A CRITICAL ANALYSIS OF THE PROMISES, PERILS, AND LIMITS OF ARTIFICIAL INTELLIGENCE IN DISPUTE RESOLUTION, WITH PARTICULAR REFERENCE TO THE INDIAN CONTEXT

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ABSTRACT

Artificial intelligence ("**AI**") is no longer a distant possibility in dispute resolution, it is already here, reshaping how legal research is conducted, how documents are reviewed, and even how arbitrators manage proceedings. Yet, while institutions rush to embrace technology, a foundational question remains underexamined: can AI really ever completely replace the human application of mind and judgment that arbitration fundamentally demands? This paper argues that while AI is a powerful and indispensable tool in modern arbitration, it cannot, and must not substitute for the human arbitrator. Through an analysis of global institutional guidelines, landmark cases of AI misuse, the structural demands of arbitral proceedings, and the specific gaps in India's legal framework, this paper makes the case for carefully regulated human supervision over AI usage in arbitration. One that harnesses its efficiency without surrendering the procedural fairness that legitimizes the entire process.

I. Introduction: The Arrival of the Machine in the Hearing Room

There is something deeply human about arbitration. At its core, it is a process of listening to evidence, to argument, to commercial context, and rendering a judgment that parties will accept as fair because they chose it. For long now, arbitration has relied entirely on human instinct, legal experience, and professional judgment. However, that picture is now rapidly changing.

Generative AI tools, particularly large language models capable of drafting, summarizing, translating, and analyzing documents have entered the legal profession at remarkable speed. Platforms such as Harvey, CoCounsel, and Jus Mundi are already being used by international law firms to streamline research and document review in arbitral proceedings. Some arbitral institutions are going further by exploring AI-assisted arbitrator selection. The American Arbitration Association-International Centre for Dispute Resolution ("**AAA-ICDR**") launched an AI-powered panelist search tool in 2024. The International Chamber of Commerce ("**ICC**") published guidelines on corruption red flags in arbitration in late 2024, guided in part by AI-assisted pattern recognition.

The legal profession has always approached technological change carefully, but this feels fundamentally different. Unlike earlier tools that merely organized information, generative AI actively produces it, which is precisely why its entry into arbitration raises questions that go beyond efficiency and move into the territory of legitimacy, fairness, and due process.

This paper critically examines where AI adds genuine value in arbitration, where it creates new risks, and why a human arbitrator, however assisted by technology, remains irreplaceable. The analysis pays particular attention to the Indian arbitration framework, which is undergoing significant reform but is yet to address the AI question directly.

II. What AI Can Legitimately Do in Arbitration

Before criticizing AI's limitations, acknowledging its benefits is necessary. In the context of arbitration, AI tools offer at least four genuine advantages.

Document review and discovery. Large commercial arbitrations, particularly in infrastructure, energy, or investment disputes generate enormous volumes of documentary evidence. Reviewing thousands of contracts, emails, and technical reports manually is time-consuming and expensive, placing smaller parties at a systematic disadvantage. AI-assisted

document review can process this material far faster, flagging relevant documents and organizing them by theme or timeline. This is not a replacement for legal analysis; it is a pre-processing function that allows lawyers to focus and spend their limited time where it actually matters.

Legal research. AI tools trained on legal databases can proivde relevant precedents, statutory provisions, and commentary with impressive speed. Platforms like Jus Mundi have been specifically designed for international arbitration research, aggregating investment treaty awards, procedural decisions, and doctrinal commentary. Used carefully, these tools can ensure that counsel and arbitrators are aware of the full range of applicable authority, something that is genuinely hard to guarantee through manual research alone across multiple jurisdictions.

Translation and multilingual proceedings. International arbitration frequently involves parties from different countries, documents in multiple languages, and witnesses giving testimony through interpreters. AI translation tools can provide near-real-time translation of documents and, increasingly, oral submissions. This democratizes access to proceedings for parties who cannot afford premium human translation of every document.

Procedural administration. AI tools can assist in case management, tracking deadlines, generating procedural orders from templates, and managing correspondence. For overburdened arbitral institutions in India, where institutional arbitration is still finding its footing, this kind of administrative efficiency is not trivial.

The Chartered Institute of Arbitrators ("**CIArb**"), in its Guideline on the Use of AI in Arbitration published in March 2025, recognized precisely these benefits, describing AI as capable of offering improved efficiency, enhanced consistency in legal research, and data analysis among other benefits.[1] This is not an endorsement of AI as a decision-maker; it is an acknowledgment that AI can make the human actors in arbitration better at their jobs.

III. Where AI Fails: The Hallucination Problem and Its Consequences for Arbitral Integrity

The most immediate and well-documented risk of AI in legal proceedings is the problem of

[1] Chartered Institute of Arbitrators (CIArb), *Guideline on the Use of AI in Arbitration* (19 March 2025) ('CIArb Guideline') 3.

"hallucination". It is the tendency of large language models to generate confident, plausible-sounding, but entirely fabricated content. This is not a metaphor. AI systems do not retrieve information from a database; they predict what a response should look like based on patterns in their training data that are primarily based on prompts given by its users. When asked about a legal case on a proposition that may remain unexplored, AI may invent one with a case name, citation, court, judge, and reasoning that does not exist in reality.

The consequences of this in legal proceedings have already been begun and are severe. In *Mata v. Avianca, Inc.*[2], the attorneys submitted court filings by citing multiple cases that were entirely fabricated by ChatGPT. When the court and opposing counsel were unable to locate these cases, the attorneys, having relied on the AI's assurance that the cases indeed exist and can be found in reputable legal databases such as LexisNexis and Westlaw were unable to produce copies. The U.S. District Court imposed sanctions of $5,000 on the lawyers and their firm. Moreover, incidents like these describe the conduct as a failure of the attorneys' fundamental role to ensure the accuracy of their submissions.

What makes *Mata* particularly instructive is that the attorneys were not sanctioned merely for using AI. Judge Castel explicitly acknowledged that "there is nothing inherently improper about using a reliable artificial intelligence tool for assistance."[3] The problem was uncritical reliance. This distinction is what matters: AI itself is not the villain; unverified and uncritical dependence on it is.

This is not an isolated incident. By late 2025, a database maintained by researcher Damien Charlotin had logged 596 unique legal proceedings globally involving unverified AI output, with over 50 international cases documented in July 2025 alone[4]. In the English case of *Ayinde v. London Borough of Haringey*[5], a judicial assistant reviewed 45 citations submitted by counsel and found that 18 cases were entirely non-existent, while many of the real cases cited contained none of the quotations attributed to them.[6]

The implications for arbitration are arguably more serious than for litigation. In a court, a judge

[2] *Mata v Avianca, Inc*, 678 F Supp 3d 443 (SDNY 2023) (Castel J) ('*Mata*').
[3] ibid 448: 'there is nothing inherently improper about using a reliable artificial intelligence tool for assistance.'
[4] Damien Charlotin, AI Hallucination Cases Database (last updated November 2025) <www.damiencharlotin.com/hallucinations> accessed 10 May 2026.
[5] *Ayinde v London Borough of Haringey* [2025] EWHC 1383 (Admin).
[6] ibid [14]–[17]: a judicial assistant reviewed 45 citations submitted by counsel and found 18 to be entirely non-existent.

can ask the counsel to produce the physical report or record. There are also institutionalized verification mechanisms. In arbitration, the proceedings are largely private, tribunals have limited staff, and parties are expected to act in good faith with respect to the materials they rely upon. If AI-generated fabrications enter the record in an arbitration, whether as cited precedents or as fabricated documentary evidence, they may go undetected until enforcement proceedings before a national court, by which point an award may have been made based on false material. The confidentiality that is an attractive feature of arbitration attractive also makes it more vulnerable to AI-generated fraud.

IV. Due Process, Natural Justice, and the Non-Delegable Duty to Decide

The most fundamental argument against AI acting as a decision-maker in arbitration is not technological, it is more legal and philosophical. Arbitration derives its authority from party consent. Parties agree to be bound by the award of a specific arbitrator or tribunal that they have selected, or whose selection process they have accepted. This has less to do with technicality, it is the source of the entire legitimacy of the process.

Under the Indian Arbitration and Conciliation Act, 1996, this principle finds expression in multiple provisions. Section 18 requires that the arbitral tribunal treat parties with equality and give each party a full opportunity to present its case, a codification of the audi alteram partem principle[7]. Section 12 and the Fifth Schedule together impose stringent requirements on arbitrator independence and impartiality[8]. These provisions exist because the parties' confidence in the process depends on knowing that a human being with specific and relevant professional qualifications and disclosed interests has heard their case and made a reasoned decision.

What happens if that decision is delegated, even partially, to an AI system? The answer is rather constitutionally and contractually troubling. The parties did not consent to be judged by an algorithm. An AI system cannot be examined for bias in the way a human arbitrator can. Its training data could possibly reflect systemic skews, favoring well-resourced claimants, particular legal traditions, or commercial norms from specific jurisdictions. Crucially, under Section 34 of the Indian Arbitration Act, an award can be challenged if it is contrary to public policy or if there was a breach of natural justice. If AI substantially influenced the reasoning in

[7] Arbitration and Conciliation Act 1996 (India), s 18.
[8] ibid s 12; Fifth Schedule.

an award, the losing party would have a plausible argument that the award did not result from the genuine deliberation of the tribunal it consented to, an argument that could have fatal consequences for enforcement of the award.

This is not a theoretical concern. The Silicon Valley Arbitration and Mediation Centre ("**SVAMC**"), which published the first AI-specific arbitration guidelines in April 2024, explicitly provides that "arbitrators may not delegate any part of their mandate or decision-making functions to an AI system, no matter how advanced."[9] The CIArb's 2025 guidelines similarly state that AI must operate under human oversight, and that arbitrators should not relinquish their decision-making powers to AI[10]. These are not cautionary merely asides they are the central principle around which every institutional framework on AI in arbitration has been organized.

V. Confidentiality: The Silent Casualty of Careless AI Use

Confidentiality is often described as one of arbitration's most attractive features, particularly for commercial parties who would much rather resolve a dispute quietly than litigate in a public court. This advantage is enshrined in Section 42A of the Indian Arbitration and Conciliation Act (inserted by the 2019 Amendment), which imposes a duty of confidentiality on arbitrators, arbitral institutions, and parties.[11]

AI tools present a direct threat to this protection that has not received sufficient attention in Indian scholarship. Most publicly available AI platforms, including general-purpose tools like ChatGPT process queries on external servers, and the data submitted to them are stored, used for training, or potentially accessible to third parties. When a lawyer or arbitrator uploads a confidential contract, a witness statement, or a commercially sensitive agreement to an AI tool for analysis, they may be inadvertently breaching their confidentiality obligations.

The SVAMC Guidelines of 2024 specifically address this, requiring all participants in arbitration to ensure that their use of AI tools "safeguards confidential information" and restricting the submission of confidential information to any AI tool without appropriate vetting

[9] Silicon Valley Arbitration and Mediation Center (SVAMC), *Guidelines on the Use of Artificial Intelligence in International Arbitration* (30 April 2024) ('SVAMC Guidelines') Guideline 3: 'arbitrators may not delegate any part of their mandate or decision-making functions to an AI system, no matter how advanced.'
[10] CIArb Guideline (n 1) 5.
[11] Arbitration and Conciliation Act 1996 (India), s 42A, inserted by the Arbitration and Conciliation (Amendment) Act 2019 (India), s 12.

and authorization.[12] The Stockholm Chamber of Commerce ("**SCC**"), in its AI guide published in October 2024, similarly emphasizes that confidentiality must be the first consideration before any AI tool is used in arbitral proceedings.[13]

India has no equivalent guidance. The Bar Council of India has not issued any formal opinion on AI and legal practice[14]. The India International Arbitration Centre ("**IIAC**") and the Mumbai Centre for International Arbitration ("**MCIA**") have not published AI-specific protocols. This creates a dangerous vacuum: Indian practitioners may be using general-purpose AI tools with confidential arbitral materials, not out of bad faith, but simply because no one has told them they must not.

VI. Bias, Opacity, and the Problem of the Black Box

A subtler but equally serious concern is the inherent opacity of AI systems. When a human arbitrator makes a decision, they produce a reasoned award that can be scrutinized, challenged, and appealed. The reasoning is visible. If an arbitrator misunderstood a contract clause, applied the wrong legal standard, or made a factual error, a party can identify exactly where things went wrong. This is the basis on which Section 34 challenges operate in India, and it is fundamental to the legitimacy of the process.

AI systems, particularly large language models, do not offer this kind of transparency. They produce outputs without explaining the reasoning that generated them in any meaningful way. When an AI tool analyses a contract and flags a particular clause as legally problematic, it cannot explain why with the precision a lawyer would. More worryingly, it may reflect biases in its training data that systematically disadvantage certain parties. If a model was trained predominantly on awards from Western arbitral institutions, it may apply norms and presumptions that are inappropriate for disputes governed by Indian law or arising from Indian commercial practice.

As the CIArb's 2025 guideline acknowledges, AI risks include lack of transparency, bias, data security concerns, and over-reliance on systems that may produce unreliable or unverifiable

[12] SVAMC Guidelines (n 10) Guideline 5: 'participants in arbitration shall ensure that their use of AI tools safeguards confidential information.'
[13] Stockholm Chamber of Commerce (SCC), *Guide to the Use of AI in Cases Administered Under the SCC Rules* (October 2024) ('SCC Guide') 7.
[14] Bar Council of India, *Rules Governing Advocates* (1975). No formal opinion on the use of AI in legal proceedings has been issued as of May 2026.

outputs[15]. The CIArb further notes that opacity creates accountability gaps that human-supervised processes do not: when an AI makes an error, no professional can be held responsible in the way a lawyer or arbitrator can[16]. These risks are not just technical inconveniences, they make an arbitral award worthy of enforcement. The New York Convention, under which most international arbitral awards are enforced globally (including awards made in India), permits enforcement to be refused if the award is contrary to the public policy of the enforcing state[17]. An award tainted by unexplained algorithmic bias, or one that was partially drafted by an AI would present novel and difficult questions for enforcement courts worldwide.

VII. The Indian Framework: A Regulatory Gap That Must Be Filled

India is at a critical juncture in its arbitration journey. The Expert Committee on Arbitration Law submitted its report in February 2024, and the draft Arbitration and Conciliation (Amendment) Bill, 2024 proposes meaningful reforms, including statutory recognition of emergency arbitration, reduction of judicial interference, and promotion of institutional arbitration[18]. The Arbitration Bar of India was formally launched in May 2024, and the Permanent Court of Arbitration opened an office in New Delhi in September 2024.

Yet none of these reforms address AI. The draft Amendment Bill is silent on the disclosure of AI use by arbitrators or counsel, the protection of confidential data submitted to AI tools, or the permissible scope of AI in drafting procedural orders or awards. This silence is not benign. As Indian parties increasingly use AI tools in their practices, and as international arbitrations involving Indian parties use AI in document review and research, the absence of a regulatory framework creates unpredictability precisely when India is trying to establish itself as a reliable arbitral seat.

What should this framework look like? Drawing from the SVAMC Guidelines (2024), the CIArb Guidelines (2025), and the SCC Guide (2024), a coherent Indian approach would need to address at least four things[19]. First, mandatory disclosure: parties and arbitrators should be

[15] CIArb Guideline (n 1) 6.
[16] ibid 4.
[17] Convention on the Recognition and Enforcement of Foreign Arbitral Awards (adopted 10 June 1958, entered into force 7 June 1959) 330 UNTS 38 (New York Convention), art V(2)(b).
[18] Draft Arbitration and Conciliation (Amendment) Bill 2024 (India). The Bill proposes statutory recognition of emergency arbitration and reduction of judicial interference under ss 8 and 11.
[19] SVAMC Guidelines (n 10) Guidelines 3, 5; CIArb Guideline (n 1) 5–7; SCC Guide (n 14) 7–9.

required to disclose what AI tools they have used and for what purpose, so that opposing parties can assess any risk of unfair advantage or confidentiality breach. Second, a prohibition on delegation: arbitrators must be expressly prohibited from delegating any part of their reasoning or decision-making to an AI system, consistent with Section 12 and Section 18 of the Act. Third, data protection standards: any AI tool used in arbitral proceedings should meet minimum data security standards to prevent inadvertent disclosure of confidential information. Fourth, institutional oversight: the MCIA and IIAC should publish practice notes, as their international counterparts have done, giving practitioners clear guidance before problems arise.

The argument that India should "wait and watch" before regulating AI in arbitration is fundamentally misconceived. As Freshfields has observed, the principles governing AI use in arbitration must be established proactively, not reactively[20]. The harms that flow from unregulated AI use, compromised confidentiality, hallucinated citations, algorithmically influenced awards, are not future risks. They are happening now in other jurisdictions, and there is no reason to believe Indian proceedings are immune.[21][22]

VIII. Conclusion: The Machine That Cannot Judge

The debate about AI in arbitration is sometimes framed as a binary choice between technophobia and uncritical adoption. That framing is unhelpful. AI is already part of the arbitral landscape, and trying to keep it out entirely would be both futile and counterproductive. The efficiency gains, in document review, legal research, translation, and case management are real and should not be dismissed.

But efficiency is not the only value that arbitration serves. Arbitration serves justice, and justice requires more than fast processing. It requires judgment, the ability to weigh competing narratives, assess the credibility of witnesses, apply legal standards to facts that never quite fit the textbook, and produce a reasoned decision that the parties can understand even if they disagree with it. These are not computational tasks. They are exercises in human discernment, shaped by legal training, professional experience, and moral seriousness.

[20] Freshfields Bruckhaus Deringer, *Principles Guiding the Use of AI in Arbitral Proceedings* (March 2026) 3.
[21] Norton Rose Fulbright, *New Frontiers: Regulating Artificial Intelligence in International Arbitration* (2024) 12.
[22] Springer Nature, 'AI and Confidentiality Protection in International Commercial Arbitration' (2025) *Discover Artificial Intelligence* DOI: 10.1007/s44163-025-00316-7, 5.

The lesson of *Mata v. Avianca*[23] is not that AI is dangerous. It is that unchecked reliance on AI without the human oversight that every institutional framework now insists upon is dangerous. The lesson of the SVAMC, CIArb, and SCC guidelines is not that AI must be excluded. It is that AI must be supervised, disclosed, and confined to tasks where human judgment can verify its output.[24]

For India, the path forward is clear even if the legislation has not yet caught up. As the country works toward establishing itself as a preferred arbitral seat, it cannot afford to be caught unprepared by disputes over AI-tainted awards, confidentiality breaches, or challenges to enforcement based on algorithmic opacity. The reforms being discussed in the draft Amendment Bill are an opportunity to address these questions before they become crises.

AI can make arbitration faster, cheaper, and more accessible. It cannot make it fair by itself. That remains, and must remain, the work of human beings.

[23] *Mata* (n 2) 449.
[24] SVAMC Guidelines (n 10) Guideline 1; CIArb Guideline (n 1) 3; SCC Guide (n 14) 4.