Research Report

Commission on the Status of Women (CSW)

Issue 1: Combating Gender Bias in Artificial Intelligence and Emerging Technologies

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Introduction

Gender bias has been a large problem for an extended period of time. Especially women tend to experience gender bias in various fields. Business owners tend to hire less women and while hiring tend to ask women private questions: about marriage and marital status, about plans concerning children and the number of children already given birth to. No matter where they are: women also tend to experience more harassment and are at higher risk of abuse. Therefore, most women are constantly alert and aware of their surroundings, which disables them from truly enjoying the moments they are experiencing. These are only a few consequences of gender bias towards women. This is a major issue, ongoing in most if not all countries, concerning a large part of the population, prohibiting all individuals from feeling safe and equal.

Emerging technologies have been amplifying the amount of gender bias present and intensifying the effects and negative consequences by transferring existing societal prejudices into digital systems. Artificial intelligence is often trained on historical data, which already reflects inequality and discrimination. As a result, AI systems can repeat and even strengthen these biases on a much larger scale. For example, recruitment algorithms may disadvantage women, facial recognition systems can be less accurate when identifying women, and social media platforms can indirectly allow gender-based harassment to spread. As AI becomes more involved in areas like healthcare, education, finance, and employment, biased systems can affect more and more people. Instead of reducing inequality, these technologies can unintentionally reinforce it if they are not carefully monitored and regulated.

This issue is especially important today because AI and emerging technologies are used all over the world and influence millions of lives. Since many digital platforms operate internationally, the effects of biased systems do not stay within one country. The main challenges include making sure there is equal representation in technology development, increasing transparency, and creating clear ethical guidelines. Because these technologies cross borders, no single country can solve this problem alone. Combating gender bias in artificial intelligence requires international cooperation to ensure that technological progress supports equality instead of deepening discrimination.

Definition of Key Terms

Gender Bias:

Unequal or unfair treatment based on a person's gender, often resulting from stereotypes, discrimination, or societal norms.

Artificial Intelligence (AI)/ LLM:

A system capable of independent thinking that is aware of its own existence. Such a system does not exist (yet). Currently most people refer to LLMs as AI. LLMs are large Language Models: computer systems or machines that are designed to perform tasks that normally require human intelligence, such as decision-making, problem-solving, or pattern recognition.

Algorithm:

A set of rules or instructions that a computer follows to analyze data and make decisions or predictions.

Emerging Technologies:

New and rapidly developing technologies, such as artificial intelligence, machine learning, facial recognition, and big data systems, that are increasingly influencing society.

Machine Learning:

A branch of artificial intelligence in which systems learn from data and improve their performance over time without being explicitly programmed for every task.

Algorithmic Bias:

Systematic and unfair discrimination that occurs when an AI system produces biased results due to flawed data, design, or assumptions.

Facial Recognition Technology:

A type of AI technology that identifies or verifies a person's identity using their facial features, which has shown higher error rates for women and marginalized groups.

Digital Divide:

The gap between individuals or communities who have access to digital technologies and those who do not, often influenced by economic, social, or gender-related factors.

Multilateral Cooperation:

Collaboration between multiple countries to address global issues through shared policies, agreements, and international frameworks.

Background

Recently there has been a rise in large language models (LLMs). These are usually referred to as artificial intelligence (AI) even though they are not, as they are incapable of independent thinking and are not aware of their own existence. A real AI does not exist yet and it could be argued that it is impossible to create such a machine. However, despite this distinction, LLMs and other systems of such kind already have a significant impact on societies worldwide. They are used in recruitment processes, banking systems, healthcare diagnostics, law enforcement, and social media platforms. The issue of gender bias in these technologies originates from the data they are trained on. Since these systems rely on historical and societal data, they often reflect existing inequalities, stereotypes, and discrimination. As a result, technology has not created gender bias, but it has automated and amplified it, allowing discrimination to operate on a faster and wider scale than ever before.

The roots of gender discrimination itself are deeply historical and have long been addressed by the international community. The adoption of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1979 marked a major step in legally committing states to eliminate discrimination against women in all areas of life. Later, the Beijing Declaration and Platform for Action (1995) further emphasized the importance of women's participation in decision-making and access to technology. More recently, the 2030 Agenda for Sustainable Development, particularly Sustainable Development Goal 5 (Gender Equality), has highlighted the need to empower women and ensure equal access to economic and technological opportunities. While these frameworks were not originally designed to address artificial intelligence specifically, their principles are highly relevant to the discussion of gender bias in emerging technologies.

Within the United Nations system, the Commission on the Status of Women (CSW) has increasingly discussed the gender digital divide and the impact of technology on women's rights. UN Women and other UN bodies have published reports warning that AI systems can reinforce discrimination if they are not developed inclusively. In addition, debates within the Human

Rights Council have addressed the human rights implications of new technologies, including concerns about algorithmic bias and data discrimination. Over time, the issue has evolved from general discussions about women's access to technology to more complex debates about ethical AI, accountability, transparency, and regulation. As AI systems become more advanced and integrated into daily life, the international community faces the growing challenge of ensuring that technological innovation aligns with existing human rights standards and promotes gender equality rather than undermining it.

Major Countries and Organizations Involved

United States of America

The United States plays a central role in this issue, as many of the world's largest technology companies developing artificial intelligence systems are based there. This gives the U.S. significant influence over how AI is designed and implemented globally. At the same time, there is ongoing domestic debate about regulating AI, ensuring transparency, and preventing discrimination in automated systems. The U.S. has acknowledged the risks of algorithmic bias, but discussions continue regarding the balance between innovation and regulation.

European Union

The European Union has taken a more regulatory approach to artificial intelligence. Through initiatives such as the AI Act, the EU aims to create clear legal standards for AI systems, including requirements related to transparency, accountability, and fundamental rights. The EU strongly emphasizes human rights and non-discrimination, which directly connects to concerns about gender bias in emerging technologies. As a major global market, its regulations often influence international standards.

China

China is a leading developer and investor in artificial intelligence technologies. The country has integrated AI into various sectors, including surveillance, finance, and public services. While China has introduced ethical guidelines for AI, its approach focuses strongly on technological advancement and national development. Due to its growing technological power, China's policies and standards have global impact, making it an important stakeholder in discussions on AI governance.

Global South Countries

Many developing countries are increasingly affected by AI systems created abroad, even though they may have limited influence over how these systems are designed. These countries often face challenges such as the gender digital divide and limited access to technology.

Commission on the Status of Women (CSW)

The CSW is the main UN body responsible for promoting gender equality and the empowerment of women. It provides a platform for Member States to discuss how emerging technologies impact women's rights and to develop policy recommendations. The CSW plays an important role in ensuring that gender perspectives are included in global discussions on artificial intelligence.

UN Women

UN Women actively researches and raises awareness about the impact of digital technologies on gender equality. The organization advocates for inclusive innovation, increased representation of women in STEM fields, and stronger safeguards against algorithmic discrimination. It also supports Member States in implementing policies that address gender bias in technology.

UNESCO

UNESCO has taken a leading role in promoting ethical standards for artificial intelligence, including the adoption of the Recommendation on the Ethics of Artificial Intelligence. This framework emphasizes human rights, equality, and non-discrimination, making it highly relevant to the issue of gender bias. UNESCO encourages international cooperation to ensure AI development aligns with shared ethical principles.

Private Technology Companies (e.g., major AI developers)

Large multinational technology companies are key actors because they design and develop AI systems used worldwide. Their choices regarding data collection, algorithm design, and content moderation directly influence whether gender bias is reduced or reinforced. While many companies have introduced ethical guidelines, concerns remain regarding accountability and transparency.

Possible Solutions

Addressing gender bias in artificial intelligence and emerging technologies requires a balanced and realistic approach. Since AI development is advancing rapidly, solutions must be practical while still protecting fundamental human rights. There is no single “correct” solution, which is why this issue requires careful discussion and cooperation among Member States.

One possible approach is the development of international ethical guidelines or standards specifically addressing gender bias in AI systems. While frameworks such as existing human rights conventions already promote non-discrimination, clearer and more technology-specific guidance could help states and companies better understand their responsibilities. These guidelines could focus on transparency in algorithm design, regular bias testing, and inclusive data collection. However, the challenge lies in ensuring that such standards are respected and implemented, especially in countries with different regulatory priorities.

Another potential solution is strengthening national legislation and regulatory frameworks. Governments could require companies to conduct impact assessments before deploying AI systems, particularly in sensitive areas such as employment, healthcare, and law enforcement. Independent oversight bodies could also be established to monitor compliance and investigate cases of algorithmic discrimination. While this approach increases accountability, it must be carefully designed so that it does not unnecessarily hinder innovation or place unrealistic burdens on developing economies.

Increasing diversity and representation in the technology sector is another important strategy. Encouraging the participation of women and underrepresented groups in STEM education, research, and leadership positions could help reduce bias at the source. International cooperation could support scholarships, training programs, and knowledge-sharing initiatives, especially for countries facing a significant digital gender divide. This solution focuses more on long-term structural change rather than immediate regulation.

Finally, greater global cooperation and data-sharing practices could contribute to fairer AI systems. Since many technologies operate across borders, states could work together to share best practices, research findings, and technical expertise. Partnerships between governments, private companies, civil society, and UN bodies could promote transparency and collective responsibility. At the same time, discussions must address concerns about data protection, privacy, and national sovereignty.

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