AI and Gender Equality

This editorial is based on **"Is AI industry gender-blind?"** which was published in the Hindu on 10/02/2023. It talks about the Gender biases in AI and Steps need to be taken to push for equality.

Artificial Intelligence (AI) is penetrating in every walk of life, fundamentally changing the way we associate, work and think. AI can transform societies and improve the quality of life of people through predictive, personalised and optimised solutions, improving their health, **reducing carbon emissions**, enhancing resilience against disasters among others.

But **AI can also threaten privacy with invasive applications**, disrupt **human rights**, and fuel inequality. However, the **impact of AI on societies largely depends on the motives and minds behind the technology.**

So, it is imperative to have equitable participation of diverse people, especially women, to make AI holistic and beneficial for everyone. The 8th International Day of Women and Girls in Science **(11th February)** presents an opportunity to reflect on the gender trends and participation of women in the AI industry.

With the **G20 presidency** and spotlight on Nari Shakti**, India is best positioned to drive international cooperation** and shape the global policy on advancing gender equality in AI.

What is the Status of Women in the AI Industry?

- As per the World Economic Forum's Global Gender Gap Report 2022**, women make up only 22% of the AI workforce.**
  - This not **only limits the diversity of perspectives and experiences** that are shaping the future of AI, but also **perpetuates the gender pay gap and limits career growth.**
- **43% of** Science, Technology, Engineering and Mathematics (STEM) **graduates produced in India are women** which is higher than most advanced economies.
  - However, a lot more needs to be done on the work front, **as only 14% of STEM jobs in India go to women.**
  - Additionally, **81% of women in STEM face gender bias** during performance evaluations during their career.
- **Tech giants like Google and Facebook have only 10-15% AI specialists** as women and this disparity exists in research as well.
  - A study published by **Nesta** found that **only 13.83% of AI research publications are**

authored by women.
- Studies suggest that **biased AI systems can exacerbate existing gaps in the workforce** and even harm under-represented communities.

What are the Challenges with Women Representation in AI?

- **Lack of Diversity in the Tech Industry:**
  - There has long been a **lack of gender balance and diversity** in the tech industry, and this is no exception when it comes to AI.
  - There is an **underrepresentation of women in technical roles, particularly in leadership positions**, which results in homogeneous perspectives and a lack of diversity in decision-making.
- **Bias in AI systems:**
  - AI systems that are designed without considering the experiences and needs of diverse populations can perpetuate discrimination and inequality.
  - **Example:**
    - AI chatbots that take commands from customers are already reinforcing unfair gender stereotypes with their gendered names and voices.
    - [Facial recognition] **algorithms have shown a higher error rate for identifying women** and people of colour, which is a direct result of the biased training data.
    - Gender-blind AI designs are **leading to unfair credit scoring of women.** Biased AI-recruiting tools have automatically filtered-out job applications from women.
- **Stereotyping and Gender Bias in the Workplace:**
  - Women in AI may face gender bias and stereotyping in the workplace, which can impact their career progression and limit their opportunities for advancement.
  - This can also contribute to a lack of women in leadership positions in AI.
- **Work-Life Balance Challenges:**
  - Women may **face additional challenges in achieving a work-life balance,** particularly in demanding technical fields like AI, which can impact their career progression and participation in the industry.

What are the Related Steps taken?

- **KIRAN Scheme:**
  - launched in 2014-15, it **provides opportunities for women scientists** in moving up the academic and administrative ladder.
- **India's National Strategy for AI:**
  - It focuses on **inclusiveness, and promotes the idea of #AIFORALL.**
  - Under this programme, **Telangana aims to train 1,00,000 students, with a focus on girls** from vulnerable backgrounds on AI and Data Science and has already trained more than 5,000 girls.
  - Additionally, rural women in Telangana are also being trained and employed in three rural data annotation centres in the State.
  - The government also promoted **We-Hub**, an incubator for women entrepreneurs in Hyderabad that has trained more than 700 girls aged 13 to 17 in Data Science and AI.

What can be done to Increase the Representation of Women?

- **Role of Private Sector:**
  - To address the gender disparity in AI, it is important to **change mindsets, accelerate efforts and investments to create opportunities** for women and girls.
  - Private sector **should act fast by promoting leadership positions for women** in AI, having equal number of women participating in panel discussions, ending gender pay gap, providing mentorship and networking opportunities, prioritising recruitments of young women from diverse backgrounds in AI roles, invest in entrepreneurship and research led by women in AI, promoting AI competencies among girls and women, and facilitating

women from multidisciplinary backgrounds to participate in the AI revolution.

- **Boosting Skills Development Programmes:**
    - Governments and educational institutions **can play a crucial role by investing and executing programmes that boost the participation of women in AI** such as skills development programmes in AI designed for women, scholarships, research grants, and internships.
    - Additionally, the **media can help raise awareness and promote the positive representation of women in AI.**
- **Driving International Cooperation:**
    - International cooperation is crucial for promoting gender diversity and representation in the field of Artificial Intelligence (AI).
    - Some ways in which such cooperation can be facilitated:
        - Creating awareness about the importance of gender diversity in AI
        - Encouraging international collaboration between organizations, research institutions, and universities working in the field of AI
        - Sharing resources such as educational materials, data sets, and research findings
        - Building networks of individuals and organizations working in the field of AI
        - Providing support to women who are pursuing careers in AI
- **Facilitating Role in Non-Technical Roles:**
    - Women can definitely enter into non-technical roles in the field of AI such as project management, business development, marketing, ethics, governance and sales in the AI industry.
    - These roles often require strong communication and organizational skills, as well as the ability to understand and explain complex technical concepts to non-technical stakeholders.
    - Women bring diverse perspectives and experiences to the table and can make valuable contributions to the field of AI in these non-technical roles.

Drishti Mains Question

How is the AI industry addressing and promoting gender equality in terms of representation,

opportunities and ethical considerations?

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