ARTIFICIAL INTELLIGENCE'S IMPACT ON INDIA'S CONFLICT SETTLEMENT PROCESS

1Vinayak Shukla, 2Pragati Shreya
1Student, 2Student
1Galgotias University,
2Galgotias University

I.   ABSTRACT

This comprehensive journal article explores the evolving landscape of dispute resolution in India, focusing on the integration of Artificial Intelligence (AI) technologies. It examines the potential benefits and challenges of AI in dispute resolution, considering legal and cultural contexts. The history of AI in India is traced from its inception in the 1960s to its current prominence. The article delves into AI's role in mediation, discussing tools like rule-based reasoning, machine learning, and predictive analytics. The relationship between AI and mediation is analyzed in three dimensions: AI as a subject, a supporting tool, and an influencer of the mediation environment. The report emphasizes the advantages of AI tools in mediation, such as efficiency, cost-effectiveness, and addressing biases. It also highlights key AI tools suited for mediation, including rule-based reasoning, machine learning, and consensus agreements. The challenges of AI integration, such as data privacy concerns and job displacement, are explored. The conclusion underscores the transformative impact of AI on dispute resolution, emphasizing the need for legal professionals to embrace technological advancements to enhance the legal profession.

Keywords: Dispute resolution, Artificial Intelligence (AI), Legal context, History of AI, Mediation, Rule-based reasoning

II.   INTRODUCTION

The integration of Artificial Intelligence (AI) technologies has led to a notable transformation in India's dispute resolution mechanisms in recent times. The goal of this journal article is to provide light on the complex effects of artificial intelligence by thoroughly examining the changing field of dispute resolution in India. The emphasis is on outlining the possible advantages and difficulties that come with integrating AI into these mechanisms while keeping a close eye on India's particular legal and cultural environment. The use of AI in dispute resolution holds the potential to improve efficacy and efficiency. Artificial Intelligence (AI) technologies facilitate faster resolution processes by utilising machine learning and predictive analytics. This could potentially reduce the load on the legal system. But there are difficulties with this transition. Since the use of algorithms may introduce biases, ethical concerns about fairness and impartiality are brought to light. In addition, handling sensitive legal information presents significant challenges with regard to data privacy and security. This article aims to give a comprehensive overview of how artificial intelligence (AI) is affecting Indian dispute resolution while providing insights into how these developments might affect the legal system. The paper adds to a nuanced discussion on the role of AI in promoting more effective and equitable dispute resolution in the Indian context by exploring the potential advantages and recognising the difficulties.

III. INDIA'S HISTORY OF ARTIFICIAL INTELLIGENCE

John McCarthy and Marvin Minsky led a workshop at Dartmouth College in 1956 where the idea of artificial intelligence (AI) was first discussed. In the 1960s, Professor H.N. Mahabala's groundbreaking work helped artificial intelligence (AI) make its way into India. India took an early lead in artificial intelligence (AI) thanks in part to UNDP's creation of Knowledge-Based Computing Systems (KBCS) in 1986. In the decades prior, the United States had been at the forefront of artificial intelligence (AI), but India has been making progress in increasing its understanding and research in the field. India's artificial intelligence (AI) ascent is a revolutionary journey driven by a strong ecosystem that includes government initiatives, startups, universities, and multinational corporations. This article tries to investigate the development of AI in India, looking at how it affects different industries and taking into account the opportunities and challenges that come with it. India is actively riding this revolutionary wave of technological advancement where AI is quickly becoming a fundamental force driving global technological advancements. AI has become more and more popular in India in recent years, impacting a variety of industries and changing how we work and live. This article explores the development of AI in India, outlining its history, evaluating its effects, and going over the opportunities and problems it raises. While the field is still in its early stages of research and development, artificial intelligence (AI) has its roots in India and dates back to the late 20th century. Academic establishments, particularly the Indian Institutes of Technology (IITs), have been instrumental in developing skills and advancing AI research. But artificial intelligence didn't start to become popular in the nation until the twenty-first century.

IV. AI KNOWLEDGE FOR MEDIATORS

Mediators and their teams "have a responsibility to be literate about the technologies present in the mediation environment," regardless of whether they are using tools to support mediation[1]. Broadly speaking, "engagement with new technologies is necessary for preserving the values of the UN Charter and the implementation of existing UN mandates," according to the UN Secretary-General's Strategy on New Technologies[2]. AI is likely to come up in mediation discussions and lead to changes in the atmosphere in which mediation is conducted, even if mediators and their teams do not depend on using AI tools to assist them in their work. This implies that mediators must be aware of AI and its potential effects on the substance and setting of mediation, regardless of whether they intend to use it in their work. This begs the question of what AI-related knowledge and abilities mediators should possess or acquire. It is obvious that not everyone is suited to become a technical expert or should. AI should be understood on a basic level by all parties involved in mediation who use it or are likely to be impacted by it. Applying the idea of technological literacy to AI is a useful way to frame this.

It's true that the concept of technological literacy is not new. "Having knowledge and abilities to select and apply appropriate technologies in a given context" is a good place to start[3]. The capacity to use a particular technology in an appropriate manner is emphasised in many definitions of technological and digital literacy. Furthermore, it is crucial to incorporate a critical thinking component, which in this case is the "critical assessment of the impact of digital technology on society.[4]"Both of the digital literacy components also apply to AI literacy. On the one hand, there are the abilities and know-how required to employ technology correctly for a specific task and in a specific setting.

However, there are also the abilities and information required to evaluate how this use will affect the particular conflict as well as larger society. Since we are still in the early stages of considering the applicability of AI for mediation, these abilities are even more crucial.

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[1] Jenny J et al. (2018) Peacemaking and New Technologies. Dilemmas and Options for Mediators. Mediation Practice Series, Centre for Humanitarian Dialogue, p. 6. (NOV 11, 2023, 6:50 PM) https://www.hdcentre.org/wpcontent/uploads/2018/12/MPS-8-Peacemaking-and-New-Technologies.pdf.

[2] UN (2018) UN Secretary-General's Strategy on New Technologies,pp. 4-5. (NOV. 11, 2023, 7:30 PM) https://www.un.org/en/newtechnologies/images/pdf/SGs-Strategy-on-New-Technologies.pdf.

[3] Waetjen WB (1993) Technological Literacy reconsidered. Journalof Technology Education 4(2). (NOV. 11, 2023, 8:09 PM) https://scholar.lib.vt.edu/ejournals/JTE/v4n2/jte-v4n2/waetjen.jte-v4n2.html.

[4] Perućica N et al. (no date) Digital Literacy for Digital Natives.Available at (NOV. 11, 2023, 9:30 PM) https://www.diplomacy.edu/sites/default/files/Digital_literacy_for_digital_natives.pdf.
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First, more research is necessary to determine the value of particular tools; opportunities and problems in a particular setting must be identified. Second, consideration must be given to how AI may affect peace-making in a wider sense. Third, when it comes to AI applications, mediators must be able to sort through both optimism and pessimism. They must exercise caution so as not to exaggerate the benefits of technology while passing up fresh chances to promote peace.

When it comes to AI, it's critical to be able to distinguish between hype and pessimism and to see opportunities and challenges as they present themselves in a particular setting. In the future, mediators will need to be sufficiently knowledgeable about AI, regardless of how much they and their teams want to use it as a tool.

V. ARTIFICIAL INTELLIGENCE'S PART IN MEDIATION AND DISPUTE RESOLUTION

The process of resolving disputes and mediating conflicts in India has historically placed a strong emphasis on manual and human-centric methods, which emphasise human expertise and negotiating skills. But new paths are now being opened by the development of Artificial Intelligence (AI), which is providing parties to disputes with more effective and fair means of resolving their differences. Senior solicitors have expressed some concerns about the legal industry's adoption of artificial intelligence. However, it is recognised that people require time to become accustomed to new instruments[5]. Law firms have always looked for new and creative ways to use technology, and one of their goals has been to increase the legal profession's accuracy and speed. As a result, even for the general public, access to justice has improved. Artificial intelligence is demonstrating itself to be a useful tool for improving the calibre of legal work in India. Although they can't yet take the place of a lawyer in the courtroom, computers and robots are adept at gathering information and producing paperwork. As a result, lawyers' roles in office settings might be drastically reduced. Artificial intelligence (AI)-based technologies are helping to create a variety of legal documents, expediting procedures, and improving the general effectiveness of legal practises. AI-assisted mediation in its current form should be viewed as an additional tool that can help with the mediation process rather than as a substitute for human mediators. It doesn't negate the need for human mediators. Instead, AI-assisted mediation ought to be seen as a tool that can assist the mediator in offering the parties unbiased evaluations and suggestions for possible settlement terms. But like any new technology, there are a lot of practical, moral, and legal issues that need to be taken into account when using AI in mediation. The fundamental workings of AI-based mediation are essentially the same as those of conventional mediation. The parties give data to a human mediator who applies knowledge, expertise, and abilities (also known as "programming") to help the parties figure out a just and equitable way to resolve their disagreement.[6]

VI. Use of AI Tools in Mediation:

Lawyers use AI in a variety of ways. The current applications of AI in law as a new industry standard are as follows: Due diligence, automation of expertise, law analytics, digital signatures, contract administration, legal and case management, contract authoring and examination, and task management, title examination, and rental resumes[7]. Furthermore, software now looks at legal articles for connections, strengths, shortcomings, and

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[5] Lodder, A.R. and Zeleznikow, J., 'Artificial intelligence and online dispute resolution. Online Dispute Resolution: Theory and Practice A Treatise on Technology and Dispute Resolution',(2012.) pp.73-94 (NOV. 12, 2023, 9:30 AM)

[6] Rahul rk, The Rise and Roar of AI in India: A Transformative Journey, (NOV. 12, 2023, 9:35 AM)

https://indiaai.gov.in/article/the-rise-and-roar-of-ai-in-india-a-transformative-journey;

[7] Chris Chambers Goodman, 'AI/Esq.: Impacts Of Artificial Intelligence In Lawyer-Client Relationships' (2019) 72 Oklahoma Law Review (Nov. 12, 2023 , 11:04 AM), https://core.ac.uk/download/pdf/226775434.pdf .

patterns that could suggest more cases additionally determine which arguments are more susceptible to, apart from insolvency, immigration, and estate[8]. Attorneys use AI for intake and document preparation in situations including food and drug laws, taxation, securities, and planning for litigation, handling, and assessing scientific expert testimony, in addition to situations involving food and drugs, bankruptcy, immigration, estate planning, taxes, and securities.

Criminal courts are increasingly using computer algorithms to determine bail. Judges assign a risk score to each defendant using risk assessment techniques such as the Public Safety Assessment (PSA) and COMPAS. Based on this risk score, the judge decides whether to hold the defendant until trial or release them on bond in order to protect public safety[9].

Astute instruments suitable for mediation:

1. Rule-based reasoning: Intelligent negotiation aid systems have been built using a variety of techniques, one of which is rule-based reasoning, which represents knowledge of a particular legal field as a collection of rules in the form of if-then action/conclusion[10].

2. Case-based reasoning: this approach uses past experiences to assess or solve new problems, elucidating how past experiences differ or are similar to the current circumstance and modifying previous methods to meet the requirements.

3. Machine learning: this is the process by which a system of artificial intelligence attempts to pick up new knowledge on its own.

4. Neural networks: A neural network consists of a large number of interconnected, self-adjusting processing units that work as a cohesive entity. A single output signal is produced by each processing element and is transmitted to the other elements. The inputs control the processing element's output signal; each input is gated by a weighting factor that establishes the extent to which the input will influence the output. The processing element independently modifies the weighting elements' strength as the data is processed[11].

5. Consensus Agreements: Self-executing contracts with the terms of the agreement explicitly encoded into code are known as smart contracts, and they are driven by blockchain technology. They eliminate the need for middlemen and conflict resolution by automatically carrying out and upholding a contract's provisions. Smart contracts can be used in mediation to ensure compliance and lower the likelihood of future disputes by implementing and enforcing the provisions of a mediated settlement agreement.

6. Predictive analytics: It is one of the most important uses of AI in arbitration. AI systems are able to forecast results, spot patterns and trends in previous arbitration cases, and offer strategic advice by analysing the data. Predictive analytics, for instance, can be used to determine the possibility of arbitration success, calculate the possible award, and even forecast behaviour of arbitrators based on their past decisions.

7. Analysing Documents and Evidence: AI can also be used to improve and automate the arbitration process's evidence analysis and document review procedures. AI systems are able to swiftly and accurately scan through enormous amounts of documents, find pertinent information, and point out irregularities or inconsistencies. In addition to saving money and time, this can raise the calibre of the evidence used in arbitration.

VII. Advantages of Using AI Tools in Mediation.

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[8] Edgar Alan Rayo, AI in Law and Legal Practice – A Comprehensive View of 35 Current Applications, EMERJ (NOV. 12, 2019, 11:10 AM), https://emerj.com/ai-sectoroverviews/ai-in-law-legal-practice-currentapplications/.

[9] Sarita„&" Harsh Kumar, Mediation and Artificial Intelligence: Future of Dispute Resolution, International Journal of Law Management & Humanities [Vol. 4 Iss 4; 1472], (NOV. 12, 2023, 1;10 PM)

[10] Edgar Alan Rayo, AI in Law and Legal Practice – A Comprehensive View of 35 Current Applications, EMERJ (NOV. 12, 2019, 1:10 PM), https://emerj.com/ai-sectoroverviews/ai-in-law-legal-practice-currentapplications/. .

[11] Sarita„&" Harsh Kumar, Mediation and Artificial Intelligence: Future of Dispute Resolution, International Journal of Law Management & Humanities [Vol. 4 Iss 4; 1472], (NOV. 12, 2023, 1:15 PM)

The principal aim of applying artificial intelligence to conflict resolution. The following are these advantages[12]:

● Process amplification: At the beginning of the session is the ideal moment to employ AI. The device might be able to allay worries and remove doubts regarding the ADR process's operation. Unlike a human, a robotic machine can repeat the same information multiple times without growing agitated.

● Cost-effectiveness: Although there would be a significant setup required at first, once AI is working, it will be far less expensive than using traditional human-based solutions.

● Time-saving - Reducing litigation time is one of ADR's objectives. On the other hand, lawyers usually have to finish endless amounts of paperwork and research within a very tight deadline. Research and data processing can be automated by artificial intelligence (AI), relieving human workload.

● Documentation: Alternative Dispute Resolution (ADR) is especially helpful in minimising documentation effort because it is a quicker process than litigation. AI can help by quickly identifying and evaluating pertinent documents, as well as by producing summaries of those documents.

● Sharing private information—Some people might decide to give a robot access to their personal data instead of a human. Since a robot cannot judge anyone, people may be more willing to accept change.

● Drafting: Arbitrators spend a great deal of time and energy drafting standard sections of arbitration rulings, including the parties, the arbitration clause, the controlling legislation, the parties' positions, and the arbitration expenses. AI robots could handle this drafting section labour, saving the parties money and time while allowing the arbitrator to concentrate on other creative tasks.

● No conflict of interest: If robot arbitrators were chosen in place of human ones, there would be no basis for objecting to them on the grounds of prejudice or conflict of interest.

●Enhanced Communication: AI-powered communication tools can assist in maintaining clear and concise communication between parties, fostering a more productive and respectful mediation environment.

●Data-driven Insights: Utilizing AI enables the extraction of valuable insights from data, aiding in better-informed decision-making during mediation based on patterns and trends.

●Efficiency: AI tools can streamline the mediation process by quickly analysing vast amounts of information, helping mediators identify relevant data and focus on key issues.

● No room for bias and mistakes – An artificial intelligence system would not be influenced by human imperfections like injustice, bias, irrationality, or even just having a bad day or being tired. It also tackles other human inclinations, like depending on the first piece of information that is received, being influenced by the outside world, and the arbitrator's previous cases. Human arbitrators run the risk of making errors in understanding, translating, documenting, choosing authorities, making decisions, and other areas. By applying artificial intelligence at different phases or in different capacities, it can assist in eradicating shortcomings in the arbitration process.

● Prognosis and instant award creation – Artificial intelligence could select the most appropriate mediators and anticipate the outcome based on the data provided, the papers submitted, and the mediator's reasoning. It can also be used to forecast the outcome of a lawsuit, the number of damages that will be granted, and the most likely course of action, which encourages parties to resolve their differences through reasonably priced alternative dispute resolution (ADR) as opposed to going to court.

● Access to justice – Artificial intelligence will help save time and money while promoting greater legal transparency and timely access to legal information. Access to justice will be greatly improved by the use of technology in addressing the problems of affordability and legitimacy.

● Identifying falsehoods – Since humans might not always be able to read the body language or psychology of others, artificial intelligence (AI) can be taught to look at things like blood pressure, heart rate, and eye movements. Justice objectives can thus be furthered by using it as a lie detector during the proceedings.

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[12] 'ADR And Artificial Intelligence: Boon Or Bane? - Lexforti Legal Journal' (LexForti Legal News & Journal, 2021) (NOV. 12, 2023, 4:15 PM) https://lexforti.com/legal-news/adr-and-artificial-intelligence/

VIII. ADVANCES AND CHALLENGES IN THE ROLE OF A.I IN ALTERNATE DISPUTE RESOLUTION MECHANISMS

Historically, human knowledge and negotiating abilities have been crucial to the mediation and dispute resolution processes. But thanks to AI's capabilities, parties to disputes can now find more equitable and effective solutions, opening up new avenues for negotiation.

1. Data-Driven Analysis and Case Assessment: The case evaluation process is streamlined by AI's quick assessment of vast amounts of evidence, which saves time and money in the process of finding solutions.

2. 2. Improved Communication and Mediation Support: AI-driven solutions help mediators collect data, arrange supporting documentation, and steer parties towards fruitful conversations. AI with Natural Language Processing (NLP) skills can evaluate emotional indicators and communication patterns, which helps mediators uncover shared interests and promote productive discussion. Artificial intelligence (AI) chatbots and virtual assistants are becoming essential tools for streamlining cross-border communication, resolving possible language barriers, and improving accessibility and efficiency.

3. 3. Handling Bias and Ensuring Fairness: The possibility of human bias influencing decisions is a major obstacle in dispute resolution. Such bias can be lessened by AI's objective and data-driven nature, resulting in a more fair assessment of the arguments and the evidence.

4. 4. Ethical Considerations: Artificial intelligence (AI) can improve dispute resolution procedures, but it cannot completely replace human intervention. When sensitive data is processed by AI systems, privacy and confidentiality issues surface. As a result, stringent procedures must be followed to protect the security and privacy of the parties to the disagreement. AI should be seen in this context as an additional tool that enhances rather than completely replaces mediators and legal experts.

IX. CONCLUSION:

The provision of legal advice prior to individuals choosing to pursue litigation or alternative dispute resolution will be impacted by the use of algorithmic discovery. Additionally, combining AI with other blockchain technologies will speed up the resolution of disputes, drastically lower the cost of litigation, and give people involved in the most difficult and complex conflicts in the world peace of mind. In the future, ODR will advance rather than completely replace face-to-face ADR. So, solicitors should investigate the new ADR technology-based tools and adopt those that they think could improve their current practise. The influence of technology on different domains and ways of living is growing and contracting. Based on this premise, we are unable to stop technology from being used in legal services. Therefore, the best course of action is to embrace this development to the fullest extent possible to support legal practitioners and strategically leverage it to advance the legal profession. Regaining control over technology integration for lawyers can be achieved through practitioners' effective use and involvement in ODR tools as support mechanisms.