



“Digital transformation, artificial intelligence, and the digital gender gap: strategies and solutions”

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In the context of the in-depth review of SDG 9 (industry, innovation and infrastructure) by the 2023 high-level political forum on sustainable development (HLPF) and the consultations in preparation for the Global Digital Compact, the Permanent Missions of Austria and Rwanda and the United Nations Industrial Development Organization (UNIDO) are inviting to a Ministerial-level side-event on the digital transformation, artificial intelligence and the digital gender gap.

Background

The digital gender gap threatens to eliminate many of the positive trends that the digital transformation could trigger. The root causes include structural deficiencies in many countries, where women are still excluded from higher education schemes. Internet user penetration rates (the number of Internet users as a percentage of the total population) are higher for men than for women in all regions of the world with the smallest gaps observed in the Americas and in Europe and Central Asia. The largest gaps are seen in least developed countries. The road ahead is uphill: today, worldwide over 300 million fewer women than men have a smartphone and can access the mobile Internet. Estimates suggest that closing this digital gender gap is not only beneficial to women’s empowerment, but would add billions annually to GDP in developing countries.

The digital transformation bears great promise for improving the competitiveness of manufacturing industries, making sectors more inclusive, but requires capabilities that often exceed developing countries’ innovation capacities. Given the fast-paced technological development, this threatens to negatively impact the economic competitiveness of entire regions, if no actions are taken. Some developing countries face an overall skills gap when it comes to modern technologies, particularly in terms of artificial intelligence (AI) capabilities and other digital transformation-related developments.

Women hold only 2 in 10 science, engineering and ICT jobs. At 15 years of age, on average, only 0.5 per cent of girls wish to become ICT professionals, compared to 5 per cent of boys. In order to ensure an inclusive and sustainable technological transformation, advancing gender equality and the empowerment of women and disadvantaged groups in science, technology and innovation must take centre stage.

Issues and solutions

Considering the low participation of women in many countries’ ICT and tech sectors, avoiding gender biases in digital transformation tools has to start with the encouragement of women to specifically fill technical jobs and higher management jobs in the ICT industry. Excluding women from tech jobs and from designing and using digital applications in general, deprives societies of fulfilling their potential. Artificial intelligence is one of the tools that, if designed and used well, can have a major equalizing effect.

Key issues to guide the discussion

- a) The private sector leads most developments for the digital transformation. Public institutions are at risk of being reliant on technologies they cannot influence, nor understand. Enhancing public policies is therefore important to avert such risks. The role of international organizations, especially technical agencies, should be considered in the promotion of international standards for the digital transformation, particularly for systems that are sensitive in terms of perpetuating gender biases, like the use of AI in public institutions, human resource purposes and similar sensitive areas.
- b) Transparent processes of AI development are more important than ever. The development of AI in private hands should aim to include public interests in realizing the potential of AI. Governments, public institutions and international organizations need to push for standards and regulations that help avoid that gender mainstreaming efforts are undermined by technological developments.
- c) In a developing country context, the question of equitable access to certain advanced technologies does not appear as pressing on the surface, but with increasing levels of development, some structural deficits may become obvious. The early introduction of AI systems may even increase current development challenges, especially in closing the gender gap worldwide.
- d) What are the options in development cooperation, especially in technology transfer schemes?
 - a. Is knowledge transfer a viable path to ensure equitable access across all regions? How will AI adjust and adapt to different settings?
 - b. Can public institutions retain a stake in AI applications, or are there options to regulate its dissemination, particularly in areas such as medicine, education or other public policy spheres?
- e) How can countries adapt their educational system to foster skills and encourage more female engagement in the relevant industries developing and promoting AI?
 - a. What policy and legal options are there to enforce an unbiased, non-discriminatory application of AI?
 - b. How can educational policy ensure equitable access and use of modern technologies? Are they prepared to educate the workforce of the future, and drive efforts to close the gender gap?

Objective

The objective of the event is to discuss challenges and lessons learned, showcase best practices, and develop recommendations for improving gender-transformative innovation ecosystems, so as to fully harness the potential of the digital transformation and AI for manufacturing.

Also, the UNIDO publication “Gender, Digital Transformation, and AI” will be launched at the event.