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Algorithmic Bias and Human Rights Protection: A Comparative Study of International Instruments and Indian Legal Regimes

SRINIVAS M.K.¹

ABSTRACT

The swift integration of artificial intelligence (AI) into business, government, and public life has shown a growing tension between the protection of fundamental human rights and technological development. Although algorithms are typically regarded as objective and efficient, they frequently amplify and perpetuate societal and structural biases, which raises significant concerns about justice, accountability, and transparency. This paper uses a doctrinal legal method to analyse algorithmic prejudice as a current human rights issue. It does this by consulting primary and secondary sources, such as international treaties, policy documents, and academic literature. It creates an algorithmic accountability framework that includes private developers, businesses, and data controllers in addition to states. In addition to the principles of equality, dignity, and nondiscrimination found in the Universal Declaration of Human Rights (UDHR) and the International Covenant on Civil and Political Rights (ICCPR), the paper argues that algorithmic bias undermines India's constitutional ideals of justice and liberty. It contrasts and compares international initiatives, such as the UN Guiding Principles on Business and Human Rights, the EU AI Act (2024), and UNESCO's Recommendation on the Ethics of Artificial Intelligence (2021), with India's more recent frameworks, including the Digital Personal Data Protection Act, 2023, and NITI Aayog's "Responsible AI for All." In order to preserve human dignity in the digital era, the study ends by suggesting a human rights-focused pathway for India that incorporates openness, institutional supervision, and moral leadership into AI policy.

Keywords: *Algorithmic Bias; Human Rights; Artificial Intelligence; Indian Law; International Human Rights; Algorithmic Accountability; Digital Governance; Constitutionalism; Equality; Non-Discrimination.*

I. INTRODUCTION

The 21st-century architecture for protecting human rights has shifted due to algorithms.² As automated decision-making systems driven by AI have replaced human discretion, it has

¹ Author is a Research Scholar at Department of Studies in Law, University of Mysore, India.

²Jinghui He and Zhenyang Zhang, "Algorithm Power and Legal Boundaries: Rights Conflicts and Governance Responses in the Era of Artificial Intelligence," 14 *Laws* 54 (2025).

marked a crucial jurisprudential turning point in the relationship between authority, accountability, and human dignity. In addition to being a technological error, algorithmic bias which is commonly concealed behind the pretense of technology neutrality—may also be a legal violation that challenges the moral foundations of justice and equality found in human rights laws. Not if AI can affect human rights, but rather whether existing human rights frameworks are normatively and institutionally ready to curb algorithmic arbitrariness in a data-driven society. Algorithmic governance by both public and private businesses is a more widespread enemy of human rights law, which was once seen to be a shield against arbitrary state action. The rights to equality, dignity, and nondiscrimination are inalienable moral values, according to the Universal Declaration of Human Rights (UDHR),³ the International Covenant on Civil and Political Rights (ICCPR),⁴ and International Convention on the Elimination of All Forms of Racial Discrimination (ICERD).⁵

In era where, algorithms increasingly control access to social benefits, employment, healthcare, education, and justice, traditional human rights protections are facing previously unheard-of difficulties. The durability of long-standing international legal concepts is put to the test by the emergence of automated decision-making. The Universal Declaration of Human Rights' (UDHR) Articles 1, 2(1), and 7 expressly forbid discriminatory treatment that results in inequality. This ban also applies to algorithmic systems whose bias or opacity may unintentionally jeopardize the equal enjoyment of rights. Similarly, algorithmic governance is directly addressed in policing, welfare distribution, employment, and healthcare under Articles 2(1), 26, and 17 of the International Covenant on Civil and Political Rights (ICCPR).⁶

³ Article 1 of the UDHR encapsulates that “All human beings are born free and equal in dignity and rights.” Similarly, Article 2(1) UDHR, stipulates “Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.” Additionally, Article 7 UDHR declares that “All are equal before the law and are entitled without any discrimination to equal protection of the law.”

⁴ Article 2(1) of International Covenant on Civil and Political Rights proclaims that “The States Parties to the present Covenant undertake to respect and to ensure to all individuals... the rights recognized in the present Covenant, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.” Article 26 of ICCPR states that “All persons are equal before the law and are entitled without any discrimination to the equal protection of the law... the law shall prohibit any discrimination and guarantee to all persons equal and effective protection against discrimination on any ground such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.” In the line, Article 17 ICCPR (on privacy) enshrines “No one shall be subjected to arbitrary or unlawful interference with his privacy... Everyone has the right to the protection of the law against such interference or attacks.”

⁵ Article 1(1) of ICERD Defines racial discrimination as “any distinction, exclusion, restriction or preference based on race, colour, descent, or national or ethnic origin which has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise, on an equal footing, of human rights.” Furthermore, Article 2(1)(c) States must “take effective measures to review governmental, national and local policies, and to amend, rescind or nullify any laws and regulations which have the effect of creating or perpetuating racial discrimination.”

⁶ “International Covenant on Civil and Political Rights | OHCHR,” available at: <https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-civil-and-political-rights>

Technology that generates racially biased results, such the disproportionate misidentification seen in facial recognition, may violate people's rights to privacy and equality in addition to being statistically incorrect. ICERD emphasizes that even inadvertent prejudice resulting from algorithmic procedures is clearly classified as racial discrimination, thus reinforcing this principle. Law enforcement's automated face recognition systems routinely misidentify people depending on their gender and race, which is a reflection of systemic biases in the datasets they are trained on. More than just a technological error, this misidentification violates human rights, specifically Article 17 (privacy) and Article 26 (equality) of the ICCPR. There is no doubt about the ethical and legal ramifications: privacy now includes shielding people against algorithmic bias, covert social hierarchies, and ambiguous accountability systems.

India's constitution reflects these international ideals. Article 14 establishes equality before the law,⁷ whereas Article 21 protects life and personal liberty,⁸ construed broadly to encompass privacy, autonomy, and informational self-determination. According to the historic 2017 ruling in *Justice K.S. Puttaswamy v. Union of India*,⁹ information privacy is crucial to human dignity. However, the problem in the AI-driven future goes beyond data protection; it is about making sure algorithms don't reinforce inequality, reinforce bias, or obfuscate accountability. Legal notions like "due process" run the possibility of being replaced by "data processes," in which impersonal computer systems decide on welfare, credit, and bail, among other drastic judgments.

With programs like Aadhaar, the Digital Personal Data Protection Act, 2023,¹⁰ and AI-assisted welfare schemes, India has embraced digital governance, highlighting the potential and danger of algorithmic regulation. By reaffirming the legitimacy of digital identity and highlighting proportionality, privacy protections, and protections against exclusion, the 2018 Aadhaar verdict brought attention to the delicate balance between technology governance and fundamental rights. The underlying constitutional issue of our time—how to balance automated governance with the fundamental values of equality and human decency that underpin Indian law is hinted at by this judicial balancing effort.

With the adoption of mechanisms like the UN Guiding Principles on Business and Human Rights (UNGPs) and the OECD AI Principles, states are no longer the only entities bound by international human rights duties to enterprises and AI developers. The lack of a thorough,

(last visited November 21, 2025).

⁷Constitution of India, art 14.

⁸Constitution of India, art 21.

⁹(2017) 10 SCC 1, AIR 2017 SC 4161.

¹⁰"THE DIGITAL PERSONAL DATA PROTECTION ACT, 2023 (NO. 22 OF 2023)."

human rights-based AI framework in India stands in stark contrast to the planned Artificial Intelligence Act of the European Union, which takes a rights-centered, risk-tiered regulatory approach. Fairness, openness, and explainability must go from idealistic standards to legally binding obligations, making a strong legal theory of "algorithmic accountability" imperative.

A combination of international human rights obligations and local law is needed to bring AI governance into line with India's constitutional ideals. The ethical compass for integrating human rights into AI legislation may come from the judiciary's developing knowledge of substantive equality and constitutional morality. Importantly, the relationship between AI and the law necessitates a rethinking of legal ideas like accountability, responsibility, and evidential standards: who is responsible for discrimination by an algorithm the state, the deploying entity, or the programmer? Although current legal frameworks were never intended for non-human decision-makers, they must change to guarantee that technology continues to be an instrument of inclusion rather than exclusion.

India's judicial and legislative responses to algorithmic prejudice will demonstrate the country's dedication to constitutionalism in the digital era. Even in a society that is becoming more and more mediated by computers, India can protect equality and dignity by integrating AI governance inside a human rights framework. Making sure that algorithms' invisible blueprints don't turn into the new structures of inequality is a profoundly human concern that goes beyond simple technical or legal issues.

II. ALGORITHMIC ACCOUNTABILITY AND HUMAN RIGHTS LAW

The conventional definitions of legal accountability have changed as artificial intelligence has become a governing tool.¹¹ According to traditional legal theory, accountability requires an identifiable actor a person or legal entity that has the ability to influence, make decisions, and so be held accountable for harm. The problem is not only technical but also deeply normative: how can human rights law, which is based on the idea of rational human agency, govern systems that use mathematical reasoning instead of moral judgment to make decisions? Nevertheless, this fundamental premise is broken by algorithmic systems, which are distinguished by their opacity, autonomy, and flexibility.

A. Shifting from state responsibility to shared accountability

The tripartite obligations of states to uphold, defend, and fulfill human rights are imposed by

¹¹"Algorithms and Human Rights: Understanding Their Impacts," *Open Government Partnership* available at: <https://www.opengovpartnership.org/stories/algorithms-and-human-rights-understanding-their-impacts/> (last visited November 21, 2025).

human rights treaties including the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social, and Cultural Rights (ICESCR). However, the site of accountability is hazy in the digital ecosystem, where private organizations create and manage algorithmic structures. The state frequently facilitates or regulates algorithmic systems run by private or hybrid entities rather than directly violating them. Because of this power imbalance, multi-stakeholder accountability a framework where states, businesses, and developers share responsibility for preventing and correcting algorithmic bias must replace state-centric accountability.¹² This change is formalized by the UN Guiding Principles on Business and Human Rights 2011, which indicate that commercial actors have autonomous obligations to uphold human rights irrespective of official action. This suggests that as part of their due diligence responsibilities, IT businesses in the context of AI must guarantee algorithmic decision-making's explainability, fairness, and openness.

This changing paradigm in India interacts with constitutional principles like the "horizontal application of fundamental rights" and the "public function test." The Supreme Court acknowledged that private organizations carrying out public duties could be examined under the constitution in *Zee Telefilms Ltd. v. Union of India*. Similar to this, the Court acknowledged the obligation of both state and non-state actors to preserve gender equality in *Vishaka v. State of Rajasthan* by incorporating international human rights standards into local legislation. Applying this logic to algorithmic bias implies that even when run by private companies, AI systems used for public purposes like welfare targeting, surveillance, or predictive policing must adhere to the equality, justice, and reasonableness requirements outlined in the constitution.

B. Algorithmic Bias as a Violation of Human Rights Norms

Algorithmic prejudice is a structural distortion of human rights protections rather than just a computational aberration.¹³ The principle of non-discrimination under Article 2 of the UDHR and Articles 14–15 of the Indian Constitution is violated when algorithms systematically disfavor people based on their race, gender, caste, or socioeconomic background.¹⁴ The substantive equality concept developed in *State of Kerala v. N.M. Thomas*,¹⁵ which

¹²Rowena Rodrigues, "Legal and human rights issues of AI: Gaps, challenges and vulnerabilities," 4 *Journal of Responsible Technology* 100005 (2020).

¹³Amal Singh Patel, "Algorithmic Bias And The Quest For Equal Justice In India | Virtuosity Legal," 2025available at: <https://virtuositylegal.com/algorithmic-bias-and-the-quest-for-equal-justice-in-india/> (last visited November 21, 2025).

¹⁴"Article 15: Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth," *Constitution of India* available at: <https://www.constitutionofindia.net/articles/article-15-prohibition-of-discrimination-on-grounds-of-religion-race-caste-sex-or-place-of-birth/> (last visited November 21, 2025).

¹⁵"The Case of State of Kerala vs N. M. Thomas (1976) - Jyoti Judiciary Coaching," 2024available at:

acknowledged equality not as formal parity but as equity in outcomes, is directly undermined by bias in algorithmic outputs, whether brought about by skewed data, poor model design, or opaque learning mechanisms.

According to the human rights perspective, this kind of bias also violates the right to dignity, which is a fundamental tenet of both Indian and international law. In *Navtej Singh Johar v. Union of India* 2018,¹⁶ the Indian Supreme Court upheld dignity as the moral foundation of constitutionalism, whereas the Human Rights Committee's General Comment No. 18 views equality as an intrinsic aspect of dignity. This dignity is thus denied by algorithmic decisions that degrade, exclude, or incorrectly categorize people for example, biased facial recognition systems that incorrectly identify women with darker skin tones or welfare algorithms that reject households from marginalized communities.

Additionally, algorithmic opacity violates the Indian Constitution's Article 21 right to procedural fairness¹⁷ and Article 2(3) ICCPR's right to an effective remedy.¹⁸ The procedural legitimacy of the law itself is jeopardized when people are forced to accept algorithmic determinations without being given the opportunity to appeal or seek an explanation. As stated in *Modern Dental College v. State of Madhya Pradesh*,¹⁹ the Indian judiciary's emphasis on proportionality and reasoned conclusions offers a normative model for AI governance: algorithmic decision-making needs to be reasonable, open, and defensible in a democracy.²⁰

III. THE CONCEPT OF ALGORITHMIC ACCOUNTABILITY

Transparency, explainability, and responsibility are three interconnected responsibilities that can be combined to form algorithmic accountability.²¹

a) In order to be transparent, oversight organizations and impacted parties must have access to the architecture, reasoning, and data sources of AI systems. This reflects both the right to access

<https://www.jyotijudiciary.com/the-case-of-state-of-kerala-vs-n-m-thomas-1976/> (last visited November 21, 2025).

¹⁶“Navtej Singh Johar and Ors. vs. Union of India,” available at: <https://privacylibrary.ccgmlud.org/case/navtej-singh-johar-and-ors-vs-union-of-india-uo-i-and-ors> (last visited November 21, 2025).

¹⁷“The right to life and personal liberty under Article 21: A timeline,” *Supreme Court Observer* available at: <https://www.scobserver.in/journal/the-right-to-life-and-personal-liberty-under-article-21-a-timeline/> (last visited November 21, 2025).

¹⁸“International Covenant on Civil and Political Rights,” *OHCHR* available at: <https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-civil-and-political-rights> (last visited November 21, 2025).

¹⁹(2016) 7 SCC 353

²⁰Casemine Editor's Desk, “Establishing Fairness and Merit in Private Medical Admissions: The Landmark Ruling in *Modern Dental College v. State of Madhya Pradesh*” <https://www.casemine.com>, 2016 available at: <https://www.casemine.com/commentary/in/establishing-fairness-and-merit-in-private-medical-admissions:-the-landmark-ruling-in-modern-dental-college-v.-state-of-madhya-pradesh/view> (last visited November 21, 2025).

²¹“Algorithmic Management and the Future of Human Work: Implications for Autonomy, Collaboration, and Innovation,” available at: <https://arxiv.org/html/2511.14231v1> (last visited November 21, 2025).

information under international law (Article 19, ICCPR) and the procedural component of the right to information, which is included in Article 19(1)(a) of the Indian Constitution.

b) In order to allow for human oversight and contestation, explainability requires that algorithmic outputs be interpretable. The right of the individual to seek an effective remedy is rendered unreal in the absence of interpretability.

c) Responsibility means that the results of algorithmic judgments are the responsibility of both state and non-state actors.

This idea, which calls for proactive risk assessment and mitigation, is similar to the UNGPs' duty of due diligence.

These ideas work together to create the normative framework for AI legislation based on human rights. This strategy is operationalized by the European Union's AI Act, 2024, which uses a risk-tiered paradigm and requires algorithmic audits and human rights impact studies for high-risk systems. While the Digital Personal Data Protection Act, 2023,²² offers a partial framework through requirements of data minimization, purpose limitation, and consent, India has not yet established a comparable statutory regime. This regulatory gap would be filled by a future AI-specific law that is in line with international norms and constitutional principles.

IV. RECONCILING TECHNOLOGICAL INNOVATION WITH HUMAN RIGHTS

Human rights law aims to regulate technological progress within the parameters of justice and human dignity, not to oppose it outright.²³ Therefore, the challenge is to create "anticipatory accountability" legal standards that are proactive, flexible, and able to correct problems before they happen. In order to ensure ex ante consideration of risks to equality, privacy, and due process, algorithmic impact assessments (AIAs) must be incorporated as a legislative obligation prior to implementation. In the Indian context, this proactive strategy is consistent with the constitutional morality theory, which the Supreme Court defined as the moral compass that directs state activity in *Government of NCT of Delhi v. Union of India*.²⁴ Regulation of AI that incorporates constitutional morality would guarantee that, despite its advancement, technical governance is rooted in human rights.

Algorithmic responsibility thus becomes the legal link between technological governance and human rights law. It turns intangible ideals of equality and dignity into legally binding

²²ibid

²³Sue Anne Teo, "Artificial intelligence and its 'slow violence' to human rights," 5 *AI and Ethics* 2265–80 (2025).

²⁴"Government of NCT of Delhi v. Union of India: A Landmark Case | Dhyeya Law," available at: <https://www.dhyeyalaw.in/government-of-nct-of-delhi-v-union-of-india> (last visited November 21, 2025).

obligations that apply to the most intricate socio-technical structures of our day. The ultimate objective is to constitutionalize the algorithm's functioning, not to humanize it, so that the light of human rights shines through the opaque circuits of artificial intelligence.

Artificial intelligence deployment in both public and private spheres has created hitherto unheard-of hazards to human rights, especially when safeguards are insufficient or nonexistent. For example, machine learning algorithms that forecast recidivism can harbor unconscious prejudices that mirror past injustices. These biases manifest as actual deprivations of liberty, unfair treatment in the criminal justice system, and a decline in public confidence in legal institutions; they are not just statistical phenomena. Similar to this, the use of AI algorithms to detect political opposition, monitor online speech, or censor civic involvement raises serious questions about the rights to political engagement, freedom of expression, and assembly guaranteed by international human rights law.

When AI systems use faulty or insufficient training data, are badly designed, or function in extremely complex socio-technical environments, the legal risk is increased.²⁵ In some situations, algorithmic decision-making may result in direct or indirect violations of rights. For instance, algorithmic increases in online hate speech or AI-driven amplification of misinformation can make it more difficult for people to engage in democratic processes, particularly during elections, endangering their right to political participation and educated public discourse.²⁶ On the other hand, AI might also be used for defensive purposes, such as detecting hate speech or eliminating extremist content, but these actions need to be reasonable, open, and responsible. Making sure AI-mediated interventions uphold procedural protections including the presumption of innocence, due process, and proportionality while adhering to the non-discrimination principle is a significant legal difficulty. The deployment of AI technologies without strong protections directly affects the equality of access to fundamental rights, including privacy, justice, education, health, housing, and public services. The risk of exclusion or injury is disproportionately high for vulnerable groups, such as women, racial and ethnic minorities, and socioeconomically excluded groups. One example of these hazards is the implementation of facial recognition and biometric technologies. The poor performance of facial recognition technologies across demographic groups, especially Black women, gender minorities, older adults, disabled people, and laborers, raises concerns about substantive discrimination and equality before the law, according to reports like the Regulating Biometrics

²⁵David M. Douglas, Justine Lacey and David Howard, "Ethical risk for AI," 5 *AI and Ethics* 2189–203 (2025).

²⁶Philipp Hacker, "A legal framework for AI training data—from first principles to the Artificial Intelligence Act," 13 *Law, Innovation and Technology* 257–301 (2021).

study by the AI Now Institute. Due process and equal protection rights may be compromised in criminal justice by AI-assisted risk assessments and DNA analysis, which process private information in ways that reinforce prejudice. Although sound in theory, current human rights frameworks have difficulties in actual enforcement in the age of artificial intelligence.²⁷ First, the implementation of rights is made more difficult by the opacity of socio-technical systems; the processes for challenging judgments are frequently not well-suited to algorithmic complexity. Second, traditional rights frameworks might not adequately account for new harms like algorithmically mediated persuasion, secret social manipulation, or automated exclusion from public goods because they were created in pre-digital environments. With an emphasis on anticipatory regulation and enforceable obligations for AI designers, deployers, and regulators, this gap highlights the need to modify legal concepts to take into account the scope and specificity of AI interventions.

From a normative perspective, the adoption of AI in society calls for a reexamination of fundamental legal principles: responsibility, liability, and evidential requirements need to be extended beyond human actors to socio-technical systems that make important choices. The dignity, autonomy, and equality of every person should be protected by legal measures that guarantee technology is used as a tool for inclusion rather than exclusion.²⁸ Without these safeguards, artificial intelligence runs the risk of formalizing systemic injustices and turning algorithmic prejudice into a legally recognized violation of human rights.

All things considered, the legal problem presented by AI is both technically complex and deeply human: balancing the revolutionary potential of digital automation with long-standing commitments under human rights law. Strengthening the normative content of rights in digital environments as well as the practical enforcement mechanisms is necessary for effective legal responses. This will ensure that AI is used as a tool for empowerment rather than as a means of exclusion or discrimination.

V. INTERNATIONAL INSTRUMENTS AND INDIAN LEGAL FRAMEWORK ON ALGORITHMIC BIAS

The control of algorithmic prejudice is a new area where domestic constitutionalism and international human rights legislation meet. Although universally based normative advice is provided by international institutions, domestic legal systems convert these norms into legally

²⁷Nithesh Naik et al., "Legal and Ethical Consideration in Artificial Intelligence in Healthcare: Who Takes Responsibility?," 9 *Frontiers in Surgery* 862322 (2022).

²⁸Pedro Vitor Marques Nascimento et al., "The future of AI in government services and global risks: insights from design fictions," 13 *European Journal of Futures Research* 9 (2025).

binding rights and remedies.²⁹ A dynamic conversation between international human rights treaties and India's developing jurisprudence is revealed by the comparative analysis; this process of reciprocal influence highlights the growing need for algorithmic governance based on equity, accountability, and human dignity.³⁰

A. International Human Rights Instruments

International human rights law has gradually adjusted to the digital world, despite being first developed in the analog period. Both the 1948 Universal Declaration of Human Rights (UDHR) and the 1966 International Covenant on Civil and Political Rights (ICCPR) continue to be fundamental documents, establishing the rights to privacy (Article 12 UDHR; Article 17 ICCPR), equality (Articles 1 and 2 UDHR; Article 26 ICCPR), and effective remedy (Article 8 UDHR; Article 2(3) ICCPR). When automated systems impede these protected interests, these clauses together provide the normative framework for assessing algorithmic bias.

AI systems' potential to both advance and jeopardize human rights was first acknowledged formally in the UN Human Rights Council's Resolution 41/11 (2019) on *"New and Emerging Digital Technologies and Human Rights."*³¹ It highlighted the duty of governments to guarantee that AI is created and applied in accordance with current human rights standards. Resolution 47/23 (2021) subsequently reaffirmed the demand for an HRBA (human rights-based approach) to AI, emphasizing responsibility, transparency, and non-discrimination as crucial tenets.

In addition to these soft law frameworks, the UN Guiding Principles on Business and Human Rights (UNGPs) expanded the role of non-state actors in human rights obligations by mandating that companies, including tech companies, perform human rights due diligence (HRDD) across their operations. HRDD refers to evaluating datasets, training procedures, and decision results for discriminatory effects in an algorithmic environment. In support of inclusive, open, and accountable AI systems, the UNESCO Recommendation on the Ethics of Artificial Intelligence 2021 and the OECD Principles on Artificial Intelligence (2019) further solidified this growing agreement.

At the regional level, the most ambitious attempt to operationalize these human rights concepts through legally enforceable legislation is the Artificial Intelligence Act (AI Act 2024) of the

²⁹Jillian Rogers, "Artificial Intelligence Risk & Governance" *Wharton Human-AI Research*, 2023 available at: <https://ai.wharton.upenn.edu/white-paper/artificial-intelligence-risk-governance/> (last visited November 21, 2025).

³⁰Yuzhou Qian, Keng L. Siau and Fiona F. Nah, "Societal impacts of artificial intelligence: Ethical, legal, and governance issues," 3 *Societal Impacts* 100040 (2024).

³¹Albania et al. (eds.), *New and emerging digital technologies and human rights: draft resolution* (UN, Geneva, 9).

European Union. The Act establishes statutory requirements such as algorithmic transparency, human oversight, and *ex ante* conformance assessments by classifying AI systems into acceptable, high, limited, and low risk tiers. It is significant that the Act's preamble specifically cites the EU Charter of Fundamental Rights, establishing human rights as part of the AI legal framework.³² Although the Indian legal system has a different constitutional past, it has a similar goal: to balance technological advancement with the demands of equality and justice.

B. Indian Legal Framework

The constitutional framework of India offers an extensive normative environment for incorporating human rights considerations into the administration of AI.³³ Social, economic, and political justice are envisioned as the ultimate goals of governance in the Preamble of the Indian Constitution. Part III, "Fundamental Rights," and Part IV, "Directive Principles of State Policy," together provide a dynamic foundation for the attainment of equality and human dignity in all domains, including the digital one.

1. Constitutional Safeguards and Judicial Interpretation

The right to equality before the law and equal protection of laws Article 14 forms the cornerstone of algorithmic fairness.³⁴ Indian courts have progressively expanded this provision to encompass substantive equality requiring not merely formal parity but equity in outcomes. In *State of West Bengal v. Anwar Ali Sarkar*³⁵ and *E.P. Royappa v. State of Tamil Nadu*,³⁶ the Supreme Court interpreted arbitrariness as antithetical to equality, a doctrine that resonates directly with the need to counter opaque algorithmic decision-making.

The right to life and personal liberty under Article 21 has evolved through judicial creativity to include privacy, dignity, and informational autonomy. In *Justice K.S. Puttaswamy v. Union of India*,³⁷ the Court's recognition of privacy as a fundamental right laid the foundation for

³²Yavuz Selim Balcioglu, Ahmet Alkan Çelik and Erkut Altindağ, "A turning point in AI: Europe's human-centric approach to technology regulation," 23 *Journal of Responsible Technology* 100128 (2025).

³³"Legal Frameworks Governing AI in Public Administration," available at: <https://www.iipa.org.in/GyanKOSH/posts/view/legal-frameworks-governing-ai-in-public-administration> (last visited November 21, 2025).

³⁴Divij Joshi, "AI governance in India – law, policy and political economy," 10 *Communication Research and Practice* 328–39 (2024).

³⁵Casemine Editor's Desk, "State of West Bengal v. Anwar Ali Sarkar: Upholding Equality Before the Law through Reasonable Classification" <https://www.casemine.com>, 1952 available at: <https://www.casemine.com/commentary/in/state-of-west-bengal-v.-anwar-ali-sarkar:-upholding-equality-before-the-law-through-reasonable-classification/view> (last visited November 21, 2025).

³⁶"EP Royappa vs State of Tamil Nadu - Case Analysis," *Testbook* available at: <https://testbook.com/landmark-judgements/ep-royappa-vs-state-of-tamil-nadu> (last visited November 21, 2025).

³⁷"Justice K.S. Puttaswamy v. Union of India, - Google Search," available at: https://www.google.com/search?q=Justice+K.S.+Puttaswamy+v.+Union+of+India%2C&rlz=1C1CHBF_enIN1020IN1020&oq=Justice+K.S.+Puttaswamy+v.+Union+of+India%2C&gs_lcrp=EgZjaHJvbWUyBggAEEUYOTIHCAEQABiABDIHCAIQABiABDIHCAQMABiABDIHCAQQABiABDIHCAUQABiABDIHCAYQABgWGB

algorithmic accountability, as any AI-driven interference with personal data or profiling must satisfy the tests of legality, necessity, and proportionality. Similarly, in *Anuradha Bhasin v. Union of India*, the Court linked digital access and free expression under Article 19 to democratic participation, implicitly recognizing the human rights dimension of technological regulation.

2. Statutory and Policy Frameworks

While India lacks a dedicated AI statute, emerging regulatory initiatives reveal a gradual movement toward human rights-based governance. The Digital Personal Data Protection Act (DPDPA) 2023 introduces principles of purpose limitation, data minimization, and consent—each critical in mitigating bias and ensuring accountability in AI systems that process personal data. However, the Act remains silent on algorithmic discrimination, explainability, or autonomous decision-making.

Parallely, the NITI Aayog's "Responsible AI for All" (RAI4A) framework of 2021 recognizes fairness, inclusivity, and transparency as guiding values for AI development. Yet, being policy-oriented rather than legally binding, it lacks enforcement mechanisms comparable to the EU's AI Act. The absence of statutory clarity leaves questions of redress and liability unresolved a gap that the Indian judiciary may be called upon to fill, as it has historically done in expanding the constitutional ambit to new frontiers.

3. Judicial and Regulatory Trends

Indian courts have already encountered the tension between technology and rights in cases involving surveillance, digital identification, and algorithmic governance. In *Internet Freedom Foundation v. State of Tamil Nadu* 2021,³⁸ the Madras High Court questioned the unregulated deployment of facial recognition technology by state authorities, citing privacy and equality concerns. Similarly, the ongoing debates surrounding AI use in judicial decision-making and predictive policing highlight the urgent need for normative guardrails grounded in due process and transparency.

Regulatory bodies such as the Ministry of Electronics and Information Technology (MeitY) and the Data Protection Board (under the DPDPA) are expected to play a greater role in overseeing algorithmic systems.³⁹ The potential introduction of algorithmic audits or AI impact

4yCAGHEAAYFhgeMggICBAAGBYHjIICAKQABgWGB7SAQc4MjJqMGo0qAIAAsAIB&sourceid=chrome &ie=UTF-8 (last visited November 21, 2025).

³⁸"Supreme Court to Decide Contours of the 'Right to be Forgotten' in Judicial Records.," *Internet Freedom Foundation (IFF)*, 2025 available at: <https://internetfreedom.in/supreme-court-to-decide-contours-of-the-right-to-be-forgotten-in-judicial-records/> (last visited November 21, 2025).

³⁹"Data protection laws in India - Data Protection Laws of the World," available at:

assessments could align India's regulatory trajectory with international best practices, embedding human rights evaluation into the lifecycle of AI deployment.

VI. CONVERGENCE AND DIVERGENCE

A comparative examination reveals both convergence and divergence between international human rights frameworks and Indian law:

Dimension	International Instruments	Indian Legal Framework
Normative Basis	UDHR, ICCPR, UNGPs, OECD AI Principles – emphasize universality, equality, and non-discrimination.	Constitution (Arts. 14, 19, 21), interpreted through substantive equality and dignity jurisprudence.
Regulatory Model	Risk-based (EU AI Act), emphasizing ex ante assessments, transparency, and oversight.	Fragmented: guided by constitutional principles and sectoral laws (DPDPA 2023, IT Act 2000).
Scope of Accountability	Multi-stakeholder: includes corporate and private actors.	Primarily state-centric, though evolving toward horizontal application of rights.
Remedies and Enforcement	Emphasis on due diligence, impact assessments, and right to effective remedy.	Judicial remedies via writ jurisdiction; lack of statutory mechanisms for algorithmic harm.
Ethical Oversight	UNESCO AI Ethics Recommendation; UN HRC resolutions on AI and rights.	Policy frameworks (RAI4A) and judicial supervision, yet non-binding in nature.

India's constitutional structure offers a strong moral and legal basis for integrating rights into technology regulation, even while international instruments offer comprehensive procedural protections. These two paradigms' convergence can serve as the foundation for a hybrid approach to constitutional algorithmic governance that is exclusive to India and harmonizes national constitutional morality with international human rights norms.

VII. EMBEDDING HUMAN RIGHTS IN AI REGULATION

The synthesis of international and Indian approaches requires a dual commitment: to global human rights universality and local constitutional specificity.⁴⁰ International law provides the normative grammar non-discrimination, transparency, remedy while Indian constitutionalism provides the moral lexicon dignity, reasonableness, and social justice. Together, they can form a legal architecture that transcends compliance and moves toward transformation. A future Indian Artificial Intelligence (Ethics and Accountability) Act could integrate these principles, mandating algorithmic impact assessments, human oversight, and bias audits as enforceable obligations. Judicial recognition of algorithmic bias as a violation of equality under Article 14 would further constitutionalize these duties. In doing so, India could position itself as a normative innovator in the Global South demonstrating how developing democracies can reconcile rapid technological growth with the imperatives of human rights protection.

VIII. DOCTRINAL CHALLENGES AND FUTURE DIRECTIONS FOR ALGORITHMIC REGULATION

There are significant conceptual problems to long-standing legal notions when artificial intelligence is included into governance and decision-making. Conventional theories of equality, culpability, and due process all of which were established in an era of human agency are being pushed to make room for autonomous and opaque technologies.⁴¹ The underlying assumption of the law that culpability follows intention is becoming more and more incompatible with algorithmic probabilistic logic. The main theoretical conflicts that AI causes with regard to Indian and international human rights legislation are examined in this section before some reform paths are suggested.

A. The Doctrinal Dislocation of Agency and Accountability

The dislocation of legal agency is at the core of the problem. AI systems, especially those using deep learning, draw conclusions that are difficult to attribute to a single human decision-maker. This opacity, also referred to as the "black box problem," compromises the legal connection between an act and its perpetrator that serves as the foundation for culpability.⁴² However,

⁴⁰Rawa Almakky, "THE ROLE OF INTERNATIONAL ORGANISATIONS IN THE DEVELOPMENT OF INTERNATIONAL LAW: AN ANALYTICAL ASSESSMENT OF THE UNITED NATIONS," 9 *Law and world* 40–66 (2023).

⁴¹Alexandra Huneus and Mikael Rask Madsen, "Between universalism and regional law and politics: A comparative history of the American, European, and African human rights systems," 16 *International Journal of Constitutional Law* 136–60 (2018).

⁴²"Black Box Problem in AI - GeeksforGeeks," available at: <https://www.geeksforgeeks.org/artificial-intelligence/black-box-problem-in-ai/> (last visited November 21, 2025).

attribution is unclear when the harm results from automated systems or private contractors using algorithmic decision-making.

Similar issues have long been debated in Indian law through concepts like vicarious liability and constitutional torts. The Supreme Court emphasized the necessity of compensatory justice in *Nilabati Behera v. State of Orissa*,⁴³ extending the state's accountability for basic rights abuses even in the absence of express intent. By this logic, a state should be held accountable under Articles 32 and 226 for violating fundamental rights if it implements an algorithmic system that results in exclusionary or discriminatory outcomes, such as refusing welfare benefits or incorrectly identifying citizens through facial recognition, regardless of whether the bias of the algorithm was predictable.

Enforcement is made more difficult by the division of accountability among data scientists, platform providers, and governmental organizations. This necessitates a distributed accountability theory, in which several actors have joint responsibilities for preventing, observing, and correcting algorithmic damages. This kind of strategy is in line with the UN Guiding Principles on Business and Human Rights' (UNGPs) due diligence requirements as well as the EU AI Act's developing concept of co-regulatory accountability.

2. Algorithmic Due Process

Both Indian and international human rights law are based on the principles of due process, or the right to a fair trial. In *Maneka Gandhi v. Union of India*,⁴⁴ the court interpreted "procedure established by law" under Article 21 of the Indian Constitution to include fair, just, and reasonable procedure. The judge can now examine the fairness of laws' application in addition to their content thanks to this doctrinal innovation.

In contrast, algorithmic decision-making frequently avoids procedural visibility. Seldom are those impacted by automatic results told of the reasoning or reasoning underlying the choice. The right to an effective remedy under Article 2(3) of the ICCPR and the right to a reasoned decision a component of procedural fairness acknowledged by the Indian Supreme Court in *Kranti Associates v. Masood Ahmed Khan* are both violated by this opacity. Legal systems must enshrine algorithmic openness and the right to explanation as procedural guarantees in order to reconcile AI with due process. These could include:

⁴³"Custodial Death in India – Legal Implications & Insights | Dhyeya Law," available at: <https://www.dhyeyalaw.in/custodial-death-in-india> (last visited November 21, 2025).

⁴⁴"Maneka Gandhi V. Union of India – Lloyd Law College," available at: <https://www.lloydlawcollege.edu.in/blog/maneka-gandhi-vs-union-of-india.html> (last visited November 21, 2025).

- i. statutory rights for people to learn meaningful information about algorithmic decision logic;
- ii. human oversight for high-risk decisions that impact rights (like employment, welfare distribution, or criminal sentencing); and
- iii. the establishment of independent algorithmic review authorities that can audit and certify AI systems for proportionality and fairness. Such changes find a home in India's constitutional jurisprudence. In order to apply this standard to algorithmic systems, any automated procedure that impacts basic rights would have to go through post-deployment assessment, ongoing oversight, and prior justification all of which are constitutional forms of algorithmic due process.

3. Evidentiary Burdens and the Epistemic Challenge of Algorithms

Additionally, AI challenges the evidentiary doctrines that are essential to legal decision-making.⁴⁵ Both domestic and international legal principles of evidence rely on the validity of documents and the dependability of human testimonies. Because algorithmic decision-making creates epistemic opacity, it becomes more challenging for claimants or courts to prove bias or causation. For instance, victims may not be able to demonstrate algorithmic unfairness in discrimination lawsuits due to proprietary or unintelligible source code and training data. As a result, there is an information asymmetry that effectively shields AI operators from criticism. Since the deploying entity must prove that its algorithmic system conforms with equality and fairness standards, the burden of proof must change from the conventional "complainant-based" approach to a reverse or shared burden.

Human rights jurisprudence is consistent with this inversion. In decisions such as *D.H. and Others v. Czech Republic*,⁴⁶ the European Court of Human Rights (ECtHR) acknowledged that statistical information may be sufficient to shift the burden of proof in matters involving discrimination. According to *Air India v. Nargesh Meerza*,⁴⁷ Indian courts have also recognized systemic or circumstantial evidence to infer prejudice. If these guidelines were applied to algorithmic contexts, the operator would have to provide audit data and algorithmic explainability to support the system's neutrality when a prima facie instance of bias is demonstrated, such as by statistical disparity or exclusionary consequences.

⁴⁵Keith Raymond Harris, "Synthetic Media Detection, the Wheel, and the Burden of Proof," 37 *Philosophy & Technology* 131 (2024).

⁴⁶*D.h. and Others v. the Czech Republic*, 2007.

⁴⁷AIR 1981 SC 1829.

4. Doctrinal Blind Spots

The rise of autonomous decision-making revives classical debates on legal personhood. The law traditionally recognizes natural and juristic persons—human beings and corporations—as rights-holders and duty-bearers. AI challenges this dichotomy by operating as a quasi-autonomous agent without moral or legal subjectivity. Granting AI systems independent personhood, as occasionally proposed in technological jurisprudence, risks diluting human accountability and undermining the moral purpose of law.

Instead, the focus should be on functional liability—a doctrine that attributes responsibility to the human or institutional entities that design, deploy, or benefit from AI systems. This approach preserves the anthropocentric core of human rights law while adapting it to new technological realities. The Indian Supreme Court’s decision in *Common Cause v. Union of India* (2018), which emphasized the sanctity of human autonomy in end-of-life decisions, underscores the jurisprudential centrality of human agency—a principle that must remain non-negotiable even in the age of algorithmic governance.

IX. FUTURE DIRECTIONS

The future of algorithmic regulation in India hinges on bridging the gap between constitutional ideals and effective regulatory enforcement. Three interlinked reform trajectories can be envisioned to achieve this goal. First, constitutionalizing AI governance: just as environmental protection and privacy have evolved into enforceable rights through judicial interpretation, algorithmic fairness could be recognized as an implicit component of Articles 14 and 21 of the Constitution. Judicial acknowledgment of “algorithmic equality” as integral to the right to life and human dignity would enshrine a constitutional obligation to ensure non-discriminatory AI systems. Second, institutionalizing algorithmic oversight: India requires an independent AI Ethics and Accountability Commission empowered to conduct mandatory algorithmic impact assessments (AIAs), audit AI systems used in public decision-making, and provide accessible grievance mechanisms for affected individuals. Such an institution could draw inspiration from international models like the EU AI Office and the UK Centre for Data Ethics and Innovation, while reflecting India’s constitutional ethos of participatory governance. Third, embedding human rights impact assessments (HRIA) in policy: public and private entities deploying AI should be legally mandated to conduct HRIAs in line with the UN Guiding Principles on Business and Human Rights. These assessments would evaluate potential risks to equality, privacy, and autonomy, with findings subject to public disclosure and judicial review, ensuring both transparency and accountability.

Beyond structural reforms, the legal doctrine itself must evolve to meet the challenges of the algorithmic age. Concepts such as reasonableness, proportionality, and equality must be reinterpreted to govern AI systems whose decisions invisibly affect fundamental rights. Law must shift from ex post remedies to ex ante safeguards, from individual litigation to systemic accountability, and from reactive regulation to anticipatory governance. India's constitutional jurisprudence—dynamic, purposive, and humanist—offers a distinctive pathway, enabling the integration of international norms without undermining sovereignty. By infusing algorithmic regulation with the moral grammar of the Constitution, India has the opportunity to cultivate a jurisprudence of technological justice, ensuring that the rapid advance of automation strengthens rather than undermines the imperatives of human dignity, equality, and rights.

X. RECOMMENDATIONS

We have entered a new constitutional era in the conversation between technology and the law. Artificial intelligence is a transformational architecture of power that rethinks access, justice, and decision-making. It is not just a tool for efficiency. Algorithms are changing how rights and obligations are distributed in society as they mediate human experience more and more. Making ensuring that this change enhances rather than undermines the human rights order is the task facing India and the international community.

As demonstrated by this study, algorithmic bias is a systemic distortion that directly affects equality, dignity, and procedural fairness values important to both Indian constitutionalism and international human rights legislation. According to the comparative analysis, India's constitutional framework offers a unique moral vision based on substantive equality, reasonableness, and constitutional morality, even though international instruments such as the EU AI Act (2024), UNESCO's AI Ethics Recommendation (2021), and the UN Guiding Principles on Business and Human Rights provide normative clarity and procedural standards. When taken as a whole, they show the general outline of a new algorithmic regulation paradigm that is focused on human rights.

A. Human Rights as the Foundation of AI Regulation

AI governance must be anchored in human rights. International instruments like the UDHR, ICCPR, and ICESCR provide principles of equality, non-discrimination, and remedy that should guide AI design and deployment. In India, Articles 14 and 21 can be interpreted dynamically to include algorithmic fairness, privacy, and informational self-determination. Judicial recognition of algorithmic bias as a violation of fundamental rights would extend constitutional protection into the digital domain.

B. Institutionalizing Algorithmic Oversight

A statutory Artificial Intelligence (Accountability and Human Rights) Act should mandate:

- a) Human Rights Impact Assessments for high-risk AI systems.
- b) Transparency obligations covering model logic, data, and decision criteria.
- c) Right to explanation and redress for affected individuals.
- d) Periodic algorithmic bias audits under independent supervision.

An independent AI Ethics and Accountability Commission should investigate complaints, oversee compliance, issue binding guidelines, and coordinate internationally—functioning like the NHRC for digital governance.

C. Strengthening Judicial and Administrative Safeguards

Courts should apply proportionality-based review to AI decisions, requiring justification for necessity and reasonableness. Human-in-the-loop safeguards must ensure accountable human oversight, with explainable AI mechanisms embedded as a standard for administrative fairness.

D. Promoting Algorithmic Literacy and Public Participation

Democratizing understanding of AI is essential. Governments must invest in literacy programs for citizens, policymakers, and judges, and facilitate public consultations to align AI policies with transparency and democratic participation.

E. Embedding Ethical AI in Public and Private Sectors

Corporations should conduct algorithmic due diligence in line with UNGPs and OECD AI Principles. Public procurement can mandate fairness, accountability, and transparency (FAT) compliance, operationalizing fundamental rights across private and public AI applications.

F. Advancing International Cooperation

India should engage with UNESCO, OECD GPAI, and the Council of Europe frameworks to ensure cross-border coordination, contributing a Global South perspective while upholding universal human rights.

G. Reimagining Law for the Algorithmic Age

Legal frameworks must shift from reactive regulation to proactive human-centric governance. Constitutional principles—justice, liberty, equality, and fraternity—should be embedded into algorithmic design. “Constitutional algorithmics” would ensure AI in governance respects the same moral and procedural standards as human authority, transforming technology into an

instrument of empowerment rather than exclusion.

XI. CONCLUSION

The contemporary rule of law is put to the ultimate test by algorithmic bias. By substituting automation for accountability and prediction for discussion, it calls into question the moral foundation of human rights. However, this difficulty also presents a chance to restate the universality of human rights in a language that the computer can comprehend. India is in a unique position to serve as a model for a rights-based approach to AI governance for the Global South because of its constitutional legacy of transformative justice and its growing prominence as a digital leader. India can show that human dignity should not be sacrificed for technological growth by balancing its national constitutional ideals with international human rights standards. Instead, it might be the next phase of human rights' development, one that is recorded in both legal and computational code that now determines our shared future.

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