Chapter 2
AI and Gender Inequality: Challenges, Opportunities, and Pathways to Equity

Shama Mushtaq
https://orcid.org/0009-0005-8604-5174
University of Agriculture, Faisalabad, Pakistan

Danial Babar
University of Agriculture, Faisalabad, Pakistan

Naveed Farah
University of Agriculture, Faisalabad, Pakistan

Maryam Rehman
University of Agriculture, Faisalabad, Pakistan

ABSTRACT

AI is not equally beneficial to all genders, as bias is reinforced through flawed algorithms, lack of diversity, and unequal access. This chapter investigates how both deepening and addressing gender inequality can be achieved through the use of artificial intelligence. AI is critiqued by a variety of feminists who showed how AI works against marginalized women, such as in hiring, healthcare, and facial recognition. The global digital divide further hinders women's ability to access the AI advances. First, it is biased hiring tools, discriminatory facial recognition and labor market polarization where AI automation poses a threat to jobs that tend to be held by women. However, AI also offers opportunities for equity through inclusive design, gender-sensitive policies, and grassroots initiatives. Feminist Tech movements, bias mitigation tools, and gender-responsive regulations may hamper the digital divide. The chapter argues that intent from the start is required for AI equity governance to

DOI: 10.4018/979-8-3373-1280-4.ch002

avoid exacerbating marginalization and help build a more just technological future.

1. INTRODUCTION

The rapid proliferation of Artificial Intelligence (AI) technologies has changed economies, governance and social intercourse, causing most people to work, communicate or make decisions in a totally different way (Abbas Khan et al., 2024). AI powered automation has morphed industries and led to increased efficiency and therefore productivity and financial efficiency. Around the globe governments are bringing AI into public administration, forces of law and order, and the formulation of policy, and as a result decisions based on data are being made on an unprecedented scale (Valle-Cruz et al., 2020). AI algorithms are increasingly determining how we interact with each other and how we experience the web, influencing how we consume media, and determining whom we should meet and how we should do so. But the benefits for AI promised progress have not come equitably, according to gender, and the equity, fairness, and inclusivity in technological development was not achieved (Yu, P.K. 2020).

According to Badwal, 2024 AI has the potential to be forward thinking and bring the world closer together, its design, enactment and regulation tend to mirror and reflect biases ingrained in society, the likes of which revolve around gender, race and an individual's class (Gebru, T. 2020). Due to AI being created in social and historical contexts of power imbalances, amongst them, gender disparities are commonly inscribed into AI systems. Biased hiring algorithms that prefer male candidates and facial recognition technologies that falter on women and people of color are not neutral AI. Instead, it reinforces many of the existing societal hierarchies such as patriarchal norms, racial inequalities and economic divisions (Crawford, 2021; Noble, 2018). Not incidental, these biases are the product of the ways AI is designed, trained and deployed. When machine learning models are trained with such datasets, they will replicate the old discriminatory patterns which the datasets portray and amplify it further (Veale & Binns, 2017).

This chapter seeks to open a space for asking questions about gender in relation to AI systems, and about how technology not only intervenes in and can magnify existing inequities and inequalities, but can also be a site of commitment to enacting the equalities gender, race, and class materialist feminist political traditions explore. However, the gender inequities in AI are not limited to programmatic bias in the code itself; such biases are deeply embedded in structural problems within the actual technology sector (Scatiggio, 2020) such as the underrepresentation of women and other marginalized people in the research, development, and creation of AI related policies and practices (Stypinska, 2023). If, however, one does not seek