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ARTIFICIAL INTELLIGENCE AND THE LEGAL SYSTEM

-Badrinath R

ABSTRACT

Artificial Intelligence (AI) is fundamentally transforming global legal systems, offering both unprecedented opportunities and complex challenges. This comprehensive 3,500-word analysis examines AI's multifaceted impact on legal practice, with particular emphasis on India's unique position as a developing legal market embracing technological innovation. The paper systematically explores four key dimensions: operational applications in legal processes, ethical and societal implications, regulatory frameworks, and future trajectories. Through detailed case studies including India's SUPACE system and comparative international examples, we demonstrate how AI is revolutionizing case management, legal research, contract analysis, and judicial decision-making. The analysis particularly focuses on critical concerns such as algorithmic bias, data privacy, professional accountability, and access to justice. By evaluating India's emerging regulatory approach against global standards like the EU AI Act, we identify gaps and propose concrete policy recommendations. The study concludes with a future-oriented perspective on AI's potential to transform legal education, court administration, and public access to justice, while emphasizing the indispensable role of human judgment in maintaining equitable legal systems. This work contributes to on-going debates about technology's role in law by providing both theoretical frameworks and practical insights drawn from current implementations across common law jurisdictions.

INTRODUCTION

The legal profession stands at its most significant inflection point since the advent of computerized legal research. Artificial intelligence technologies are disrupting traditional legal practices at an accelerating pace, promising to address systemic inefficiencies while simultaneously raising profound questions about the nature of justice itself. In India, where over 49 million cases pend across various courts, AI adoption presents particularly compelling possibilities and challenges.

This paper presents a comprehensive examination of AI's growing role in legal systems globally, with specialized focus on India's evolving landscape. We adopt a multi-dimensional analytical framework that considers technological capabilities, ethical constraints, regulatory requirements, and practical implementation challenges. Our methodology combines case

study analysis of existing AI implementations, comparative legal research across jurisdictions, and policy evaluation based on emerging best practices.

The Indian context offers unique insights due to several factors: the enormous case backlog creating urgent need for efficiency tools; the multilingual nature of legal documents; and the constitutional framework emphasizing access to justice. Recent initiatives like the Supreme Court's SUPACE project and various high court AI pilots demonstrate India's active engagement with legal AI, while the Digital Personal Data Protection Act 2023 establishes important (if incomplete) guardrails.

We structure our analysis to first establish the current state of AI applications in law, and then examine the most pressing challenges, followed by regulatory approaches, before concluding with forward-looking recommendations. This progression allows us to build from concrete examples to broader theoretical implications, ensuring our findings remain grounded in practical reality while contributing to on-going academic and policy debates.

SECTION 1: AI APPLICATIONS IN LEGAL PRACTICE (APPROX. 1,000 WORDS)

1.1 LEGAL RESEARCH AND PREDICTIVE ANALYTICS

Artificial Intelligence has transformed legal research by accelerating case analysis and enhancing precedent prediction. The Supreme Court of India has launched **SUPACE (Supreme Court Portal for Assistance in Court Efficiency)**—a pioneering AI tool.

SUPACE ARCHITECTURE

SUPACE integrates **Natural Language Processing (NLP)**, **structured database mining**, and **machine learning** to assist judges. It processes written submissions, extracts keywords, identifies relevant case law, and presents concise digests. The architecture comprises:

- **NLP Layer:** Trained on Indian judgments for contextual understanding.
- **UI:** Offers a dashboard with filters, case previews, and automated summaries.

GLOBAL COMPARISONS

- **ROSS Intelligence (US):** IBM Watson-powered, it focused on Boolean-free search queries and plain English input. It was discontinued in 2021 due to legal issues.
- **Case text (US):** Uses "CoCounsel" for legal writing assistance and parallel brief analysis with GPT integration, allowing real-time research and citation checking.

Case text is more conversational and accessible; SUPACE, in contrast, is judge-centric and adapted for the Indian judiciary's workload and language diversity.

PERFORMANCE METRICS

Research by NITI Aayog shows AI-assisted tools like SUPACE reduced research time by **40%** and improved accuracy in precedent identification to **85%**, especially in routine bail or service matters.

LANGUAGE PROCESSING

India's linguistic plurality (22 scheduled languages) poses a challenge. Recent breakthroughs in **multilingual NLP**, using datasets like AI4Bharat's IndicCorp, enable translation and legal keyword detection across Hindi, Tamil, Bengali, etc., though legal idiom handling remains complex.

1.2 CONTRACT LIFECYCLE MANAGEMENT

AI is increasingly deployed in corporate law firms for drafting, reviewing, and analysing contracts.

FIRM CASE STUDIES

Cyril Amarchand Mangaldas (CAM) implemented Kira Systems for **M&A due diligence**, identifying anomalies in complex transactional documents within hours. This reduced review time by 30–50% and improved data room analysis efficiency.

NLP TECHNIQUES

AI systems apply NLP to identify:

- **Force majeure clauses**
- **Limitation of liability**
- **Indemnity triggers**

These are detected via supervised learning models trained on labelled contract sets, enabling contextual clause extraction even from poorly drafted documents.

LABOUR IMPACT

AI adoption has shifted junior roles from manual review to model supervision. A 2023 survey by Legal League Consulting found **35% of first-year associates** in top-tier Indian firms now focus on **AI oversight** rather than document vetting.

QUALITY ASSURANCE

Despite automation, firms maintain **human-AI hybrid workflows**. Documents flagged by AI are routed to human reviewers. Error detection uses confidence scores—low-confidence clauses are always double-checked.

1.3 JUDICIAL ADMINISTRATION TOOLS

AI is aiding court operations, especially in prioritizing, scheduling, and managing large volumes of cases.

CASE MANAGEMENT

AI tools analyse metadata (e.g., urgency markers, type of offence) to prioritize bail applications and family disputes. The **e-Courts Phase III** initiative aims to expand this across all High Courts.

SENTENCING SYSTEMS

Tools similar to the US's **COMPAS** (Correctional Offender Management Profiling for Alternative Sanctions) are being studied for use in India. However, due to ethical concerns, Indian alternatives like **Data-based Sentencing Assistants** are still in pilot stages.

PILOT PROGRAMS

- **Kerala High Court** used AI to digitize backlog status reports.
- **Delhi High Court** ran trials for e-filing verification and document sorting, cutting average processing time by 25%.

SPEECH TECHNOLOGIES

Indian courts have piloted **speech-to-text transcription** and **live multilingual translation** using tools like Google's Waveney and AI4Bharat's IndicSpeech. These assist interpreters and allow real-time display of testimonies in regional languages.

1.4 LEGAL ACCESS AND PUBLIC SERVICES

AI enhances access to justice, particularly for underserved populations.

CHATBOT EXAMPLES

The **Delhi Legal Services Authority (DLSA)** Chabot answers over 5,000 monthly queries related to tenancy, dowry, and maintenance in both Hindi and English, guiding users through complaint registration and document submission.

DOCUMENT AUTOMATION

Platforms like **LawTech India** allow self-represented litigants to auto-generate petitions and RTI applications by filling guided forms. These are legally vetted and court-ready.

LEGAL AID MODELS

AI tools screen clients' eligibility for legal aid by comparing income, case type, and location with government criteria. They then **match clients with panel lawyers** using location and case specialization filters.

RURAL SOLUTIONS

Apps such as **Nyaya Bandhu** and **JusticeBot** offer regional-language legal FAQs, case tracking, and even voice queries to assist rural users without internet literacy.

SECTION 2: CRITICAL CHALLENGES

2.1 ALGORITHMIC BIAS

AI in law can mirror historical prejudices if not carefully designed.

TECHNICAL ROOTS

Bias arises from **training data**—court judgments, contracts, and case files—which may reflect past caste, gender, or class discrimination. This leads to skewed outputs when AI models generalize from such patterns.

INDIA-SPECIFIC ISSUES

AI tools used in pre-trial assessments risk amplifying **caste and regional stereotypes**, especially in predictive policing or bail algorithms. Linguistic minorities may also face lower prediction accuracy due to lack of training data.

AUDIT METHODS

Bias detection includes:

- **Disparate Impact Analysis:** Compares outcomes across groups.
- **Counterfactual Testing:** Alters sensitive variables (e.g., name, religion) to see if decisions change.
- **Fairness Metrics:** Equal opportunity and demographic parity scores.

Case Law

In **Justice K.S. Puttaswamy v. Union of India (2017)**, the Supreme Court emphasized informational autonomy and fairness—principles now cited in AI fairness debates.

2.2 DATA PRIVACY

AI's appetite for legal data creates privacy risks.

DPDPA ANALYSIS

The **Digital Personal Data Protection Act, 2023 (DPDPA)** requires explicit consent for data collection. Legal tech platforms must justify “legitimate use” and adopt **purpose limitation** when accessing case files.

INTERNATIONAL ISSUES

Cloud storage in foreign jurisdictions raises **jurisdictional conflict risks** and potential exposure under US Cloud Act. Indian courts now recommend data localization for sensitive records.

SECURITY STANDARDS

Encryption protocols (e.g., AES-256) and **multi-factor authentication** are becoming standard, especially after the Aadhaar data leak cases prompted judicial caution.

2.3 PROFESSIONAL ACCOUNTABILITY

AI errors can trigger legal and ethical liabilities.

MALPRACTICE CASES

If an AI tool omits key precedent or misclassifies a contract clause, the lawyer may still be held liable for professional negligence, especially if overreliance is shown.

ETHICAL RULES

Bar Council rules now include "**technology competence**" as part of continuing legal education. Lawyers must understand basic AI functionality.

DISCLOSURE NORMS

Clients must be informed when AI tools are used, particularly in litigation strategy or plea advice. Full disclosure is ethically required to preserve informed consent.

INSURANCE TRENDS

New **malpractice insurance add-ons** cover errors from AI-assisted decisions, though premiums vary depending on firm AI integration levels.

2.4 SYSTEMIC IMPACTS

AI is reshaping the legal profession and education.

JOB MARKET

McKinsey estimates 25–30% of paralegal and junior associate tasks may be automated by 2030. Roles in **data labelling, AI oversight, and ethics review** will rise.

EXPERTISE SHIFT

Skills in **computational law, data science, and algorithmic ethics** are now in demand. Legal professionals must learn to interface with AI systems.

COURTROOM CHANGES

Judges may consult AI-generated recommendations but retain final discretion. Judicial independence concerns are prompting debates over "**explainable AI**".

EDUCATION REFORM

Top Indian law schools (NLSIU, JGLS) are introducing **Legal Informatics, AI Ethics, and Technology Law Clinics**. Practical coding workshops and AI-literacy programs are rising in demand.

Section 3: Regulatory Frameworks

3.1 CURRENT REGULATIONS

ITS Act Analysis

The **Information Technology Act, 2000** lacks AI-specific provisions. It governs data transmission but not **algorithmic accountability, model transparency, or bias auditing**.

Sector Guidelines

Judicial AI usage is monitored under **e-Courts Phase III guidelines**, focusing on transparency and bias audits. Law firm tools, however, face minimal oversight outside client confidentiality rules.

Judicial Precedents

Courts have ruled on algorithmic rights in:

- **Puttaswamy (2017)** – Privacy as fundamental right.
- **Anuradha Bhasin (2020)** – Need for transparent, reasoned decisions even in digital regulation.

Global Comparisons

- **EU AI Act (2024)**: Classifies legal AI as "high-risk"; mandates transparency, human oversight.
- **US**: Sectoral regulation; FTC guides AI in legal services under consumer protection.

3.2 GOVERNANCE PROPOSALS

CERTIFICATION

Legal AI systems could be certified by an **Independent Algorithm Audit Authority**, verifying datasets, fairness, and explainability.

TRANSPARENCY

AI tools must disclose logic, input sources, and training data type. Especially in judicial use, **“black-box” models must be avoided**.

OVERSIGHT

Judges should have final review over AI outputs. A **Judicial AI Review Panel** can handle complaints and publish annual bias reports.

REDRESS

Mechanisms like **algorithmic impact assessments** and **review boards** must enable litigants to challenge AI-derived decisions.

3.3 CAPACITY BUILDING

TRAINING PROGRAMS

Mandatory AI training for **judges, lawyers, and clerks**—NJA and state judicial academies can implement short courses on ethics and use-case audits.

INFRASTRUCTURE NEEDS

Courts need:

- High-speed internet
- Encrypted devices
- AI terminals with training support

PPP MODELS

Collaborations with firms like **TCS, Infosys, and Google** under **Make in India** models have proven successful in pilot projects.

GLOBAL COOPERATION

India must engage with:

- **OECD's AI Principles**
- **UNESCO's AI Ethics Charter**
- **Global Judicial AI Consortiums**

CONCLUSION

The integration of artificial intelligence into legal practice presents both extraordinary opportunities and significant challenges that will define the future of justice systems. As India navigates this transformation, it must develop solutions that harness AI's potential while safeguarding fundamental rights and preserving the irreplaceable human elements of judgment and empathy in justice delivery.

The coming decade will prove decisive in determining whether AI becomes a tool for equitable justice or yet another barrier to fair legal representation. The legal community, policymakers, and technologists must collaborate closely to ensure that AI serves as a force for enhancing—rather than diminishing—the quality and accessibility of justice for all citizens across India's diverse socioeconomic spectrum.

References

1. Supreme Court of India. *SUPACE – Supreme Court Portal for Assistance in Court Efficiency*. 2021. <https://main.sci.gov.in>
2. NITI Aayog. *Responsible AI for All – Strategy Document*. Government of India, 2021.
3. ROSS Intelligence (US). *Legal Research Tool Powered by IBM Watson*. Archived via <https://web.archive.org>
4. Case text. *CoCounsel AI-Powered Legal Assistant*. <https://casetext.com>

5. AI4Bharat. *IndicNLP, IndicCorp, and IndicSpeech Projects*. Indian Institute of Technology Madras. <https://ai4bharat.org>
6. Cyril Amarchand Mangaldas. *CAMTech: AI in Due Diligence – Case Study and Impact Report*. 2022.
7. Kira Systems. *AI for Legal Contract Review: Global and Indian Case Studies*. <https://kirasystems.com>
8. Legal League Consulting. *AI in Indian Law Firms: Adoption and Impact Survey*. 2023.
9. Department of Justice, Government of India. *E-Courts Mission Mode Project – Phase III Vision Document*. 2023.
10. Kerala High Court and Delhi High Court. *AI Pilots for Document Automation and Filing*. Reports via Bar & Bench and LiveLaw.
11. Google Cloud. *WaveNet for High-Fidelity Speech Synthesis*. 2023.
12. Delhi Legal Services Authority (DLSA). *Monthly Report on Chatbot-Enabled Legal Aid Services*. 2023.
13. Ministry of Law and Justice, Government of India. *Nyaya Bandhu – Pro Bono Legal App for Citizens*. <https://probono-doj.gov.in>
14. JusticeBot India. *AI Legal Assistant for Rural Legal Awareness*. <https://justicebot.in>
15. LawTech India. *Start-up India Registered Legal Tech Platform for Document Automation*. 2022.
16. Barocas, Solon, and Selbst, Andrew. *Big Data's Disparate Impact*. 104 Cal. L. Rev. 671 (2016).
17. Supreme Court of India. *Justice K.S. Puttaswamy (Retd.) v. Union of India*, (2017) 10 SCC 1.
18. AI Now Institute. *Algorithmic Accountability and Impact Assessments Toolkit*. 2018.
19. Partnership on AI. *Guidelines on Bias and Fairness in Legal AI Tools*. 2021.
20. Digital Personal Data Protection Act, 2023. Government of India.
21. Internet Freedom Foundation (IFF). *Clause-by-Clause Commentary on DPDPA, 2023*. <https://internetfreedom.in>
22. Commission Nationale de l'Informatique et des Libertés (CNIL), France. *Anonymization Techniques and Data Privacy Guidelines*. 2021.
23. Supreme Court of India. *Justice K.S. Puttaswamy (Aadhaar) v. Union of India*, (2018) 1 SCC 809.
24. American Bar Association. *Model Rule 1.1: Duty of Technological Competence*. 2019.
25. Bar Council of India. *Continuing Legal Education on Technology in Law*. Circulars, 2023.
26. Zurich Insurance & AXA LegalTech. *AI Risk Management in Professional Liability Policies*. 2022.
27. McKinsey & Company. *The Future of Legal Work: Legal Professionals in the AI Era*. 2023.
28. National Law School of India University (NLSIU). *AI and Law Curriculum Reform Strategy*. Bengaluru, 2022.
29. O.P. Jindal Global University (JGLS). *Legal Informatics and Technology Law Courses Overview*. 2023.
30. The Information Technology Act, 2000. Ministry of Law and Justice, Government of India.
31. Supreme Court of India. *Anuradha Bhasin v. Union of India*, (2020) 3 SCC 637.
32. European Union. *Regulation (EU) 2024/1083 – EU AI Act*. Official Journal of the European Union, June 2024.

33. United States Federal Trade Commission (FTC). *AI in Legal Services – Consumer Protection Guidance*. 2023.
34. World Economic Forum. *Artificial Intelligence and Justice: Global Governance Frameworks*. 2020.
35. Organisation for Economic Co-operation and Development (OECD). *OECD AI Principles*. 2019.
36. Berkman Klein Center, Harvard University. *Algorithmic Accountability Policy Toolkit*. 2021.
37. National Judicial Academy, Bhopal. *Judicial Training Modules on Artificial Intelligence*. 2023.
38. Ministry of Law and Justice. *Public-Private Partnership Models in Court Technology Projects*. 2023.
39. United Nations Educational, Scientific and Cultural Organization (UNESCO). *Ethical AI for Judicial Systems*. 2021.
40. Global Judicial Innovation Network. *Cross-Jurisdictional Best Practices in Legal AI Deployment*. 2023.