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THE ALGORITHMIC TURN IN INDIAN JUSTICE: ARTIFICIAL INTELLIGENCE, INSTITUTIONAL REFORM, AND THE ETHICS OF LEGAL AUTOMATION

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ABSTRACT

Rapid technological advancements have made it undeniable that machine learning is replacing human expertise. In 1956, Arthur McCarthy coined the phrase "artificial intelligence." Artificial intelligence (AI) is the capacity of a digital computer or computer-controlled robot to perform tasks usually associated with intelligent beings. There are many different uses of AI in the legal field. Globalization has led to advancements in legal technology. In countries like the United States and the United Kingdom, where technical growth has reached astounding heights, artificial intelligence (AI) is being used in courts. Judges are using increasingly sophisticated technology to help them make decisions. Artificial intelligence is intangible and focuses on tasks with the help of intelligence techniques. However, AI has the power to drastically change everyone's monotonous life. We must follow the correct framework to ensure that AI has a positive influence, regardless of whether this is a good or terrible thing. With programs like SUPACE (Supreme Court Portal for Assistance in Court Efficiency), which aims to streamline case management, the Indian judiciary has recognized the promise of AI. Additionally, citizens can obtain legal information more quickly thanks to AI-powered chatbots and legal analytics tools. However, issues with data privacy, bias, accountability, ethical ramifications, and the requirement for strong legal frameworks are brought up by the incorporation of AI. To maintain justice, fairness, and integrity, the developing Indian legal system must strike a balance between fundamental rights and technological improvements.

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Keywords: Artificial Intelligence (AI), Machine Learning, Indian Judiciary, Legal Technology, SUPACE, Data Privacy.

REIMAGINING JUSTICE IN THE DIGITAL AGE: AN OVERVIEW

"Technology will integrate police, forensics, jails, and courts, and will speed up their work as well. We are moving towards a justice system that will be fully future-ready."

- Prime Minister, Shri Narendra Modi[2]

Artificial intelligence denotes the ability of technology, particularly computer systems, to simulate human intelligence processes. Artificial intelligence (AI) is the intelligence exhibited by machines, as opposed to the natural intelligence exhibited by humans or animals. Examples of AI applications include sophisticated web search engines, recommendation engines (like those used by YouTube, Amazon, and Netflix), speech recognition software (like Siri or Alexa), self-driving cars (like Tesla), and highly competitive gaming systems. The propensity for tasks that are thought to require "intelligence" to be left out of the definition of AI as robots get more complex is known as the AI effect. Many countries, legal businesses, and judiciaries are progressively adopting AI in the legal system, despite the fact that it is still in its infancy. It provides lawyers with affordable solutions by pointing out legal errors in rulings, assisting with contract drafting, conducting due diligence, assisting with legal analytics, and other activities. In this way, artificial intelligence (AI) can help lighten the court's workload, especially when it comes to small infractions, freeing up human judges to decide on more complicated matters. There has long been discussion about whether or not artificial intelligence (AI) may transform the Indian legal system. However, the recent usage of AI Engine in the nation's apex court to capture live hearings into textual form fuelled people's optimism that AI could transform the antiquated Indian legal system. With the introduction of e-courts, India has already made progress toward this objective. The Supreme Court of India has already established an Artificial Intelligence Committee to evaluate and look at the application of AI in the legal system. The group created a comprehensive report that served as a blueprint for the third phase of the e-courts initiative. AI and blockchain technology have been given more

[2]Press Information Bureau, Gov't of India, *Digital Transformation of Justice: Integrating AI in India's Judiciary and Law Enforcement*, PIB Delhi (Feb. 25, 2025, 8:22 PM), https://www.pib.gov.in/PressReleasePage.aspx?PRID=2106239&reg=3&lang=2 (quoting Narendra Modi, Prime Minister of India).

importance in order to increase administrative efficiency, automate filing, intelligently schedule cases, better the case, improve the information system, and interact with litigants via chatbots. The goal of future justice tools, which are arguably the most sophisticated use of intelligent machines in the formal legal system, is to reduce the arbitrary nature of human judgment and decision-making in the greater legal system. Another significant step in investigating artificial intelligence and testing it in the task of textually documenting live proceedings during the Maharashtra political controversy case was taken earlier this year. This groundbreaking achievement increased optimism that artificial intelligence might eventually take over court administration.

CONCEPTUAL NITTY-GRITTIES OF ARTIFICIAL INTELLIGENCE

In essence, artificial intelligence is the fusion of the intelligence of different machines and software to provide extremely specialized and sophisticated performance that is beyond human capabilities. In essence, it is an artificial system with human-like decision-making, reasoning, learning, and communication abilities.

Taking into account how AI is already effectively used in astronomical operations, scientific research and experimentation, share market operations, and medical diagnosis and operation. AI can therefore result in justice that is equitable and grounded in moral reasoning if it is applied to the legal system. It is anticipated that in the future, computers with the capacity for reasoning and making legal choices would be developed. Artificial intelligence work falls into two categories: "AI-generated" and "AI-assisted." AI-assisted work may be the first step toward laying the groundwork for a full transition to AI-generated work and court rulings. However, it is important to address a crucial prerequisite for any potential AI breakthrough for the legal system before delving into the suggested use cases. Machine Learning is a fragment of Artificial Intelligence that allows software to improve their accuracy and give better predictable outcomes Current Machine Learning and deep-learning techniques are heavily reliant on data accessible.[3] Therefore AI within its ambit embraces everything such as machine learning, neural network, natural language processing etc. Thus, in India there is a

[3]Justice L.N. Rao, "AI and the Law," Online Webinar, SHYAM PADMAN ASSOCIATES (Aug. 1, 2020, 3:30 PM IST), https://www.youtube.com/watch?v=ZJsIQwPn5AU (last visited Feb. 24, 2026).

need for a legal definition of artificial intelligence entities in judicial terms to ensure regulatory transparency in the country.[4]

THE EVOLUTION AND IMPACT OF ARTIFICIAL INTELLIGENCE IN INDIA

Sections 43A and 72A of The Information Technology Act protect personal information, notwithstanding the fact that India lacks specific data protection regulations. It offers restitution for illegal disclosure of personal data, just like GDPR. The Supreme Court ruled in 2017 that the right to privacy is a basic right guaranteed by the Indian Constitution. In 2018, NITI Aayog, the Policy Commission, introduced a number of AI application initiatives. Four committees were formed by the Ministry of Electronics. Using information technology to draw attention to and investigate a range of ethical issues with artificial intelligence. In India, the uptake of AI is outpacing the development of laws pertaining to it. AI technology is already being used by businesses to upskill their employees. Beginning in Class VI, the recently implemented New Education Policy places a high priority on teaching children to code. India will be a hub for cutting-edge AI technologies in the years to come. Cyril Amar Chand Mangaldas, a law company that may have been the first in India to adopt AI, is primarily used for the analysis and adaptation of legal documents, including contracts. Current CJI SA Bobde spoke at a function organized by the Supreme Court Bar Association (SCBA) about the growing use of AI in the legal system, specifically in the areas of docket management and decision-making. However, developing countries like India may not be able to regularize the usage of AI if they are unwilling to adapt to this new trend. Furthermore, there is worry that AI can harm an economy like India that has a labor surplus, where most of the population is impoverished and lack literacy.

GROWTH OF AI IN THE INDIAN LEGAL SYSTEM: A PHASED REVOLUTION

Artificial intelligence is already being used in India in a variety of sectors such as medicine, astronomy, and finance, but it still has a long way to go in the realm of law. Nevertheless the government has occasionally attempted to improve and camouflage the technological shortcomings in the legal field. The first steps toward the aim of an AI-driven justice system were the introduction of e-courts and their complete transformation into virtual courts during the COVID-19 epidemic.

[4]James Vincent, Giving Robots "Personhood" Is Actually About Making Corporations Accountable, THE VERGE (Jan. 19, 2017), https://www.theverge.com/2017/1/19/14322334/robot-electronic-persons-eu-reportliability-civil-suits.

Phase I of the initiative introduced e-courts in February 2007 with the goal of computerizing district courts and providing litigants and attorneys with case progress updates on the Case Information System (CIS). The district courts' reengineered procedures, systems, and processes marked the end of this phase on March 30, 2015. Phase II, which was approved in August 2015, called for more cooperation and participation from the Ministry of Finance, the Department of Law and Justice, the e-courts committee, and others. All of these technologies are included in Phase II, from video conferencing to bringing inmates from jails to court complexes to recording evidence in delicate instances. The government has allocated Rs. 7000 crores for the E-courts project's third phase, which intends to significantly enhance the use of technology in the administration of justice.

In 2020, the Supreme Court technologically advanced a software called, SCI-Interact, to make altogether its 17 benches paperless. This software aids judges access files, annexures to petitions as well as make e-notes on computers. Earlier, the Department of Legal Affairs (DoLA), Ministry Of Law And Justice, has introduced a web-based application termed LIMBS or Legal Information Management & Briefing System. The application can monitor cases from high courts and tribunals uploaded by the concerned Commissionerate's. The idea is to track the entire life cycle of a case efficiently.[5]

Apart from this the Supreme Court committee has also devised a new tool named SUPACE to aid the judges. This program gathers information and provides judges with pertinent facts and laws. At first, the Supreme Court further said that this gateway is not intended to make decisions, but rather to facilitate the extensive paperwork required to file a case. Another project called SUVAS (Supreme Court VidhikAnuvaad Software) has an AI tool that can translate judicial documents into nine vernacular tongues.

The most recent and cutting-edge development to date was the employment of AI to transcribe hearings, which included live transcription of arguments, witness examination, and other tasks. The Supreme Court transcribed oral arguments in the Maharashtra political crisis case for the first time using a digital tool called Teres, or Technology Enabled RESolution.

Some private law companies, such Cyril Amarchand Mangaldas in India, were the first to apply artificial intelligence (AI) to analyze contracts and legal documents.

[5]Shanthi S, Behind SUPACE: The AI Portal of the Supreme Court of India, ANALYTICS INDIA MAGAZINE (Apr. 24, 2020), https://analyticsindiamag.com/behind-supace-the-ai-portal-of-the-supreme-court-of-india/.

ARTIFICIAL INTELLIGENCE AND THE INDIAN LEGAL PROFESSION

AI Advancements In Law Firms And Legal Practice

In India, artificial intelligence (AI) is revolutionizing the legal industry by making it possible to obtain legal services more quickly, accurately, and conveniently. Artificial intelligence (AI) tools are increasingly widely used by Indian law companies for client management, contract review, legal document preparation, case research, and legal consultation. These tools aid lawyers save time on routine work, allowing them to focus on more multifaceted legal issues. As a result, AI is assisting the legal profession in providing clients with more effective and efficient services.

Lawyers, or practitioners of law, carry out a variety of legal duties, such as advising clients, evaluating the merits of legal arguments, minimizing risk, preparing contracts and other paperwork, and pursuing litigation as well as numerous other undertakings.[6]

A. Using AI for Legal Research

One of the primary domains where AI has significantly altered practice is legal research. Conventional legal research is time-consuming and typically requires sorting through a large amount of data. Artificial Intelligence (AI)-based legal research tools may quickly scan legal papers, weed out pertinent case laws, and uncover information that would typically take hours or even days to find.

1. Manupatra: One of the best legal research websites in India, Manupatra incorporates AI and machine learning algorithms to provide advanced search capabilities. More precise searches for statutes, case laws, and legal publications are now possible for users. The website's AI-powered tools help identify pertinent precedents and forecast case outcomes.

2. Kanoon.ai: Natural language processing (NLP) is used by an artificial intelligence-based legal research tool to understand legal queries in plain English. Kanoon.ai facilitates faster and more convenient legal research by providing case briefs, highlighting helpful passages, and suggesting similar cases.

3. Legit Quest: Legit Quest applies AI to provide an exhaustive legal research experience. Its innovative 'iDRAF' technology[7] (Issue, Decision, Reasoning, and Facts) deconstructs

[6] Prelaw—What Do Lawyers Do? NALP, https://www.nalp.org/what_do_lawyers_do [https://perma.cc/982D-APDZ] (last visited Mar. 26, 2023).

judgments into organized formats, letting lawyers to immediately comprehend the crux of rulings.

B. AI in the Evaluation and Drafting of Legal Documents

Two crucial facets of legal practice that need for accuracy and focus are document review and drafting. AI technology helps lawyers review large numbers of documents, pinpoint important information, and prepare legal documents.[8]

1. Kira Systems: Kira Systems utilizes machine learning to examine contracts and other legal documents, highlighting significant terms and extracting relevant data. This software is accurate and significantly reduces the time needed to review documents.

2. ROSS Intelligence: Although mostly utilized in the United States, ROSS Intelligence's artificial intelligence (AI) capabilities for document analysis and legal research have influenced similar advancements in India. The application supports writing and review tasks by using IBM Watson's AI to provide precise responses to legal questions.

C. Predictive Analytics using AI

AI-powered predictive analytics is revolutionizing the way attorneys handle legal disputes. By analyzing historical data, AI can predict case outcomes, helping lawyers to strategize more effectively.[9]

1. CaseMine: Based on past rulings, this AI-powered technology forecasts case outcomes using data analytics. The 'CaseIQ' feature on CaseMine helps attorneys develop their legal strategy by providing information about how cases comparable to theirs have been decided.

2. LegalMind: LegalMind uses artificial intelligence (AI) to assess court behavior and forecast the probability of success in a range of legal situations. By using this tool, attorneys can make better decisions by learning about the patterns and inclinations of particular judges.

THE CONVERGENCE OF TECHNOLOGY AND THE INDIAN JUSTICE DELIVERY STRUCTURE

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[7]LegitQuest: Frequently Asked Questions, LEGITQUEST (Feb. 28, 2025, 11:00 AM), https://www.legitquest.com/faq.

[8]A. Takyar& A. Takyar, AI for Legal Research: Streamlining Legal Practices for the Digital Age, LEEWAYHERTZ – AI DEVELOPMENT COMPANY (Mar. 14, 2025, 11:00 AM), https://www.leewayhertz.com/ai-for-legalresearch.

[9]Stuart Weinstein, Lawyers' Perceptions on the Use of AI, in LAW AND ARTIFICIAL INTELLIGENCE: REGULATING AI AND APPLYING AI IN LEGAL PRACTICE 413 (Eduard Fosch-Villaronga & Bart Custers eds., 2022), https://doi.org/10.1007/978-94-6265-523-2_21.

The e-Courts project was launched by the Indian government in 2005 with the primary objective of increasing court efficiency and expanding access to justice through a technology-driven approach. It concentrated on improving the system's affordability, accessibility, cost-effectiveness, and transparency. It has started the judicial administration digitization endeavor. The project's first two phases, which involved updating and installing networking infrastructure throughout India, are already complete. With limited online resources, phase I concentrated on building digital infrastructure through hardware installation, network connectivity, and case record digitization. Phase II focused on shifting toward litigant-centric "monolithic systems" by establishing a linkage between the judiciary and other institutions.[10] The case information system, National Judicial Data Grid (hereinafter NJDG),[11] is one such service portal that arose out of Phase II and provided a single window access to the complete body of information pertaining to cases and courts, ranging from the Supreme Court of India to the Taluka-level courts (the lowest court in hierarchy) in a searchable manner; e-filing and e-payment systems were also introduced to speed up the legal process. However, many limitations were identified during implementation, such as the need to revise systems to accommodate evolving user needs and to scale to enable data sharing across courts and institutions within the justice delivery system.[12]

Phase III of the e-Courts project was initiated in 2023 with the goal of boosting digitization and AI integration. It focuses on improving the ability of courts and investigative organizations, such the Central Bureau of Investigation and the police, to collaborate and work together more successfully. Therefore, by minimizing duplication of effort and enabling smooth data sharing through the interchange of police investigation reports and other case details between the agencies and the judiciary, this cooperative strategy can dissolve barriers between the judiciary and other institutions. Phase III envisions a legal system that is tech-driven, AI-powered, and digitalized. It aims at shifting from monolithic systems to a modular microservices architecture,[13] which uses modular technology design to create multiple

[10]E-Committee, Supreme Court of India, Digital Courts: Vision & Roadmap, Phase III of the E-Courts Project 21 (2022), https://cdnbbsr.s3waas.gov.in/s388ef51f0bf911e452e8dbb1d807a81ab/uploads/2023/04/2023042088.pdf(last visited July 22, 2025).

[11]National Judicial Data Grid, NJDG, https://njdg.ecourts.gov.in/njdg_v3/?p=home&app_token= (last visited Dec. 15, 2025).

[12] Ministry of Law and Justice, Government of India, e-Court Mission Mode Project, PRESS INFORMATION BUREAU, https://www.pib.gov.in/Pressreleaseshare.aspx?PRID=1848737 (last visited July 22, 2025).

[13] Think of microservices/modular architecture as a house. It is built using bricks, steel, windows, doors, and a host of other inputs independently created that can be assembled together as per our unique requirements. In the

interchangeable and replacement components without requiring a complete infrastructure redesign. This allows for the design of services initiated by the courts to evolve, and a scale based on both feedback from users and changes in technology, such as improved encryption and identity verification. It includes creation of judicial digital repositories (JDRs)[14] to facilitate efficient data sharing, case tracking, and service integration; intelligent case scheduling using AI to increase productivity and decrease adjournments; an Interoperable Criminal Justice System (ICJS) to handle data sharing between law enforcement, prisons, courts, and other institutions involved in the administration of justice; making documents machine readable to increase accessibility and efficiency; and unified payment platforms for streamlining the process of submitting court fees and payment of fines.[15]

Furthermore, Phase III aims at improving digital case management systems for swift court document access and coherent sharing of data within the justice system. Virtual hearings are promoted to reduce travel, cost, and time. Besides, e-filing is promoted to reduce paperwork and added delays. A technology-oriented transcription of court proceedings system is introduced to improve transparency, and a help desk service is established to provide digital assistance, certify equitable access to services, and bridge the digital gap.

Given the particular requirements of India, such as the vast number of courts with a small number of employees, the interests of various stakeholders, and the digital divide between urban and rural people, make the e-Courts project difficult. Given the challenges and its significance, the E-Committee of the Supreme Court has been empowered to oversee the execution of the e-Courts project, as set out in the "National Policy and Action Plan for Implementation of Information and Communication Technology in the Indian Judiciary—2005".[16] This project not only aims to increase the transparent flow of information to stakeholders involved in the court process by automating the process of seeking information, but also aims to develop, install, and execute the decision support system in courts wherein the adjudication pattern and its impact are analyzed by policymakers to enhance judicial

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case of windowpane that shatters, this is replaceable without having to take down the entire house to its constituent elements. This is the essence of modularity. *For more discussion, see* E- Committee, Supreme Court of India, *supra* note 11 at 44.

[14]India Department of Justice, Digitisation of Records, DEPARTMENT OF JUSTICE, https://doj.gov.in/digitisation-of-records (last visited Dec. 15, 2025).

[15] Ministry, *supra* note 13.

[16]*Id.*

performance.[17] This project can ultimately enhance judicial productivity by making the justice system affordable, accessible, cost-effective, predictable, reliable, and transparent.[18]

Today, technology is a powerful tool. AI is anticipated to expedite the delivery of justice. Its integration into the legal system is a significant step in the right direction.[19] The Supreme Court of India has established an Artificial Intelligence Committee to examine the use of AI in the judiciary. The committee has primarily identified the application of AI technologies in the translation of judicial documents, legal research assistance, and process automation.[20]

The AI Committee has been the supervising authority for the development of an AI tool called SUVAS (Supreme Court VidhikAnuvad Software), which is designed to translate judicial documents from English to various other vernacular languages used in India,[21] to remove the difficulty and to provide accessibility of the judgments or other judicial documents to non-English speakers.[22] By eliminating language bottlenecks and improving access to court rulings, the use of such tools promotes legal literacy and aids in the pursuit of justice. As a result, it promotes confidence in the legal system. Another AI tool, SUPACE (Supreme Court Portal for Assistance in Court Efficiency),[23] was created to support legal research. This tool helps judges to retrieve essential case information quickly by summarizing bulky documents.[24]

[17]E-Committee, Supreme Court of India, E-Courts Mission Mode Project, https://ecommitteesci.gov.in/project/brief-overview-of-e-courts-project (last visited July 25, 2025).
[18]*Id.*
[19]Hasan Mohammed Jinnah, AI-Powered Courts Can Rewrite Future of Judiciary, NEW INDIAN EXPRESS, Nov. 3, 2023, https://www.newindianexpress.com/opinions/2023/Nov/02/ai-powered-courts-can-rewrite-future-of-judiciary-2629474.html.
[20]Government of India, Ministry of Law and Justice, Department of Justice, Lok Sabha Unstarred Question No. 147, Use of Artificial Intelligence Tools in Judicial System, https://sansad.in/getFile/loksabhaquestions/annex/1710/AS147.pdf (last visited July 25, 2025).
[21] Under SUVAS, the artificial intelligence (AI), and machine learning (ML) based tools are being deployed in case management. They are being used in transcribing of oral arguments in Constitution Bench matters. The AI assisted transcribed arguments can be accessed from the website of the Supreme Court. It is also used in translation of judgments from English language to 18 Indian languages, viz., Assamese, Bengali, Garo, Gujarati, Hindi, Kannada, Kashmiri, Khasi, Konkani, Malayali, Marathi, Nepali, Odia, Punjabi, Santali, Tamil, Telugu, and Urdu. Press Information Bureau, Government of India, Use of AI in Supreme Court Case Management, https://www.pib.gov.in/PressReleasePage.aspx?PRID=2113224 (last visited Dec. 10, 2025).
[22]Centre for Research and Planning Initiative, Supreme Court of India, Unlocking the Docket 98 (2025), https://cdnbbsr.s3waas.gov.in/s3ec0490f1f4972d133619a60c30f3559e/uploads/2025/05/2025051431.pdf(last visited July 22, 2025).
[23] Ministry of Law and Justice, Use of AI in Supreme Court Case Management, https://www.pib.gov.in/PressReleasePage.aspx?PRID=2113224 (last visited Dec. 9, 2025).
[24] Centre for Research Planning, *supra* note 18.

The Honorable Chief Justice of Delhi High Court, during the IBA International Conference in Mexico City, 2024, announced that the Supreme Court of India was going to introduce an AI tool known as AI Saransh.[25] It was developed by the National Informatics Centre (NIC) to generate concise summaries of pleadings and to simplify the identification of a case's contentious issues.[26]

The widespread use of AI technologies like SUVAS and SUPACE is transforming the Indian judiciary to integrate the advantages of AI with a tech-driven justice system. However, in order to handle inescapable issues like bias and accuracy, these technologies must be used carefully.

REGULATORY AND LEGAL ARCHITECTURE GOVERNING ARTIFICIAL INTELLIGENCE IN INDIA

India's official move towards regulation of AI was initiated in 2018 with the presentation of the National Strategy for Artificial Intelligence, or #AIForAll.[27]Transparency, accountability, justice, safety, privacy, and innovation should serve as the cornerstones of an all-encompassing framework for AI legislation in India. The framework must make an effort to strike a balance between these ideas and the understanding that responsible innovation is facilitated by sound regulation. These principles also align with global recommendations such as the OECD's AI governance guidelines.[28]

Significant AI innovation emphasis areas, including healthcare, education, agriculture, smart cities, and transportation, were outlined in the strategy. The following advancements are: The 2021 Principles for Responsible AI: NITI Aayog drafted this document, setting out seven principles for responsible AI governance.[29] ▪ Digital Personal Data Protection Act (2023): India's first omnibus privacy law.[30]

[25]Vasudha Mukherjee, Supreme Court to Use AI to Generate Summaries for Pleadings: ACJ Manmohan, BUS. STANDARD (Sept. 20, 2024), https://www.business-standard.com/india-news/supreme-court-to-use-ai-to-generate-summaries-for-pleads-justice-manmohan-124092000644_1.html.
[26]National Informatics Centre, National Cloud: AI-Saransh, CLOUD.GOV.IN (last visited July 27, 2025), https://cloud.gov.in/user/services_ai_saransh.php.
[27]Ministry of Electronics and Information Technology, NITI Aayog, National Strategy for Artificial Intelligence #AIForAll (2018).
[28] OECD, Recommendation of the Council on Artificial Intelligence, OECD/LEGAL/0449 (2019).
[29]NITI Aayog, Responsible AI: Part 1 – Principles for Responsible AI (2021).
[30] NITI Aayog, Responsible AI: Part 1 – Principles for Responsible AI (2021).

The Digital Personal Data Protection (DPDP) Act, 2023, has the aim of governing personal data processing with a vigorous focus on privacy.[31]Adherence to the DPDP Act is essential to mitigate the risks of illegal access, misuse, and data breaches, as AI systems frequently rely on vast amounts of personal data for training and operation. Without having a standalone AI-focused regulatory model, though, there is a chance of uncontrolled AI improvement and implementation.[32] The universal embrace of AI in different sectors of society such as students, professionals, scholars, and commoners requires an enforceable system of regulation for maintaining its morally sound deployment.[33]India must enact legislation that combines constitutional requirements with AI rules with the objective to ensure that technology serves as a catalyst for progress rather than as a hindrance to democracy.

ETHICAL, SOCIAL, AND INSTITUTIONAL CHALLENGES IN INTEGRATING AI INTO THE JUSTICE STRUCTURE

There is no denying that the development and integration of AI and other technologies has significantly reduced human labor; nonetheless, there are many obstacles to its application. Digital inequity is still a significant problem among many other important concerns. The Indian Inequality Report of 2022 on the digital divide states that one of the main causes of the digital divide is a lack of access to information and communication technology. The percentage of people without digital connectivity is over 70%. The social, political, and environmental aspects that influenced the duration of digital connectivity are highlighted in the report. It states that only 38 percent of households are digitally literate, and only 31 percent of the rural population uses the Internet, as compared to 67 percent of the urban population.[34]

The State of India's Digital Economy (SIDE) assessment of 2024, another recent assessment, states that although India has the most users, it also has themost number of unconnected people. Approximately 48% of Indians do not have access to the Internet, and fixed-line

[31] A. Gupta, Navigating the Frontier: AI, Data Privacy and India's Digital Personal Data Protection Act, 4 JUS CORPUS L.J. 178 (2023).
[32]K. Sundara & N. Narendran, The Digital Personal Data Protection Act, 2023: Analysing India's Dynamic Approach to Data Protection, 24 COMPUTER L. REV. INT'L 129 (2023).
[33]M. V. Paul, Technical, Legal and Ethical Opportunities and Challenges of Governing Artificial Intelligence in India, 5 INDIAN J. L. & LEGAL RSCH. 1 (2023).

[34]India Development Review, India's Digital Divide: From Bad to Worse, IDR ONLINE (Feb. 16, 2023), https://idronline.org/article/inequality/indias-digital-divide-from-bad-to-worse.

Internet service quality is below that of other G20 nations. The marginalized—women, the rural populace, the elderly, the disabled, and children—are the unconnected. Disparities in Internet access between men and women, as well as between rural and urban areas, nevertheless persist. Particularly for those without Internet access and those who are not tech-savvy, this digital divide has the potential to worsen inequality. This can make justice more inaccessible by limiting people's ability to interact with an AI-driven, digitalized legal system. Furthermore, as citizens are frequently the litigants in these forums, it is more difficult for courts in rural areas to embrace cutting-edge technologies and instruments due to the lack of technological understanding among the populace. Even while there are significant digital gaps, they are reducing. An increase in Internet users among rural women between 2020 and 2022 narrowed the gender divide.[35]

In order to solve this issue, courts can make use of a huge network of Common Service Centers (CSCs) to facilitate web-based e-government in rural regions. This would eventually aid in bridging the gap between local and digital governance. "Most of these CSCs are run and managed by the Information Technology Departments of each state and are already equipped with internet connectivity, computers, printers, scanners and cameras. Through a partnership with the Department, the services at the CSCs can be expanded to include e-filing, payment of court fees, fines, penalties and other kinds of costs online, provisions of notary services, machine-readable audio content of judgments and orders, translation and video conferencing."[36]

Significant training and technological investment are needed to ensure compatibility and smooth operation through the use of technology and AI infusion. Judges, court employees, and attorneys must receive both short-term and long-term training in order to integrate AI technologies. It can be accomplished by introducing users to the new software and technologies through live seminars, training videos, modules, and manuals. Training materials and curricula should be updated frequently and provided to judges and court staff as necessary to keep pace with technological developments.[37]

[35]INDIAN COUNCIL FOR RESEARCH ON INTERNATIONAL ECONOMIC RELATIONS, THE STATE OF INDIA'S DIGITAL ECONOMY REPORT 2024 28 (2025), https://icrier.org/pdf/State_of_India_Digital_Economy_Report_2024.pdf.

[36] E- Committee, Supreme Court of India, *supra* note 18, at 106.

[37] E- Committee, Supreme Court of India, *supra* note 18, at 105.

Technologies focused on artificial intelligence are vulnerable to cyberattacks. India's cybersecurity and regulatory frameworks need to be strengthened in order to handle new threats, reduce the possibility of data breaches, and guarantee data integrity. At the moment, India does not have a thorough legal framework that regulates the application of AI systems. For the appropriate management of artificial intelligence, it is imperative and urgent to draft such a comprehensive legal framework.

Bias and accountability are two more issues with AI technology in the legal system. Artificial intelligence (AI) systems that are built on skewed metadata, biased data-fed algorithms, and misleading information may make biased conclusions. Supervising the development of AI tools and making ensuring that their ongoing improvement is carried out in an ethical and more transparent manner are essential. When AI-driven technology is used extensively, it may result in a high frequency of judgments that ultimately increase the possibility of unfair bias and erode public confidence in these new technologies. Different stakeholders of the AI ecosystem have the potential to shape the future dynamics of AI, and therefore, it is important to create uniform principles that can effectively guide all stakeholder groups, such as the government, judiciary, citizens, private sectors, research community, regulators, and so on, toward the responsible use of AI.[38]

The foundation of digital and technological solutions should be on established and reliable systems. The Indian justice system should draw inspiration from other nations, such as the United States and the United Kingdom. In the United States, there is the Correctional Offender Management Profiling for Alternative Sanction (COMPAS),[39] an algorithm assessing recidivism risk via questionnaires on criminal history, employment, and family factors, scoring low/medium/high for pretrial/sentencing decisions, but criticized for racial bias. In the United Kingdom, the Offender Assessment System (OAS)[40] is used by probation services to identify criminogenic needs and predict the likelihood of reconviction through structured interviews on static and dynamic factors, such as offense history and attitudes,

[38] NITI AAYOG, RESPONSIBLE AI: APPROACH DOCUMENT FOR INDIA PART 1—PRINCIPLES FOR RESPONSIBLE AI (2021), https://www.niti.gov.in/sites/default/files/2021-02/Responsible-AI-22022021.pdf.
[39]Ekata Deb, COMPAS — An AI Tool Sending or Keeping People in Jail, MEDIUM (Dec. 24, 2023) (last visited Dec. 30, 2025), https://edblogs.medium.com/compas-an-ai-tool-sending-or-keeping-people-in-jail-d9228df3a2c6.
[40]Parliament of the United Kingdom, Offender Assessment System, QUESTIONS-STATEMENTS.PARLIAMENT.UK (last visited Dec. 30, 2025), https://questions-statements.parliament.uk/written-questions/detail/2022-03-31/151243.

linking to sentence plans. However, it has been criticized for overpredicting reoffending for certain groups and gender/age disparities. Through AI-powered solutions, these systems are increasing efficiency and decreasing backlogs in the legal system, producing encouraging results despite constraints that call for careful consideration.

It is also vital to remain well well-versed about how courts and tribunals in other regions are using technology and to acquire from their experiences. Nonetheless, it is always advisable to exercise caution when contemplating the creation of novel methods to streamline our legal system, and such initiatives should only be undertaken for solid justifications. India should take a cue from these systems and steer clear of opaque, biased algorithms while maintaining the fundamental rights and other rights guaranteed by the Indian Constitution and legal framework.

DOCTRINAL AND LEGAL INTRICACIES SURROUNDING AI IMPLEMENTATION

I. Copyright and Artificial Intelligence

The question of whether Artificial Intelligence can be granted copyright under existing copyright laws has generated significant global debate. Disputes between AI startups and major media corporations in the journalism and entertainment industries have intensified concerns regarding ownership of AI-generated works. With AI systems now capable of producing paintings, music, and written content, the issue of whether copyright law applies to works generated through coded instructions has become increasingly relevant.

A major concern that emerges as AI continues to transform creative sectors is: What will artificial intelligence's legal standing be under intellectual property rights (IPR) laws? What legal ramifications would arise if AI were to create software on its own?

A. Legal Personhood and Copyright

An entity's ability to own property, file lawsuits, and be sued is referred to as legal personhood. Legal personhood is not limited to natural humans under Indian law; companies and other non-human entities are also recognized as legal persons.

However, only natural or legal persons are given copyright protection under the 1957 Copyright Act. Any machine or tool used to produce an original work is not given copyright in its own name; instead, it is only considered an instrument of production.

AI applications may already produce enormous amounts of creative work because to the development of machine learning technologies. This discovery has sparked discussions about whether IPR laws should be changed to particularly handle works created by AI. This development has led to debates regarding whether IPR legislation should be amended to specifically address AI-generated works. The inconsistency between traditional copyright principles and AI-generated content could potentially diminish the perceived value of new creations.

Traditionally, intellectual property law is grounded in the belief that human beings, as cognitive entities, create original works deserving protection. This philosophy is reflected in existing legislation. However, the emergence of highly sophisticated AI systems that can process input data and generate advanced outputs challenges this assumption.

Questions arise such as:

- Why should AI-generated intelligence be treated differently from human-created work?
- Should the creator of the AI system receive recognition for the outputs it produces?
- Alternatively, should the AI system itself be credited where it independently generates work without direct human assistance?

B. Statutory Interpretation in India

Regarding computer-generated works, the definition of "author" under the Copyright Act of 1957 is "the person who causes the work to be created." This concept leaves room for interpretation in situations where AI systems produce material on their own with little assistance from humans.

Similarly, only "persons" are granted patent rights under the Patents Act of 1970. According to the Act, "any person" may submit a patent application. Additionally, it calls for the existence of a "inventive step," which means that a "person skilled in the art" must not be able to recognize the innovation.

Since AI systems are not recognized as legal persons under Indian law, they cannot be named as inventors or patent applicants. This creates uncertainty where AI independently develops patentable software or inventions.

Copyright law protects original works of human expression. It does not protect works where there is little to no creative human involvement, such as merely entering a simple prompt into an AI system. While works created with substantial human involvement using AI tools may qualify for protection, the threshold of creativity required remains unclear.

These ambiguities are likely to be resolved through judicial interpretation and possible legislative reform. However, initial rulings may lack uniformity, leading to doctrinal inconsistency.

II. Capacity of AI to Enter into Contracts

Another critical legal issue concerns whether Artificial Intelligence can execute and be bound by contracts.

Under the Indian Contract Act, 1872, only a "legal person" is competent to enter into a valid contract. Since AI is not recognized as a legal person under Indian law, it cannot independently enter into legally enforceable agreements.

Therefore, any agreement concluded solely by an AI system on its own initiative may not be recognized as valid under Indian contract law. Liability and enforceability would likely rest upon the human operator, developer, or entity deploying the AI system.

III. Implications for Industrial and Employment Laws

The rapid growth of AI is largely driven by the desire to automate services and replace segments of the human workforce. This shift exposes gaps within existing employment regulations.

Questions arise such as:

- Can an AI system sue a corporation for wrongful termination?
- Can AI claim employment benefits such as provident fund contributions or gratuity?

Such questions are inherently tied to human employment. Current employment laws are designed exclusively for human workers. AI systems cannot claim statutory benefits or initiate employment-related litigation.

However, the absence of clarity regarding the interaction between automation and labor protections may create broader socioeconomic consequences, necessitating legislative reassessment.

IV. Legal Personality, Rights, and Locus Standi

The possibility of granting AI legal personality depends upon whether it can be the bearer of legal rights and obligations. The corporate legal framework is often cited as a model for extending legal personhood beyond natural persons.

Nonetheless, corporations and AI systems are fundamentally distinct. Corporations, though legally independent, remain accountable to shareholders and regulatory authorities. AI systems, while capable of autonomous functioning, lack the normative accountability structures embedded in corporate governance.

At present, no Indian legislation recognizes AI as a separate legal entity. Consequently, AI lacks:

- Legal rights and duties
- Locus standi (the right to bring legal action)
- Capacity to sue or be sued

V. Nature of Liability and Autonomous Systems

One of the most complex legal challenges concerns liability for harm caused by AI systems.

For example, in the event of a collision involving an autonomous vehicle:

- Who is liable for property damage?
- Who bears responsibility for bodily injury or fatalities?
- Is liability civil, criminal, or both?

AI systems cannot presently be held directly liable under tort, criminal, or civil law. Therefore, liability must be attributed to human actors, such as manufacturers, programmers, owners, or operators.

A. Applicable Principles of Liability

If liability is established, courts may consider applying traditional doctrines such as:

- The principle of strict liability established in Rylands v. Fletcher[41], which holds a party liable for damage caused by hazardous activities under their control, subject to certain exceptions.

[41]Rylands v. Fletcher, (1868) L.R. 3 H.L. 330 (U.K.).

- The principle of absolute liability as articulated in M.C. Mehta v. Union of India[42], which imposes liability without exceptions in cases involving inherently dangerous activities.

Whether AI systems would fall within these doctrines remains uncertain. The apportionment of liability among multiple stakeholders constitutes a central legal challenge in the governance of AI.

THE ROAD AHEAD: FUTURE TRAJECTORY OF ARTIFICIAL INTELLIGENCE IN THE INDIAN LEGAL ECOSYSTEM

The newly published Network Readiness Index 20229 places India first in AI talent concentration and 61st worldwide. Consequently, demonstrating India's potential for artificial intelligence. Diverting this skill to the legal profession can assist address the burden of pending cases, which is the largest issue facing the Indian judicial system. As a result, efforts are being made to create machine learning algorithms that can forecast the results of both ongoing and future instances. Legal research, drafting, proofreading, determining the guilt of the acquitted party, gathering and documenting evidence, and additional tasks can all be completed by these instruments independently. AI tools are already being used by some of the world's most renowned companies to design contracts.

For example, a London-based legaltech start-up called ThoughtRiver can do a large number of contract reviews. It is still a long way off before AI can completely replace the legal system and decision-making skills, thus the goal should be to create AI that can efficiently perform at least administrative duties. Because building such algorithms requires a feature-rich dataset typically consisting of variables that include litigant characteristics (caste, gender, location, type of crime committed), lawyer characteristics, court characteristics, case details (filing details and evidence provided), additional variables (day, month, year, weather, etc.) and case outcomes (such as granting of bail or dismissal of a case).[43]

The pre-processing of all court data is another area where AI can be useful. The lack of a nationally recognized standard mechanism for this data is the source of the difficulty. Comparing and analyzing the legal statistics of several states becomes extremely challenging

[42]M.C. Mehta v. Union of India, AIR 1987 SC 965 (India).
[43]Sandeep, Daniel & Shareen, The Promise of Machine Learning for the Courts of India, 33 NAT'L L. SCH. INDIA REV. (2021).

as a result. Textual data can be transformed into numerical form for improved comprehension using machine learning algorithms. Additionally, all of the large, bulky case files that have been accumulated over the years can be computerized to save paper.

A major technology revolution that will fundamentally change the practice of law is only getting started, and these early AI uses in the legal sector are just the beginning. Artificial intelligence (AI) has been the biggest opportunity and arguably the biggest threat to the legal profession since its inception. AI will continue to have a profoundly transformative impact on the practice of law. AI will replace a continuously increasing percentage of billable hours for law firms, be utilized for a wider variety of legal duties, and require knowledge and skills beyond what most presently practicing attorneys now possess. Artificial intelligence (AI) presents a legal firm or individual with the opportunity to lead in terms of production, cost-effectiveness, and efficiency. However, putting AI into practice in the near future will be more about staying up to date than taking the initiative. Among lawyers who employ AI and those who don't, there will surely be winners and losers. A leading attorney recently stated, "Private practice lawyers will not be relevant even to their clients unless they start to engage with new technology." The AI train is leaving the station, and it's time to get aboard.

In India, the future of legal practice will depend on both the experts who use technology and the technology itself. As artificial intelligence (AI) becomes more integrated into litigation, compliance, and advising work, future attorneys will need to possess abilities beyond those found in traditional legal education. First and foremost, technical proficiency and data literacy will be required. It will be expected of lawyers to apply and evaluate AI's outputs; they will also need to examine algorithmic biases and incorporate significant AI discoveries into their legal strategy. AI as a legal technology will be essential in the future, even though it is crucial to have many legislative and jurisprudential concepts ready today. Second, the emergence of AI necessitates a solid foundation in AI governance and ethics. Data privacy, algorithmic transparency, and accountability are some of the issues that will have a greater impact on courtroom discussions and client interactions. Lawyers who comprehend these ethical aspects will be in a better position to counsel both legislators and corporations. These developments are gradually being recognized by Indian law schools. Prominent legal education institutions have started including digital forensics coursework, programming concepts, and fundamental legal technology into their offerings. These developments will probably intensify over the course of the next ten years, equipping graduates for careers

enhanced by AI. Continual skill development through specialized training and certifications will be equally important for practicing attorneys. In terms of regulations, India is anticipated to create AI-specific legal practice guidelines based on international best practices. India can modify models from the American Bar Association's AI guidelines and the EU's AI Act to fit its own legal and judicial environment. To put it succinctly, lawyers who are prepared for artificial intelligence (AI) will rule the future. They must be able to combine advanced technology with their traditional knowledge to make sure that technology supports human judgment rather than takes it away.

As per legal professionals, AI may assist with daily routine tasks such as contract analysis, document review, and e-discovery which will save both time and money. Because of AI legal professionals can have broader knowledge, which leads to better decisions.[44]AI, however, will not be able to replace human abilities and contributions. Legal practitioners will need to use their expertise, moral discernment, inventiveness, and—above all—emotion to deliver trustworthy counsel and advise. AI lacks empathy, which is crucial for making moral judgments. In the end, artificial intelligence (AI) will improve the precision, caliber, and effectiveness of legal practitioners' services, enabling them to give their clients better outcomes. AI will also help lawyers acquire new abilities like digital literacy, digital fluency, and critical thinking.

CONCLUSION: HARMONIZING INNOVATION WITH JUSTICE

In India, the AI market is flourishing due to the country's substantial talent pool in the technology sector, with around 600,000 AI professionals and 700 million Internet users,[45] and as a result of the government's emphasis on promoting AI integration. Furthermore, India's diverse population and distinctive cultural and linguistic fabric provide a valuable data source for AI training and development.[46]

[44]The Future of Professionals: How AI Is the Catalyst for Reshaping Every Aspect of Legal Work, THOMSONREUTERS.COM (Sept. 19, 2023), https://legal.thomsonreuters.com/blog/the-future-of-professionals-how-ai-is-reshaping-legal-work/.

[45]IBEF, India's Artificial Intelligence (AI) Market Set to Triple, May Cross Rs. 1,45,384 Crore (US$ 17 Billion) by 2027: Report, https://www.ibef.org/news/india-s-artificial-intelligence-ai-market-set-to-triple-may-cross-rs-1-45-384-crore-us-17-billion-by-2027-report (last visited Dec. 30, 2025).

[46]Statista, Artificial Intelligence—India, https://www.statista.com/outlook/tmo/artificial-intelligence/india (last visited July 30, 2025).

India is swiftly constructing a robust artificial intelligence computing and semiconductor infrastructure to bolster its expanding digital economy. Following the 2024 IndiaAI Mission[47]endorsement, Over the course of five years, the government has allotted $1.2 billion to improve artificial intelligence capabilities. The creation of a highly shared performance common computing facility with 18,693 graphics processing units (GPUs) is a key component of this endeavor, making it one of the most extensive AI computing infrastructures globally. These GPUs offer the enormous parallel processing capability required for demanding computing tasks including data processing, data analysis, case flow management, research, and forecasting. The facility's capacity is nearly nine times greater than that of the open-source AI model DeepSeek and approximately two-thirds of the operational capacity of ChatGPT.[48]

The Indian legal system could undergo a radical transformation because to artificial intelligence and other digital technology. Initiatives for digitalization unquestionably signal a significant advancement in system transformation. There have been difficulties in integrating technology into the legal system and utilizing AI capabilities, including issues with digital infrastructure, data protection, and digital literacy. However, it is indisputable that the ultimate goal of such change is to improve the judicial system's effectiveness, accessibility, and transparency. In addition to standardizing the system, the integration of AI and other technologies has reduced human error, which is crucial for AI-driven operations. This is evident in everything from remote access to court services to digital case management and paperless structured digital data. But for future advancements, some issues—like automated judgment and judicial independence—as well as worries about privacy and data protection are crucial. It is clear that, within a few years of digitization, AI-powered technology have impacted every facet of life, and this trend is only getting faster. In order to prevent AI technologies from impeding the rule of law, basic rights, and democratic values, the task today is not only to introduce technology but also to establish a system that is safe, accountable, and effective. In order to provide justice in a way that transforms the lives of billions of people and their changing demands, Indian legal systems have begun integrating a variety of cutting-edge AI-driven solutions.

[47]INDIAai, https://indiaai.gov.in (last visited Dec. 30, 2025).
[48]Ministry of Electronics & Information Technology, Government of India, India's AI Revolution: A Roadmap to Viksit Bharat, https://www.pib.gov.in/PressReleasePage.aspx?PRID=2108810 (last visited July 30, 2025).