



Artificial Intelligence in the Indian Legal System: Navigating Adoption, Challenges, and Implications

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Abstract. Today Indian jurisprudence is in crossroad due to the backlog crisis that is threatening constitutional promise of having a speedy justice. The introduction of Artificial Intelligence (AI) has become not only a potential but an essential requirement of change within their courts as the number of cases goes beyond 50 million This study design is a systematic way of negotiating this rocky terrain of AI penetration in this system. It considers the two-pronged strategy of the policy of the Centre, which overlay the primary digitization of the courts via the e-Courts Mission Mode Project on the wider ecosystem development throughout the IndiaAI Mission. The examination of the continued application of AI includes both applications built in the Supreme Court and innovations built in the private LegalTech industry to the controversial use of facial recognition technology in the law enforcement practice. It claims that even though AI embodies transformative possibilities, implementation is confronted with the problems that overlap in a combination of existing socio-equilibrium disparities and new regulatory frames.

The risk of algorithmic bias, the perennial existing digital divide between substantial sections of society, and the shortcomings of existing data protection regulation are the major barriers which are rigorously analysed. This article ends with a road map to responsible deployment after a comparative analysis between the emerging regulatory approach in India and the global model. It invokes the rights-based, constitutionally enlightened method with utmost respect towards transparency, accountability and equity to keep the quest towards efficiency not prejudiced of the principles underlining justice.

Keywords: Artificial Intelligence (AI), Indian Legal System, Judicial Pendency.

1 Introduction

Indian courts are in an unprecedented crisis: a colossal catalogue of unadjudicated cases has grown out of a mere matter of administrative ineffectiveness, to a system-wide crisis, where even the constitutional promise of expeditious justice is at stake. By 2025,

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the total unadjudicated number of cases across the Indian courts has gone beyond 50 million [1]. This is an appalling amount, though admirable as it is disturbing, which mixes up the details of the backlog on its worst side, on the lowest floors of the judicial system.

The hyperbole of this crisis is measured by the National Judicial Data Grid (NJDG), an invaluable instrument in the measurement of judicial performance. By August 2025, the number of pending cases in the district and subordinate courts alone is more than 47.8 million cases, including about 11 million civil cases and an outrageous 36.76 million criminal cases. The lifetime of such cases is also worrying. According to statistics in the NJDG, more than 4.4 million cases in such lower courts are over a decade old, and there are another 8.5 million awaiting between five and ten years. This is not just a case of justice delayed is justice denied scene that is restricted to the lower courts. As of the end of November 2024, the Supreme Court of India, the highest court in the country, had 82,347 cases in its queue Pendency Reduces by over 650 Cases in November 2024 - Supreme Court Observer, 2024. The cumulative effect of this backlog is so profound that a 2018 strategy paper by NITI Aayog, the government's primary policy think tank, grimly projected that at the then-prevailing rate of disposal, it would take over 324 years to clear the existing backlog of cases [2].

This information, which is summed up in Table 1 and in the data that states pendency by age in district and the subordinate courts in Figure 1, indicates that this is not just a matter of statistics but a matter of human cost, a litigant caught in the proverbial maize of a long court procedure which is undermining a belief in the rule of law. The pendency crisis is thus the irresistible context in which the shift towards technological answers, especially artificial intelligence, is being packaged as a desperate and essential need to be reformed.

Table 1. Case Pendency in the Indian Judiciary as of 2024-2025Phase [16].

Court	Number of pending cases
Supreme Court of India	82,347 (as of Nov 2024) (<i>Pendency Reduces by over 650 Cases in November 2024 - Supreme Court Observer, 2024</i>)
High Courts	63,77,022 (as of Aug 2025) (<i>HC NJDG - National Judicial Data Grid, n.d.</i>)
District & Subordinate Courts	47,547,154 (as of Aug 2025) (<i>NJDG-National Judicial Data Grid, n.d.-b</i>)
Civil Cases	11,044,836
Criminal Cases	36,502,318

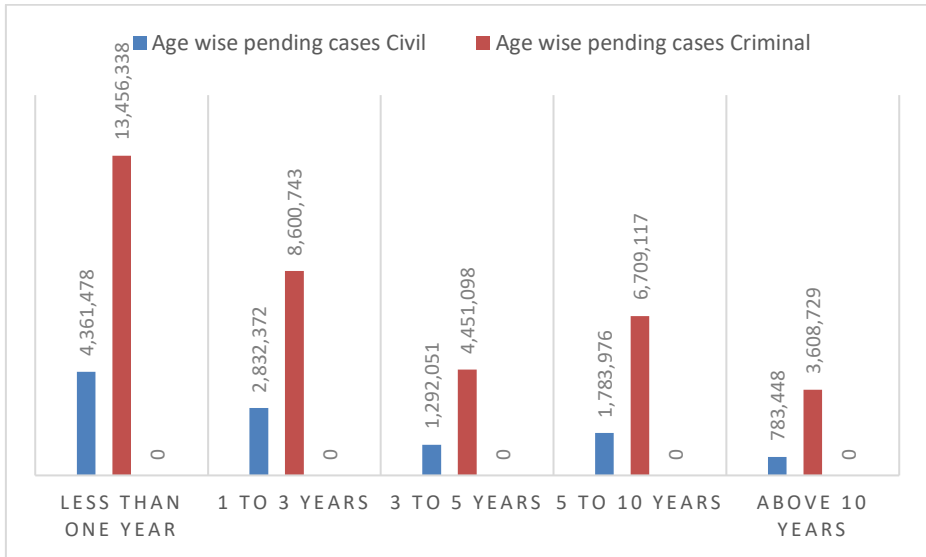


Fig. 1. Age-wise Pendency in District & Subordinate Courts

As the issue of judicial delay has proved to be intractable, policymakers and judicial administrators have begun to seek forceful answers to such a problem in the form of technology. The best place to highlight this technological push is artificial intelligence, which is the capacity of machines to think, perceive, learn, solve problems, and make decisions or put another way, cognitive tasks. Global AI has the potential to offer improvements to the legal field because it can be used to automate routine administrative functions, ease case handling, strengthen legal research, and eventually liberate judicial time to adjudicate the case.

The Government of India aims at using technology to implement a regime of optimum easiness of justice, this way altering the deal involving the citizen with legal apparatus Phase 3 Department of Justice 3 India. The vision is not an aspiration, with the judiciary on the move to realize the vision. The Supreme Court has initiated the application of AI and machine-learning (ML) tools to particular and well-defined tasks, such as transcription of oral arguments presented before the Supreme Court in a high-stakes case in the nation of linguistic plurality and the translation of the decisions into various Indian languages, which will contribute to access to justice. Noteworthy, the judiciary has provided a cautious line, stating the fact that these instruments are not used in actual judicial decision-making, but instead are not meant to be, but to tasks of case-management and judicial. The pictured patience reflects the recognition that AI is no panacea; instead, it is a powerful set of tools that when used wisely can add significant human skillsets and relieve some systemic pressures that lead to pendency.

The given paper develops the thesis statement that, despite the need and the revolutionary potential of the Indian legal system adopting the use of artificial intelligence, its current course poses a significant threat to the constitutional values, justice, and the rule

of law. The efficiency that is pursued by using technology, without being handled with the utmost care, runs a danger of entrenching prior societal biases, creating new exclusion types, and confusing the principles of justice that it was supposed to empower. In turn, an effective transition requires a rights-based regulatory framework that is planned, which entails a careful balance between the incentive to innovate and protection of essential legal and human rights.

The following organizational structure is what is presented in this paper to prove its point. Section 2 itself includes the detailed discussion of the methodological architecture of India, by asking questions about the relative roles of the judiciary-focused e-Courts Mission Mode Project as compared to the larger IndiaAI Mission. Section 3 maps the present deployment environment, including applications both at the Supreme Court and the rapidly expanding private Legal- Tech ecosystem, as well as the controversial use of AI in courts. Section 4 challenges all the obstacles, both ethical, structural and legal, which are facing this technological shift, albeit with discussions about algorithmic bias, the digital divide, the issues of data-protection and the necessity of explainability. Lastly, the fifth section is a prospective trajectory that is proposing by incorporating into the adoption of AI in the Indian judicial system lessons learned in other countries, and suggests a roadmap by which AI adoption can be responsible and constitutional.

2 Literature Study

The adoption of artificial intelligence in the Indian legal system is not a coincidental event; hence, it is supported by a well-thought program with sound financial resources. This roadmap will be pursued in two parallel tracks: a track dedicated to digitizing the judicial process, putting a particular sector in particular focus, and a more interdisciplinary trajectory that seeks to have a solid national AI ecosystem. The two projects, i.e., the e-Courts Mission Mode Project and the IndiaAI Mission are a duo engine strategy that nurtures the demand as well as supply on complex technological solutions necessary in effective management of justice [11].

The e-Courts Mission Mode Project has seen the pillar stage of judicial modernisation in India. Its development carries a long-term, staged approach aimed at building a digital base that can be used to support a modern system of justice dispensation. The project was launched with Phase I (2011-2015) and Phase II (2015-2023) that focused on the necessary preconditions of court computerisation, the sale of hardware, and the creation of internet access at the national level [9]. These initial stages formed the necessary basis of a bigger vision. Phase 3 of the SC was approved by the Union Cabinet in September 2023, thus suggesting a strong extension of its scope and funding. This step is pegged by the diversion of the financial expenditure of about 7 210 crore over a period of four years with starting year 2023 and the aim of the step is to transform the judicial system to a digital, online and paperless format Phase-III department of Justice.

The scopes of this stage are wide invasive. It includes the grand project of digitising 3,108,000 (31.08 billion) pages of historical court records, the development of 4,400 operationalised eSewa Kendras-citizen-service centres within court complexes to reduce the digital divide, the expansion of virtual courts to non-traffic offenses, and the development of an integrated technology platform that ensures seamless and paperless interaction of courts, litigants and other stakeholders E -Courts Mission Mode Project, 2024. This is, in itself, not technology introduction but a wholesome re-engineering of judicial procedures, upon which any future AI use and application can be built and work done.

Coexisting with the judicial-specific changes is a far larger national agenda of transforming India into a world leader in artificial intelligence. This ambition was initially expressed in the 2018 discussion paper published by NITI Aayog, National Strategy for Artificial Intelligence, the principle philosophy of which was the AI-for All [3]. The vision focuses on using AI as a tool to grow not only eco-nomically but also socially and inclusive growth and will target such sec-tors as healthcare, agriculture, and education [1].

This strategic vision has since been operationalized by the IndiaAI Mission which was adopted in March 2024. A five-year plan with a huge budget of more than 10,300 crore is to be supported by a robust budget and aimed at creating a powerful and independent AI ecosystem cabinet Approves Over Rs 10,300 Crore for IndiaAI Mission, Will empower AI Startups and increase Compute Infrastructure Access, 2024. The mission is designed in the form of seven pillars which will bridge important gaps in AI capabilities in India. These involve the establishment of a massive public-private AI compute platform by placing more than 10,000 Graphics Processing New units (GPUs); the establishment of the IndiaAI Datasets Platform to make high-quality, anonymized data about the public sector available to researchers and startups; the IndiaAI FutureSkills program to develop talent; and a startup funding system to give budding AI ventures risk capital Cabinet Approves Over Rs 10,300 Crore for IndiaAI Mission, Will Empower AI Startups and Expand Compute Infrastructure Access [7].

On critical analysis of these two parallel initiatives, there is a complex, long term strategy. A good compensatory approach supported by the e-Courts Project is productive, as it produces a national priority that is well-suited and visible and a particular application of high-tech legal technologies. It establishes what problems should be solved, that is, case management, reduction of pendency and access to the justice. At the same time, the IndiaAI Mission is the supply-side engine by developing the underlying national capability in compute power, data availability, talent, and native models by which this demand can be fulfilled. This coalescence is aimed to create technological self-reliance (Atmanirbhar Bharat) in one essential sovereign role. Judicial AI applications such as the SUVAS translation software, as one example, can be trained much faster and with improved results using indigenous Large Multimodal Models (LMMs) trained on Indian languages and law and logic, which is one goal of the IndiaAI Mission Cabinet Approves Over Rs 10300 Crore for IndiaAI Mission, Will Empower AI Startups, and Expand Compute Infrastructure. This dual-engine model puts the judiciary not only as the consumer of technology but also a strategic field whereby India shows and proves its AI skills at home.

3 Proposed Methodology



Fig. 2. Proposed Work Flow

In this research, an analytic approach uses a qualitative doctrinal and policy-analysis framework to explore the process and the issues of Artificial Intelligence adoption and its implications concerning the Indian legal framework. The study is a conceptual and analytical study, which avoids empirical approaches. The sources of material were selected with the help of a systematic review of the official government activities and policy documents, such as the e-Courts Mission Mode Project, the IndiaAI Mission, and NITI Aayog reports, judicial sources Supreme Court initiatives and publicly available case data), the current statutory schemes (e.g. the Digital Personal Data Protection Act, 2023), and scholarly articles on the topic, policy reports, and reliable journalistic investigations on AI and law. Cross-border comparative of the international regulatory practice has a comparative only illustrative effects on situating the nascent Indian framework, not to engage in comparative legal study. The article does not claim to be

displaying original empirical research, statistical modeling, or actual field research, instead seeking to compile existing legal, policy, and technological advances, to find structural risks, normative issues, and the ways of constitutionally acceptable and responsible adoption of AI in the Indian judiciary.

This number outlines the conceptual framework that will be used in the current study to examine the introduction of Artificial Intelligence in the Indian legal system. The first step is the systematic search and gathering of authorities of policy documents, judicial decisions, statutory text and legal literature, and this is filtered and organized into thematic sections so as to provide relevance as well as methodological coherence. Analysis will then be performed through the prism of legal hermeneutics, scrutiny of policy intent, and contextualisation of the socio-constitutional background using few international references as a basis of comparative grounding. The possible applications of AI then are evaluated based on normative constitutional requirements, such as transparency, accountability, and mitigation of bias and access to justice fairly and evenly to see whether they can abide by legal principles. Insights in the technical field based on judicial administration, LegalTech ecosystems, and law-enforcement case studies are brought together to clarify systemic weaknesses and regulatory evenings. The methodology concludes with an appellative phase that weighs judicial effectiveness with constitutional protections, which results in a rights-based course of policy adoption of AI usage.

4 The Landscape of Deployment: Applications of AI within the Indian Legal Framework

The governmental strategic project has stimulated the incorporation of the artificial intelligence into the Indian judiciary, both, on the one hand, at the top of the judiciary and on the other hand, at the thriving of the private practice. Such deployment occurs as a continuum of applications, by including judicial assistants which are created to make procedural efficiency more efficient at the lowest part of the hierarchy, to advanced analytic systems used by the practitioners of law, and to the disputed applications to law enforcement.

4.1 AI in the Sanctum: Supreme Court's Foray with SUPACE and SUVAS

The Supreme Court of India is on a visionary but prudent course towards augmenting artificial intelligence (AI) into the process of its proceedings, with the key focus being to find those tools that complement, and not override, the human oversight of the legal process. This can be seen through two flagship projects:

SUVAS (Supreme Court Vidhik Anuvaad Software): This is an artificial-intelligence-based translation software, the direct intervention in the linguistic diversity in India, and it is a major step towards higher access to justice. SUVAS was created with technical support provided by the Ministry of Electronics and Information Technology

(MeitY) and is specifically created to serve the objectives of the judicial sphere. It also renders English orders, judgments, and other documents of the judiciary in a variety of Indian languages. It is capable of supporting eighteen different languages, including Hindi, Tamil, Gujarati, Bengali and others, though initially it supported ten vernacular languages. In making small steps by offering apex-court judgments and other documents at a lower level of common understanding, SUVAS aims at democratising the knowledge about the judicial system and achieving the policy goal of delivering justice without only doing it, but making it understandable by a wider audience.

SuprACE (Supreme Court Portal to the Assistance of the Efficiency of the Courts): This is a more ambitious attempt at legal analysis based on AI. SuprACE is a research assistant system, which is designed to be used by judges with the purpose of understanding the factual matrix of a given case, the factual issues and facts and the law-related precedents. Nevertheless, the vulnerability and sophistication of such a position demanded, the Supreme Court has left SUPRACE at an experimental stage of development. This is to be fully implemented upon procurement of high-end computing infrastructure including GPUs, an indication of an evidence-based, slow adoption of tools that are considered to influence substantive legal work.

The Supreme Court also uses AI to transcribe oral arguments to Constitution Bench cases, in addition to these, which makes it easier to access since the records are easily searchable. This set of technologies represents a unique philosophy of the judicial system: to ensure efficiency and accessibility and at the same time preserve the crucial, inexhaustible human aspect of judicial argumentation and decision-making.

4.2 Emergence of LegalTech: Innovations in Private the Sector in Legal Analytics and Research

To complement public sector initiatives is a dynamic and fast-growing LegalTech sector of India. Private enterprises are designing and implementing cutting-edge AI-based platforms that are revolutionizing the day-to-day work of lawyers. Three standout examples reveal the scope of innovation:

- **Manupatra:** Being a trailblazer of online databases of laws in India, Manupatra has incorporated Natural Language Processing (NLP), AI, and Machine Learning throughout its platform. Its functionalities exceed mere keyword searches and include AI-prepared abridged versions of long judgments encompassing facts, issues, arguments, and findings [14]. It also has a tool called "AI Compare Judgment" where side-by-side comparisons of two judgments can be done. Its "Search Analytics" utilizes data visualization such that the interrelationships between cases would come to light instantly and enable lawyers to instantly spot the precedents with maximum influence, whereas "Judge Analytics" sheds light on the judicial utterances of individual judges.

- **CaseMine:** This website has built up a series of AI tools aimed at deep contextual understanding. Its flagship tool, CaseIQ, lets the user upload a document of law, e.g., a motion or brief, and the AI engine processes the text and identifies the most applicable case law and statutes and goes beyond the dependency of keywords and gets at understanding arguments of law.

Another tool, CiteTEXT, facilitates arguments on law by excerpting the very words used by courts in previous judgments so that lawyers may cite effective text of authority and not third-party headnotes.

Very recently, CaseMine has introduced Amicus, a strategic generative lawyer AI trained on a vast law corpus to give complex legal answers and contribute toward the formulation of strategy.

- OneLaw.ai: This service provides a complete array of AI service offerings designed to increase productivity. It employs NLP to scan legal texts so that it can carry out quick and precise searches of case law and legislation. Its features include automated document review so that important information can be culled from vast amounts of text and lawyer writing tools that offer recommendations on how a draft can be made clearer and more effective.

These private sector tools demonstrate the market's response to the need for greater efficiency in legal practice. They are often at the cutting edge of AI application, providing services in legal research, analytics, and workflow automation that directly address the pain points of lawyers and law firms grappling with an overwhelming volume of information.

4.3 Law Enforcement and AI: Critique of Facial Recognition Technology (FRT)

Equally diametrically opposed to the conservative optimism of the applications noticed in the administration of justice and law studies, the use of artificial intelligence in law enforcement is a highly unfortunate case study where technology is used without proper safeguards. The applicability of AI to evil can be viewed in a practical but frightening example with facial recognition technology (FRT) implemented by the Delhi Police as an aftermath of the 2020 North East Delhi riots an investigation by The Wire in collaboration with the Pulitzer Center, Read the entire article, 2020 as an investigation into AI use in police work [15].

The investigation revealed that over time, several cases of its incarceration and prosecution of a person were based only on a match in an FRT, and such matches are often supported by no other evidence or trustworthy eyewitnesses [5]. It is especially worrisome since this is based on technology, which has a proven failure rate. According to the documents submitted by the Delhi Police to the High Court on its part in 2018, its FRT system delivered a 2 percent accuracy. Nonetheless, police are said to regard any match that gets a likeness score of greater than 80% as a "positive result"—the kind of threshold that has elsewhere been found to generate a high false positive rate, particularly for nonwhites.

The human toll of this kind of approach is catastrophic. Ali's case, in which he was arrested using a dubious FRT match, involves more than four years of pre-conviction detention and accusations of custodial torture and religious discrimination. His defense claimed that the individual in the video evidence did not resemble him, but this was subservient to the AI-compiled identification. Mohammed was kept in prison for two years using an FRT identification whose contradictions were claimed by his lawyer

based on obvious physical variations of height and appearance between himself and the individual in the video clips.

This deployment had happened in a vacuum of law and procedure. Delhi Police itself acknowledged that no dedicated law regulates FRT use, no pre-deployment privacy impact assessment was ever made, and officer training in this new technology is limited. This is a case study of immense importance. It elevates the conversation of AI from the hypothetical space of possible goodness to the harsh realm of actualized harm and highlights how a very powerful technology, when used prematurely and before adequate legal, moral, and accuracy guardrails can be built around it, can become an instrument of injustice and perpetrate serious human rights violations and subvert the very values of due process it is designed to enforce.

5 Gauntlet of Challenges: Ethical, Structural, and Legal Barriers

The route of artificial intelligence penetration of the Indian judicial system is beset by serious problems that go beyond simple technical deployment. These are intrinsic to the distinctive socio-legal reality of India and need handling with great care lest the introduction of technology dilute rather than distort justice. The main problems can be broadly categorized under four main areas: the moral issue of algorithmic discrimination, the structural impediment of the digital divide, the legislative gaps in data protection, and the technical-philosophic difficulty of AI being a "black box."

5.1 The Specter in the Machine: Algorithmic Bias and the Threat to Constitutional Guarantees

The biggest moral risk of AI within the law sector is algorithmic bias. AI is programmed based on data and if this data is found on inherent biases within society, then the AI will not only reinforce these biases but can also worsen these biases systemically. This risk is particularly prominent within the Indian context, where structural and historical biases against individuals based on their religion, caste, gender, and socioeconomic status prevail. Research identifies that one of the chief sources of this is the significant underrepresentation of marginalized communities within datasets used to train AI models and therefore resulting models are poorer and more likely to discriminate against these communities [10].

The use of biased AI in the justice system creates a direct threat to bedrock rights protected under the Indian Constitution. Discriminatory algorithmic decision-making would violate the protection of equality before the law under Article 14. Likewise, if the liberty of an individual is restricted based on a biased or inaccurate algorithmic prediction—as was the scenario of the FRT case study—it is a serious violation of the protection of life and liberty under Article 21. The "black box" nature of many of today's complex AI models—their internal logic of decision-making is unknown even to their programmers—renders this issue especially acute. It creates a crisis of accountability and makes it virtually impossible to review, challenge, or correct a biased algorithmic decision. In a system of law where grounds of justification are paramount,

introducing opaque technologies risks automating injustice and bolstering discrimination behind a mask of objective, technological neutrality.

5.2 Spanning the Divide: The Digital Divide and the Call of Inclusive Justice

Even as government data proudly flaunts stellar numerical achievements such as the Wide Area Network (WAN) Project of connecting 99.5% of the nation's court complexes, those macro-level numbers conceal essential qualitative shortcomings. It was discovered in a 2021 survey of the office of the Chief Justice of India that only 41% of the lower court complexes were supported with studio-based video-conferencing infrastructure and that thousands of physical courtroom facilities were not available for accredited judicial officers. This indicates that while connectivity at the bare minimum is within reach, digital participation infrastructure necessary for effective and convenient participation is always absent and is relevant particularly in non-urban areas [12,13]. This infrastructural gap is aggravated by a human capital gap in digital literacy. Numerous lawyers, litigants, and even judicial staff, particularly outside urban centers, do not possess the skills and resources adequate to use e-filing platforms, video conferences, and other online platforms with ease. The end is a jarring incongruity in the experience of the administration of justice. A lawyer operating out of a metropolitan High Court with high-speed internet and up-to-date facilities experiences a vastly different "e-court" than a litigant operating out of a Taluka court with patchy connectivity and unsuitable facilities. The digital divide is a major obstacle; it goes against the constitutional right to equal access to justice and creates new barriers to access faced especially by people that the law of justice is meant to defend. Without specific investment in both physical infrastructure and holistic digital literacy programs, the urge toward digitization can deepen rather than diminish prevailing inequalities.

5.3 Data, Privacy, and Protection: Exploring the DPDP Act 2023 Effectiveness

The operation of AI systems depends on the processing of huge amounts of information, which is largely individual and sensitive. The passing of the Digital Personal Data Protection (DPDP) Act of 2023 is a defining moment for data protection in India and brings about the first ever full-bodied and cross-sectoral data protection legislation of the country. It is based on a regime of consent that vests data Principals individuals with rights in their personal data and duties on data Fiduciaries.

In a careful reading of the DPDP Act, we find serious shortcomings in its regulatory ability to deal with the special problems presented by AI. It has no special provisions relating to fundamental AI governance problems like automated decision-making, algorithmic accountability, and the right of explanation of AI-generated results. Although it has a framework of data protection, it was never meant to probe the logic or fairness of the algorithms processing that data. This produces a regulatory blind spot where a data fiduciary might remain DPDP Act-compliant in terms of data handling requirements and yet use a biased and discriminatory AI model. Again, the Act's emphatic requirement of specific information-based consent may not work at all when it comes

to training big AI models based on datasets culled from public sources where individual consent is next to impossible. Although the Act has special provisions of exemption relating to research and statistical purposes, their extensibility to commercial development of AI remains questionable. The aspect of regulatory vacuum described below makes individuals privileged to minimally effective legal redresses in the face of less-transparent or no discriminative algorithmic judgements, specifically in areas where said mechanisms are deployed in the high-stakes sphere of judiciary administration.

5.4 Black Box Problem: Demand for Explainability and Clear AI (XAI)

One fundamental issue with most advanced artificial intelligence systems, especially systems with deep-learning underpinnings, is that they are black-box systems. The inherent complexity of such models predetermines the existence of pathways of decision-making that are more than opaque, hence making it difficult to determine the exact logic according to which a particular input can result in a particular output. This kind of partial visibility is in direct opposition to the principles of the law system of transparency, due process, and the ability to question the logic behind a decision. Therefore, a judicial decision which cannot be explicated is a curse to the rule of law.

To this challenge, the new field of Explainable AI (XAI) has risen. XAI is about designing methods and models that can offer understandable, human-level explanations of their outputs and classifications so that transparency and accountability are increased. Adoption of the principles of XAI is not a technical desideratum but a constitutional requirement of AI use in law. It enables judges, lawyers, and litigants to question and believe algorithmic results.

Knowing this, development work is already being done on constructing domain-specific models customized for the Indian judicial system, e.g., the envisioned INLegalLlama that is particularly designed to generate understandable explanations in addition to its predictive results. For AI to be properly incorporated within the Indian judicial system, especially where any employment is that of anything beyond basic administration, a requirement of explainability is paramount. It is the vital connection between the computational ability of AI and the normative requirements of justice.

6 Charting the Future: Paths of Regulation and Guidelines

With India on the brink of big-bang incorporation of AI within its constitutional scheme of laws, it is crucial to evolve a strong, futuristic, and constitutionally compliant regulatory regime. Currently prevailing architecture of laws is lacking and hence a custom-tailored system is called for that can delineate and manage intricate intersection of innovation, essential rights, and international norms.

6.1 Crafting a Bespoke Framework: Beyond the DPDP Act to the Proposed Digital India Act

The shortcomings of the Information Technology Act, 2000, in handling the nuance of the contemporary internet and new technologies such as AI are common knowledge. Reacting to this scenario, the government has intimated its move to bring out a new legislative instrument, the Digital India Act (DIA) [8]. This suggested architecture of the DIA portends a new departure from India's regulatory approach to technologies. Importantly, preliminary sketches and commentaries suggest that the DIA shall break out of the generic intermediary laws of the yesteryears and bring within it special provisions relating to the "regulation of high-risk AI systems" [4].

Such shift in the regulatory paradigm towards the risk-based one is the turning point. It recognizes the fact that not equal dangers are the applications of artificial-intelligence and thus a more differentiated approach to regulation that includes imposing strict requirements on those systems that introduce the highest risk to safety and fundamental rights and encourages greater innovation in situations where the risk is relatively small should be taken. The Digital Innovations Act (DIA) is also designed to resolve sector-specific harms resulting because of AI, including the spread of deepfakes and the threats of algorithmic bias [6]. The next law is another crucial step in the process of creating a new set of legislations to match the modern era of AI. In order to operate in accordance with the legal environment, it is essential that any definition of any of the number of what is regarded as high-risk AI in the DIA directly and irreversibly incorporate those uses that are implemented in the sphere of management of justice and law enforcement due to their radical and in the short term influence on the personal freedom and constitutional rights.

6.2 Roadmap toward Ethical Adoption: Policy, Infrastructure, and Capacity Building

A review of the analysis of the opportunities and threats of artificial intelligence to the Indian judiciary system creates a decisive roadmap towards responsible adoption. The roadmap should be holistic, with policies, infrastructure, data governance, and human capacity being both managed simultaneously. The main recommendations are the following:

1. Adopt a Fit -purpose Regulatory Framework: The government must focus on the completion and passage of the Digital India Act. Such an Act should include an accurate, strong and binding law of definition of high-risk AI systems, covering all AI-application use cases to be deployed in judicial administration, legal decision-making assistance, and law enforcement. It will be defined by obligating developers and deployers to strictly perform such activities as pre-deployment risk testing, post-deployment continuous monitoring, and the principles of Explainable AI (XAI), thus guaranteeing transparency and a lack of accountability.
2. Narrow the Digital Divide with Targeted Investment: The Policy must not be confined to simple measuring of access to attain balanced and qualitative connection.

Specific investment will be necessary to bridge the so-called implementation gap to provide every court with high-speed internet, stable power supply, and other high-end hardware, including studio-quality video-conferencing.

3. **Enhance Data Privacy and Safety:** The National Judicial Data Grid is the basis of information-oriented governance and possible AI training. However, the independent technical and procedural audit should be performed prior to using this large volume of data in training high-stakes predictive models to ensure that its accuracy, completeness, and integrity are reached. This validation is necessary to avoid the phenomenon of garbage-in, garbage-out whereby corrupted data creates biased and unreliable AI-based.

4. **Invest in Whole Person Capacity Building:** It is a mandatory and continual training program that should engage all stakeholders in the judicial system such as the judges, court administrative staff, and even lawyers. The curriculum needs to be more than a simple inception-level training on how the software operates to cover in-depth explanations of how the provisions of the DPDP act apply to the principles of data protection, the ethical justifications of artificial intelligence, the essence and scope of algorithmic biasness, and established cybersecurity protocols.

5. **Create Autonomous Operation and Certification:** A specialized authority should be set up or an existing authority given the mandate to verify, assess, and verify AI systems before their application in the legal field. This body composition would represent a gatekeeper that would ensure that any AI tool that is to be integrated into the justice system must be correct, devoid of discernible bias and aligned to the constitutional and statutory principles.

Conclusion

The Indian judicial system is currently at a very critical trans-phase. Unrealistic judicial pendency is an issue that requires reform and, therefore, artificial intelligence is an extremely appealing tool. Automated ancillary functions, better research in the Bar, and the translation of judgments, to make justice more widely available, hold significant potential payoffs in the AI. The readiness to use this potential is manifested in the governmental adoption of the dual-engine approach the modernization of e-Courts Project through the IndiaAI Mission ecosystem that is to be implemented nationwide.

However, from this analysis, it can be seen that AI is not a blind technology. There is a great danger in its introduction into the super-imposed, stratified historical milieu of Indian jurisprudence. The issue of using facial-recognition software in the sphere of law and order is an example of how the lack of accuracy and appropriate controls and the absence of legal protections could be used to turn technology into a tool of injustice, violation of fundamental rights and even the increase in the societal divides. The imminent risk of algorithmic bias, the ongoing nature of the digital divide, and the gap in the legal frameworks, currently in place in the context of data protection and algorithmic responsibility is a significant impediment to responsible adoption.

As a result, a radical paradigm shift is necessary in terms of the trends to follow in the future. The discussion needs to go beyond the solitary emphasis on efficiency and

reducing cases moving to a broader area of vision of the concept of responsible innovation. This vision should understand that making the judicial system more expedient is not the ultimate goal but rather it should be a more just one, as well. It requires developing a robust legal and moral protection, including that suggested in the Digital India Act, whereby judicial AI is a high-risk use and where transparency, accountability, and explainability are required. It also promotes long-term investment in young infrastructure that is not exclusive and digital literacy such that the gains of technology can be enjoyed by all citizens as opposed to being enjoyed by the privileged sections of the population. Most of all, it requires unswerving adherence to the constitutional principle of fairness, equality and justice. Indian judicial system AI success will not be fully quantified in terms of the number of cases settled but in the way it has elevated the quality, integrity and accessibility of justice to everybody.

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