



E-Courts To AI: Evaluating The Shift From Manual To Machine Learning In Indian Judiciary

Author 1: Laveena Sorout, Research Scholar

Jamnalal Bajaj School of Legal Studies,

Banasthali Vidyapith, 304022

Author 2 : Dr. Momina Zahan, Assistant Professor

Jamnalal Bajaj School of Legal Studies,

Banasthali Vidyapith, 304022

ABSTRACT

Over the past few decades, world has seen humongous technological advancements that have the potential to change the lives of millions of people. Evolving from a tech follower to a pioneering force in the global technology landscape, India has also shifted gears, fostering a culture of tech revolution evident in various fields and Indian Judicial System is no different. The adoption of digital tools and techniques have streamlined the various traditional processes which often result in unnecessary delays and thus make the access to justice easy. Be it is e – filing, e- availability of case records or initiation of e-courts, technology has played an important role in transforming the Indian judicial system and has reappraise the ways of delivering justice. Despite this, the backlog of crores of cases within Indian judiciary is not a hidden truth. So, when the Judicial system is progressing towards the adoption of advanced technology, it is very important to scrutinise the previous efforts and results in order to encounter the future challenges. Thus, through this paper researcher aims to unveil the existing state of Indian judicial system after digitalisation and analyse the integration of Artificial Intelligence within the system. Furthermore, this paper provides an insight on the key challenges that have emerged in the process and ways forward for advancement associated with digitalisation and Artificial Intelligence in the administration of justice so that the technology can be utilised upto its best potential.

Keywords: Technology, Digitalization, Artificial Intelligence, Challenges, Way forward.

I. INTRODUCTION

India emerged as a hub of tech collaborations and saw a significant growth in the technology sector after the reforms of 1990. With the same, the journey of computerization of judicial activities in Supreme Courts of India also started and after that the same was streamlined in all high courts also. The main purpose back then was to help in organizing routine activities in the judicial administration.

The process of Digitalization in the Indian Judiciary got more acceleration under National e- Governance project which was started in 2005. An e- committee was setup by the Supreme Court of India which formulated a “National Policy and Action Plan for Implementation of Information and Communication Technology in Indian Judiciary- 2005” and visualized the concept of E-courts. The strategic plan by the committee recommended that a National Policy and an Action Plan be centrally devised, after discussion with all the high courts, central government, state governments and other knowledge and services providers. Thus it was suggested to incorporate the plan in three phases. The primarily focus of the project in first phase (2006-2014) was to established computer rooms and access to internet at all court complexes, availability of laptops to judicial officers and judges in order to lay down a foundation for the transition from paper-based process to electronic databases, manpower development, retention cost, upgradation of infrastructure for centralized facilities. The main objectives for the second phase (2015-2023) were the creation of tech infrastructure for additional courts, facility of video conferencing for undertrial prisoners with magistrate, wireless internet facility in supreme court and high courts complexes, training for manpower, digital archive of record rooms with library management system and again the upgradation of centralized facility. Use of advanced technology and tools, paperless courts, biometrics facilities, gateway interface with other agencies, tool customization to crystallize change management, digital preservation of records, use of future technologies blockchain / Artificial Intelligence are some objectives which are drafted to achieve in phase three vision document. (2023-2027).

II. RESEARCH OBJECTIVES

- To evaluate the existing state of Indian Judiciary after completion of two phases of e courts project.
- To study the scope of integration of AI in Indian Judiciary in phase three of e-courts projects.
- To study the key challenges of digitalization and way forward for AI in Indian justice system.

III. RESEARCH METHODOLOGY

The research is based upon explanatory and theoretical analysis and thus researcher has used the doctrinal method to study. “According to S.N. Jain, Doctrinal research involves analysis of case law, arranging, ordering and systematizing legal propositions and study of legal institution through legal reasoning or rational deduction”¹ The researcher has collected the required material from a variety of sources broadly consisting of various primary sources and secondary sources. “Primary Sources include Indian

¹ Available at <http://www.academia.edu/7692842> (retrieved on 07-2-2024 at 06:34 pm)

Statutes, Rules, Regulations, Debates and Reports of various working committees. Secondary Sources include books of eminent authors, national and international articles in research Journals, magazines, articles or editorial in various newspapers, notes and publications on internet by various official websites etc.

IV. EXISTING STATE OF INDIAN JUDICIARY

A mission commenced in year 2005 has completed its two phases and moving forward in third phase. This mission in both qualitative and quantitative terms have been through so many ups and downs . When we look at the present-day scenario there has been an Installation of hardware and software to carry out functions digitally in approximately 13000 courts. The work of setting up solar energy backup system is completed in 242 court complexes. Automation of Day to day work flow is already done like cause list, daily proceeding, uploading of orders and judgement is done by court staff. Use of computer has become absolutely necessary. The unified Case Information System all over the country has made Indian judiciary more transparent. All the courts update the data on National Judicial Data Grid regularly which is a comprehensive database to maintain the summary statistics of all cases across all levels. During pandemic the facility of Video conferencing was swiftly adopted and as of September 2023 around 29 million cases were dealt with virtual hearings in around 3400 court complexes. It has been strategies to upgrade the video conferencing facility and expand it to district hospitals , more courts and jails and district legal authorities. For setting up more transparency, accessibility and accountability, Supreme court of India advocated the live streaming of case proceedings in Swapnil Tripathi VS Union of India case.² Various types of e-courts services delivery mediums have been initiated for different stakeholders which include : web portal where around 2 million hits has been recorded on daily basis ; around 869 e-Seva Kendra are functioning in district courts; self – service station KIOSKS has been started at local courts complexes; automated emails; SMS services and Mobile phone based e-courts service apps has been launched and more than 15 million downloads were recorded till October 2023; e-Pay services has been developed for the payment of court fees, judicial deposits, fine and penalties and has been successfully integrated with 19 state treasury system across the country. An end to end solution has been developed in English and Hindi language for online filing of cases in both civil and criminal matters before any district court or high court to wider the reach and has been successfully implemented in 28 states with an average growth of 22% of cases submission in month on month basis. A mobile app has been provided to judicial officers to view and monitor the cases related documents which aims to make court paperless. The data on CIS and e Committee website is available in English as well as 15 other regional languages. Interoperable Criminal justice system, National Service and Tracking of Electronic Processes has been launched to integrate data and increase the transparency and accountability in the justice delivery mechanisms.

Scanning and digitation of case records has not done yet. Automation of court record room management is still pending. In taluka and district courts, infrastructure and internet connectivity are still not available. It is very important to focus on building strong framework for governance and develop a core

² Swapnil Tripathi vs Supreme Court of India , Writ petition (c) No. 66 of 2018.

digital infrastructure, trustworthy digital repositories. Despite of several efforts to develop and enhance the productivity of Indian judiciary, there are so many things which still need to be figured out.

The Indian judicial system has been known for its ability to delivery significant judgements and has evolved according to the needs of the dynamic society throughout ages. Despite of its historical track of upholding public trust over the years, backlogging of cases and delayed in justice is not a hidden truth. This undeniable challenge in front of Indian judiciary needs to be acknowledged and addressed in Phase iii to ensure effective and efficient functioning of the system. This implies the need to explore smarter ways of working.

V. INTEGRATION OF ARTIFICIAL INTELLIGENCE

Nowadays the most trending topic of discussion that is fascinating humans is “Artificial Intelligence”. Basically, it is a domain of computer science which involves the development of intelligent machines to perform the tasks that normally require human intelligence, such as reasoning, learning, problem-solving. The available data through internet, social media and other digital sources be used to process AI algorithms to identify patterns, make predictions and generate insights to improve the decision and automated the tasks.

Many prominent personalities have voiced their views on the use of Artificial Intelligence . On one hand where Tesla CEO Elon Musk expressed his dissent opinion about the use of AI and stated that it might lead to nothing than a third world war, Mukesh Ambani believes that “a global AI revolution is reshaping the world around and sooner than we think Intelligence application will redefine and revolutionize our daily lives. So, to stay globally competitive we must harness AI for innovation growth and national prosperity”. CJID.Y. Chandrachud has himself stated that Artificial intelligence is a beneficial tool for judges to reassess the work , the procedure and the judgements. It can efficiently serves the objective of providing access to justice to all and has the ability to transform many areas of our lives.

The Indian Judiciary is consistently building up a progression towards the adoption of AI based technologies in the system. The very first step taken towards this progression by supreme court of India is **SUVAS – Supreme court Vidhik Anuvaad Software** which is an AI based application to translate legal documents and orders written in English into 9 vernacular languages. Another portal **SUPACE- Supreme Court Portal for Assistance in Court’s Efficiency** assist judges by collecting relevant facts and laws of the cases. The apex court has also launched an app with the help of National Informatics Centre which provide authentic access to cases, judgements and important circulars to the citizens of the country.

Some of the fundamental tasks in judicial system in which AI can be extremely useful is **reading and analyzing the comprehensive documents**. There are many cases where the amount of evidences and pleadings are huge so AI can be a useful tool for court to **summarize the content** . AI powered technologies can help in **reviewing the documents** by highlighting important finding. It will not be a time saving tool but also enable the judges to review the comprehensive matters in order to be double sure about the decision. Judges engaged in performing other administrative activities can use AI powered machines in repetitive **administrative tasks** and focus on their core judicial activities. By scrutinizing the past cases data, AI systems are able to **predict possible outcome** and can help the parties in avoiding long complicated trail

and look for an out of court settlement. Automation of system can help in better **case management** by scheduling , monitoring due dates and improving workflow more efficiently. Besides the above-mentioned tasks, AI will also be beneficial in performing faster and detailed legal research , generating automatic pleadings and more such time-consuming tasks.

AI has a very important role to play in the process of digitalizing Indian Judiciary than it does now. However, how fast will such changes happen and will be successful upto what extent is something that will vary according the changes circumstances.

VI. CHALLENGES

- **Acceptance** of AI in the system is a major challenge because technology is new and work force is old. So, they may be unwilling to accept. Instead of relying on AI they would prefer doing their work own on their own.
- One of the main challenges that will arise with the integration of AI is to **maintain the originality , creativity and innovative skills** because machines works on the basis of given algorithms and society is dynamic . It would not be possible for machines to replicate judges and survive in dynamic environment.
- With the integration of AI, another ultimate challenge emerged for Indian Judiciary will be the **amount of data that need to be protected** and managed because judicial system cannot afford to lose even a single fine.
- AI algorithms may generate **biased outcomes** which can result in unfair and discriminatory decisions which in turn can violate fundamental rights . As article 14 of the Indian Constitution while reading with Article 15,16 and article 17 concern about alleviating biasness , discrimination and focus on the promotion of equality and fairness, the demeanor of AI based system of predictive biased outcomes is contrary to the Indian constitutionalism.
- Artificial intelligence system is not 100 % perfect and possessed **technical limitations and errors**. it is possible that AI system would fail in interpreting the legal statues correctly or may have malfunction that results in inaccurate decisions or predictions.
- To ensure the **information security and privacy** of legal data is an extremely tough task as it is easy for malicious experts to take advantage of loopholes in the AI system.
- As AI is integrating in legal system , the decision-making processes of these systems must be transparent and open to the public at large. AI has been employed in the Indian legal system **without adequate transparency** in some cases. For example, in 2020, an AI-powered facial recognition system was employed in the investigation of the Delhi riots, prompting worries about its lack of transparency . As a repercussion, it could create a scepticism about judicial decision in public, and judgment calls made by AI systems could be challenged owing to a **lack of transparency**. The more the integration of AI in judicial system the more it will be difficult to find a balance between transparency and privacy.

- Every institution and industry has been focused on its digitalization. Therefore, the **legal framework in the country** also needs to well versed itself to the modern technologies so that the present generation lawyers and judges must have the knowledge of law as well as technology. At present , there are no well-established and defined laws to regulate Artificial Intelligence and Machine Learning.
- It is very important to be careful about the **affordability and scalability** while developing and implementing AI solutions within the legal system as it could be quite expenses.

VII. WAY FORWARD

- Sustaining change demands ongoing dedication and positive approach toward that change .Without it the long-term success of reforms is uncertain . Stakeholders involvement , clear information and public awareness about the reforms would be helpful .
- Another important consideration while introducing the advance technology in the system that is the availability and quality of infrastructure. Otherwise how impracticable it would be to provide video conferencing facility when building space is not connected with adequate bandwidth .
- A comprehensive policy for the adoption of AI in legal system should be formulated to address all the relevant issues like biasness, accountability, transparency , ethical and legal issues . as the use of technology grows the concerns about privacy ,data protection, human rights and ethics also pose fresh challenges.
- Implementation of advanced technology in the justice mechanisms required skilled professional to operate the machines. This can be achieved by imparting in - service training and workshops to the existing workforce and by initiating new academic courses with a mix of law and technology to train future stakeholders in advance.
- A strong Research & Development can pave a way for the successful integration of AI in judicial system. Firstly, it will be helpful in improving algorithms and techniques and secondly to customized them according to the dynamics of the judicial mechanisms.
- Government supports and prioritization for the integration of AI in judicial system can influence the funding policies and policy development and necessary reforms to accommodate AI technology and ensure their compatibility with the rules and regulations .
- It is important to be aligned with international standards which can be helpful in collaborating with foreign countries for AI development and exchange the expertise in technology and continuous technological advancements and updates.
- Potential return on integration of AI in terms of cost , time , savings , efficiency gains and improved judicial outcomes should be assessed before the automation of tasks.

VIII. CONCLUSION

When Covid -19 hit the world, to deal with and overcome the pandemic was not easy for countries globally. But India continues to show resilience against the backdrop of a challenging global environment

and the in – progress process of digitalisation of the Indian legal system played the important role in it.

During this period Court sessions were held through video conferencing, and India’s top courts converted to electronic filing. As the Indian courts are already undergoing through digital transformation , the integration of the domain of science called ‘ARTIFICIAL INTELLIGENCE’ may prove helpful in many unexpected ways to safeguard the essence of justice delivery mechanisms. The implementation of Artificial Intelligence has already proven helpful in various fields like medicine , automobile industry, marketing etc. But with the potential exception of various fields, the judiciary is undeniably a system where it is expected by the judges to apply laws, valid reasons, regulations as well as human emotions and understandability while delivering judgements.

No matter how advanced the technology is, it could never replace the human judges . But It could definitely be a helpful tool in the decision making process. People are supposed to be not easily convinced whenever the traditional methods are discarded and new technologies are implemented or to have doubts about the effects of such implementations. The queries will be raised and need to be seriously addressed in order to gain faith and acceptance. In long run, the Judiciary needs to play multi – dimensional roles in regard to Artificial Intelligence which includes forming rules and regulation, ensuring just and unbiased decisions , education and awareness to the public and professionals and so many more. To ensure the best interest of society it is important to develop and use Artificial intelligence in an ethical and responsible manner.

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