INTERNATIONAL JOURNAL FOR LEGAL RESEARCH AND ANALYSIS

Open Access, Refereed Journal Multi Disciplinary
Peer Reviewed

www.ijlra.com

ISSN: 2582-6433

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ISSN: 2582-6433

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ISSN: 2582-6433

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ISSN: 2582-6433

JUSTICE OR DEEPENING DIVIDE? A CRITICAL ANALYSIS OF TECHNOLOGICAL REFORMS AND THEIR IMPACT ON CIVIL PROCEDURE IN INDIA

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Abstract

This paper critically examines the comprehensive digital transformation of India's civil justice system, spearheaded by the multi-phased e-Courts Mission Mode Project. While these reforms promise to alleviate chronic issues of pendency and delay that have long beleaguered the judiciary, their implementation reveals a complex narrative. Through a multi-method analysis combining quantitative data from the National Judicial Data Grid (NJDG) and qualitative insights from user-experience studies and policy documents, this paper argues that the pursuit of technological efficiency has created a significant "digital divide," potentially exacerbating inequalities and erecting new barriers to justice for marginalized populations. Furthermore, the nascent integration of Artificial Intelligence (AI) introduces profound ethical and procedural challenges that demand a robust governance framework. The paper concludes by advocating for a paradigm shift from a technology-centric to a user-centric model of reform, proposing specific amendments to the Code of Civil Procedure, 1908, and outlining a framework for equitable and inclusive digital justice that balances efficiency with the foundational principles of procedural fairness.

Keywords

Civil Procedure Code (CPC), e-Courts Mission Mode Project, Digital Justice System in India, Judicial Digitization, Access to Justice, Digital Divide, Artificial Intelligence in Judiciary, National Judicial Data Grid (NJDG), Procedural Fairness, Technological Reforms in Judiciary, Data Governance, Judicial Efficiency, Virtual Courts, Ethical AI Governance, Law Commission of India, Digital Inclusion, User-Centric Reform, Cybersecurity in Judiciary, Legislative Reform,

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Comparative Legal Systems

Introduction: The Digital Imperative for India's Civil Justice System

The Code of Civil Procedure, 1908 (CPC), has served as the foundational procedural law governing civil litigation in India for over a century.[1] Despite numerous amendments aimed at improving the justice delivery system, its provisions have often been cited as contributing to the endemic problem of judicial delay.[3] The Indian civil justice system has been historically characterized by a crippling backlog of cases, procedural complexities that invite dilatory tactics, and protracted trial durations that can span a decade or more.[4] This systemic inefficiency has not only drained the financial and emotional resources of litigants but has also progressively eroded public faith in the efficacy of the dispute resolution process.[3] As of March 2024, the pendency in India's district and subordinate courts stood at a staggering 44 million cases, a figure that starkly illustrates the scale of the challenge.[5] This environment of "justice delayed is justice denied" created an urgent and undeniable imperative for radical reform.[6]

In response to this crisis, the Indian state has embraced technology as the principal panacea. The e-Courts Mission Mode Project, a flagship initiative under the National e-Governance Plan, was conceptualized as a comprehensive, multi-phased program to modernize the judiciary through the large-scale implementation of Information and Communication Technology (ICT).[4] The project's vision is to transform the judicial system by making it more efficient, transparent, accessible, and cost-effective for all stakeholders.[10] From the basic computerization of courtrooms to the establishment of a national data grid and the nascent exploration of Artificial

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11. *Call for Registration | Indian Law Society offers an Online Autonomous Certificate Programme for Professional Excellence on Law of Civil Procedure for Civil Trials and Appeals*, SCC Times (Aug. 23, 2025), https://www.scconline.com/blog/post/2025/08/23/call-for-registration-indian-law-society-online-autonomous-certificate-programme-professional-civil-procedure-for-civil-trials-appeals/.
2. *Civil Procedure Code – An Overview*, Lloyd L. Coll. (Aug. 26, 2025), https://www.lloydlawcollege.edu.in/blog/civil-procedure-code.html.
3. *Changes in Civil Procedure Code*, Times of India (Aug. 26, 2025), https://timesofindia.indiatimes.com/education/news/changes-in-civil-procedure-code/articleshow/18753704.cms.
4. *FASTER CIVIL TRIALS IN INDIA THROUGH TECHNOLOGY* ..., Lukmaan IAS (Nov. 12, 2024), https://blog.lukmaanias.com/2024/11/12/faster-civil-trials-in-india-through-technology-reforms-and-procedural-innovations/.

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Intelligence, these technological interventions represent the most significant overhaul of civil procedure in India since the enactment of the CPC itself.

However, the pursuit of a technologically streamlined judiciary presents a complex and often contradictory narrative. While the potential for digital tools to enhance efficiency is undeniable, their implementation across a nation as vast and diverse as India raises profound questions about equity and access. This paper advances a central argument: *While the digital transformation of the Indian civil judiciary offers unprecedented opportunities for enhancing efficiency and transparency, its current trajectory risks creating a new form of exclusionary justice, characterized by a significant digital divide and unresolved ethical dilemmas. Achieving true 'access to justice' in the digital age requires a fundamental reorientation of reform efforts towards inclusivity, user-centric design, and the proactive evolution of procedural law.* This paper will navigate this complex terrain by first dissecting the architecture of India's e-judiciary infrastructure. It will then undertake a multi-faceted impact assessment, juxtaposing quantitative performance metrics with the qualitative realities of the digital divide, and contextualizing India's journey through a comparative analysis of international models. Subsequently, the paper will explore the emerging ethical challenges posed by Artificial Intelligence in judicial processes. Finally, it will analyze the pressing need to reform the Code of Civil Procedure, 1908, to align it with the new digital reality, concluding with a comprehensive framework of recommendations for building a more equitable and inclusive system of digital justice.

Architecting the E-Judiciary: An Anatomy of India's Techno-Legal Infrastructure

The digital transformation of the Indian judiciary is not a monolithic event but an evolutionary process structured around a series of ambitious, interconnected projects. This chapter deconstructs the key components of this emerging techno-legal ecosystem, tracing their development, stated objectives, and underlying logic. At the heart of this transformation lies the e-Courts Mission Mode Project, supported by the data-centric National Judicial Data Grid and the forward-looking integration of Artificial Intelligence.

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The E-Courts Mission Mode Project: An Evolutionary Trajectory

The e-Courts project, a pan-India initiative monitored by the Department of Justice and the e-Committee of the Supreme Court, has been implemented in distinct phases, each with a progressively ambitious scope.[7] This phased rollout reveals a strategic learning curve, where the lessons and limitations of one phase directly informed the objectives of the next. The progression was not merely an addition of new features but a fundamental shift in understanding what true judicial modernization entails—moving from basic mechanization to a comprehensive re-[2]engineering of judicial processes.[3]

Phase I (2010-2015): Foundational Computerization

The initial phase of the e-Courts project, approved in 2010 with an outlay of ₹639 crores, was primarily focused on establishing the foundational layer of digital infrastructure.[7] The principal objective was the widespread computerization of district and subordinate courts across the country. This involved the provision of essential hardware, the installation of Local Area Networks (LAN), and the deployment of a standardized Case Information Software (CIS).[11] By the conclusion of this phase in 2015, a significant milestone was achieved with the computerization of 14,249 district and subordinate courts.[7] This phase was a necessary, albeit rudimentary, first step, aimed at transitioning the judiciary's core record-keeping functions from a paper-based system to a digital one. However, the focus was almost exclusively on equipping the courts with technology, with less emphasis on how litigants and lawyers would interact with the new systems.

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[2] *Decision time: illuminating performance in India's district courts*, Data & Pol'y, Cambridge Core (Aug. 26, 2025), https://www.cambridge.org/core/journals/data-and-policy/article/decision-time-illuminating-performance-in-indias-district-courts/19F152C3E024BB0ED2BB2393E0E6DADB.

[3] *e-Courts Project: A Giant Leap by Indian Judiciary*, CORE (Aug. 26, 2025), https://core.ac.uk/download/pdf/268231072.pdf.

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Phase II (2015-2023): Enhancing Service Delivery

Learning from the infrastructure-centric approach of the first phase, Phase II, commissioned in 2015 with a larger budget of ₹1670 crores, marked a crucial pivot towards enhancing service delivery for litigants and lawyers.[7] The focus shifted from merely providing hardware to creating a functional digital ecosystem that offered tangible services to its users. Key advancements during this phase included the improvement of ICT infrastructure, the widespread introduction of video conferencing facilities to connect courts with jails, and the development of multiple access platforms, including a web portal, mobile applications, and information kiosks in court [4]complexes.[7]

Two of the most significant achievements of Phase II were the universalization of e-filing and e-payment systems and the creation of the National Judicial Data Grid (NJDG).[10] These initiatives aimed to make the judicial process more transparent and accessible, allowing for the electronic submission of documents and providing real-time data on case status to the public.[12] This phase represented a more mature understanding of digital reform, recognizing that technology must serve the end-users of the justice system to be truly effective.

Phase III (2023 onwards): Towards 'Maximum Ease of Justice'

The current phase of the project, approved in 2023 with a substantial financial outlay of ₹7210 crore, reflects the most ambitious vision yet.[7] Branded as a move towards "maximum ease of justice," Phase III aims to build upon the gains of the previous stages to create a deeply integrated and intelligent judicial system.[7] The central objective is the creation of a unified technology platform that provides a seamless and paperless interface between courts, litigants, and other stakeholders.[7]

This vision is being pursued through several key initiatives. A major focus is the comprehensive digitization of all court records, including vast archives of legacy records, to facilitate the

[4]*IT Division*, Dep't of Just. | India (Aug. 26, 2025), https://doj.gov.in/division/ecourts/.

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transition to fully digital and paperless courts.[8] The project also plans for the universalization of e-Filing and the saturation of all court complexes with e-Sewa Kendras (citizen service centers) to assist those who face digital barriers.[9] Most significantly, Phase III explicitly incorporates the development and deployment of "intelligent smart systems," including Artificial Intelligence and Machine Learning tools, to aid judges and registries in data-based decision-making for scheduling and prioritizing cases.[7] This phase signals a move beyond digitization towards the automation and intelligent augmentation of judicial functions.

The National Judicial Data G[5]rid (NJDG): The Engine of Transparency?

A cornerstone of the e-Courts project, the National Judicial Data Grid (NJDG) is a national repository of case data from across India's judicial landscape.[14] Conceptualized as an online platform, it collates and disseminates data on orders, judgments, and case details from over 18,735 district and subordinate courts, as well as all High Courts, with data being updated on a near real-time basis.[4] The NJDG serves a dual purpose. For the public, it is a tool for transparency, providing access to case status, cause lists, and disposed case information through a public portal.[16] For the judiciary and policymakers, it functions as a powerful monitoring and decision support system.[16]

The portal's features, such as elastic search technology and the ability to perform drill-down analysis of pendency based on case age, state, district, and case type, allow for a granular understanding of judicial workload and bottlenecks.[14] This data-driven approach has been lauded internationally, with the World Bank acknowledging the NJDG in its Ease of Doing Business report for its role in generating case management reports and making contract enforcement easier.[15] The creation of the NJDG represents a monumental shift towards the centralization and standardization of judicial data. While this offers immense potential for data-driven policy and enhanced accountability, it simultaneously concentrates vast amounts of sensitive judicial information into a single national system. This architectural choice, while efficient, raises significant questions about data governance, cybersecurity, and the delicate balance of power

[5] *Rajya Sabha Unstarred Question No. 1717*, Digital Sansad (Aug. 13, 2025), https://sansad.in/getFile/annex/267/AU1717_CfzLxb.pdf?source=pqars.

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within India's federal judicial structure, as state-level judiciaries effectively become data-providing nodes in a national grid.

The Dawn of AI: SUPACE and the Future of Judicial Assistance

Marking the Indian judiciary's formal entry into the age of artificial intelligence, the Supreme Court has initiated the development of the Supreme Court Portal for Assistance in Court Efficiency (SUPACE).[4] SUPACE is an AI-powered tool designed to function as a research assistant for judges. Its primary objective is to leverag[6]e machine learning to analyze large volumes of case files, extract relevant facts and legal precedents, and thereby reduce the time judges spend on routine research and case preparation tasks.[4]

From its inception, the judiciary has been careful to frame SUPACE's role in narrow terms. It is explicitly intended as an assistive tool to enhance efficiency, not to partake in or influence the quintessentially human act of judicial decision-making.[18] The system's functioning is restricted to data collection and analysis, providing judges with organized information upon which they can exercise their own discretion and legal reasoning. As of mid-2025, the SUPACE portal remains in an "experimental stage of development".[20] Its full deployment is contingent on the procurement of necessary high-performance computing infrastructure, such as graphic processing units (GPUs).[20] The development of SUPACE, however, signals a clear intent to integrate advanced AI into the highest levels of the Indian judicial system, opening a new chapter in the country's journey towards digital justice.

Measuring the Digital Dividend: A Multi-faceted Impact Assessment

The extensive investment in India's techno-legal infrastructure necessitates a rigorous evaluation of its outcomes. This chapter provides a multi-faceted impact assessment of the e-Courts project and its associated initiatives. It begins with a quantitative analysis of judicial performance

[6] *Final Report on the Vision Document for Phase III of eCourts Project*, S3waas (July 16, 2024), https://cdnbbsr.s3waas.gov.in/s35d6646aad9bcc0be55b2c82f69750387/uploads/2024/07/2024071616208042 67.pdf.

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metrics, leveraging the data made available by the NJDG. It then shifts to a qualitative examination of the user experience, focusing on the critical issue of the digital divide. Finally, it contextualizes India's progress and challenges through a comparative analysis of digital justice systems in the United Kingdom and the United States, revealing divergent philosophies on what constitutes "access to justice" in the digital era.

A Quantitative Lens: Analyzing Pendency and Disposal Rates through NJDG

[7]The NJDG provides an unprecedented, though imperfect, window into the functioning of the Indian judiciary. An analysis of this data reveals a mixed and complex picture of the impact of digitization on judicial efficiency. On one hand, there are clear indicators of success. For instance, in 2023, the Supreme Court of India demonstrated remarkable efficiency, disposing of 52,220 cases against an institution of 53,770 new cases, achieving a disposal rate of 96%, its highest in recent history.[21] The increased access to the Court through technological upgrades was cited as a contributing factor to the high filing numbers.[21] Furthermore, specialized digital platforms like Virtual Courts have shown immense capacity for handling high-volume, low-complexity litigation. As of June 2024, 28 Virtual Courts operational in 21 states had handled over 5.26 crore traffic challan cases, realizing fines of over ₹579 crore online.[22] These figures suggest that for specific types of litigation, technology can dramatically improve throughput.

However, a broader look at the national level, particularly at the subordinate courts, presents a more sobering reality. The data, while voluminous, is plagued by significant quality issues that complicate any definitive assessment of impact. Academic studies analyzing the e-Courts data have consistently highlighted problems such as a lack of standardization in case-type nomenclature, missing data in critical fields like statute names and section numbers, and a high frequency of erroneous data entry.[23] These data integrity issues mean that while the NJDG offers a macro-level view, its granularity is often unreliable for precise, long-term impact analysis. This situation presents a paradox of transparency: the very tool designed to make the judiciary more open has, in fact, exposed a deeper, systemic issue of poor data discipline at the grassroots level.

[7] *Home*, eCourt India Servs. (Aug. 26, 2025), https://ecourts.gov.in/.

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The challenge, therefore, is not merely technological but cultural, requiring a fundamental shift in the processes of data recording and verification within thousands of individual courts.

Despite these limitations, the aggregate data provides a crucial snapshot of the current state of civil litigation, as summarized in the table below.

Metric	Data	Source(s)
Total Pending Civil Cases (District & Taluka)	11,042,427	[25]
Cases Instituted (Last Month)	400,154	[25]
Cases Disposed (Last Month)	396,864	[25]
Disposal Rate (Last Month)	99.18%	Calculated
Pendency by Age: < 1 Year	36%	[25]
Pendency by Age: 1-5 Years	36% (24% + 12%)	[25]
Pendency by Age: 5-10 Years	18%	[25]
Pendency by Age: > 10 Years	9%	[25]
Cases Filed by Senior Citizens	2,381,890 (Civil)	[25]
Cases Filed by Women	1,838,341 (Civil)	[25]

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Table 1: National Judicial Data Grid (NJDG) - Civil Litigation Snapshot (District & Taluka Courts as of August 2025)		

The Other Side of the Screen: The Digital Divide and Access to Justice
[8]

Beyond the statistics lies the lived experience of the users of the justice system, and it is here that the most significant challenges of digitization emerge. The rapid transition to online processes has created a profound "digital divide," a chasm separating those with the resources and skills to navigate the new digital landscape from those without.[26] This divide is not a single problem but a multi-faceted barrier to justice, manifesting in several critical ways.

First, there are severe **infrastructural deficits**. In many rural and underserved areas, reliable internet connectivity remains a luxury, and access to necessary hardware like computers and scanners is limited.[27] A report from the Chief Justice of India's office revealed that only 27% of trial courtrooms have a computer on the judge's dais, and 10% lack the minimum internet access required for virtual functioning.[31] This "access divide" makes participation in e-filing or virtual hearings a significant hurdle for a large segment of the population.[31]

Second, there is a substantial **digital literacy gap**. Many legal professionals, particularly those in rural areas or with lower incomes, as well as the general populace, lack the technical proficiency to effectively use the new digital systems.[31] A survey found that 90% of advocates were unaware of the technology, and the inability to adapt to digital platforms can threaten their livelihoods and, by extension, their clients' access to justice.[31] While initiatives like e-Sewa Kendras are intended to bridge this gap, their reach is still limited.[34]

Third, the **usability of the digital platforms** themselves often poses a barrier. Users report that e-filing systems can be confusing, with legal jargon and non-intuitive interfaces, particularly on

[8] *E-Courts Mission Mode Project*, e-Comm., Sup. Ct. of India (Aug. 26, 2025), https://ecommitteesci.gov.in/project/brief-overview-of-e-courts-project/.

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mobile devices, which are the primary means of internet access for many Indians.[27] The process can be cumbersome, requiring users to download, fill, and re-upload PDF documents, a process that is challenging for those with low technical skills.[27] These qualitative realities, documented in studies by organizations like DAKSH and the Vidhi Centre for Legal Policy, demonstrate that for many, the digital court is not an accessible forum but a new, impenetrable wall, effectively creating a two-tiered justice system based on digital privilege.[9]

A [9]Global Mirror: Comparative Analysis of Digital Justice Systems

Contextualizing India's digital transformation against international models reveals divergent philosophies and strategies for achieving digital justice. The approaches taken by the United Kingdom and the United States, in particular, offer valuable points of comparison.

The **United Kingdom's HM Courts & Tribunals Service (HMCTS) Reform Programme** is an ambitious, state-funded initiative to modernize the entire justice system.[36] A key feature of the UK model is its pragmatic focus on Online Dispute Resolution (ODR) for high-volume, low-value civil claims (under £25,000).[38] This approach effectively creates a separate, digitally native track for smaller disputes, aiming to make them more affordable and accessible.[40] Evaluations of the HMCTS reform have shown successes in efficiency and high user satisfaction rates for services like online divorce and civil money claims.[36] However, they have also raised significant concerns about the impact on vulnerable users and the potential for digital exclusion, prompting dedicated studies on these issues.[41]

The **United States federal judiciary**, by contrast, operates a much older and more decentralized system, primarily through its Public Access to Court Electronic Records (PACER) and Case Management/Electronic Case Files (CM/ECF) platforms.[44] A defining characteristic of the US model is its funding mechanism: PACER is funded "entirely through user fees," charging the public a per-page fee to access court documents.[46] While this model has sustained the system for decades, it has faced significant criticism for creating a financial barrier to public information,

[9] *E-Courts Mission Mode Project*, Press Info. Bureau (PIB) (Dec. 17, 2024), https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=2085127.

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effectively treating access to justice as a utility to be paid for rather than a public good.[46] The system has also been criticized for its aging interface and has experienced significant security breaches, raising questions about its robustness.[48] User satisfaction surveys have shown mixed results over time, with an initial rise in satisfaction followed by a decline in a more recent 2021 survey.[50]

This comparative analysis highlights fundamentally different philosophies. India's state-funded, universalist a[10]pproach treats digital justice as a public service. The UK's targeted ODR model is a pragmatic intervention aimed at a specific segment of the justice system. The US's user-fee model frames access to judicial information as a commodity. These differing approaches provide a crucial lens through which to evaluate the policy choices embedded in India's e-Courts project.

Parameter	India (e-Courts/NJDG)	United Kingdom (HMCTS Reform)	United States (PACER/CM-ECF)
System Name & Launch Era	e-Courts Mission Mode Project (Phased, from 2007/2010)	HM Courts & Tribunals Service Reform Programme (2016-2025)	PACER (1988), CM/ECF (from 2001)
Funding Model	Government Funded (Central Sector Scheme)	Government Funded	User Fees (per-page access charge)
Primary Objective	Comprehensive modernization, efficiency, transparency, and accessibility	Modernization, with a strong focus on Online Dispute Resolution (ODR) for low-value civil claims	Public access to electronic court records
Key Features	National Judicial Data	Online Civil Money	Nationwide index of

[10] *national judicial data grid*, e-Comm., Sup. Ct. of India (Aug. 26, 2025), https://ecommitteesci.gov.in/service/national-judicial-data-grid/.

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	Grid (NJDG), e-Filing, Video Conferencing, Mobile Apps, Virtual Courts	Claims, Digital Case Management, Remote Hearings, ODR for specific tribunals	federal cases, Electronic document filing and retrieval
Public Access Policy	Free public access to case status and judgments	Publicly accessible information on procedures and outcomes	Per-page fee for accessing documents, with a quarterly waiver for low usage
Key Challenges Identified	Digital Divide, Data Quality & Integrity, Infrastructure Gaps, Digital Literacy	Digital Exclusion of Vulnerable Users, Technical Issues with Portals, System Usability	High User Fees as a barrier, Aging Interface, Cybersecurity Vulnerabilities, Data Security Breaches
User Satisfaction Metrics	Not systematically available	High for specific services (e.g., 93% for online probate)	Declined between 2012 and 2021 surveys
Table 2: Comparative Framework of National Digital Justice Systems			

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The Ghost in the Machine: Ethical Governance of Artificial Intelligence in Judicial Processes

As the Indian judiciary moves from digitization to intelligent automation, it confronts a new and formidable frontier: the integration of Artificial Intelligence. The introduction of AI into the

[11] *The National Judicial Data Grid (NJDG)*, Dep't of Just. | India (Aug. 26, 2025), https://doj.gov.in/the-national-judicial-data-grid-njdg/.

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sanctum of judicial processes promises transformative efficiencies but also raises profound ethical and legal questions that strike at the core principles of justice. This chapter examines the allure and perils of algorithmic justice, analyzes a pioneering effort at proactive governance by the Kerala High Court, and argues for the urgent development of a national ethical framework.

The Allure and Peril of Algorithmic Justice

[12]The potential benefits of incorporating AI into the judicial domain are significant. AI-powered tools can analyze vast datasets of case law and legal documents in seconds, a task that would take human researchers days or weeks, thereby revolutionizing legal research.[52] Predictive analytics models, by identifying patterns in historical data, could potentially forecast case outcomes, helping to manage dockets and encourage settlements.[52] By automating routine administrative tasks, AI can free up judicial time and resources to focus on the complex, nuanced aspects of adjudication.[55] Proponents also argue that well-designed AI systems could help mitigate human cognitive biases, leading to more consistent and impartial outcomes.[55]

However, these potential benefits are shadowed by profound ethical risks. The most pressing concern is **algorithmic bias**. AI systems learn from historical data, and if this data reflects existing societal biases—whether based on gender, caste, or religion—the AI will learn, perpetuate, and even amplify these biases, embedding them within a veneer of technological objectivity.[52] This could lead to discriminatory outcomes that are harder to challenge than those resulting from human prejudice.

A second major challenge is the **transparency and "black box" problem**. Many advanced AI models, particularly deep learning networks, operate in ways that are not easily interpretable, even to their creators.[55] If a judge relies on an AI's analysis, and that analysis cannot be explained or scrutinized, it undermines the fundamental principle of open justice and the requirement for reasoned, scrutable judgments. This opacity makes it nearly impossible for litigants to understand or challenge the basis of a decision, potentially violating due process

[12] *National Judicial Data Grid*, Nat'l Informatics Ctr. | India (Aug. 26, 2025), https://www.nic.in/project/national-judicial-data-grid/.

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rights.[58]

Finally, the use of AI raises critical questions of **accountability and judicial discretion**. Justice is not merely a mechanical application of law to facts; it involves empathy, an understanding of human context, and the exercise of discretion.[55] An over-reliance on AI could erode these essential human elements of judging. Furthermore, it blurs the lines of responsibility: if an AI-influenced decision is found to be flawed, who is accountable—the judge, the programmer, the government that deployed the system?.[55]

Pio[13]neering a Framework: The Kerala High Court AI Guidelines

In a remarkable display of institutional foresight, the Kerala High Court has become a pioneer in addressing these ethical challenges head-on. Rather than waiting for problems to arise, the court has proactively developed and implemented a comprehensive policy for the use of AI by judicial officers and staff.[59] This policy serves as a crucial case study in responsible AI governance.

The Kerala guidelines are built on a foundation of clear principles. First and foremost, AI is strictly defined as an **assistive tool** to be used only for specifically allowed purposes, such as summarizing documents or transcribing proceedings. There is an absolute prohibition on using AI for core judicial functions: it cannot be used for legal reasoning, making findings, issuing orders, or drafting any part of a final judgment.[59] This clear demarcation preserves the sanctity of human judicial decision-making.

The policy places a strong emphasis on **human supervision and verification**. Recognizing the phenomenon of "AI hallucinations"—where AI models generate fictitious or erroneous information—the guidelines mandate that all AI-generated outputs, especially legal citations, must be independently verified for accuracy.[59] This addresses the risk of "automation bias," where users place undue trust in a system's conclusions.

[13] *The Supreme Court has unveiled its Artificial Intelligence (AI) portal SUPACE, designed to make research easier for judges, thereby easing their workload. What does 'A' stand for in SUPACE?*, Prepp (Aug. 26, 2025), https://prepp.in/question/the-supreme-court-has-unveiled-its-artificial-inte-645d2a86e8610180957d68b3.

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Furthermore, the framework enshrines the principles of **transparency, fairness, accountability, and confidentiality**. It warns against the use of public, cloud-based AI tools for sensitive case data due to privacy risks. Crucially, it establishes a system of accountability by requiring that all AI usage be logged for official records and be subject to periodic audits by IT and administrative authorities.[59] This proactive approach contrasts sharply with the more common reactive stance seen in other jurisdictions, where courts have had to address the misuse of AI by legal professionals only after it has occurred, as seen in a recent English High Court decision.[60] The Kerala model demonstrates a sophisticated understanding that managing disruptive technology requires establishing clear rules of engagement before its widespread adoption.

[14]

Towards a National Ethical Framework

The Kerala High Court's initiative provides an invaluable blueprint, but the challenges of AI are national in scope and require a national response. The development of a comprehensive ethical framework for the use of AI in the Indian judiciary is an urgent necessity. Such a framework should not be developed in a vacuum but through a collaborative process involving all stakeholders: judges, legal professionals, AI developers, ethicists, academics, and civil society organizations.[61]

Drawing lessons from international discourse and domestic experience, this national framework must address several key areas.[56] It must establish clear guidelines on data privacy and security, ensuring that sensitive judicial data is protected.[61] It must mandate rigorous testing and validation of AI systems to detect and mitigate bias before they are deployed. It must insist on transparency and "explainability" for any AI tool used in a judicial context, rejecting "black box" systems that cannot be audited or understood. Most importantly, it must reaffirm the primacy of human judicial discretion and accountability.

The introduction of AI into the justice system does more than present a technological challenge; it acts as a mirror, forcing a deeper reflection on the human judicial process itself. The concern

[14] *Artificial Intelligence and Judicial Bias*, Ctr. for L. & Pol'y Rsch. - CLPR (Aug. 26, 2025), https://clpr.org.in/blog/artificial-intelligence-and-the-courts/.

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over algorithmic bias compels a more rigorous examination of the cognitive biases inherent in human judges. The demand for AI transparency sets a new benchmark against which the clarity and consistency of human judicial reasoning can be measured. Therefore, the process of creating an ethical framework for AI is also an opportunity to strengthen the core principles of the existing justice system, ensuring that both human and machine participants are held to the highest standards of fairness and accountability.

Reforming the Code for a Digital Reality: The Future of Civil Procedure

[15]

The digital transformation of the judiciary is not merely an administrative overlay; it fundamentally alters the landscape in which procedural law operates. The Code of Civil Procedure, 1908, a statute drafted for an era of paper, physical presence, and manual processes, is now being applied in an environment of electronic records, virtual hearings, and instantaneous communication. This chapter analyzes the direct implications of this shift for the CPC, arguing that its core tenets are being reshaped and, in some cases, strained to their limits. It calls for a proactive and comprehensive legislative reform agenda, moving beyond piecemeal amendments to create a procedural code fit for the digital age.

Procedural Law at a Crossroads

The integration of technology challenges and redefines several core procedural concepts enshrined in the CPC. The shift from physical to digital workflows is leading to a de facto "deformalization" of traditional court processes. The rigid, place-based rituals of the physical courtroom, which historically served to underscore the gravity of the proceedings, are being replaced by more flexible, but also potentially less secure and more casual, digital interactions. This transformation is evident across various stages of a civil suit.

[15] *Enhancing the efficiency of India's courts using AI*, IndiaAI (Aug. 26, 2025), https://indiaai.gov.in/case-study/enhancing-the-efficiency-of-india-s-courts-using-ai/.

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- **Service of Summons:** The traditional reliance on physical service is giving way to electronic means. The Civil Procedure Code (Amendment) Act, 2002, presciently allowed for service via fax, email, and courier, a provision that has gained immense relevance in the current digital ecosystem.[3] This shift accelerates a crucial pre-trial stage but also raises new questions about deemed service and ensuring receipt by parties who may be digitally excluded.
- **Discovery and Production of Documents (Order XI):** The concept of "discovery" is transformed in an age of electronically stored information (ESI). Instead of specific physical documents, discovery now often involves vast troves of data from emails, databases, and [16]digital archives.[64] This necessitates new protocols for searching, filtering, and producing ESI, as well as for managing issues of digital privilege and data privacy, which the current rules do not adequately address.
- **Examination of Witnesses and Evidence (Order XVIII):** The use of video conferencing for recording witness testimony, a practice accelerated by the pandemic, is now a common feature.[4] While this enhances convenience, it introduces challenges in assessing witness demeanor, preventing witness coaching or intimidation off-screen, and ensuring the authenticity of the proceedings. Furthermore, the admissibility of electronic evidence, governed by the Indian Evidence Act, 1872, becomes a central and often contentious issue in digital trials.[65]
- **Pleadings and Amendments (Order VI):** The e-filing system alters the mechanics of drafting, submitting, and amending pleadings. The Supreme Court has had to adjudicate on the application of rules for amending plaints within this new digital context, particularly concerning the requirement of issuing a fresh notice to the government under Section 80 of the CPC for amendments arising from a "continuous cause of action".[66] This demonstrates how digital processes force a re-interpretation of long-standing procedural doctrines.

This analysis reveals that procedural rules are no longer just abstract principles of engagement; in a digital system, they function as the "legal code" that must be compatible with the "software code" of the e-Courts platform. Outdated or ambiguous rules act like legacy code, creating friction, inefficiency, and legal uncertainty. Failure to update the procedural law will inevitably

[16] *use of artificial intelligence in supreme court*, Press Info. Bureau (PIB) (Aug. 26, 2025), https://www.pib.gov.in/PressReleasePage.aspx?PRID=2148356.

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cripple the functionality of the technological infrastructure it is meant to govern.

The Role of the Law Commission and Judiciary in Driving Reform

Historically, the Law Commission of India has played a pivotal role in recommending reforms to the CPC.[67] It has produced numerous reports over the decades addressing various aspects of civil pr[17]ocedure, including specific reports on the CPC in 1964 (27th Report) and 1973 (54th Report).[68] More recent reports from Parliamentary Standing Committees have also touched upon judicial reforms, recommending changes to judges' retirement ages and the establishment of regional Supreme Court benches, though with less focus on the technological aspects of procedure.[71] While these bodies provide a mechanism for reform, there is a pressing need for them to specifically address the comprehensive impact of technology on procedural law with greater urgency.

In the absence of swift legislative action, the judiciary has often stepped in to fill the void, interpreting existing rules in a manner that accommodates technological change. A prime example is the recent Supreme Court ruling that clarified the execution powers of consumer forums, directing that their orders be enforced like decrees of a civil court under the CPC.[72] This judgment retroactively bridged an 18-year legal gap caused by a flawed legislative amendment, demonstrating the judiciary's role in ensuring that procedural laws result in substantive justice, not just "paper victories".[72] Similarly, the Court's decision on amending plaints in e-filed suits against the government shows its willingness to adapt procedural requirements like the Section 80 notice to the fluid nature of digital litigation.[66] While such judicial interventions are vital, they are inherently reactive and can lead to a patchwork of case law rather than a coherent, codified framework.

[17] *High institution, high disposal of cases in a busy year for the Supreme Court*, SC Observer (Aug. 26, 2025), https://www.scobserver.in/journal/high-institution-high-disposal-of-cases-in-a-busy-year-for-the-supreme-court/.

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A Legislative Agenda for a Digital CPC

The current situation calls for a proactive and comprehensive legislative agenda. Piecemeal amendments are insufficient to address the systemic changes brought about by digitization. What is required is a holistic review of the Code of Civil Procedure and the Indian Evidence Act to create an integrated techno-legal framework.

Several private member bills and state-level amendments offer potential models for reform. The Code of Civil Procedure (Amendment) Bill, 2022, for instance, proposed enhancing costs for [18]vexatious claims, increasing the threshold for compensation for wrongful attachment, and making it obligatory for courts to refer disputes to ADR mechanisms after framing issues.[73] Another bill from 2018 sought to impose mandatory and punitive costs for causing delays and to remove the monetary ceiling on costs for false claims.[74] At the state level, the Karnataka Amendment Bill, 2024, aimed to introduce a new section on mandatory mediation for certain suits to promote expeditious disposal.[75]

While these proposals address important aspects of efficiency and cost, a truly "Digital CPC" would need to go further. It must codify clear and uniform rules for:

- **Electronic Service of Process:** Defining the modes, validity, and proof of electronic service.
- **E-Discovery:** Establishing protocols for the discovery of electronically stored information, including standards for preservation, search, and production.
- **Remote Hearings:** Laying down procedures for conducting virtual evidence recording, ensuring fairness, security, and the integrity of the testimony.
- **Digital Pleadings:** Standardizing formats for e-filing and creating clear rules for digital amendments and document management.
- **Admissibility of Digital Evidence:** Harmonizing the provisions of the CPC with the Evidence Act to create a clear framework for the authentication and admissibility of all forms of electronic evidence.

[18] *High institution, high disposal of cases in a busy year for the Supreme Court*, SC Observer (Aug. 26, 2025), https://www.scobserver.in/journal/high-institution-high-disposal-of-cases-in-a-busy-year-for-the-supreme-court/.

ISSN: 2582-6433

Such a comprehensive legislative overhaul is essential to provide legal certainty, ensure uniformity across jurisdictions, and build a procedural foundation that is as robust and modern as the technology it seeks to regulate.

Conclusion: Towards a Framework for Inclusive and Equitable Digital Justice

The digital transformation of India's civil justice system stands at a critical juncture. The journey, from the initial computerization of courts to the ambitious integration of Artificial Intelligence, [19]has been driven by a laudable and urgent goal: to dismantle the decades-old edifice of judicial delay and inefficiency. The analysis presented in this paper confirms that technology offers powerful tools to achieve this objective. The efficiency gains seen in the disposal of high-volume cases by Virtual Courts and the data-driven monitoring enabled by the National Judicial Data Grid are tangible indicators of this potential. However, this paper has also demonstrated that technology is not a neutral force; its implementation has exposed and, in many cases, exacerbated deep-seated inequalities. The pursuit of efficiency has often overshadowed the imperative of equity, creating a digital divide that threatens to marginalize a significant portion of the population and redefine access to justice as a privilege of the technologically adept.

The central dichotomy that emerges is between the promise of a streamlined, efficient digital judiciary and the peril of a system that is inaccessible and alienating to many of its intended users. The path forward requires a fundamental reorientation of the reform process—a shift from a technology-centric model to a user-centric one. The ultimate measure of success cannot be the speed of servers or the volume of data processed, but the system's ability to deliver fair, equitable, and accessible justice to every citizen. To achieve this, a multi-pronged approach is essential, targeting the distinct but interconnected domains of legislation, judicial administration, and executive policy.

Based on the comprehensive analysis conducted, the following framework of recommendations is proposed:

[19] *computerisation of courts*, Press Info. Bureau (PIB) (Aug. 8, 2024), https://www.pib.gov.in/PressReleasePage.aspx?PRID=2042986.

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1. For the Legislature: Enact a "Digital Procedure Code"

- **Comprehensive Review:** The Parliament should initiate a comprehensive, time-bound review of the Code of Civil Procedure, 1908, and the Indian Evidence Act, 1872. This should not be another piecemeal amendment but a holistic project to draft a "Digital Procedure Code" or a substantial digital-focused supplement.
- **Codify Digital Processes:** This new framework must codify clear, uniform, and binding rules for electronic service of process, discovery of electronically stored information (e-discovery), procedures for conducting remote hearings and recording evidence, and standards for the [20]authentication and admissibility of all forms of digital evidence. This will provide legal certainty and reduce the reliance on ad-hoc judicial interpretations.

2. For the Judiciary: Champion Inclusivity and Ethical Governance

- **Adopt a National AI Ethics Framework:** The Supreme Court's e-Committee should build upon the proactive model of the Kerala High Court to formulate and adopt a national ethical framework for the use of AI in the judiciary. This framework must mandate human oversight, prohibit AI's use in decision-making, ensure transparency, and establish robust mechanisms for bias detection and accountability.
- **Invest in Human Capital:** A massive and continuous investment in training and capacity building is crucial. This must extend beyond judges to include all court staff, focusing on enhancing digital literacy, data management discipline, and proficiency with new systems. This is essential to improve the quality of data on the NJDG and ensure the effective use of technology.
- **Mandate Data Quality Audits:** Regular, independent audits of the data on the NJDG should be institutionalized. These audits should assess the accuracy, completeness, and standardization of data, with findings made public to drive accountability and continuous improvement in data entry practices at the subordinate court level.

3. For the Executive (Department of Justice): Bridge the Divide and Secure the System

[20] *Problems with the e-Courts data*, NIPFP (July 2020), https://www.nipfp.org.in/media/medialibrary/2020/07/WP_314__2020.pdf.

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- **Prioritize Bridging the Digital Divide:** The government must aggressively pursue its commitment to bridging the digital divide. This requires not only investing in reliable and affordable internet infrastructure in rural and remote areas but also significantly expanding the network of e-Sewa Kendras. These centers must be adequately staffed and resourced to provide meaningful, hands-on assistance to litigants and lawyers who lack digital access or skills.
- **Enforce User-Centric Design:** All judicial technology platforms must be developed based on rigorous user-centric design principles. This includes ensuring that interfaces are intuitive, [21] accessible to persons with disabilities, available in regional languages, and optimized for low-bandwidth environments and mobile devices. Regular user-experience (UX) feedback from diverse user groups should be a mandatory part of the development lifecycle.
- **Strengthen Cybersecurity:** The centralization of judicial data on platforms like the NJDG necessitates the implementation of state-of-the-art cybersecurity protocols. The sanctity and security of this sensitive national data must be a paramount priority to maintain public trust and the integrity of the justice system.

In conclusion, the modernization of India's civil justice system is an irreversible and necessary process. However, the path it takes is a matter of conscious policy choice. By shifting the focus from the technology itself to the people it is meant to serve, India can harness the power of digital innovation not just to build a faster judiciary, but a fairer one. The challenge is to ensure that the digital courthouse is built on a foundation of inclusivity, with its doors open to all, ensuring that the promise of e-Courts is realized as an expansion of justice, not a contraction of it.

[21] Anita Dahiya & Dr. Sulakshana Banerjee, *Modernizing India's Legal System: The Need of Electronic System in Case Management and E-Courts*, 5 ShodhKosh: J. of Visual & Performing Arts 2467 (2024), https://www.researchgate.net/publication/386996798_MODERNIZING_INDIA'S_LEGAL_SYSTEM_THE_NEED_OF_ELECTRONIC_SYSTEM_IN_CASE_MANAGEMENT_AND_E-COURTS.