The gendered impacts of AI and frontier tech: policies and safeguards to regulate new technologies, mitigate risks and protect rights

Eleonora Lamm, Advisor, Bioethics and Ethics of Science for Latin America, UNESCO Social and Human Sciences Sector; Gabriela Ramos, Assistant Director General, UNESCO Social and Human Sciences Sector; Elettra Ronchi, Adjunct Lecturer to Science Po, School of Public Affairs, Paris; and Mariagrazia Squicciarini, Chief of Executive Office and Director a.i., UNESCO Social and Human Sciences Sector

Summary of text

Artificial Intelligence (AI), as defined by UNESCO, are computer technologies which resemble processes associated with human intelligence, such as reasoning, learning and adaptation, sensory understanding, and interaction.

Recent rapid advances have highlighted the many opportunities of AI, as well as emphasized fundamental ethical issues of social and economic justice which must be addressed. In particular, there are significant challenges in ensuring that AI does not exacerbate societal biases, inequalities and divides which lead to discrimination against or exclusion of certain populations, notably minorities along identities of gender, race, ethnicity and religion. Such bias can be reflected or amplified in AI by simple statistical error or through conscious and unconscious assumptions about race, gender, or other ideological concepts and social stereotypes. However, present efforts to address the risks of bias in AI remain largely focused on computational factors, such as the statistical representativeness of datasets.

Despite the growing recognition of their significance as sources of AI bias, both human and systemic institutional and societal factors are still being overlooked. The pervasiveness of AI technology and the speed and scale of digital transformation mean that such issues may become impossible to fix if they are left unaddressed. To that end, the UNESCO Recommendation on the Ethics of AI, adopted at the 41st General Conference in 2021, provides a comprehensive framework to guide Member States in the formulation of policies and regulation, aimed at making AI ethical and inclusive by design.

The Recommendation includes an entire policy area dedicated to gender, which lays out a roadmap of system-wide concrete actions to ensure that AI developments do not leave behind women, the marginalized and the most vulnerable. It underlines the need for governments to put in place positive actions aimed at the full inclusion of girls and women in AI and to set up new education and training strategies which are gender-inclusive to mitigate the impact of labour market shifts triggered by AI development and deployment, both in terms of the numbers and profiles of jobs in industries, and in terms of skills requirements. Finally, the Recommendation calls for actions to ensure that AI technologies not only refrain from creating new gender divides, but that the opportunities offered by AI and automation are leveraged to help address existing ones.

Key recommendations:

- Member States should ensure that AI is made ethical and inclusive by design through system-wide actions.
- National digital policies should include a gender action plan to ensure existing gender stereotyping and discriminatory biases are not translated or amplified into AI systems and that women are not left out of the digital economy powered by AI.
- Member States should promote economic and regulatory incentives and policies which aim at balanced gender representation in all stages of an AI system life cycle, in AI research and development. Member States should encourage female entrepreneurship, and representation in AI companies' top management positions.