

Impact Of Artificial Intelligence On Women's Empowerment: A Legal Analysis

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ABSTRACT

Artificial Intelligence (AI) has emerged as a transformative technology with the potential to accelerate women's empowerment by enhancing access to education, healthcare, employment, entrepreneurship, financial inclusion, and public safety. However, the same technology also presents significant legal, ethical, and social challenges, including algorithmic bias, digital exclusion, privacy violations, cybersecurity threats, and underrepresentation of women in AI development. This paper critically examines the dual impact of AI on women's empowerment from a legal perspective, with particular emphasis on the Indian regulatory framework. Employing a doctrinal research methodology based on secondary sources, the study analyses constitutional provisions, statutory laws, government policies, judicial pronouncements, and international reports relating to AI governance and gender equality. It evaluates the role of the Constitution of India, the Information Technology Act, 2000, the Digital Personal Data Protection Act, 2023, the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, and various policy initiatives in safeguarding women's rights in the digital era. The paper further discusses landmark judicial decisions that reinforce equality, privacy, and women's access to justice in technology-driven environments. While AI offers unprecedented opportunities to reduce gender disparities and strengthen socio-economic participation, its benefits cannot be fully realized without transparent, accountable, and gender-responsive governance. The study concludes that inclusive AI development, stronger legal safeguards, ethical regulatory mechanisms, digital literacy, and greater participation of women in AI design and policymaking are essential to ensuring that AI functions as a tool for substantive equality rather than reinforcing existing structural inequalities. The paper advocates a rights-based and human-centric approach to AI governance that aligns technological innovation with constitutional values and gender justice.

KEYWORDS

Artificial Intelligence, Women Empowerment, Gender Equality, AI Governance, Sexual Harassment

1. INTRODUCTION

Some technologies have changed the trajectory of human events throughout history. The printing press facilitated literacy, daily life was transformed by electricity, and geographic and temporal barriers were dismantled by the internet. Artificial intelligence (AI) is the most powerful force of the 21st century, with the capacity to create opportunity but also to perpetuate inequity. Artificial intelligence (AI) is not merely a tool for women, but a stage on which new and complex forms of the battle for safety, agency and justice are staged. Their lives are an endless oscillation between great progress and continual marginalisation. Intellectuals and activists from many traditions have long underlined the need for self-determination for individual liberty. Simone de Beauvoir explains how women have been consigned to the position of 'Other' throughout history and denied equal subject status in shaping society. From the view of Martha Nussbaum's capabilities, empowerment is not the formal granting of rights but substantive freedoms to live with dignity. Swami Vivekananda said that education and strength are the pillars of freedom, and that no society can move forward without empowering women. ¹This was especially true in the Indian context. These viewpoints converge in the present-day digital world, when to be empowered means not merely to have access to technology, but to be able to develop and control the technologies that mould our economic, social and political existence. The influence of AI on women's lives at the worldwide level is evident. Algorithms trained on big datasets have improved early diagnosis of cervical and breast cancer, potentially saving millions of lives. Women farmers in countries such as Kenya and India can use agricultural advisory systems powered by artificial intelligence to adapt to shifting weather patterns. Governments may utilise machine learning algorithms to map regions of high gender-based violence, and so execute targeted interventions. There are fissures beneath this potential. According to UN Women (2023), women are 21% less likely than men to own a smartphone and 37% less likely to have basic digital skills. The digital divide means that AI will boost prosperity for some but risk deepening marginalisation for others. India is a fantastic example of such contradictions. ²

¹An article by Sinha titled "AI for Social Good in India" (2016). Political and Economic Weekly, 57(32), 15-20

² For the year 2024, Richardson was the author. Research on a Digital Inclusion and Storytelling Initiative for Zimbabwean Women Science Direct. Research by Fried is available online at: <https://www.sciencedirect.com/>

2. REVIEW OF LITERATURE

S. Shrestha et al. (2022). This paper looks at the current research on gender biases in AI and machine learning systems, focusing on themes, ways to fix them, and how to find them. It raises awareness of the problems algorithm developers face and encourages study on how to find and fix gender bias.

The article by J. David Paton et al. (2022) talks about AI and social sustainability. It focuses on female equality as a big problem that makes it hard to reach the UN's Sustainable Development Goals.

If you want to compare algorithms for fairness measures and datasets, *Friedler et al. (2019)* say that a standard is just that. It shows that different systems use different ways to keep things fair. Fairness-preserving algorithms are aware of changes in the types of data they are given and how it is processed before it is used. The hardest part is being able to compare how things are done in different test sets and assessment measures that use the same tests and data pre-processing steps.³

3. RESEARCH METHODOLOGY

This study is based on secondary research. The combination of peer-reviewed papers, reports from UN Women and the World Economic Forum, policy documents of the Indian government, and modern case studies gives a comprehensive perspective.

The potential of AI to help women get ahead

- **Education and Skill Development:** AI can change education and skill development by making sure that all women have equal access to great learning opportunities. With the help of AI, women can get a personalised education through online tools and apps that help them learn new things. These tools could help close the education gap and give women the chance to follow their dreams, which would make them more useful and financially stable.
- **Employment and Business:** AI can get rid of gender bias in the job market by making the hiring process fairer and clearer. Artificial intelligence (AI) can help make job ads, the hiring process, and evaluations of performance less skewed. AI could also help with

³ A comparative evaluation of fair-enhancing strategies in machine learning by Iyer, Scheidegger, Venkatasubramanian, Choudhary, Hamilton, and Roth. The conference proceedings on fairness, accountability, and transparency, pages 329–338, are available online.

working from home and having flexible hours, which gives women more chances to get into and do well in the field.

- **Well-being and health:** AI can help improve health outcomes and make it easier for women to get access to high-quality health care. AI-powered systems can help doctors assess and find illnesses early, create personalised treatment plans, and keep an eye on patients from afar.
- **Safety and Security:** AI tools can help women feel safer by taking care of things like safety, abuse, and attack. With smart monitoring systems, face recognition technology, and predictive analytics, crimes against women can be stopped before they happen.
- Smartphone apps that are powered by AI can provide rapid emergency help, letting women get help and share events as quickly as possible. For example, artificial intelligence (AI) could be used to make people more aware of women's rights and bring about change in society. NLP programs can look through a lot of information, like news articles and conversations on social media, to find gender biases, stereotypes, and unfair actions.
- Women can become more financially independent with the help of AI, which can open up new job and business opportunities. Women can use online markets, get involved in the digital economy, and look for jobs they can do from home. Women can now start their own business and become financially independent thanks to Digital India and a number of e-commerce sites run by the Indian government.
- **Men and women should have the same rights.** AI could help fight gender bias and support men and women having the same rights. AI systems could get rid of human bias from the decision-making process to make sure that women have the same chances as men when it comes to jobs, rewards, and banking services. Automated chatbots and virtual helpers that are driven by AI could also be used to help women get help and information about gender-based abuse and women's rights.

4. CHALLENGES AND RISKS OF AI IN WOMEN'S EMPOWERMENT

- **Bias and Discrimination:** AI bias and discrimination could make it harder for women to get ahead. Even though AI systems can handle data and make decisions, they can still be prejudiced. These flaws in AI systems make gender inequality worse and stop progress toward gender equality. Bias and sexism in AI could make it harder for women to get hired. Because they were trained on unbalanced data or beliefs, algorithms that

sort through applications and pick applicants may favour men. This could make it harder for qualified women to get jobs and make gender inequality worse at work. Online shopping, entertainment, and job search sites that use AI-powered suggestion systems might use old data that is biased against women. It's possible that these kinds of systems would promote negative ideas about women and limit their choices by pushing traditional things or gender ideals. This makes it even harder for women to leave current groups, instead of encouraging them to look at other choices. To fight AI bias, we need to include a wide range of people in data collection, program creation, and decision-making. AI systems should be governed by ethics to stop flaws and make things more open and accountable.⁴

- ***Lack of Diversity in AI Development:*** There have been worries for a long time that the lack of diversity in the development of AI is slowing down progress and making it harder for women to get ahead in the field. Even though artificial intelligence (AI) has come a long way, there are still not enough women working in study, development, and decision-making in AI. One big reason for the difference is that there are fewer job opportunities and STEM schooling for women. For hundreds of years, society has been used to spread biases and stereotypes that keep women from reaching their full potential in STEM fields. That means they don't have as much access to the tools and knowledge they need to make AI better. Unconscious flaws in AI systems can make gender imbalance and other problems in society worse. One choice is to have a more diverse group of people working on AI systems. This way, they can better meet the wants and interests of people from all walks of life. We can make AI systems that are fair and equitable and support gender equality and give women more power in all areas of their lives by including them. To give women more power in AI, it's important to create an open workplace, offer mentoring and networking opportunities, and push women to get involved in STEM education⁵.
- ***Concerns about privacy and data security:*** AI has made many parts of our lives easier and better. This brings up very serious privacy and data security problems. Systems and devices that use AI to collect and examine large amounts of personal data make people

⁴ This presentation was given in 2021 by Kannan, S., Allen, K., Mishra, S., and Patel, J. Issues, potential solutions, and current research on gender categorisation and intersectional bias in AI research. The citation is from the Journal of Big Data Research, volumes 4, 33.

⁵ In 2021, Grey, Sweeney, and Yablon wrote this piece. Is AI the answer to achieving gender equality? The American Economic Review, volume 3, issue 2, pages 241–254, provides valuable insights.

nervous. A lot of personal data is used to teach AI systems, which makes them open to identity theft, financial fraud, and bullying. It's possible for AI programs to be biased and unfair, which can lead to unfair decisions.⁶

- **Think about ethics:** As AI becomes more and more a part of our lives, ethical questions about it are growing in importance. A lot of big moral worries have come up because AI is developing so quickly. First, AI systems need to be able to be explained and held responsible so that people can understand how they work. But there also needs to be a way to make sure that AI systems don't cause bias, mistakes, or bad outcomes that were not planned for. Second, privacy and data security are very important moral problems in the field of artificial intelligence. AI systems get their information and the ability to make decisions from a lot of data. But people's privacy rights must be respected at all times when dealing with information that can be used to identify them. Sensitive information about people must be kept safe from mistreatment or unauthorised entry. Third, things like differences in income and how AI will change jobs should be thought about. What is the digital divide? The digital divide is the difference between people who use digital tools and people who don't. AI could help fill this gap, but it also brings up problems that could make things worse. With online learning spaces, personalised coaching, and huge information bases, AI can improve education and open up new doors. These changes widen the digital divide because some people don't have the tools to use AI-powered technologies, like fast internet and cheap gadgets. AI systems might make prejudice and hate worse, putting people who are already on the outside even further out. Giving everyone the same access to AI should help close the digital divide.⁷

5. LEGAL LANDSCAPE

The laws of India concerning the advancement of women and artificial intelligence will be examined now. The government has passed legislation addressing artificial intelligence (AI) and other issues pertaining to women's rights. Among the statutes enacted are the following:

- The Constitution of India of 1950: Although the Constitution of India does not specifically address the manner in which AI may empower women, it does safeguard

⁶ Dastin (2021) is the source for this data. A settlement of \$62 million was reached in the case where the United States claimed that Amazon had stolen driver tips. Reuters broke the story. This data came from the following place: the link to the article is <https://www.reuters.com/article/us-amazon-com-ftc-idUSKBN2BQ24Q>.

⁷ The authors of this work are Sharma and Bathla (2020). The effects of artificial intelligence on gender equality: a literature review. As published in CSCITA 2020: Proceedings of the 5th International Conference on Communication Systems, Computing and IT Applications, pages 1–6.

specific rights for Indian people,⁸ among which is the freedom to operate and command AI systems. Articles 14, 19, (1) (a), and 21 are a few instances. Although artificial intelligence isn't the topic of these articles specifically, the rights discussed can assist in eliminating gender prejudice in AI.⁹ While India's AADHAAR biometric ID system grew, restrictions were imposed in response to privacy concerns.

- A law aimed at preventing, prohibiting, and redressing sexual harassment of women in the workplace was passed in 2013 as a result of the *Vishakha and Ors. v. State of Rajasthan case*. The workplace safety of women was guaranteed by this law. Despite the fact that this legislation does not specifically address AI tools, it is feasible to employ AI technologies that are covered by it in order to keep women safer.¹⁰
- While working women are eligible for some benefits during maternity leave per the Maternity Benefit (Amendment) Act, 2017, there is no mention of utilising AI-powered solutions to streamline the application process in this law.
- To address the issue of domestic abuse, India enacted the Protection of Women from Domestic Violence Act, 2005, which aims to safeguard women from such abuse. Online helpline numbers and other AI-powered solutions are crucial for protecting abuse victims¹¹.
- The 2016 National Policy for Women: This new government program aims to utilise internet data and algorithms to eliminate gender inequality and promote gender parity in the nation. It is heartening to see that the government of India is actively working to advance gender parity. Beti Bachao, Beti Padhao, the Working Women Hostel Scheme, and the Pradhan Mantri Jan Dhan Yojana are just a few of the national programs that empower women to combat forced labour. To encourage its application in several sectors, including healthcare, education, agriculture, and government, the Indian government published a national policy for AI in 2018.¹²

⁸ The Indian Constitution, 1950

⁹ For their study titled "The Right to Privacy in the Digital Age," Jhalak M. Kakkar and Nidhi Singh (1997) 6 SCC 241 (Centre for Communication Governance, National Law University Delhi) responded to the request for inputs.

¹⁰ "Scheme/Programmes for Empowerment of Women," Government of India, Press Information Bureau, Ministry of Women and Child Development, February 4, 2022.

¹¹ (1997) 6 SCC 241.

¹² Report on the National AI Strategy (NITI Aayog, June 2018)

- AI Governance Framework (Draft): The government of India has been considering a strategy to control AI that prioritises responsible use of AI technology and ethical considerations.¹³
- The Digital Personal Data Protection Bill, 2023: India is now in the process of drafting a comprehensive data protection bill that would govern the collection, storage, and use of personal data. The development of AI applications that rely heavily on data is greatly facilitated by this type of legislation.

6. LEGAL FRAMEWORK

AI policymaking in India: Combating cybercrime, guaranteeing digital safety, and fostering equal technology access are all ways in which the Information Technology Act of 2000 (IT Act, 2000) empowers women. Protection against online criminals:

- Collecting, publishing, or transmitting private images without consent is a penalised privacy infraction under Section 66E.
- To protect women from cyber harassment and revenge porn, Sections 67 and 67A make it illegal to upload or transmit sexually explicit or obscene material online. Women's data privacy is safeguarded under Section 72, which prohibits the unlawful disclosure of personal information.

7. CASES

The case of *Shreya Singhal v. Union of India*¹⁴ (2015) reversed the statute's prohibition on women's free expression on the internet (Section 66A). The landmark decision by India's highest court found that the Information Technology Act, 2000's Section 66A violated Article 19(1)(a) of the country's constitution, rendering the law null and void. By promoting digital economic equality, protecting privacy, and making the internet a safer place, the IT Act of 2000 and other regulatory frameworks help women.

The court's decision in *Vineeta Sharma v. Rakesh Sharma*¹⁵ (2020) reinstates the traditional Hindu practice of daughters' equal participation in the family's undivided property. It made no difference whether the father was living when the Hindu Succession Act was revised in 2005; this landmark Supreme Court ruling made it clear that girls possessed equal coparcenary rights

¹³ "Articulating a Vision for Empowerment of Women" (National Policy for Women 2016), May 2016, Ministry of Women and Child Development, Government of India

¹⁴ (2015) 5 SCC 1

¹⁵ ((2020) 9 SCC 1

in Hindu Undivided Family (HUF) property simply by virtue of being born. The decision in the case of *Secretary, Ministry of Defence v. Babita Puniya and Others*¹⁶ (2020) dismantled gender stereotypes within the Indian Army by establishing that all female army officers are entitled to permanent commissions and leading duties. This landmark decision strengthened gender equality by confirming that women may hold command posts on par with males in the Indian Army by issuing permanent commissions to female officers.

*Deepika Singh v. Central Administrative Tribunal*¹⁷ (2022) was a landmark decision that expanded the definition of "family" in the eyes of the law to include non-traditional families. This ruling guarantees that the women in these households are eligible for the same social welfare benefits and protections as males.

8. CONCLUSION

Artificial intelligence has the potential to eradicate or significantly reduce the impacts of several forms of discrimination and prejudice against women. The application of artificial intelligence algorithms that aid in the reduction of biases in decision-making systems, performance evaluations, and recruiting procedures might lead to more educational opportunities, career opportunities, and leadership roles for women. The advent of new markets, encouragement of entrepreneurship, and the possibility of more flexible work arrangements are all ways in which artificial intelligence (AI) may help women gain economic independence. We must ensure that women are actively involved in the development of AI systems if we desire these technologies to truly assist women and promote gender equality.

¹⁶ (2020) 7 SCC 469

¹⁷ (2022) 8 SCC 480

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