
ARTIFICIAL INTELLIGENCE IN ARBITRATION: PROMISE, PITFALLS, AND THE PATH FORWARD IN INDIA

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ABSTRACT

In the era of digital transformation, machine learning (AI) has moved from the borders of the legal profession to the centre of operational effectiveness, mainly within international arbitration. AI is no longer a distant scenario. It is actively shaping the process of how the conflicts/disputes are resolved, from reviewing a document to the administration process and also predictive legal analysis. Nevertheless, as this adoption increases, important questions come into the picture: Can AI truly reshape the process of dispute resolution and assuming it can, would it be desirable? Will it simply aid human arbitrators, or will it eventually replace them as decision-makers? This paper aims to explore the problems and assurance of Artificial Intelligence being integrated into arbitration, with a major focus on India along with drawing international experience for comparative insights.

INTRODUCTION

Artificial Intelligence, a futuristic concept is no more considered as a confined domain of laboratories of computer science. It is reshaping the outline of current society by acting as a tangible transformative force. Artificial Intelligence is now spreading throughout almost every sector of human activity, from Artificial Intelligence being used as fraud detector by financial institutions, to being utilised as predictive diagnostic by healthcare systems, to creating content for media platforms. The legal profession, which in general is very slow in adapting technological innovations, has also entered into Digital Frontier. Progress towards using Artificial Intelligence in legal profession can be clearly seen, as it is now used in adjudicatory and dispute resolution functions from merely being used as a supportive tool for management of contract, reviewing document, and legal research.

Arbitration takes a special place, among all the other forms of dispute resolution. Arbitration because of its assurance to be neutral, confidential, efficient, and also because of its international enforceability, is often preferred over traditional litigation. Importance for Artificial Intelligence has majorly grown where we want to avoid any kind of delays and uncertainty of court systems along with that in commercial, investment, and cross border disputes. Emergence of arbitration at this critical point, is because of emergence of Artificial Intelligence. Technologies such as smart contracts driven by blockchain, natural language processing, and predictive analytics are being used more and more to choose arbitrators, expedite case management, and even provide recommendations for potential outcomes. This leads to a question: can artificial intelligence go from a supporting tool to an autonomous adjudicator?

It is not a normal theoretical question. Amongst various jurisdictions, Online Dispute Resolution platforms experiments have already incorporated Artificial Intelligence for resolving disputes of small value consumers. Artificial Intelligence driven case analytics were being experimented by institutions like Singapore International Arbitration Centre and Dubai International Arbitration Center, while for Artificial Intelligence related intellectual property disputes, Alternate Dispute Resolution frameworks were designed by World Intellectual Property Organisation. These practices globally indicate that Artificial intelligence to Arbitration is becoming an integral rather than being peripheral.

Statutory foundation for Arbitration has been laid down by The Arbitration and Conciliation Act, 1996 which is adapted on the UNCITRAL Model law. Particularly in the recent years

Indian courts have advanced pro arbitration stance consistently, which emphasises party autonomy, award enforceability, and made judicial interference minimal. However, legal precedent and statutes are unclear on AI's function, providing neither a clear endorsement nor a prohibition. This silence of legislature leaves both risks and opportunities to be navigated.

SCOPE OF THE PROBLEM

To examine the evolving role of AI it is necessary to critically analyse both the perils and challenges which are interlinked have raised due to integration of Artificial Intelligence in Arbitration. The increased reliance on the tools of AI has created questions that go behind the face of technology evolution and raid at the heart of legitimacy of arbitration. This sections deeply identifies the scope of problem, not by significant outcomes but by raising important concerns such as:

- i. Conflicts of interest were expected to be disclosed by the human arbitrator. However it might be difficult to guarantee neutrality, as systematic biases from training data might be inherited by algorithms.
- ii. Trust in the process is very crucial for success of arbitration. Often, systems of Artificial Intelligence, especially those which are based on machine learning operate as Black Boxes, which produces an outcome without a proper reasoning. Confidence of parties and enforceability is treated due to lack of transparency.
- iii. While democratisation is assured by Artificial Intelligence, certain concerns such as unequal access generally in disputes of lower value and rural areas due to digital divides in India.
- iv. Grounds for refusing enforcement is given by The New York Convention in which violation of public policy is also included. Certain challenges may arise when Artificial Intelligence primarily generates an award, especially in those cases where reasoning is biased or absent.
- v. Generally sensitive commercial data is involved in arbitration. Various concerns are raised regarding compliance of Artificial Intelligence tools with, India's Digital

Data Protection Act, 2023¹, General data protection regulations of European Union, and cybersecurity threats of cloud based platforms.

In detail, the paper sets the stage to explore the transparency, enforceability and neutrality in the process of arbitration, determining both opportunities and risks.

LITERATURE REVIEW

1. The Cleveland State Law Review: Through neutrality and enforceability under the New York convention, the role of Artificial Intelligence in arbitration is analysed in The Cleveland State Law Review.² It underlined that while efficiency and consistency may be enhanced by algorithm tools and predictive analysis, their non transparent functioning may raise concerns, especially if award is challenged on grounds of public policy by the parties. This suggested that Ultimate power of making decisions should remain with human arbitrators and functions of Artificial Intelligence should be restricted with Supportive nature only.
2. NITI Aayog OPR Policy Plan: In India, role of Artificial Intelligence in boosting online dispute resolution has been explicitly acknowledged The ODR policy plan for India under NITI Aayog's designing the future dispute resolution. Ability to reduce backlogs in judiciary by handling huge volumes of low value consumers and financial disputes is highlighted by this report. This reflected the Government of India's caution but with forward looking approach.³
3. Indian Judiciary and Scholars commentary: An insight into the role of Artificial Intelligence has been given by various experiments go judiciary and Indian scholars. Set up of translation software named SUVAS and assistant for judicial research named SUPACE by Supreme Court shows the administrative utility of Artificial Intelligence. Human arbitral discretion deeply rooted in equality and fairness even though Artificial Intelligence enhances efficiency, this was argued by commenters like Vikram Raghavan

¹ The Data Protection Act, 2023, Acts of Parliament, 2023 (India).

² Exploring the role of artificial intelligence in alternative ..., <https://engagedscholarship.csuohio.edu/cgi/viewcontent.cgi?article=4313&context=clevstrev>

³ Designing the future of Dispute Resolution, <https://www.niti.gov.in/sites/default/files/2023-03/Designing-The-Future-of-Dispute-Resolution-The-ODR-Policy-Plan-for-India.pdf>.

and Prabhash Ranjan.⁴

4. Chartered Secretary 2024: It was emphasised in the 2024 December issues of the Chartered Secretary Journal, that Arbitral landscape has been transforming through Artificial Intelligence and Digitalisation by making review of document, management of case, and hearing of case more cost effective and faster. While highlighting advantages like effectiveness, accessibility, and less environmental impact, it also issued a caution about potential hazards such as algorithmic bias, cybersecurity flaws, and an excessive dependence on technology. This article reflected a balanced approach towards modernisation.⁵
5. Dispute Resolution Journal 2024: Practical usage of Artificial Intelligence in international commercial arbitration was explored in a dispute resolution journal. Considering the rise of document review systems driven by Artificial Intelligence like Ross and Kira intelligence. It observed that although Artificial Intelligence has already increased the effectiveness of research, discovery, and drafting, but its possible application in adjudication raises concerns about accountability and legitimacy. The journal wound up that to be most effective immediate step to regulate Artificial Intelligence in arbitration is institutional guidelines preferably then statutory amendments.⁶
6. World Intellectual Property Organisation Alternate Dispute Resolution Framework: The surge of disputes related to work generated by Artificial Intelligence, licensing, and misuse of data has been acknowledged by World Intellectual Property Organisation by publishing reports on these issues. Its structured alternative dispute resolution framework for intellectual property disputes concerning Artificial Intelligence implies that arbitral institutions need to alter their processes to reflect the realities of technology. Need of autonomy of party, transparency, and customised procedural rules, has been stressed by World Intellectual Property Organisation, were in process of dispute

⁴ Ai and the Indian Judiciary: The need for a rights-based approach [HTML version] Return to frontpage, <https://www.thehinducentre.com/incoming/ai-and-the-indian-judiciary-the-need-for-a-rights-based-approach-html-version/article68917505.ece>.

⁵ The Institute of Company Secretaries of India home page ICSI, <https://www.icsi.edu/home/>.

⁶ The use of Artificial Intelligence in arbitration: Friends with benefits * Revistas indexadas - Pontificia Universidad Javeriana, [https://revistas.javeriana.edu.co/files-articulos/VJ/74\(2025\)/6722763004/index.html](https://revistas.javeriana.edu.co/files-articulos/VJ/74(2025)/6722763004/index.html).

resolution or in subject matter, Artificial Intelligence is a part.⁷

ANALYSIS OF THE PROBLEM

ACTUAL IMPACT

In this digital age, artificial intelligence has moved from the edge of legal are to the centre of operational usage, especially in international arbitration. AI can no longer be seen as a theoretical concept or an idea of the future, it dynamically helps the way in which disputes are resolved. It would provide assistance for the effective case administration. With increased usage of this, a few key questions that would emerge are :

- i. Would AI reshape the process of dispute resolution, and if it does, would such a revolution be required or looked for ?
- ii. Will it simply aid human arbitrators, or will it eventually replace them as decision-makers?

These questions form the centre of current discussions in both scholarly and practical ways.

A prime example of these concerns can be views in the case of *LaPaglia v. Valve Corp*⁸ In this case, the plaintiff, John La Paglia, has not adhered to an arbitral award in favour of the opposite party, challenging that the arbitrator, Michael Saydah, used AI tools similar to ChatGPT or ChatGPT to pass the decision. The plaintiff showed the pointers of AI contribution, such as “awkward phrasing, references to facts not in the record and redundancies”. He even argued that the arbitral award was issued very rapidly, which is just fifteen days after hearings were completed and also pointed out the fact of the arbitrator’s scheduled vacation. With regards to this, he claimed the improper usage of AI. Valve, nonetheless, rejected such claims by the plaintiff, highlighting the absence of evidence and arguing that the draft speed and written style do not depict AI authorship. The concerns of AI have emerged very recently, so the court has not yet decided on this case. But the case raises critical concerns such as procedural fairness, transparency and the delegation of adjudicatory power to non-human entities.

⁷ WIPO ADR for Artificial Intelligence (AI) disputes WIPO, <https://www.wipo.int/amc/en/center/specific-sectors/artificial-intelligence/index.html> .

⁸ *LaPaglia v. Valve Corp*, 3:2025cv00833.

To direct these emerging issues, the “Silicon Valley Arbitration and Mediation Centre (SVAMC) Guidelines on the use of AI in arbitration (2024)”⁹ facilitate a proper principle framework. These guidelines emphasise the evolving importance of AI in arbitration and provide proper limitation measures to guarantee the accountable and responsible usage. Key recommendations given in these guidelines comprise disclosure of the involvement of AI, and compulsory human oversight, giving importance to transparency and procedural integrity. By concentrating on these principles, the guidelines aim to show the efficiency of AI without any unethical usage.

THE INDIAN PERSPECTIVE

Statutory Framework:

India has been steadily implementing tech-forward practices in the context of its arbitration practices. The Arbitration and Conciliation Act of 1996, in its Section 7¹⁰, integrates an arbitration agreement, and drawing from the UNCITRAL model law on international commercial arbitration, describes arbitration as settling disputes with the aid of arbitrators chosen by the parties. Meanwhile, sections 34 and 48¹¹ of the law reserve the right of the court to set aside and deny enforcement of arbitration awards due to the violation of public policy, along with a few other justified reasons. Public policy violation awards as described in the Act clearly contrate the AI generated awards. Relatively, the inclusion of “electronic means” with “Section 7(4)(b)¹²” indicates the first stages of the use of digital network communication, with a scope limited to administrative tasks, and not functions of decision-making.

Judicial Interpretation:

The Indian judiciary has been keen on the principles of not interfering with the arbitration process, and the principles of efficiency and party autonomy. The case of Shakti Bhog Foods Ltd. v. Kola Shipping Ltd.¹³, the Supreme Court ruled in favour of the case with the view that the arbitration agreements made in the case are capable of being enforced. The case of Trimex

⁹ SVAMC guidelines on the use of artificial intelligence in ..., <https://svamc.org/wp-content/uploads/SVAMC-AI-Guidelines-First-Edition.pdf>

¹⁰ The Arbitration and Conciliation Act, 1996, §7, Acts of Parliament, 1996(India).

¹¹ The Arbitration and Conciliation Act, 1996, §34 and 48, Acts of Parliament, 1996(India).

¹² The Arbitration and Conciliation Act, 1996, §7(4), Acts of Parliament, 1996(India).

¹³ Shakti Bhog Foods Ltd. v. Kola Shipping Ltd.(2009), 2 SCC 134.

International FZE Ltd. v. Vedanta Aluminium Ltd.¹⁴, like it, accepted the validity of arbitration clauses concluded electronically, thus an affirmation to the acceptance of digital correspondence and notices. The case of Grid Corporation of Orissa Ltd. v. AES Corporation¹⁵, also reaffirmed the principles of neutrality, and fairness in arbitration practices.

Policy Developments:

NITI Aayog, in 2021, in its ODR Policy Plan¹⁶, openly recognised the role of AI in streamlining the procedures of arbitration. AI's usage in handling high and low volume disputes, providing document review and estimating costs was emphasised in this report. It also highlighted that AI should complement and must not replace human decision-making. This watchful tactic shows mindfulness of both potential advantages and threats or limitations within the context of India.

ADVANTAGES OF AI IN ARBITRATION

AI enhances operational efficacy and productivity while protecting human adjudication.

- i. **Productivity and Cost-effectiveness:** AI structures can operate a huge volume of documents quickly, managing timelines of procedures and case logistics, thus helping with the rigid timeline by reducing time and costs. Since arbitration heavily relies on the procedural aspect, this productivity is invaluable if used in the right way.
- ii. **Improved flexibility and accessibility:** AI-powered platforms provide remote mediation and arbitration, helping us remove geographical barriers and permitting parties from distant locations to resolve disputes online, without having to appear physically. Incorporation of virtual/online meetings into the system with technologies like Microsoft Teams and Zoom, in conjunction with the assistance of AI, generates a unified procedure for parties who are not able to travel.
- iii. **Rapid Dispute Resolution:** AI's computerised analysis and quick documentation search abilities help in speeding up the fact-finding step, aiding quicker framing of issues.

¹⁴ Trimex International FZE Ltd. v. Vedanta Aluminium Ltd. (2010), 3 SCC 1.

¹⁵ Grid Corporation of Orissa Ltd. v. AES Corporation (2002), 7 SCC 736.

¹⁶ Designing the future of Dispute Resolution, <https://www.niti.gov.in/sites/default/files/2023-03/Designing-The-Future-of-Dispute-Resolution-The-ODR-Policy-Plan-for-India.pdf>.

CHALLENGES OF AI IN ARBITRATION

Significant challenges arise from the use of AI in the ADR process.

- i. **Accurateness and Reliability alarms:** There is often ambiguity and complexity concerning ordinary human language when it comes to AI systems. This likely leads to improper analysis and potential misunderstandings. AI tools has a likelihood of incorrect predictions when the quality of information or data is poor or biased, this affects the neutrality, which is the main basis of any resolution process. Currently there is no reliable method to check or audit the correctness of AI in the context of ADR.
- ii. **Security concerns and data privacy:** Sensitive personal and business data are involved in ADR process documentation, which must be secure, encrypted and stored properly. The same must also be accessed only by the authorized person/s . Transparency of such data is the prime concern of usage of AI in ADR. The parties must know the usage, collection and protection of their data. Poor AI structures have the risk of leaking private stored info indeterminately without no proper reasoning.
- iii. **Ethical Consequences:** If AI systems reflect existing societal or training information partiality/biases, the foundational principles of AI may have to be compromised. As AI heavily relies on the historical aspects, there is a high chance of biasness that can be depicted from prior cases. This may carry out unfair results. The disclosure of use of AI and the potential risk of it must be communicated to the parties by the mediators and arbitrators, making sure that AI does not replace human adjudicators or the decision-making power.
- iv. **Unclear Regulatory Framework:** Current legal framework around AI is fragmented, with coming orders and bills gradually being familiarized, but no standard wide-ranging global practices. Systems of “high risk”, “minimal risk” and “social scoring” has been discussed in some laws in a few nations but still remains undefined in the context of ADR. The absence of strong and clear rules, it is challenging for the mediators and arbitrations to adopt AI without any legal or reputational consequences.

GLOBAL PRACTICES

The involvement of AI into arbitration can be seen around the world. Arbitration institutions

internationally have been experimenting the use of AI, cautiously identifying that AI is best as a support tool rather than a decision-maker. A comparative review of a few jurisdictions highlighting both opportunities and risks involved:

i. Singapore:

Singapore, which is principal hub for international arbitration is adopting the usage of AI in a organized and accountable way. SIAC Gateway ¹⁷ supports helps with the case management in secure document handling with reviewing wide data in a extraordinary rapidity by AI. The governance of the same is dealt by Rule 61 of the SIAC Arbitration rules, 2025¹⁸ and by the Personal Data Protection Act, 2021(PDPA)¹⁹. These guidelines and rules help in maintain the confidentiality and protection of data through cybersecurity.

ii. United States:

AI is helping the arbitration process through predictive analysis, research and document review in the US. Already 90% of the arbitration professionals in USA has accustomed to the use of AI. USA perspective highlights the challenges of AI such as data bias, “black box problem and enforceability. The arbitrations must be “persons” as this has been given in the “Federal Arbitration Act,1925”²⁰. US adoption of such tools remains practical stating that AI does not replace human adjudicators rather supports the process.

iii. United Arab Emirates (UAE):

Under “National AI Strategy, 2031” ²¹of UAE, the country is strategically incorporating AI into the dispute resolution mechanisms in their courts, mediation

¹⁷ Singapore International Arbitration Centre (SIAC) unveils ..., <https://siac.org.sg/wp-content/uploads/2024/02/Press-Release-Singapore-International-Arbitration-Centre-SIAC-unveils-online-arbitration-case-management-system-1.pdf> .

¹⁸ SIAC rules 2025 - Singapore International Arbitration Centre, <https://siac.org.sg/siac-rules-2025> .

¹⁹ Personal Data Protection Regulations 2021 - Singapore Statutes Online, <https://sso.agc.gov.sg/SL/PDPA2012-S63-2021?DocDate=20210930> .

²⁰ The Federal Arbitration Act (USA), <https://www.acerislaw.com/wp-content/uploads/2023/03/US-Federal-Arbitration-Act.pdf>

²¹ National AI strategy 2031 and the National Program for Artificial Intelligence UNESCO.org, <https://www.unesco.org/creativity/en/policy-monitoring-platform/national-ai-strategy-2031-and-national-program-artificial-intelligence>.

and arbitration centres. DIFC (“Dubai International financial centre”) and ADGM (“Abu Dhabi Global Market”) institutions are incorporating AI systems for the purpose of drafting, predictive analytics and case management. International Bar Association laid a few mediation guidelines stressing the neutrality in the process of Arbitration with usage of generative AI. Meanwhile it was also laid down that with integration of AI, flexibility of the arbitration process increases.

iv. **Hong Kong:**

The “Hong Kong International Arbitration Centre” has adopted AI by taking Jus Mundi as a partner to provide free AI-generated summaries. While decreasing the research time of practitioners, this initiative also improves transparency and convenience. AI system helps in delivering systematic insights into the ruling of HKIAC also helping the arbitrators in identifying prior rulings more resourcefully by adopting Jus Mundi’s database.²² This adoption depicts the reputation of Hong Kong in being futuristic and forward looking in the Asian hub of arbitration. It shows the significant use of AI by HKIAC with careful confirmation to safeguard correctness and neutrality without compromising on human oversight.

v. **United Kingdom:**

The London Court of International Arbitration (LCIA) is also contributing in the discussions on AI, concerning broader area discussions around LCIA rules.

In a survey conducted by Queen Mary University of London, 90% respondents said that they expect to utilise AI for data analytics, document review and research and 54% respondents replied that saving time is the biggest driving force for using AI.²³

²² Hong Kong (special administrative region), <https://www.ibanet.org/medias/anlbs-ai-working-group-report-september-2024-15-hong-kong.pdf?context=bWFzdGVyfFB1Ym9uUmVwb3J0c3w3Mzg1M3xhcHBsaWNhdGlvbi9wZGZ8YUdReEwyZ3lZeTg1TVRVbk16WTNNVGczT1RrNEwyRnViR0p6TFdGcExYZHZjbXRwYm1jdFozSnZkWEF0Y21Wd2l2SjBMWE5sY0hSbGJXSmxjaTB5TURJMEsURTFMV2h2Ym1jdGEyOXVaeTV3WkdZfGJmZGEzOWJhNTA0NzE2MmJhYzliZTBmMzhmY2lwM2EzNTJlOTcwOWNmMDg3Zjk4MjExYTE3MjM0ZmQyM2EzYmE>

²³ 2025 International Arbitration Survey the Path Forward, <https://www.qmul.ac.uk/arbitration/media/arbitration/docs/White-Case-QMUL-2025-International-Arbitration-Survey-report.pdf>.

The Chartered Institute of Arbitrators (Ciarb) has convened experts from diverse legal traditions to develop practical guidance. The result of this process was unveiled on 19 March 2025 when Ciarb published its “*Guideline on the use of AI in arbitration*” (the “Ciarb AI Guideline”)²⁴. Template agreements and procedural orders can be made with the use of AI under these guidelines.

vi. WIPO (World Intellectual Property Organization):

WIPO facilitates neutral ADR mechanisms. By combination of expertise in IP with ADR, WIPO offers expert solutions for resolution ensuring efficiency and complexity of AI related global concerns²⁵.

HYBRID APPROACH: THE WAY FORWARD

The most reliable and feasible system for the integration of AI in arbitration would be the hybrid framework: Human-AI. In this approach, AI would remain in the assisting capacity by carrying out management of case and procedure, scheduling, document review and research at the same time humans would have the final decision-making power. This helps in not compromising neutrality, ensuring enforceability and protecting justice by attaching AI's efficiency by preserving fairness and due process of law.

Effective implementation requires:

- i. Professionals in the legal domain must be trained to know AI's abilities, limitations and biases to make sure the usage of technology accountably.
- ii. Transparent Disclosure to the parties must be a mandate, aligning with ethical responsibilities.
- iii. India may now reflect statutory framework to oversee the usage of AI in arbitration, safeguarding existing laws and public policy.

²⁴ Guideline on the use of AI in arbitration (2025), https://www.ciarb.org/media/m5dl3pha/ciarb-guideline-on-the-use-of-ai-in-arbitration-2025-final_march-2025.pdf.

²⁵ WIPO ADR for Artificial Intelligence (AI) disputes WIPO, <https://www.wipo.int/amc/en/center/specific-sectors/artificial-intelligence/index.html>.

- iv. Policies of ADR institutions should address unfairness, privacy and responsibility, warranting that AI does not mutilate human-centric values.

CONCLUSION

Artificial Intelligence has shifted to heart of Arbitration proceedings from being margins of legal practices, by transforming various processes such as management of cases, drafting of an award, reviewing of documents, and predictive analytics. While adoption of Artificial Intelligence is increasing in arbitration, it remains carefully framed as a tool to assist rather than replacing arbitrators. And this can be clearly demonstrated from comparative experiences among United States, United Kingdom, Singapore, UAE, Hong Kong, and India. Shift towards technology enabled dispute resolution can be reflected in India, through various developments such as e-filing portal, recognition of arbitration agreements in electronic form, and ODR Policy Plan by NITI Aayog.

At the same time, significant concerns were raised because of rise in Integration of Artificial Intelligence. The *LaPaglia v. Valve Corp.* case serves as an example of how a suspected reliance on artificial intelligence in the process of award drafting can erode confidence in the arbitral process and raise concerns about justice and transparency. Some of the challenges are data privacy concerns, algorithm biases in accordance with Digital Data Protection Act, of India, Enforceability barriers under section 34 and 48 of the Arbitration and Conciliation Act, 1996, and under New York Convention there are certain conflicts related public policy standards.

It makes sense that Artificial Intelligence should continue to play a supporting role rather than a deciding one. Artificial Intelligence cannot replace human judgement, cultural sensitivity, and justice, which are all important aspects of arbitration in addition to efficiency. In future it is about Hybrid Model where responsibility of decision making lies with arbitrators and Artificial Intelligence deals with data intensive and repetitive tasks. Transparent requirements like those as proposed in SVAMC 2024 guidelines, clear regulatory frameworks, and robust training are very important to make this model viable.

So, Artificial Intelligence should be embraced as a tool for enhancing accessibility and efficiency rather than replacing human arbitrators, along with maintaining legitimacy and integrity of arbitration.