

AI and Law: Mitigating Bias in AI through Indian Laws

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“We must address, individually and collectively, moral and ethical issues raised by cutting- edge research in artificial intelligence and biotechnology, which will enable significant life extension, designer babies, and memory extraction.”

Klaus Schwab³

Abstract

The present research paper examines the connection of artificial intelligence (AI) and the legal framework in India, highlighting the points of interaction between the Indian laws and AI frameworks can mitigate algorithmic bias. The paper examines the extent and nature of bias in AI systems. It also assesses and investigates the existing Indian laws and judicial precedents in this regard and proposes possible reforms and steps that can be adopted in this direction. The study stresses upon the urgent need for a dedicated AI legislation in India and elucidates the role of constitutional principles and data protection.

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I. Introduction

Artificial Intelligence or AI has rapidly transformed from abstract ideas, philosophies and notions into a common instrument or tool for shaping the societal, commercial, and organizational realms. It has a promising potential to transform various segments and diverse areas through AI based systems. Such systems are backed by algorithms and huge data-sets. But this system incorporates certain biases that are inherited from their respective creators, ideas, inputs, or operational atmospheres. These biases are, every so often, encoded without any intentions. But they tend to come up in ways that can lead to injustice and intensify discriminations of various forms.

India is a diversely populated democracy. It is governed by the constitutional values of liberty, equality, and justice for all its people. In such a setup, it becomes imperative that the algorithmic bias be strictly scrutinised. It is not only a matter of technological aspect, but also

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requires urgent legal analysis and inspection. As more and more government initiatives such as Aadhaar, digital policy making, and predictive modelling in the judicial system, rely on AI, the responsibility to examine its impact on Indian laws, and to identify and regulate the bias in AI systems becomes manifold.

This present research is directed to study the interaction between artificial intelligence and the Indian Legislations. It focusses on the laws including constitutional directives and principles, laws and regulations, and judicial precedents that can reduce the bias in algorithmic decision- making process. It also identifies the drawbacks and loopholes in current legislative frameworks while suggesting hypothetical models for regulation of bias. Additionally, it also and proposes directions for ensuring fairness and accountability in the development of AI in India.

Also, the research paper discusses the possible discourse of harmonisation between the legal protection of the rights of the people in this era of artificial intelligence emphasising specifically on striking a balance between development and protection of basic human rights.

II. Bias in Artificial Intelligence

As defined in Britannica,

“Artificial intelligence (AI), the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. The term is frequently applied to the project of developing systems endowed with the intellectual processes characteristic of humans, such as the ability to reason, discover meaning, generalize, or learn from past experience.”

In the legal profession, AI has proved to be very efficient and useful in legal research and analysis. It provides accurate risk assessment, analyses historical data for better and effective case study, and acts as a tool for faster and efficient research of various laws and their impact on the society.

While we appreciate AI for its efficiency and accuracy, it is not completely free from bias. The several forms of bias infecting AI can compromise its impartiality and precision. In artificial intelligence, bias is the systematic and unfair prejudice that is incorporated into algorithms or datasets, resulting in distorted outcomes for particular groups or individuals. Automated decision-making systems can amplify these biases, which frequently reflect social inequality.

In AI systems, Bias can originate at diverse stages of progress, viz.:

a. **Data Collection Phase:** Prejudices that are deeply ingrained in the society. Such injustices like racial profiling or gender discrimination, may be reflected in the historical data. For instance, facial recognition systems trained predominantly on lighter-skinned individuals have shown higher error rates for darker-skinned subjects.

b. **Algorithm Design:** Algorithmic bias can result when developers accidentally embed assumptions or preferences into the model architecture. Confirmation bias and anchoring bias are common cognitive pitfalls that influence model behaviour.

c. **Deployment and Feedback Loops:** If they are not regularly monitored and corrected, AI systems that learn from user interactions may reinforce existing biases.

There are several implications of the bias in AI:

d. **Discrimination:** Inequality in hiring, lending, healthcare, and law enforcement may be perpetuated by AI.

e. **Loss of Trust:** When AI systems produce outcomes that are unfair or opaque, public trust in AI technologies declines.

f. **Liability:** Organizations that use biased AI may be sued under data protection and anti-discrimination laws.

The basic risk of AI bias is that it threatens the ethical and Legal Relevance. It challenges fundamental legal concepts like non-discrimination, due process, and equality before the law. Unchecked algorithmic bias threatens marginalized communities and undermines democratic ideals in India, where constitutional values are deeply ingrained in governance. When AI systems influence decisions in sensitive areas like education, welfare distribution, and criminal justice, the need for legal intervention becomes clear.

III. Anti-bias safeguards in the Indian Constitution

The normative anchors for regulating bias in AI systems are equality, non-discrimination, and procedural fairness, which are enshrined in India's Constitution.

- **Non-discrimination and equality:**

- Equality before the law and equal legal protection are guaranteed by Article 14.
- Discrimination based on religion, race, caste, sex, or place of birth is prohibited by Article 15.
- Article 16: Ensures equal opportunity in public employment and permits affirmative action for underrepresented groups.

These Constitutional provisions can be invoked when AI systems produce discriminatory outcomes in various processes of hiring, lending, or welfare schemes distribution.

- **Access to Justice and Due Process:**

- Article 21: Protects life and personal liberty, interpreted to include the right to privacy and fair treatment.
- **Natural Justice Principles:** The right to be heard and the rule against bias are legal safeguards against arbitrary algorithmic decisions.
- **Interpretation by the Courts:** In administrative and quasi-judicial decisions, Indian courts have emphasized fairness. In *A.K. v. Kraipak*, The Supreme Court of India ruled in *Union of India (1970)* that even administrative actions must adhere to natural justice principles. In particular, for deployments in the public sector, these constitutional safeguards provide a legal basis for challenging biased AI systems.

IV. AI and Legislations in India

India's legal response to artificial intelligence is currently fragmented, relying on a patchwork of existing statutes, policy documents, and ethical guidelines. While there is no dedicated AI legislation, several laws indirectly regulate AI-related activities, especially those concerning data protection, consumer rights, and algorithmic accountability.

- Existing Legislations:
 - Information Technology Act, 2000: This governs the electronic transactions and cybersecurity. Although, it not AI-specific, but it provides for a foundational framework for digital governance.
 - Digital Personal Data Protection Act, 2023: This Act regulates the collection, processing, and storage of the personal data of the individuals. It introduces the concept of consent-based data usage. But it lacks clear and unambiguous provisions for regulating and checking algorithmic bias or automated decision-making.
 - Consumer Protection Act, 2019: This act extends the liability to AI-powered products and services and ensures a redressal forum for defective or misleading outcomes.
 - Copyright Act, 1957 & Patents Act, 1970: This Act address the intellectual property issues related to AI-generated content and inventions. Although, the concept of ownership still remains a grey area.
- Policy Frameworks
 - National Strategy for Artificial Intelligence (2018) was released by NITI Aayog under the banner of #AIForAll. It emphasizes the inclusive AI development in India.
 - Principles for Responsible AI framed in the year 2021, outline the ethical standards including impartiality, justice, transparency, and responsibility.
 - Draft Digital India Act (2023) which is expected to replace the current IT Act and introduce AI-specific provisions, will include algorithmic audits and deepfake detection systems.
- Institutional Developments
 - MeitY Guidelines of 2024 mandate the approval for the deployment of untested AI models, especially those with potential electoral or societal impact.
 - Judicial Precedents: Indian courts have begun to deal with AI-related issues, particularly in matters of privacy and surveillance (e.g., Justice K.S. Puttaswamy v. Union of India, 2017).

V. Issues with Enforcement of Legal and ethical standards

India faces significant challenges in enforcing legal and ethical standards to reduce bias in artificial intelligence, despite growing consciousness and policy initiatives. The gaps in regulations, technical opacity, institutional limitations, and socio-legal complexities are the sources of these difficulties.

There is no specialized legislation in India. There is a complete lack of comprehensive AI-specific law, which results in sector-specific fragmentation with regard to enforcement. The Information Technology Act of 2000 and the Digital Personal Data Protection Act of 2023 are two examples of existing statutes that only provide limited coverage and do not require algorithmic audits or protocols for bias mitigation. The regulation of AI systems is not explicitly mandated by enforcement agencies. Developers are not required by law to disclose algorithmic logic or training data.

There is technical opacity and the “Black Box” Problem. It is challenging to determine the rationale behind outputs because AI systems frequently operate as opaque decision-making instruments. This lack of transparency impedes judicial review and regulatory oversight. Algorithms developed with proprietary data are rarely scrutinized by the general public. Without access to datasets or model architecture, courts have difficulty determining fairness.

There are deficits in the Institutional Capacity to effectively monitor AI deployments. The regulatory bodies like MeitY, RBI, and TRAI lack technical expertise and resources. There is a lack of AI ethicists, auditors, and legal technologists available. There are no standard tools for identifying bias and holding algorithms accountable.

There are jurisdictional ambiguities that make the enforcement more difficult by the fact that AI systems frequently operate in multiple jurisdictions. It is possible for cloud-based AI services to process data outside of Indian territory, posing legal questions. But, it is difficult to enforce privacy and anti-discrimination laws because of cross-border data flows. Determining who is liable for biased outcomes, developers, deployers, or platforms, this remains unresolved. Thus, there is no accountability and responsibility. Indian tort law does not adequately address harm caused by autonomous systems. Also, There is no precedent for determining who is accountable for algorithmic discrimination. The individuals affected by biased AI decisions have limited avenues for redress. The Indian Evidence Act, 1872, also does not clarify the admissibility of AI-generated evidence.

Due to India's diverse demographics, cultural and social complexities, bias detection and mitigation is more difficult. Indian social realities may be misrepresented by AI systems trained on global data sets. Under representation of minority communities in training data intensifies bias.

VI. Suggestions for Reform

The Fact that AI can detect someone's thoughts and overhear private conversations, whether through microphones, wearable tech, or neuro-sensing devices, poses a grave threat to individual privacy and questions its ethical value. This threat is not just limited to technological misuse but also evades mental privacy, a boundary that, until now, has been protected considering it being sacred and impenetrable.

The main issue lies in the consent and control of the individuals over their personal data. Without people realising, certain devices are always listening or gathering sensitive data.

A multi-pronged reform strategy is necessary to effectively mitigate bias in AI systems within the legal framework of India. The purpose of these suggestions is to improve AI deployment's fairness, accountability, and transparency.

- The AI systems collect, interpret, or act on the private signals of the individuals without their permission, it undermines individual autonomy. Regulatory protections often lag behind the pace of innovation, leaving users vulnerable. There is an urgent need to pass an extensive AI law which promotes human centric approach in AI development while maintaining accountability, transparency, and protecting the privacy of the people. For this purpose, it is imperative to create a separate Artificial Intelligence Regulation Act to regulate the creation, operation, and monitoring of AI systems.
- AI applications with a high risk and require human oversight, must be identified and defined, for better bias impact assessments, and algorithmic audits.
- Establishing an AI Governance Board which acts as a statutory Artificial Intelligence Board in India, constituting of the representatives of civil society, technology, ethics, and the law. The Board must be empowered with the authority to certify AI models, look into complaints, and issue rules that are legally binding.
- Require developers to disclose model architecture, training datasets, and decision logic for public sector AI tools in order to mandate Algorithmic Transparency
- Give people affected by automated decisions a "Right to Explanation".
- Use representative and inclusive datasets.
- Encourage public institutions to collect data that is broken down by gender, caste, region, and socioeconomic status.
- Similar to the Environmental Impact Assessments, mandate AI Impact Assessments for high-risk systems in sectors like policing, healthcare, and welfare.
- Strengthen Mechanisms for Judicial Review and Redress by establishing AI Tribunals for compensation and grievance resolution.
- Modify the Indian Laws to make them clear and unambiguous, clearly defining the boundaries of AI.
- Take cues from the United States, OECD AI Principles, and EU AI Act Rights of the AI. and participate in international collaborations to harmonize standards and share ethical frameworks so as to Align with Global Best Practices.

VII. Conclusion

Artificial Intelligence presents both unprecedented opportunities and complex legal challenges. The diversity of socioeconomic backgrounds, historical disparities, and fragmented regulatory

oversight in India increase the risk of algorithmic bias. The absence of a specific AI law leaves critical gaps in accountability and fairness, despite the fact that, constitutional safeguards provide a sound foundation. This paper has shown that bias in AI is not just a technical flaw; rather, it is a legal and ethical issue that needs to be addressed right away. India must clearly move beyond soft guidelines and adopt a rights-based, risk-sensitive regulatory framework by analysing existing laws, sectoral practices, and global models. The reforms that have been proposed aim to incorporate constitutional morality into the digital fabric of governance. These include algorithmic audits, inclusive datasets, and judicial oversight. India must ensure that AI- driven public services and its Digital India mission are served by technology that does not discriminate. A future where AI is transparent, accountable, and equitable is not just desirable— it is constitutionally imperative.

References:

- [1]. Ajay Hasia v. Khalid Mujib Sehravardi, (1981) 1 SCC 722.
- [2]. Ayomikun, Randle Eldad. Navigating the Complexities of AI and Data Privacy: A Global Perspective, Record of Law, July

2025. Available at Record of Law.
- [3]. Contrend, “AI Bias: Is Artificial Intelligence Trustworthy? 2025”, July 28, 2023, *available at*: Contrend Blog.
- [4]. Digital Personal Data Protection Act, 2023 (Act No. 22 of 2023).
- [5]. E.P. Royappa v. State of Tamil Nadu, (1974) 4 SCC 3.
- [6]. European Commission, Proposal for a Regulation laying down harmonised rules on artificial intelligence (Artificial Intelligence Act), COM/2021/206 final, *available at*: <https://eicta.iitk.ac.in/knowledge-hub/artificial-intelligence/understanding-bias-in-artificial-intelligence-challenges-impacts-and-mitigation-strategies/>
- [7]. Understanding Bias in Artificial Intelligence: Challenges, Impacts, and Mitigation Strategies, *available at*: <https://www.coursera.org/articles/ai-bias>
- [9]. James Holdsworth, “What is AI bias? 22 December 2023, *available at*: <https://www.ibm.com/think/topics/ai-bias>
- [10]. Jonnala, Sridhar; Tade, Rushikesh; Thomas, Nisha Mary. Decoding Cultural Tapestries: A Deep Dive into Indian Social Stigma Patterns in Large Language Models, *Journal of Asian Scientific Research*, Vol. 15(2), 2025, pp. 226–244, *available at*: Asian Economic and Social Society.
- [11]. Cem Dilmegani, “Bias in AI: Examples and 6 Ways to Fix it in 2025, Jul 24, 2025, *available at*: <https://research.aimultiple.com/ai-bias/>
- [12]. Justice K.S. Puttaswamy (Retd.) v. Union of India, (2017) 10 SCC 1.
- [13]. Maity, Sanchita. AI and Algorithmic Bias: A Challenge to India’s Right to Equality, *Lawful Legal*, June 2025, *available at*: Lawful Legal.
- [14]. Marda, Vidushi & Narayan, Divij. Data in New Delhi’s Predictive Policing System, *Data Justice Project*, 2020, *available at*: Data Justice Project.
- [15]. Ministry of Electronics and Information Technology (MeitY), Revised AI Advisory, 2024, *available at*: IndiaAI.gov.in.
- [16]. NITI Aayog, National Strategy for Artificial Intelligence, 2018.
- [17]. NITI Aayog, Responsible AI for All: Strategy for India, 2021. *Available at*: IndiaAI.gov.in.
- [18]. Olivia Barber, “How artificial intelligence will change decision making”, *InData Labs*, 4 June 2024, *available at*: <https://indatalabs.com/blog/artificial-intelligence-decision-making>
- [19]. Pandey, Aradhya & Shukla, Utkarsh. Algorithms of Oppression: Addressing AI Bias in India, NLIU-CLT, July 2025. *Available at*: NLIU-CLT.
- [20]. Royal Commission into the Robodebt Scheme, Final Report, July 2023.
- [21]. Thirupathi, Subramaniam. AI with a Conscience: India’s Journey Toward Ethical and Responsible Innovation, PCQuest, July 2025. *Available at*: PCQuest.
- [22]. Tiwari, Shreya. Towards a Rights-Based AI Framework in India, LiveLaw, July 2025.
- [23]. *Available at*: LiveLaw Article.
- [24]. Tiwari, Shreya. Towards a Rights-Based AI Framework in India: Bridging Global Models and Constitutional Duties, Live Law, July 2025. *Available at*: Live Law Article.
- [25]. Understanding AI Bias Written by Coursera Staff, Updated on Apr 17, 2025
- [26]. White House Office of Science and Technology Policy, Blueprint for an AI Bill of Rights, October 2022.