

# Getting International Arbitration Ready For AI

By **John Barkett and Ricardo Ampudia** (March 28, 2023)

Given the impressive abilities recently showcased by artificial intelligence systems like ChatGPT, AI is going to find its way into the decision-making process in international arbitration.

But is international arbitration ready?

Last week, we asked OpenAI's ChatGPT chatbot to provide a list of the most relevant issues posed by artificial intelligence in the international arbitration field.

In about 10 seconds, it generated the list with a paragraph of discussion for each issue. The list included issues like cybersecurity risks of data used by AI systems, the potential for AI technology to perpetuate biases in decision making, and the admissibility of AI-generated evidence.

Although hardly flawless, ChatGPT's response represents impressive insight for a machine.[1] One's imagination does not have to be very creative to identify other possible uses of AI in international arbitration.

Are arbitral institutions and arbitral rules ready for AI?

## AI Regulation

We are not aware of any arbitral rules that specifically address the use of AI.

Thus far, the proposed European Union Artificial Intelligence Act is arguably the world's most comprehensive proposed legislation regulating AI.

The proposal followed a 2017 European Council conclusion calling for a sense of urgency to address issues such as AI and a "high level of data protection, digital rights, and ethical standards." [2] The European Commission presented its proposal about four years later, which contains 85 articles and nine annexes. [3]

The proposal employs a broad definition of AI [4] and a regulatory approach that categorizes certain AI activity by risk level. [5] The proposal even includes penalties for noncompliance. [6] However, it does not address the use of AI in international arbitration.

In the U.S., federal AI regulation is currently nonexistent. There is a patchwork of sector-specific proposals, including the U.S. Food and Drug Administration's Artificial Intelligence/Machine Learning-Based Software as a Medical Device Action Plan, which outlines a list of intended actions and goals, including updating the regulatory framework for AI/ML-based software as a medical device. [7]

The Federal Trade Commission has also issued guidance that provides advice to companies on how to "manage the consumer protection risks of AI and algorithms" on aspects such as transparency, communications with customers, fairness, accuracy and ethics. [8]

Again, these action plans and guidance are not focused on possible uses of AI in



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international arbitration.

In the multilateral space, the 193 member states at UNESCO's General Conference have adopted a recommendation on the ethics of artificial intelligence to "guide states in the formulation of their legislation, policies, or other instruments regarding AI, consistent with international law."<sup>[9]</sup> The recommendation expressly states that it will not attempt to define what AI is and will focus on ethical issues posed by AI instead.<sup>[10]</sup>

While this effort is laudable, it too does not address AI in international arbitration.

### **The Use of AI in Arbitral Decision Making Is Not Fanciful**

Could AI help arbitrators make decisions and draft them?

After a few ghost answers — i.e., answers that sound credible but are plainly wrong — we gave ChatGPT a couple of nudges with the following prompt:

Pretend you are an arbitrator in an [International Criminal Court] arbitration. Assume the parties agreed to arbitrate the dispute under a sole arbitrator under 2021 ICC Rules. The legal seat follows the [United Nations Commission on International Trade Law] Model Law on international arbitration, as amended in 2006. And assume Respondent has refused to appear or to pay its share of cost advances despite a previous request to both parties to pay such advance. Draft an order to the Parties with your decision on next steps under the law of the seat and the ICC rules. Make reference to specific articles in the governing rules and law where appropriate, including Article 25 of the Model Law, and Article 37(6) of the ICC Rules.

A few seconds later, it generated a six-paragraph letter to the hypothetical arbitration parties. The letter cites the requested provisions and gives the parties 14 days to pay their share of costs before terminating the arbitration and issuing an award on the evidence before it.

Of course, this is a simplified scenario and whether the decision is correct is not the point. There are still serious limitations with this technology and arbitrators still need to be careful.<sup>[11]</sup>

Instead, what this rudimentary example shows is that, if used smartly, AI may conceivably be able to make international arbitration — at least to some degree — more efficient both in terms of time and costs.<sup>[12]</sup>

In the above example, ChatGPT was able to apply preidentified rules in a superficially competent manner. It will only get better.

Should there be a prohibition on such a use? Should an arbitrator be able to use AI as a completeness check, for example, by asking the machine to provide a list of relevant rules on a particular topic and check whether the arbitrator has considered all of them before presenting the decision to the parties?

Alternatively, may an arbitrator be allowed to list specific rules in her prompt, identify the relevant factual findings and conclusions of law and then instruct the machine to draft a decision for her based on the prompt?

One illustration will make the point of the challenges international arbitration faces from AI.

The work of an arbitrator is governed by the rules or laws under which the arbitrator derives authority.

But arbitrators always must be impartial. AI systems claim to be trained by receiving as input large amounts of data. When we asked ChatGPT how it was trained, it said:

- It was "fed large amounts of text data";
- It used algorithms to learn "patterns and relationships to generate ... responses"; and
- "The goal of [its] training was to maximize the likelihood of the model generating coherent and meaningful text, given a prompt."

Is impartiality compromised by this description if AI is used by an arbitrator? A dissatisfied party could potentially challenge a ChatGPT-assisted decision through a number of arguments. For example:

- The AI system was unduly influenced by some of the data it was fed during its training or by the algorithms and patterns used for its programming or developed in the course of this training, and thus an award was not rendered by an impartial and independent arbitrator under the law of the seat and the arbitral rules.
- Due process has been denied because the losing arbitrate was not afforded an opportunity to respond to the data fed to the AI system during its training.
- The arbitrator's reliance on AI to draft an award constitutes procurement by undue means under the Federal Arbitration Act, which serves as a basis to vacate an award.[13]
- The use of AI constituted an abuse of authority by an arbitrator.
- At the time of the agreement, the parties did not contemplate use of AI in any part of the international arbitration process, thus an award was produced in violation of the parties' expectations or consent.

This illustration becomes frightful if one also takes into account the potential for delay associated with a revelation of the use of AI in any part of the international arbitration process. Imagine the delay — apart from cost — that can occur if a dissatisfied party is allowed discovery into the way an AI system is designed, trained and operated before or after it is utilized during the international arbitration process.

### **Need for Regulation**

AI is not going to replace arbitrators — at least not any time soon — and certainly not in any cases where credibility of witnesses is a component of the adjudication of a dispute.

Mistrust of AI also remains an issue, particularly given reports of inaccuracies in AI-produced output.[14]

But it is unrealistic to think that arbitrators will not only be tempted to use AI in some manner, but will do so.[15]

Indeed, in a decision dated Jan. 30 pertaining to a medical plan coverage case, a judge in Colombia wrote that his chamber corroborated his decision using ChatGPT in accordance with Colombian law aiming to incorporate information technology in judicial proceedings:[16]

On another topic, taking into account that Law 2213 of 2022 has the purpose of incorporating [Information and Communications Technology] in judicial processes, the arguments of the decision adopted shall be expanded, based on the use of artificial intelligence (AI). Therefore, we proceeded to include parts of the legal problem raised in this judgment and entered into the application <https://chat.openai.com/chat>.

The following questions were asked in the application.

Is an autistic minor exonerated from paying premiums for his therapies?

The response of the AI application:

Yes, that is correct. According to regulations in Colombia, minors diagnosed with autism are exempted from paying premiums in their therapies. This benefit is regulated by Law 1753 of 2015 and applies to all institutions providing public or private health services that receive resources from the general security system social in health. ...

... The Chamber shall decide to add the grounds for the resolution of the case from the construction of texts carried out in the AI application <https://chat.openai.com/chat> as an initiative that allows speedy resolution of guardianship issues.

The purpose of including these AI texts is in no way to replace the Judge's decision. What we really seek is to optimize the time spent writing judgments, [with] prior corroboration of the information provided by AI.[17]

Unsurprisingly, the judge's decision sparked controversy, but mostly focused on the accuracy limits of the AI chatbot and not necessarily its use.[18]

Beyond accuracy, there are other questions. Among them are these two: How much did the corroboration influence the judge's decision making? If the judge made the decision independently of AI and used AI only for corroboration, would the use of AI be superfluous and in fact add to the time required to write a decision?

And let's add to the list an ultimate question. If AI were used to draft an arbitral award, or portions of an award, is the award enforceable?[19]

### **Getting International Arbitration Ready for AI**

Rulemakers who are not thinking about AI need to be. And rulemakers who are thinking about AI need to be evaluating whether steps must be taken now to adopt rules that can be adapted as technology continues to advance.

Specifically, arbitration centers and UNCITRAL's working groups II and III should be evaluating the need for AI rulemaking. These are among the topics that should be considered:

- The scope of permitted use of AI by arbitrators, with or without consultation with the parties;
- Assuming disclosures regarding AI usage must be made, whether they must be made before usage occurs;
- Whether standard clauses regarding AI should be included in an arbitration agreement or in initial scheduling orders or terms of reference and if so, what they should say;
- Whether rule changes are necessary to address disclosure or discovery of AI-generated evidence, or even its admissibility;
- If AI systems can be used, whether there will be minimum transparency standards for their use;
- Whether other measures need to be considered to ensure due process in light of the availability or usage of AI systems;

- Whether measures need to be considered to safeguard protected information, including protected information fed to the AI system; and
- And while it might be beyond the power of some rulemakers, are there changes in laws or treaties that are necessary — and if so, that make sense — to support the recognition and enforcement of arbitral awards in proceedings where AI was utilized, whether in a consensual manner or without the knowledge or consent of a party.

This list is hardly exhaustive. Our goal is a simple one: to provoke action by all stakeholders to ensure that international arbitration is meeting and will meet the challenges presented by AI.

And if this goal is not met, you can fully expect that after this article and other similar papers are published and fed to the machine, the answer to the question posed at the outset of this article about the five most relevant issues in international arbitration will include the challenges posed by AI itself.

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[1] We asked the chatbot to list more issues, and it mentioned issues related to job displacement for humans and the reliability of AI systems for legal interpretation and analysis. The chatbot did not appear to consider issues relating to using AI for arbitrator selection. When we asked it to do so, it mentioned several, including imperfect information about arbitrator candidates' skills and expertise.

[2] European Council, European Council meeting (19 Oct. 2017) – Conclusion EUCO 14/17, 2017, p. 8.

[3] European Commission, Proposal for an Artificial Intelligence Act (2021).

[4] The proposal broadly defines an AI system as "software that is developed with one or more of the techniques and approaches listed in Annex I and can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with." European Commission, Proposal for an Artificial Intelligence Act, Art. 3 (2021).

For its part, Annex I lists the following as AI techniques and approaches: "(a) Machine learning approaches, including supervised, unsupervised and reinforcement learning, using a wide variety of methods including deep learning; (b) Logic- and knowledge-based approaches, including knowledge representation, inductive (logic) programming, knowledge bases, inference and deductive engines, (symbolic) reasoning and expert systems; [and] (c)

Statistical approaches, Bayesian estimation, search and optimization methods."

[5] "Prohibited" AI practices are banned outright. Id., Title II. "High-risk" AI systems are defined by Article 6, which must be read in conjunction with Annex II (listing relevant EU harmonization legislation) and Annex III (listing sample high-risk AI systems by category). Categories include biometric identification, management of critical infrastructure, education, access to public services and benefits, law enforcement, migration and asylum, and administration of justice.

Article 7 of the proposed Act gives the Commission the power "to update the list in Annex III" under specific conditions, including "the AI systems pose a risk of harm." When assessing "risk of harm," the Article directs the Commission to use a ten-point "factor" test, including the intended purpose of the AI system, the extent of potential harm to individuals, and the potential for redress.

Any AI system not prohibited or deemed "high-risk" would not be regulated under the Act, except for certain transparency obligations. See generally European Commission, Proposal for an Artificial Intelligence Act, Explanatory Memorandum (2021).

[6] European Commission, Proposal for an Artificial Intelligence Act, Art. 71 (2021).

[7] U.S. Food and Drug Administration, Artificial Intelligence and Machine Learning (AI/ML) Software as a Medical Device Action Plan (2021) (last visited 24 Feb. 2023). <https://www.fda.gov/medical-devices/software-medical-device-samd/artificial-intelligence-and-machine-learning-software-medical-device>.

[8] U.S. Federal Trade Commission, Using Artificial Intelligence and Algorithms (2020) (last visited 24 Feb. 2023). <https://www.ftc.gov/business-guidance/blog/2020/04/using-artificial-intelligence-and-algorithms>.

[9] Recommendation on the Ethics of Artificial Intelligence, UNESCO SHS/BIO/PI/2021/1, Art. 8 (2022).

[10] Recommendation on the Ethics of Artificial Intelligence, UNESCO SHS/BIO/PI/2021/1, Art. 1 (2022).

[11] Initially, we asked the chatbot the same question, but without reference to any specific articles in the Model Law or the ICC Rules. The chatbot cited a non-existing "Article 9(3)" of the Model Law and it incorrectly cited Article 8(1) of the 2021 ICC rules.

[12] Or AI may conceivably increase costs/risks: Cost of the license to use the AI model, cost of load the record onto the AI system, and the liability and risk of using an AI model should use of AI cause harm to a user, for example due to divulgement of protected data.

[13] Federal Arbitration Act, 9 U.S.C. § 10.

[14] ChatGPT 'may make up facts,' OpenAI's chief technology officer says, Business Insider, (6 Feb. 2023) (last accessed 1 Mar. 2023) available at <https://www.businessinsider.com/chatgpt-may-make-up-facts-openai-cto-mira-murati-says-2023-2>; AI-generated answers temporarily banned on coding Q&A site Stack Overflow, The Verge (5 Dec. 2022) (last accessed 1 Mar. 2023) available at <https://www.theverge.com/2022/12/5/23493932/chatgpt-ai-generated-answers-temporarily-banned-stack-overflow-llms-dangers> (reporting that Stack Overflow, a

question-and-answer site for coders and programmers, "has temporarily banned users from sharing responses generated by AI chatbot ChatGPT" because "ChatGPT simply makes it too easy for users to generate responses and flood the site with answers that seem correct at first glance but are often wrong on close examination.").

[15] An algorithm was used in sentencing proceedings in a Wisconsin court, but not without controversy. See *Sent to Prison by a Software Program's Secret Algorithms*, *New York Times* (1 May 2017), available at <https://www.nytimes.com/2017/05/01/us/politics/sent-to-prison-by-a-software-program's-secret-algorithms.html> (last accessed 3 Mar. 2023). The article is based on the outcome in *State v. Loomis* 2016 WI 68 (2016). A criminal defendant challenged a Wisconsin circuit court's use of an automatically-generated "COMPAS risk-assessment report" at sentencing that uses "information [...] from the defendant's criminal file and from an interview with the defendant." *Id.* at P13. The report shows "pretrial recidivism risk, general recidivism risk, and violent recidivism risk [...] on a scale of one to ten." *Id.* at P14. Judicial and correction officials use the report for "placement decisions, managing offenders, and planning treatment." *Id.* at P15. The circuit court (the trial court) in its sentencing decision had noted that the defendant was identified in the report as a "high risk to the community" and immediately stated that it ruled out probation "because of the seriousness of the crime and because your history, your history on supervision, and the risk assessment tools that have been utilized, suggest that you're extremely high risk to re-offend." *Id.* at 247. The defendant alleged that use of the report violated his due process rights "because (1) it violates a defendant's right to be sentenced based upon accurate information, in part because the proprietary nature of COMPAS prevents him from assessing its accuracy; (2) it violates a defendant's right to an individualized sentence; and (3) it improperly uses gendered assessments in sentencing." *Id.* at P34. The Wisconsin Supreme Court held that "a circuit court must explain the factors in addition to a COMPAS risk assessment that independently support the sentence imposed. A COMPAS risk assessment is only one of many factors that may be considered and weighed at sentencing." *Id.* at P99. Because the circuit court's analysis met this standard (the circuit court had conducted its own independent analysis of the relevant sentencing factors), the Wisconsin Supreme Court affirmed the circuit court's sentencing judgment. *Id.* at P109, P120.

[16] See Colombian judge says he used ChatGPT in his ruling, *The Guardian*, (2 Feb. 2023), available at <https://www.theguardian.com/technology/2023/feb/03/colombia-judge-chatgpt-ruling> (last accessed 28 Feb. 2023). A decision (purportedly) prepared by the judge is available at <https://forogpp.files.wordpress.com/2023/01/sentencia-tutela-segunda-instancia-rad.-13001410500420220045901.pdf> (last accessed 28 Feb. 2023).

[17] Translated by the authors.

[18] See, e.g., Colombian judge says he used ChatGPT in his ruling, *The Guardian*, (2 Feb. 2023), available at <https://www.theguardian.com/technology/2023/feb/03/colombia-judge-chatgpt-ruling> (last accessed 28 Feb. 2023); ChatGPT: Use of AI chatbot in Congress and court rooms raises ethical questions, *France24*, available at <https://www.france24.com/en/technology/20230203-chatgpt-use-of-ai-chatbot-in-congress-and-court-rooms-raises-ethical-questions> (last accessed 28 Feb. 2023).

[19] The answer will depend at least in part on (i) how such an AI system was designed or "trained," (ii) whether the parties have been afforded due process, including a right of response, and (iii) the nature of the use that the arbitrator gave to the AI system, including whether such use is incompatible with the rules or laws governing the duties of arbitrators in a proceeding, or with the agreement of the parties.