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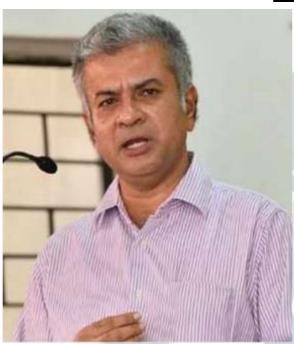
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ABOUT US

WHITE BLACK LEGAL is an open access, peer-reviewed and refereed journal providededicated to express views on topical legal issues, thereby generating a cross current of ideas on emerging matters. This platform shall also ignite the initiative and desire of young law students to contribute in the field of law. The erudite response of legal luminaries shall be solicited to enable readers to explore challenges that lie before law makers, lawyers and the society at large, in the event of the ever changing social, economic and technological scenario.

With this thought, we hereby present to you

REVOLUTIONIZING JUSTICE: UTILIZING THE TRANSFORMATIVE POWER OF ARTIFICIAL INTELLIGENCE AND ICT IN THE LEGAL FIELD AND FOR EXPEDITING CASE DISPOSAL

AUTHORED BY - SANTOSH KUMAR TIWARI[1]

Abstract

Justice is valuable when it is provided timely. Justice delayed means justice denied and this is the present position of our judicial system. Now the justice is provided, but the delay in providing justice is costing more than the justice itself. Our judiciary is flooded with the cases that are pending from years together. The higher courts and the government are busy to play the blame games. The parties who need justice are unable to pay the hefty fee of the lawyers. The legal system is cached in the hands of the middlemen. These persons have almost effective control over judicial organisations, legal systems and even the judges also. The human interaction in the legal field has created favouritism, undue advantage, bribery and other bad matters in it. The time has gone when the imparting justice was considered to be a divine work. In such situation it is imperative to take help of the latest innovative technology of Artificial Intelligence and Information and Communication Technology in legal field. This system of AI and ICT has the great power to support the Legal System and make justice available to all.

Key words

Justice, Information and Communication Technology (ICT), Artificial Intelligence (AI), Case management, Drafting, Case prediction

1.1   Introduction

The wheels of justice, while intended to grind with meticulous precision, often turn with frustrating slowness. The common man may become sufferer of such judicial slowness. The sheer volume of legal work, coupled with traditional, often manual processes, contributes to significant backlogs of pending court cases across the country. The backlog puts the bad name to the judges as well as judiciary. This delay not only undermines public trust in the judicial

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[1] The expression expressed in this Article is of the author and not of the Government.

system but also impedes access to timely justice for individuals and organizations. This impedes the human as well as business growth of the countries. However, a powerful paradigm shift is underway, driven by the rapid advancements in Artificial Intelligence (AI) and Information and Communication Technology (ICT). Since all the laws are fix and written in our country, hence there are immense opportunity to use Artificial Intelligence along with use of Information and Communication Technology in this field.   These technologies hold immense potential to revolutionize the legal field, streamlining processes, enhancing efficiency, and crucially, accelerating the disposal of pending court cases.

2.1   Understanding the Challenges: The Burden of Backlogs and Inefficiencies

Our present legal system is facing variety of challenges. Before exploring the transformative potential of AI and ICT, it's crucial to understand the multifaceted challenges plaguing the legal system:

- **Case Backlogs:** The sheer number of pending cases in many jurisdictions is staggering, often stretching into years or even decades. This backlog is fuelled by increasing litigation rates, complex legal frameworks, and resource constraints. The more cautiousness about the rights, that the duties are causing more litigation like putting the nails in the coffin.

- **Manual and Time-Consuming Processes:** Traditional legal work often involves laborious manual tasks such as document review, legal research, case filing, and scheduling. These processes are time-consuming and prone to human error and favouritism also. The criminal cases are more prone to such irregularities.

- **Information Overload:** Legal professionals are constantly bombarded with vast amounts of information, including case laws, statutes, regulations, and evidentiary documents. Sifting through this data efficiently is a significant challenge. It is hard to remember all the 'Precedence of cases' without using the technology.[2]

- **Inconsistent Application of Law:** While the principle of legal precedent aims for consistency, subjective interpretations and human biases can lead to variations in the application of law across different cases and jurisdictions. Human interferences in the legal process make it double sided sword.

- **Resource Constraints:** Courts and legal institutions often face limitations in terms of personnel, infrastructure, and financial resources, hindering their capacity to handle the

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[2] Justice Brijesh Kumar, "Of Precedents," Judicial Training and Research Institute, 1995, 1–11.

burgeoning caseload. But the parties to the dispute has no concern about these resources of the court than to entertain their matters.

- **Communication and Coordination Gaps:** Effective communication and coordination among different stakeholders in the legal process – lawyers, judges, court staff, and litigants – can be challenging, leading to delays and inefficiencies. When the parties will not appear there is no other way than to use the provision of 'Dismissed for default'. Even the proper judgement in the absence parties also may be challenged on the ground of 'Natural Justice'. The dismissal for default are also becoming major challenges before the courts.

3.1   The Promise of Artificial Intelligence: Intelligent Automation and Enhanced Analysis

"Artificial intelligence (AI) is technology that enables computers and machines to simulate human learning, comprehension, problem solving, decision making, creativity and autonomy."[3] Artificial Intelligence, with its ability to learn, reason, and solve problems, offers a powerful toolkit to address many of these challenges. Its applications in the legal field are diverse and rapidly evolving:

- **Legal Research and Analysis:** AI-powered legal research tools can significantly expedite the process of finding relevant case laws, statutes, and regulations. Natural Language Processing (NLP) enables these tools to understand the nuances of legal language, providing more accurate and comprehensive search results compared to traditional keyword-based searches. AI can also analyze vast volumes of legal documents to identify patterns, precedents, and potential risks or opportunities.

- **Document Review and E-Discovery:** In complex litigation, the volume of documents involved can be overwhelming. AI-powered document review tools can automatically analyze and categorize documents based on relevance, privilege, and key themes, significantly reducing the time and cost associated with manual review. Predictive coding algorithms can learn from human reviewers to identify relevant documents with increasing accuracy.

- **Contract Analysis and Management:** AI can analyze and interpret legal contracts, identifying key clauses, obligations, and potential risks. This can streamline contract

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[3] Cole Stryker, "What Is AI?," accessed May 12, 2025, https://www.ibm.com/think/topics/artificial-intelligence.

drafting, review, and management processes, reducing errors and ensuring compliance.

- **Case Prediction and Risk Assessment:** By analyzing historical case data, AI algorithms can identify patterns and predict the potential outcomes of ongoing or future cases. This information can be valuable for lawyers in advising clients, developing litigation strategies, and exploring settlement options. AI can also assess the risk associated with different legal actions even before actual happening of the events.

- **Automated Legal Drafting:** AI-powered tools can assist in drafting routine legal documents, such as pleadings, motions, and standard contracts, based on predefined templates and legal principles. This can free up lawyers' time to focus on more complex and strategic aspects of their work.

- **Virtual Legal Assistants and Chatbots:** AI-powered virtual assistants and chatbots can provide basic legal information, answer frequently asked questions, and guide individuals through simple legal processes. This can improve access to justice and reduce the burden on legal professionals for routine inquiries.

- **Evidence Analysis and Presentation:** AI can assist in analyzing complex evidence, such as financial records, forensic data, and communication logs, to identify key insights and patterns. It can also help in preparing compelling visual presentations of evidence for court proceedings.

4.1   Harnessing the Power of ICT: Connectivity, Efficiency, and Accessibility

ICT (information and communications technology) is combination of the infrastructure and technical components which help to enable modern technology and computing.[4] Information and Communication Technology (ICT) provides the foundational infrastructure and tools necessary to modernize the legal system and facilitate the effective deployment of AI applications:

- **Digital Case Management Systems:** ICT enables the implementation of comprehensive digital case management systems that track all aspects of a case lifecycle, from initial filing to final disposition. These systems facilitate efficient organization, scheduling, and access to case-related documents for all stakeholders.

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[4] Paul Kirvan, "What Is ICT (Information and Communications Technology)?," accessed May 12, 2025, https://www.techtarget.com/searchcio/definition/ICT-information-and-communications-technology-or-technologies.

- **Electronic Filing (E-Filing):** E-filing systems allow lawyers and litigants to submit legal documents electronically, eliminating the need for paper-based submissions and reducing administrative burdens. This streamlines the filing process, saves time and resources, and improves accessibility.

- **Video Conferencing and Remote Hearings:** ICT facilitates the conduct of virtual hearings and video conferencing for depositions, witness testimonies, and even some court proceedings. This can reduce travel time and costs, improve scheduling flexibility, and enhance access to justice for individuals in remote locations or with mobility issues.

- **Secure Data Storage and Management:** ICT provides secure and centralized platforms for storing and managing sensitive legal data, ensuring confidentiality, integrity, and accessibility for authorized users. Cloud-based solutions offer scalability and cost-effectiveness.

- **Online Dispute Resolution (ODR) Platforms:** ICT enables the development of online platforms for alternative dispute resolution mechanisms such as mediation and arbitration. These platforms can facilitate faster and more cost-effective resolution of certain types of disputes.

- **Improved Communication and Collaboration Tools:** ICT provides various communication and collaboration tools, such as secure email, instant messaging, and shared document platforms, which can enhance communication and coordination among lawyers, judges, court staff, and other stakeholders.

- **Data Analytics and Performance Monitoring:** ICT systems can collect and analyze data on court operations, case processing times, and resource utilization. This data can provide valuable insights for identifying bottlenecks, improving efficiency, and monitoring the performance of the judicial system. This date can record the performance of the judges sitting in the chair and deciding the cases. The judges performance and the deviations will also be able to be tracked easily.

- **Enhanced Accessibility for Litigants:** ICT can improve access to justice for individuals by providing online resources, legal information portals, and virtual assistance. This can empower individuals to understand their rights and navigate the legal system more effectively.

5.1   Synergistic Impact: AI and ICT Working in Tandem for Case Disposal

The benefit of the technology lies in its proper beneficial use. It is possible to explore the

tremendous benefits using this combination of technology. The true transformative potential lies in the synergistic integration of AI and ICT. ICT provides the infrastructure and data foundation upon which AI applications can be built and deployed effectively. For instance:

- **AI-powered analysis of electronically filed documents:** ICT enables the electronic filing of case documents, which can then be readily analyzed by AI tools for document review, evidence discovery, and legal research. The present manual interference is more hurdling than to supporting to the judicial system.

- **AI-driven scheduling and resource allocation within digital case management systems:** ICT-based case management systems can leverage AI algorithms to optimize court schedules, allocate resources efficiently, and predict potential delays. There is always a chance of the manual interference in case management to be partial or support favouritism, which is not possible in case of automatic scheduling.

- **AI-assisted online dispute resolution platforms:** ICT provides the platform for ODR, while AI can assist in facilitating communication, analyzing arguments, and suggesting potential settlement options. The faceless system of tax assessment is just one baby step in this field whereas the sky is the limit in future.[5]

- **AI-powered virtual assistants integrated with online legal information portals:** ICT provides the platform for online legal information, which can be enhanced by AI-powered virtual assistants that can answer user queries and provide personalized guidance. All the assessment values can be filled and tax calculations, Estimated Monthly Instalment (EMI) can be easily predicted by using these tools.[6]

This synergy creates a powerful ecosystem that can significantly accelerate the disposal of pending court cases by:

- **Automating routine tasks:** Freeing up legal professionals' time to focus on more complex and strategic aspects of their work. The search of proper precedence will help the judges to decide accurately in place of waiting for the lawyers to search and present.

- **Improving efficiency and accuracy:** Reducing human error and streamlining legal processes. There is no system of checking the efficiency of the higher judiciary or the judges of the High Court and Supreme Court. The automated system of performance recording of the judges will help them to assess and improve them.

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[5] IndiaFilings, "Section 144B of Income Tax Act: Faceless Assessment," accessed May 12, 2025, https://www.indiafilings.com/learn/section-144b-of-income-tax-act/.

[6] HDFC Bank, "Home Loan EMI Calculator," accessed May 12, 2025, https://www.hdfc.com/home-loan-emi-calculator.

- **Enhancing access to information:** Providing legal professionals and litigants with faster and more comprehensive access to relevant data. One of the most time killing factor in the disposal of cases is presentation of irrelevant data by the lawyers in any case. It is not only the parties but the judges are also on trial to select the relevant part and decide the case in hand judicially.

- **Facilitating better decision-making:** Providing data-driven insights for case strategy, risk assessment, and judicial administration. Every case has some monitory or human values. Any failure of judgement always reach to very serious repercussions. It is evident that the higher courts are changing the judgements in the same cases and in the same facts leading to impression that any one judge these two courts are certainly inefficient. The AI powered with ICT can help to reduce such failure of judgements.

- **Optimizing resource allocation:** Ensuring that court resources are utilized effectively. In our country the resources available in the courts are limited and it is possible to increase the maximum utilisation of the available resources with the help of AI. For example - the problem of small court room can be addressed with use of Virtual Hearing of the cases.

- **Improving communication and collaboration:** Streamlining interactions among stakeholders. For example – Every time bringing the prisoners before the court can be dealt by Virtual Hearing from the jail itself.

- **Facilitating alternative dispute resolution:** Providing efficient online platforms for resolving disputes outside of traditional court proceedings. In all finance matters the opportunity should be provided to the party to settle the dispute at any stage of proceedings but before the starting of actual trial of the appeal.

6.1   Addressing the Challenges and Ensuring Responsible Implementation

While the potential benefits of AI and ICT in the legal field are significant, it's crucial to acknowledge and address the associated challenges and ensure responsible implementation:

- **Data Privacy and Security:** Handling sensitive legal data requires robust data privacy and security measures to prevent unauthorized access and breaches. Data privacy is most important and any breach will cost more.

- **Algorithmic Bias and Fairness:** AI algorithms are trained on historical data, which may contain biases that could be perpetuated or amplified in legal applications. Ensuring fairness and mitigating bias in AI-powered legal tools is crucial. Any previous wrong can be multiplied unless stopped properly.

- **Transparency and Explainability:** The decision-making processes of some AI algorithms can be opaque, raising concerns about transparency and accountability in legal contexts. Developing explainable AI (XAI) is essential for building trust and ensuring due process.

- **Ethical Considerations:** The use of AI in the legal field raises various ethical considerations, such as the potential impact on the role of human lawyers and judges, the risk of dehumanizing the legal process, and the implications for access to justice. It is possible that the justice may be inhumane.

- **Digital Divide and Accessibility:** Ensuring equitable access to ICT infrastructure and digital literacy is crucial to prevent the digital divide from exacerbating existing inequalities in access to justice.

- **Integration and Interoperability:** Integrating new AI and ICT systems with existing legacy systems can be complex and require careful planning and standardization. The integration must be in the phased manner and the proper user manual must be published for information of public at large.

- **Training and Capacity Building:** Legal professionals need to be trained on how to effectively utilize AI and ICT tools, and legal education curricula need to adapt to incorporate these technological advancements. The old aged judges are not technology friendly and it is very tough to teach them about use of latest technology in this field.

- **Regulatory Frameworks:** Clear and adaptable regulatory frameworks are needed to govern the development and deployment of AI and ICT in the legal field, addressing issues such as data privacy, algorithmic bias, and accountability. For each modification there must be some changes to be made in the statue itself.

7.1   The Path Forward: A Collaborative and Human-Centric Approach

The successful integration of AI and ICT in the legal field requires a collaborative and human-centric approach. It is not about replacing human lawyers and judges but rather about empowering them with powerful tools to enhance their efficiency, accuracy, and decision-making capabilities.

- **Collaboration between legal professionals and technology experts:** Fostering interdisciplinary collaboration is essential for developing AI and ICT solutions that are tailored to the specific needs of the legal field.

- **Focus on user-centric design:** Ensuring that AI and ICT tools are user-friendly and seamlessly integrated into existing legal workflows is crucial for adoption and effectiveness.

- **Prioritizing ethical considerations and fairness:** Embedding ethical principles and fairness considerations into the design and deployment of AI-powered legal tools is paramount.

- **Investing in training and education:** Equipping legal professionals with the necessary skills to utilize these technologies effectively is essential for realizing their full potential.

- **Developing adaptive regulatory frameworks:** Creating flexible and forward-looking regulatory frameworks that can adapt to the rapid pace of technological change is crucial for responsible innovation.

8.1   Conclusion: Ushering in an Era of Efficient and Accessible Justice

Artificial Intelligence and ICT hold immense promise for transforming the legal field and addressing the persistent challenge of pending court cases.[7] By automating routine tasks, enhancing analysis, improving communication, and facilitating alternative dispute resolution, these technologies can significantly accelerate the pace of justice delivery.[8] However, realizing this potential requires a thoughtful and responsible approach that prioritizes ethical considerations,[9] ensures fairness, and fosters collaboration between legal professionals and technology experts.[10][4] As we navigate this technological frontier, the ultimate goal must remain clear: to leverage the power of AI and ICT to create a more efficient, accessible, and just legal system for all. The journey towards a technologically empowered judiciary is underway, and its successful navigation will pave the way for a future where the wheels of justice turn more swiftly and equitably.

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[7] Oliver Roberts, "What to Expect in 2025: AI Legal Tech and Regulation (65 Expert Predictions)," accessed May 12, 2025, https://natlawreview.com/article/what-expect-2025-ai-legal-tech-and-regulation-65-expert-predictions.
[8] Connor Goodwin, "Automating Routine Legal Tasks with AI," accessed May 12, 2025, https://safelinkhub.com/blog/automating-routine-legal-tasks-with-ai#:~:text=Enter%20AI%20automation%2C%20a%20technology,increasing%20efficiency%2C%20and%20helping%20legal.
[9] Sustainability Directory, "From a Sustainability Lens, Is the Use of AI in Data Validation Sufficient to Address Ethical Concerns?," accessed May 12, 2025, https://sustainability-directory.com/question/from-a-sustainability-lens-is-the-use-of-ai-in-data-validation-sufficient-to-address-ethical-concerns/.
[10] "Future of Professionals Report 2024: An Executive Summary for the Legal Profession," Thomson Reuters, July 9, 2024, https://legal.thomsonreuters.com/blog/legal-future-of-professionals-executive-summary/.