

Algorithmic Adjudication: A Constitutional Scrutiny of AI in India's New Criminal Justice Framework



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Abstract

The enactment of the Bharatiya Nyaya Sanhita (BNS), Bharatiya Nagarik Suraksha Sanhita (BNSS), and Bharatiya Sakshya Adhinyam (BSA) signals a digital-first shift in India's criminal justice system, enabling unprecedented integration of Artificial Intelligence (AI). This article critically investigates the constitutional ramifications of deploying AI-driven tools such as predictive policing and risk-assessment algorithms in judicial processes. While these technologies promise procedural efficiency, their opaque logic and potential for bias threaten foundational rights. Employing doctrinal and critical legal analysis, the study demonstrates that unregulated algorithmic interventions in judicial functions jeopardize the right to equality (Article 14), freedoms (Article 19), and the right to life and personal liberty, including fair trial guarantees (Article 21). The findings reveal that algorithmic "black boxes" erode core natural justice principles, fundamentally undermining the right to be heard and to receive reasoned decisions. Addressing a critical gap in current scholarship, the article proposes a safeguards doctrine anchored in constitutional values, advocating for Algorithmic Impact Assessments, explainability requirements, preserved human oversight, and independent review. Through the conceptualisation of a 'Doctrine of Algorithmic Due Process', the article offers a robust constitutional framework to prevent digital justice from devolving into automated injustice.

Keywords: Artificial Intelligence, Algorithmic Adjudication, Criminal Justice Reform, Bharatiya Nyaya

Introduction

The digitalisation of justice is rapidly reshaping legal systems worldwide, with jurisdictions across the European Union and the United States grappling with regulatory approaches to algorithmic governance. India's criminal justice system, however, stands at a distinct constitutional turning point with the enactment of the Bharatiya Nyaya Sanhita (BNS), Bharatiya Nagarik Suraksha Sanhita (BNSS), and Bharatiya Sakshya Adhinyam (BSA) in 2023. Unlike the often policy-driven evolution seen elsewhere, these statutes create a direct legislative foundation for integrating Artificial Intelligence (AI) into core judicial functions

including predictive policing and algorithmic risk assessment in bail and parole hearings.

This article therefore asks: To what extent does the legislatively facilitated integration of AI under India's new criminal codes affect fundamental rights, and what constitutional safeguards are necessary to address these challenges? The analysis employs a doctrinal methodology rooted in constitutional provisions and Supreme Court jurisprudence, specifically Articles 14, 19, and 21 supplemented by a critical legal analysis of algorithmic power and structural bias. This dual approach critiques the legislative vacuum and constructs a necessary normative framework: the doctrine of algorithmic due process.

While international scholarship has scrutinised bias, opacity, and accountability in algorithmic adjudication, it predominantly reflects Global North perspectives. In India, legal commentary has generally centred on procedural digitisation, e-governance, and data protection rather than the statutory mechanisms enabling AI integration following the 2023 criminal law codes. This article fills that gap by presenting a jurisdiction-specific constitutional critique of AI-driven adjudication, situating India's reforms in comparative context and advancing an indigenous, constitutionally grounded analysis.

The relevance of this inquiry is urgent and foundational. Uncritical adoption of AI in judicial functions risks institutionalising injustice through automation, elevating procedural efficiency over substantive constitutional morality. In the absence of explicit safeguards within the 2023 codes or existing judicial precedents, this article confines its scope to constitutional implications of AI use in adjudicative decisions, particularly bail, parole, and risk assessment. It contends that India's robust fundamental rights jurisprudence provides the foundation for articulating a doctrine of algorithmic due process. By interrogating this legislative and regulatory vacuum, the article seeks to establish a safeguards framework prior to the entrenchment of automated decision-making, thereby contributing meaningfully to Indian constitutional law and global debates on AI governance in justice.

The New Legal Landscape: Laying the Digital Track

The recent legislative reforms do not merely update legal language; they construct a transformative technological paradigm for criminal justice. Their significance lies not in an explicit command to use Artificial Intelligence (AI) but in deliberately crafting a digital-friendly ecosystem that normalizes its adoption and renders integration inevitable.

The Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023 which replaced the Code of Criminal Procedure, 1973 is the procedural cornerstone of

this shift. Illustrative provisions include Section 176(3) (mandating video-recording of the process of collection of forensic evidence for offences punishable with seven years or more) and Section 183 (which authorises a Magistrate to record confessions and statements and contemplates audio-video recording of such proceedings). Section 185 requires audio-video recording of searches by police and forwarding of recordings to the magistrate, and Section 530 allows trials and related proceedings to be conducted in whole or in part electronically. These provisions do more than modernize evidence collection; they create structured, digitalized evidence streams. This standardization produces the consistent, machine-readable data essential for algorithmic processing. In this respect, the law is not passively adapting but actively building the underlying data infrastructure.

The Bharatiya Sakshya Adhinyam (BSA), 2023 completes this framework: Section 61 treats electronic records as admissible on the same footing as paper, and Sections 63–67 update authentication and admissibility rules for electronic records. Together the statutes do not merely adapt to digital evidence, they actively build the legal and technical infrastructure that produces consistent, machine-readable data essential for algorithmic processing, while raising deeper constitutional questions about reliability and opacity.

The objectives of this digital shift reducing case backlogs, expediting evidence analysis, and standardizing investigations are legitimate and align with the right to a speedy trial under Article 21 of the Constitution. The critique here is not directed at these goals but rather at the legislative choice to pursue them without embedded constitutional safeguards. While these reforms modernize a 19th-century system, their conscious silence on standards for algorithmic use is striking. The legislature has laid the digital tracks for a high-speed train but failed to install the signalling systems and safety protocols. This regulatory vacuum is where constitutional dangers take root.

By institutionalizing digitized evidence and enabling AI-driven adjudication, these reforms lay the foundational infrastructure for a digital judiciary. The pressing question that follows is how constitutional principles can be embedded within this evolving landscape to ensure that technological progress does not come at the expense of fundamental rights.

Constitutional Scrutiny: Fundamental Rights in the Algorithmic Age

The deployment of Artificial Intelligence (AI) in the justice system is not a routine administrative measure but an exercise of state power that must withstand rigorous constitutional scrutiny under Part III of the Indian Constitution. Its integration raises profound and novel challenges to fundamental rights.

Article 14: The Right to Equality and the Peril of Automated Arbitrariness: Article 14 guarantees equality before the law and equal protection of the laws, expressly prohibiting arbitrariness. In *E.P. Royappa v. State of Tamil Nadu* (1974), the Supreme Court reaffirmed that “arbitrariness is the antithesis of equality.” AI systems utilized in predictive policing or risk assessments threaten to produce arbitrariness and systemic discrimination. They operationalize the computer science maxim ‘Garbage In, Garbage Out’ (GIGO), by perpetuating social biases embedded in their training data. For instance, a predictive policing tool trained on Delhi’s arrest records might disproportionately target low-income areas, thereby reinforce a surveillance feedback loop and disproportionately punish marginalized populations, which violates the equality guarantee under Article 14.

This concern echoes the international case *Loomis v. Wisconsin*, where the opaque COMPAS risk assessment raised due-process and transparency issues. Although upheld, the decision highlights the global constitutional dilemma posed by “black-box” AI systems. India’s constitutional anti-arbitrariness doctrine, reinforced by the Right to Equality, is well-suited to address this challenge, especially given the opacity and potential bias of advanced AI systems.

Furthermore, the “black-box” nature of modern AI destroys transparency. State actions must be based on intelligible, reviewable differentials. When judicial decisions rely on proprietary scores without understanding their rationale, decisions risk becoming arbitrary, violating procedural fairness and the principles articulated in *Justice K.S. Puttaswamy (Retd.) v. Union of India* (2017).

Article 21: Liberty, Fair Trial, and the Algorithmic Judge: Article 21 encompasses the right to life, liberty, and a fair, speedy trial. AI tools like Risk Assessment Instruments (RAIs) threaten these guarantees directly.

In bail and parole proceedings, RAIs predict recidivism or flight risk. Overburdened judges may exhibit “automation bias,” deferring to algorithmic scores and thereby diminishing their traditional holistic, individual assessment process. This reduces the accused to a data point, undermining the constitutional requirement of personalized justice, as emphasized in *Maneka Gandhi v. Union of India* (1978). Relying blindly on opaque algorithms may amount to abdicating judicial control over liberty and due process rights.

Predictive policing practices labelling individuals or communities as “high risk” erode the presumption of innocence and encourage a preemptive, suspicion-based approach. This fosters a “pre-crime” mentality that legitimizes surveillance, harassment, and defamation, prejudicing fair trial rights and threatening democratic freedoms.

Article 19: The Chilling Effect of Algorithmic Surveillance: AI-driven surveillance endangers freedoms guaranteed under Article 19, including movement and peaceful assembly. Continuous, algorithmic monitoring induces self-censorship, where citizens fearing false flags as “suspicious” may avoid protests or public gatherings. This suppression of lawful dissent and association undermines the participatory democracy embedded in the Constitution. The chilling effect ultimately saps societal vigor and constitutional protections against authoritarian overreach.

The Irreconcilable Conflict: Opaque Algorithms vs. Natural Justice

Beyond the explicit text of written constitutional rights, the deployment of AI in adjudicatory func-

tions creates an insurmountable conflict with the principles of natural justice, the common-law conscience of the administrative and judicial state.

The principle of *audi alteram partem* (hear the other side) is fundamental to a fair hearing. It requires that a person be given a meaningful opportunity to be heard, to know the case against them, and to rebut the evidence presented. How can a defendant effectively challenge a “high risk” score generated by proprietary algorithms, such as COMPAS or analogous systems? When the factors, their weightings, and the model’s internal logic are trade secrets or beyond meaningful human comprehension, the right to rebuttal becomes illusory. The defense cannot contest what it cannot see, understand, or interrogate. Such opacity reduces the hearing to a procedural formality, stripping it of substantive fairness.

Equally compromised is the principle of a reasoned decision. Indian jurisprudence, notably in *S.N. Mukherjee v. Union of India* (1990), holds that recording reasons not only affirms that the decision-maker applied their mind but also enables appellate or supervisory review. A judicial order stating, “Bail is denied based on a high-risk score generated by [X] algorithm” without elaboration fails this test. The reasoning must originate from the judicial mind. Reliance on opaque algorithmic outputs is not reasoned judgment; it is abdication. It represents a delegation of core judicial authority to a private, unaccountable, inscrutable process. Such failure undermines appellate review: without understanding the grounds of a decision, higher courts cannot assess its rationality or fairness, effectively nullifying the safeguard of appeal. This fundamental conflict demands robust judicial accountability and transparency frameworks to reconcile AI’s efficiencies with constitutional commitments to fairness and justice.

Key Findings

The analysis yields several critical findings regarding the unregulated adoption of AI in criminal justice:

Systemic Threat to Fundamental Rights: AI tools deployed for predictive policing, risk as-

essment, and judicial support pose profound and multifaceted threats to the rights to equality (Article 14), freedoms of movement and assembly (Article 19), and life and personal liberty, including the right to a fair trial (Article 21).

Automation and Entrenchment of Bias: These technologies risk automating, sanitizing, and entrenching existing societal biases at unprecedented scale and speed. By learning from historical data that reflect past prejudices, they create self-reinforcing feedback loops of discrimination and exclusion.

Violation of Non-Arbitrariness: The inherent opacity of “black box” algorithms breaches the constitutional principle of non-arbitrariness under Article 14. State actions depriving liberty must be transparent and rational; opaque algorithms fail to meet these standards.

Erosion of Individualized Justice: Algorithmic risk assessments reduce individuals to data points, undermining the presumption of innocence and the right to an individualized, holistic hearing cornerstones of a fair trial under Article 21.

Fundamental Incompatibility with Natural Justice: The opacity of AI systems defeats the principles of natural justice by rendering the right to a meaningful hearing (*audi alteram partem*) and the right to a reasoned order effectively unenforceable. Individuals cannot challenge or comprehend the case against them, nullifying critical procedural safeguards.

Forging a Path Forward: Actionable Recommendations for a Doctrine of Algorithmic Due Process

A wholesale rejection of Artificial Intelligence (AI) is neither feasible nor desirable. Its potential to enhance efficiency and reduce backlogs within India’s criminal justice system cannot be ignored. The real challenge lies not in prohibition but in creating a rights-centric framework that ensures these technologies serve justice rather than replace it. To this end, this article proposes a Doctrine of Algorithmic Due Process a model that adapts constitutional fairness to the realities of automated decision-making.

Building upon foundational concepts such as the “right to explanation” and “procedural data due process”, this doctrine synthesizes these ideas within the broader common law principles of natural justice tailored specifically for adjudicatory contexts. It envisions a legislative mandate, an Algorithmic Accountability Act to institutionalize binding safeguards beyond what judicial innovation alone can provide.

The doctrine rests on four essential pillars:

1. Mandatory Pre-Deployment Algorithmic Impact Assessments (AIAs): Prior to their use in justice functions, all AI tools must undergo transparent public AIAs evaluating their impact on fundamental rights, encompassing:

- **Bias auditing** to detect discriminatory outcomes across protected groups using comprehensive and diverse datasets.
- **Purpose and design scrutiny**, including disclosure of the AI system’s rationale, architecture, and training data.
- **Public consultation**, enabling expert and civil society feedback to uphold democratic legitimacy.

2. Explainability and Transparency Mandates (The Context-Aware Right to Explanation):

Opaque “black box” AI systems are fundamentally incompatible with due process. The law must require:

- **Notice:** Individuals affected by algorithmic decisions must be informed clearly and promptly.
- **Access and Explanation:** Affected persons receive comprehensible explanations of the major factors influencing decisions, while regulators and accredited researchers gain confidential access to technical details under protective safeguards.
- **Auditability:** A secured-access model should enable independent oversight without compromising proprietary information.

3. Meaningful Human Control: Algorithmic outputs must remain strictly advisory. Human decision-makers such as judges, magistrates, or police officers, must hold ultimate authority and provide independent, reasoned decisions that

demonstrate active engagement with, not passive acceptance of, algorithmic inputs. Explicit notation of agreement or divergence from AI recommendations should be mandated, preventing automation bias.

4. Robust Redressal and Oversight: An independent, expert Algorithmic Accountability Commission or a dedicated division within the Data Protection Board should be empowered to:

- Conduct periodic fairness, accuracy, and compliance audits.
- Investigate grievances and ensure accessible remedies for affected individuals.
- Enforce penalties or suspend non-compliant systems.
- Advise policymakers on best practices and legal reforms responsive to rapidly evolving technology.

Far from restraining innovation, the Doctrine of Algorithmic Due Process channels technological advancement toward a trustworthy, transparent, and accountable justice ecosystem. This ensures that efficiency gains do not come at the cost of constitutional principles such as justice, fairness, and morality.

While the focus here is on criminal justice reform under India’s new codes, this doctrine offers an adaptable and principled framework applicable across various state functions increasingly mediated by automated systems. The time for this rights-centric governance approach is now. India has laid the ‘digital tracks’ for the future of justice; it is a constitutional imperative that we install the necessary signalling and safety mechanisms to keep that journey on the path of equality and fairness, preventing a descent into automated injustice.

Conclusion

The modernization of India’s criminal justice system through the enactment of the Bharatiya Nyaya Sanhita (BNS), Bharatiya Nagarik Suraksha Sanhita (BNSS), and Bharatiya Sakshya Adhinyam (BSA) represents a necessary and ambitious step toward embracing technological innovation. However, in doing so, the legislature has established a digital infrastructure that facilitates ex-

tensive use of Artificial Intelligence (AI) without installing robust constitutional safeguards.

This article has critically examined the integration of AI within this new framework, revealing a profound and irreconcilable conflict between opaque “black-box” algorithms and the fundamental procedural guarantees enshrined in the Indian Constitution. It demonstrates that without essential safeguards namely transparency, accountability, and meaningful human oversight, the deployment of AI threatens core rights including equality, liberty, and the right to a fair trial, ultimately undermining the foundational principles of natural justice.

In response to these challenges, the article proposes the Doctrine of Algorithmic Due Process, a constitutional framework underpinned by the pillars of transparency, accountability, meaningful human control, and robust mechanisms for redressal. These are not merely aspirational ideals but urgent constitutional imperatives to ensure that India’s digital future honours constitutional morality while protecting the fundamental rights of its citizens.

By situating technological progress squarely within constitutional parameters, this work contributes to an evolving body of scholarship on AI governance. As India advances into an AI-augmented justice landscape, the road ahead must be paved with fairness, transparency, and accountability pillars essential to preventing a descent into automated injustice.

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