

Harnessing Technology and Innovation to Achieve Gender Equality and Empower all Women and Girls

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Summary of text:

Gender norms shape technologies, and technologies, in turn, shape gender and other social norms. Technology often reinforces vicious cycles where existing inequalities are amplified and perpetuated into the future. It is possible to break these cycles of inequality by integrating sex, gender, and intersectional analysis into technology research and design from its inception.

Gender distortions are built, sometime invisibly, into basic technologies. In mechanical engineering, design standards which are based on non-inclusive samples can have damaging material consequences. For example, current automotive technologies perpetuate a cycle of discrimination and injury to people who do not fit the profile of a mid-sized white male, with women 47% more likely to sustain serious injuries in automobile accidents than men. Historic and real-time bias built into AI, machine learning and robotics can similarly augment cycles of discrimination. For example, in Google Search, men are five times more likely than women to be offered ads for high-paying executive jobs, since the Google search algorithm returns advertisements for jobs based on the historic gender pay gap.

Sex, gender, and intersectional factors influence all stages of research. When the many axes of discrimination are considered and delineated from the outset, many harms can be avoided. In scientific disciplines, authors from minority groups tend to publish on research topics which reflect their social identities. This shows that the inclusion of women and minority groups in technology research and design is critical to ensuring the sector equitably serves society.

Technology can be leveraged to promote women's voice, agency, and participation. FemTech encompasses software, diagnostics, products, and services which use technology to support women's health. The myriad benefits of FemTech are gradually emerging, among them, improved treatments for women and greater gender equity in the healthcare system.

Key recommendations:

- Universities, industries, and peer-reviewed journals and conferences should implement ethics reviews of ongoing research and new technologies which encompass gender. Similarly, granting agencies should require applicants to explain how sex, gender, and intersectional analysis is relevant to their proposed research.
- Universities and research institutions should integrate knowledge of sex, gender, and intersectional analysis into core engineering and computer science curricula.
- An index for social equity and environmental sustainability should be developed for industry. While many industries have cultivated inclusive workforces, this must be expanded so that their products, services, and infrastructures are evaluated for social equity and environmental sustainability.
- Governmental and non-governmental organizations should address 'period poverty', including the exemption of these products from taxation and promoting the production and use of sustainable products.