

IMPACT OF AI/DIGITAL TRANSFORMATION ON INDIAN JUDICIARY AND LAW LIBRARIES

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The Indian judiciary has been under immense strain as a result of the large number of cases pending at various levels. Several measures have been launched from time to time to lessen the backlog of ongoing cases in the courts. Under this project, e-courts, ICT solutions have been developed and deployed, and hence the courts in India have been operational even during the COVID-19 pandemic. The current effort investigates the use of artificial intelligence (AI) in procedures to improve justice delivery in India.

The paper is intended for information technology (IT) practitioners, decision makers in the judiciary/governments, and law librarians who are interested in using technology to improve the efficiency and effectiveness of justice delivery. This will also benefit scholars who are looking for opportunities for applied study in this sector, such as law and justice.

Keywords :- AI and law, Law Libraries, justice delivery, Indian judicial system

What is AI ?

The word Artificial Intelligence conjures up ideas of talking robots or computers, but now it is much more than that. AI has been discussed since the 1950s when it was described as a machine's ability to execute a task that previously needed human intelligence. This is a somewhat broad term that has evolved throughout decades of research and technical improvement.

According to Heath (2018), AI is the technology that enables robots to plan, learn, reason, solve problems, move, and be creative to some level.

Artificial intelligence (AI) is a powerful and revolutionary force with the potential to drastically transform how humans interact with their surroundings. Artificial intelligence (AI), sometimes known as the machine modeling of human thought processes, is rapidly finding applications in a variety of industries, including healthcare, finance, education, and transportation.

Let's look at some of the most common and noteworthy applications of AI in today's environment.

Following are the most widely used and significant uses of AI in the modern world.

1. AI-powered chatbots, such as Siri, Alexa, and Google Assistant, carry out actions based on voice instructions, such as having conversations, responding to requests, and making reminders. Users can use Alexa, Google Assistant, Siri, and other virtual assistants to acquire information, and directions, schedule tasks, and manage smart devices.

2. AI-powered virtual assistants are becoming an essential part of our daily lives. These virtual assistants are still evolving, allowing for more individualised and complicated interactions. Recommendation systems, which are powered by AI algorithms, generate recommendations for items, films, music, or other material based on user behaviour and tastes. Sites such as Netflix, Spotify, Amazon, and YouTube use recommendation algorithms to boost customer satisfaction and the amount of material available.
3. **Image Recognition and Computer Vision:** AI has incredible abilities in image recognition and computer vision. These applications include facial recognition, object recognition, autonomous automobiles, medical image analysis, manufacturing quality control, and augmented reality. AI is the core technology that underpins self-driving cars, unmanned aerial vehicles, and robotics. It enables these machines to sense their environment and make decisions in real time for safe object manipulation and navigation. These technologies have the potential to revolutionise automation in a variety of industries, including transportation.
4. **Healthcare and Medical Diagnosis:** Artificial intelligence (AI) has a significant impact on healthcare because it aids in medicine discovery, personalised therapy, medical imaging analysis, and disease diagnosis. Algorithms examine medical data in order to improve patient care, plan treatments, detect diseases early, and ultimately improve healthcare outcomes.
5. **Cybersecurity and Fraud Detection:** In banking, artificial intelligence (AI) algorithms are employed to detect fraudulent transactions and assess risks. AI discovers cybersecurity patterns and anomalies, fortifying systems against potential cyberattacks, enhancing data security, and safeguarding sensitive data.
6. **Finance and Trading:** The ability of AI to assess financial data and patterns benefits credit underwriting, trading, fraud detection, and investment portfolio optimisation. It promotes prudent financial decisions and effective risk management.
7. **E-commerce and Customer Service:** AI recommends products based on browsing and purchase history, allowing for customised e-commerce experiences. Chatbots answer to customer questions and complaints, improving customer service and interactivity in the e-commerce industry.
8. **Sentiment analysis and social media:** AI systems study data from social media sites to determine the general public's thoughts, inclinations, and trends. This examination is critical.
9. **Education:** AI is revolutionising the field of education with its intelligent tutoring systems and personalised learning platforms. These programmes adjust to the specific requirements of each student, giving teachers personalised learning plans and insightful data.

AI and Judicial System and Law Libraries

Artificial intelligence (AI) has emerged as a disruptive force, affecting a wide range of industries and sectors. Courts are also not far away. The advancement of technology has produced a fertile environment for the development of AI-based applications in a variety of fields, including law and justice.

As a Law Librarian working in the Court/Hon'ble Judges' Library I witnessed it firsthand. Because of the following factors, this technology improved the administration of justice:

- Processing time is considerably reduced
- Court processes are expedited.
- Transfer of files enables transparency and flexibility
- Less room for human error.
- Reduces the amount of on-site document storage
- Improved access to justice
- Facilitates detailed analysis of information
- Increased Transparency
- Efficiency is greatly increased

Current status of AI in Indian Judiciary:

AI has not yet advanced to the point where it can be trusted with independent decision-making in vital disciplines such as medicine or law, but it can be utilized to increase the productivity of decision-makers. Computer-based systems are unlikely to be able to replace human decision-makers in the foreseeable future.

However, such technologies can help judges, court officials, and litigants boost productivity in a variety of ways. Though research in this field has been ongoing for several decades, actual applications have only recently begun to emerge. The applications have been designed for both practicing lawyers and judges, court officers, and litigants. While many applications have been created for lawyers/advocates working in the courts or the corporate sector, a much fewer number of applications have been created for judges, court staff, and litigants.

For quite some time, the Supreme Court of India has been considering the use of AI technology. In 2019, it established an AI Committee comprised of Supreme Court and High Court justices as well as technical specialists. The Committee investigated many applications and chose to concentrate on the development of the following two:

1. **VidhikAnuvaad Software of the Supreme Court (SUVAS):** The Supreme Court has developed Supreme Court VidhikAnuvaad Software (SUVAS), a machine-assisted translation tool trained by Artificial Intelligence, to enable common people in India to easily understand Supreme Court judgments in local languages, to make justice system simple, accessible, affordable, and faster, and also to promote regional languages in judicial procedure. SUVAS (Supreme Court VidhikAnuvaad Software) was created as a ground-breaking project by the Supreme Court of India in conjunction with technical assistance from the Ministry of Electronics and Information Technology (MeitY).

This application is specifically created for the judicial realm and can currently translate English judicial documents, orders, or judgments into ten vernacular languages: Hindi, Kannada, Tamil, Telugu, Punjabi, Marathi, Gujarati, Malayalam, Bengali, and Urdu, as well as vice versa.

2. **The Supreme Court Portal for Court Efficiency (SUPACE) :** This portal supports a judge in locating answers to pertinent inquiries about the issue at hand. S A Bobde, the then Chief Justice of India, introduced the AI-powered research platform SUPACE for the Indian Judiciary system on April 06, 2021.

About the portal:

1. The Supreme Court Portal for Assistance in Court Efficiency is known by its

2. acronym, SUPACE.
3. It's an AI-powered platform designed to lighten the stress of judges by simplifying their research tasks.
4. To help the judges save time and increase efficiency, SUPACE will help with data collection and information processing.
5. The AI-powered tool won't participate in decision-making; its sole purpose is to process information.
6. A judge can ask the system questions and get responses without having to look through all of the case records. The system displays the relevant text emphasizing the precise answer when answering the inquiry. Needless to say, it can save the judge's time and expedite the procedure.

It is now being done on cases brought under specific sections of Criminal Law. It can provide answers to queries like as when the crime was done, whether there were any witnesses, whether the weapon used was recovered, and so on. It is being further trained to improve its accuracy.

3. Live transcription of proceedings by Supreme Court :

Artificial intelligence (AI) has infiltrated every aspect of our life, including the legal system. The Supreme Court of India has also opted to employ artificial intelligence to transcribe live hearings. The live transcription was tested in the courtroom of Chief Justice of India DY Chandrachud, who was leading a constitution bench hearing a matter relating to the Maharashtra constitutional crisis. Transcripts of oral arguments will be made accessible on the Supreme Court's website. Advocates will also be granted access to the documents. Several Supreme Court justices have expressed interest in AI as a rapidly evolving technology. Justice Hima Kohli described artificial intelligence as a "game-changer" in the legal industry, saying it should not be considered as a threat but as an opportunity to improve the quality of legal practice. She went on to say that it might change the way lawyers practice.

E-Courts in India:- Evolution :

Despite the limited number of AI applications in justice delivery, India has built a very robust ICT infrastructure for the judiciary by building E-Courts at every level.

Each court, from the district and sub-district levels to the Supreme Court, has the required IT infrastructure and connection. Case materials can be filed online from the convenience of your own home or office. The daily cause list is available online. A large number of courts now have videoconferencing capability, which is used for hearings. Case decisions are available online. A necessary institutional mechanism for computerization has been put in place. There are monitoring committees at both the Supreme Court and the High Courts that monitor the development of computerization in their subordinate courts and give recommendations for future steps. That is why the courts kept open throughout the Covid-19 pandemic. This has laid the groundwork for the development and deployment of AI-based applications. The infrastructure is being improved systematically from time to time.

India's e-Court initiative has seen remarkable evolution over the years, aiming to integrate technology into the judicial system for enhanced efficiency and accessibility. These are as follows:-

1. E-Court Service Portal:-The e-Courts Project when conceived was based on the

"National Policy and Action Plan for Implementation of Information and Communication Technology (ICT) in the Indian Judiciary - 2005" submitted by the Supreme Court of India's e-Committee, to transform the Indian Judiciary through Court ICT enablement. Hon'ble the Chief Justice of India opened the e-Courts National Portal ecourts.gov.in on August 7, 2013.

More than 2852 District and Taluka Court Complexes have established a presence on the NJDG portal, ecourts.gov.in, and are providing Case Status and Cause Lists online, with many also posting orders/judgments. NJDG has data on over 7 crore outstanding and disposed of cases, as well as 3.3 crore District Court orders/judgments throughout India. The services available on E- Court portal are as follows:-

1. High Court and District Court NJDG (National Judicial Data Grid) – It works as a monitoring tool to identify, manage and reduce the pendency of cases.

2. High Courts and District Courts of India:- It gives access to services of E-Courts such as Case Status, Cause Lists, Judgments of High Courts and District Courtsetc.

3. E-Filing:- You can file your case, and submit e Papers here.

4. E-Pay:- Through E-Pay, one can pay the court without using cheques or cash.

5. Virtual Courts:- For the adjudication of the case online and eliminating the presence of litigants/lawyers in court.

2. National Judicial Data Grid (NJDG): NJDG was launched in 2012 to computerize district and subordinate courts by providing real-time data on case pendency, hearings, and judgments. It enables online case monitoring and aids in better case management.

3. Integrated Case Management System (ICMS): ICMS, which is used in select courts, allows for electronic filing, case registration, case status tracking, and digital document management. It decreases administrative overhead by streamlining case-related activities.

4. Virtual Law Courts: Virtual courts, which were especially important during the COVID-19 epidemic, permitted distant hearings via video conferencing, assuring the continuance of judicial proceedings while minimizing physical presence.

Digital Repositories/E-Law Libraries in India: Use of AI in Law/Legal Libraries :

AI algorithms help index and categorize enormous legal repositories such as the Supreme Court, all High Courts & District Courts, E-Courts Portal, Parliament and National Digital Library of India (NDLI). These technologies improve search capabilities and allow for faster access to relevant legal texts. Similarly, AI-powered analytics in India help legal practitioners develop case tactics and arguments.

The incorporation of artificial intelligence (AI) into law libraries has transformed information management, research, and accessibility, with major applications observed abroad, including in India.

Recent improvements in India's e-law libraries have focused on accessibility and thorough digitalization, including:

1. **Digitization of Archives:** Efforts to digitize historical legal records, judgments, and law reports for simple access and preservation have gained traction.

2. Improved Accessibility: Improved search functionality, indexing, and classification of legal resources inside e-libraries allow for more efficient study and information retrieval.

Indian e-libraries are vast stores of public domain legal texts, research articles, case laws, and legislative resources. These are the following:

1. **Supreme Court Judges' Library (<https://main.sci.gov.in/>)** : Supreme Court Judges Library has developed many useful In-House Databases in the Library, which are available for free access on the Home Page of the Library for the legal fraternity.

1. SUPLIS :- Database of Cases of Supreme Court
2. SUPLIB : Database of articles published in Journals
3. LEGIS :- Database of Acts of Parliament
4. Catalogue[OPAC]
5. Database of Reportable Judgments Since 2011
6. Database of Law Commission Reports
7. Database of Committee/Commission Reports
8. Database of Select/Joint Committee Reports
9. Database of References Published In The Supreme Court Report
10. Database of Newspapers Articles.
11. Journal Holdings, Current Journals, Equivalent Citation Table, Union Catalogue of Legal Journals, etc.

2. e -SCR (e-Supreme Court Reports) : The Supreme Court of India (SC) took the initiative to make its rulings available digitally in the same format as they appear in the official law report. With the assistance of the National Informatics Center, the Supreme Court created a search engine that uses elastic search techniques in the e-SCR database. The e-SCR search feature offers free text search, search within search, judge search, year and volume search, case type and year search, and bench strength search options are all available through the e-SCR search function. It gives attorneys, legal students, and the general public free access to around 34,000 Supreme Court rulings. These rulings will be accessible via the National Judicial Data Grid's (NJDG) judgment portal, the Supreme Court's mobile app, and its website. This nationwide service is provided without any charge to attorneys.

3. India Code (INCODIS): A digital repository of Laws : It is a database of all Central enactments that are in force and their subordinate legislation made from time to time. With the help of this system, retrieving any Central Act and its relevant subordinate legislations of one's interest in an up-to-date form has been simplified and made extremely user-friendly and accessible at the push of a few buttons. An electronic library of laws It is a database that contains all currently enacted Central legislation as well as any occasionally enacted subordinate laws. This technology makes it easy to retrieve any Central Act and its pertinent subordinate laws in an updated format with just a few button pushes, making it incredibly user-friendly and accessible.

This database also consists of all enactments/Legislations enacted by the Central, State, and Union Territory Administrations and their subordinate legislation made from time to time. The Search Facility is available on the following fields:

- | | |
|---------|--------|
| 1.Short | Title |
| 2.Act | Number |



3.Act	Year
4.Enactment	Date
5.	Ministry
6.	Department

A Free Text Search is also available. (<https://www.indiacode.nic.in/>)

4.All High Courts including their Judges' Libraries

All High Courts of India have their Judges' Libraries. Here example of the Judges' Library of Bombay High Court is taken into consideration which is available at (<https://bombayhighcourt.nic.in/index.php>) . E-Library of Bombay High Court contains the following heads and their links.

1. Court Information
2. Digital Library: containing links of Legislation (Central and State),
2. Old digitized Judgments of the Bombay High Court
3. Links Gazette of India and all State Gazettes,
4. Maharashtra State Gazetteers including
 - Gazetteers of Bombay Presidency (Total no. 17),
 - Gazetteers of C.P. and Berar and (Total no.8)
 - Gazetteer of Nizam Period Free Databases
5. Scholarly collection containing speeches, articles, and research papers of Hon'ble Judges
6. Recent Information about
 - Bills, Statutes, Govt. Notifications, Indian and Foreign Judgments,
7. Legal Links to
 - Constitution of India
 - SC and HC Judges
 - Ministry of Law Justice
 - Judges' Hand Book
 - Law Commission Reports etc
 - E-Books containing Dictionaries, Hamlyn Lectures, English Literature, Law Books, Sacred and Philosophy books

5. Legal Services India (<http://legalserviceindia.com>) :

For understanding law and government, Legal Services India is the premier Indian legal portal. It gives users, including consumers, students, and legal professionals, access to an ever-expanding online library of free legal resources. This gateway is both extensive and easy to use. It includes articles, discussion boards, codes and cases, legal advice, and the Lawyers' Directory. Founded in 2000, it is currently located in Greater Noida. These days, both locally and globally, it is well-liked.

6. Parliament Digital Library :

Information about the many parliamentary documents of the Lok Sabha, the House of



People, is available through the Parliament Digital Library. You may access the Lok Sabha debates from the First Lok Sabha to the Seventeenth Lok Sabha using this portal. Among its holdings are the reports of numerous parliamentary committees, budget speeches, presidential addresses to parliament, and various Lok Sabha Secretariat publications. The renowned and historic legislative debates, which span 99 years from 1854 to 1952 and trace the evolution of contemporary parliamentary institutions in India, have also been digitally preserved.

7. E- Gazettes search for Gazette of India, View Gazettes for search of Maharashtra Govt. Gazettes :

Government of India Printing Presses regularly prints notifications for the Gazette of India, which are issued by the Department of Publication. This is an official document that the Indian government has authorized. All sections, subsections, and parts of the Indian Gazette are posted on the e-gazette website by the relevant Government of India Printing Presses. The public can view these materials for free as they are in the public domain. Maharashtra Govt. gazettes are now available in electronic form from 2014

Subscription Based E-databases :

Nowadays online legal databases are not new, rather their popularity has increased day by day among lawyers students, Judges, and laypeople. As these databases are run through the internet they are accessible anywhere at any time. With the advent of the internet and increasing accessibility to data, many new kinds of information providers emerged giving access to legal information. Such products have done a great job of making legal research very simple and less time-consuming

Many big book publishers ex. Lexis Nexis, All India Reporter, Eastern Book Company etc have engaged in managing online as well as offline databases on a subscription basis. It isn't very clear to navigate unless one is experienced with using them. These legal database providers based on their data coverage may be divided into two categories. i.e. National Legal Research Databases and International Legal Research Databases. Few are as follows

- Westlaw India (with International Module)
- Hein Online , Lexis Advance India
- AIR Online, Live Law, Bar and Bench
- ExCus , Taxmannthe
- SCC Online, Manupatra, Case Mine

In the beginning, the database searches were mostly based on keywords connected by Boolean operators. The limitations of keyword-based retrieval were realized over time, and this led to new techniques based on artificial intelligence (AI) / machine learning. AI, essentially, is concerned with designing and building artifacts that can perform tasks, which are said to require intelligence, when done by humans.

In summary, India's e-court system and e-libraries exemplify concerted efforts to harness technology for efficient legal processes and widespread access to legal knowledge, showcasing a commitment to modernization and innovation within the country's legal landscape.

Comparative Study of AI Applications in India and Other Nations:

1. Integration and Adoption: Developed countries like the United States and the United Kingdom have incorporated artificial intelligence (AI) into their legal systems and law libraries

more thoroughly than India has. US databases like Westlaw and LexisNexis, which offer advanced legal research databases driven by machine learning, natural language processing, and predictive analytics, have a strong AI integration. These resources support the production of legal briefs, document reviews, and case law interpretation.

2. Application Scope: While Western nations have more sophisticated AI applications, such as predictive analytics, case strategy, and comprehensive legal research tools, Indian legal libraries primarily integrate AI for digitization and basic research assistance.

3. Regulatory Framework: Developed nations usually have more advanced regulatory frameworks and initiatives promoting the inclusion of AI in laws, fostering an environment that is open to innovation. India is moving forward, but legislative barriers could slow down the use of AI.

4. Resource Allocation: Developed nations have more resources than developing nations for AI research and development in the field of legal technology. This resource shortfall affects the breadth and depth of AI integration in legal research libraries.

Extensions of AI integration in Indian law libraries are being worked on, but cooperation between the government, legal organizations, and digital startups is essential. This partnership could expedite AI's adoption, leading to enhanced efficiency and capacity for legal research in India's legal system.

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