon the United Nations Member States to:

- Assure that all women and girls in the UN Member States have equal access to digital technology; provide the same opportunities of education and access to digital technology for women and girls in rural areas and in less developed countries;

- Apply a gender lens to all interventions on digital cooperation and technologies, acknowledging gender-differentiated vulnerabilities to digitalization and identifying risk mitigation actions;

- Provide the same education and access for women and girls as for men and boys in technical sciences, mathematics, digital technology and other STEM fields and research, and encourage them through information about job opportunities in these areas;

- Provide legal measures for older women to receive training for digital technology and access to computers and internet in the workplace;

- Assure that women receive equal treatment and equal pay and promotion opportunities in job areas of innovation, research, digital technology and other STEM areas, and support employers in public and private sectors to create opportunities for women and girls in digital technology and other STEM areas;

- Support employers to protect women and girls of sexual harassment through rules of work and rules of behaviour between genders in the work place;

- Promote consistent cybercrime legislation, policies and strategies; strengthen the capacity of police authorities to investigate cybercrime and engage in effective regional and global cooperation; and enable criminal justice authorities to apply legislation and prosecute and adjudicate cases of cybercrime, cyberbullying, internet abuse and hate speech;

- Provide training for women and girls on how to prevent and respond to internet abuse, hate speech and cyberviolence;

- Monitor and evaluate how governments, private and public sector and other stakeholders ensure women's and girl's full participation in the information society and access to digital technologies and internet;

- Protect, fund and support projects that empower women and girls in their education and in work life in innovation, technology, digitalization and research.