

AI in Cross-Border Litigation and Arbitration

Abstract

Artificial intelligence (AI) is increasingly being integrated into cross-border litigation and international arbitration, creating both new opportunities and significant legal challenges. This article examines the main categories of AI tools used in dispute resolution and analyses their practical implementation across selected jurisdictions. Through a comparative assessment of the United States, China, and the European Union (represented by the case of Estonia), it explores whether AI is currently used primarily as a supportive and decision-support tool or whether developments are moving towards automated decision-making. The article analyses practical examples of AI deployment in courts and arbitration, the legal and institutional frameworks governing their use, and the benefits and risks associated with AI-assisted dispute resolution. It further examines the implications of AI for cross-border proceedings, including questions relating to the recognition and enforcement of judgments and arbitral awards. The analysis suggests that, despite different regulatory approaches, the prevailing model remains a hybrid one in which judges and arbitrators retain responsibility for decision-making while AI functions primarily as a supportive tool. The article concludes by proposing policy recommendations for the responsible governance of AI in cross-border dispute resolution.

Keywords: Artificial Intelligence (AI); Cross-Border Litigation; International Arbitration; AI Governance; Judicial Decision-Making; Recognition and Enforcement.

Introduction

“The legal industry has long been cautious about adopting new technologies, but as demand for fair, efficient, and accessible justice grows, innovation is no longer optional – it is essential,” said Bridget Mary McCormack, president and CEO of the AAA-ICDR.

In today’s rapidly changing world, it is increasingly difficult to keep up with the pace of innovation. Events such as the COVID-19 pandemic, ongoing geopolitical conflicts, technological breakthroughs, and the rapid expansion of online commerce have significantly transformed the way we live and work. These developments have triggered profound changes in everyday life and in many systems that people had long considered stable.

For example, before the COVID-19 pandemic it was difficult to imagine how common video conferencing platforms or online work meetings would become, or how frequently people would work remotely from home. However, driven by necessity, societies quickly adapted to new ways of working and communicating, yet this adaptation was only the beginning. Today, we face an environment in which constant adjustment to new technological and social developments has become the norm.

Over the past few years, the widespread introduction of artificial intelligence (AI) has further accelerated this transformation. In many respects, it can be viewed as a new wave of technological revolution, comparable to previous industrial transformations that reshaped societies and economies. It is likely to affect almost every sphere of human activity, and the legal sector, including courts and arbitration, is no exception.

However, compared with many other areas, the adoption of AI within judiciary and arbitration tends to proceed more slowly and cautiously. This careful approach is largely explained by the need to safeguard fundamental legal principles, ensure fairness and transparency in decision-making, and avoid potential difficulties with the recognition and enforcement of court judgments and arbitral awards abroad.

This cautious approach is also reflected in the gradual implementation of different AI tools within the legal sphere, depending on the level of risk and the legal and ethical concerns associated with their use. Accordingly, AI systems can be broadly distinguished based on their functions and their potential impact on legal decision-making.

At the lowest level of risk are supportive AI tools, which assist legal professionals with administrative and procedural tasks without directly influencing the substance of the decision. They are currently the most widely used AI tools, as they generally pose limited risks to legal proceedings and are, in most cases, compatible with existing legal frameworks. Examples include legal research, document review, translation, transcription, case management, and information organisation.

The second category consists of generative AI systems, which can produce new content, including text, images, audio, and video.¹ In the legal sphere, such systems may be used for drafting summaries, contracts, procedural documents, legal memoranda, and research reports. These systems present a higher level of risk and therefore require greater caution in their use, as they may generate errors, or even hallucinations alongside incorrect legal citations or mistakes regarding both the presentation and interpretation of facts, evidence, and legal authorities.²

A third category comprises predictive analytics and decision-support systems. Predictive analytics systems analyse large quantities of legal and factual data in order to identify patterns and generate predictions regarding future outcomes or relevant characteristics of a particular case.³ In dispute resolution, such systems may be used to estimate the likelihood of success in a claim, predict the duration of proceedings, identify trends in judicial decision-making or recommend the selection of arbitrators/judges based on previously mapped decision-making profiles.⁴

Decision-support systems, by contrast, assist judges, arbitrators, and legal professionals in evaluating information, analysing evidence, conducting legal research, and formulating recommendations which then provide relevant insights and help legal professionals make

¹ **Organisation for Economic Co-operation and Development (OECD) (2025)** Generative AI. Available at: <https://www.oecd.org/en/topics/generative-ai.html>

² **Łagiewska, M. (2024)** ‘Artificial Intelligence and International Arbitration Law: Revolution or Evolution?’

³ **Mühlhoff, R. and Ruschmeier, H. (2024)** ‘Predictive analytics and the collective dimensions of data protection’, *Law, Innovation and Technology*, 16(1), pp. 261–292. doi: 10.1080/17579961.2024.2313794.

⁴ **Messias, F. (2025)** *The Practice of Law and International Arbitration in the Age of Artificial Intelligence*. 1st edn. Cham: Springer Nature Switzerland. Available at: <https://doi.org/10.1007/978-3-032-09127-7>

decisions.⁵ Both predictive analytics and decision-support systems must be used in compliance with appropriate legal and procedural safeguards, as they may influence human decision-makers, generate biased recommendations, and affect the fairness and transparency of the decision-making process.

A separate category consists of automated decision-making systems (ADM), where decisions are produced with little or no meaningful human involvement.⁶ Such systems represent the highest degree of automation and raise significant concerns regarding transparency, accountability, due process, explainability, and human oversight. Their use in judicial and arbitral proceedings remains limited.

As can be seen, AI technologies move from experimental applications to practical implementation. As Tania Sourdin highlights, “*the question is not if artificial intelligence will reshape judicial functions and the justice sector but when*”.⁷ It may be argued that this moment has already arrived.

Against this background, it is necessary to define the research question, objectives, and scope of the present research.

Research Question

To what extent is artificial intelligence currently used in cross-border litigation and arbitration, how is such use regulated across different jurisdictions, and what legal challenges and opportunities does it create for cross-border dispute resolution?

Research Objectives and Scope

This research aims to examine the use of artificial intelligence in cross-border litigation and arbitration. In particular, it seeks to:

- identify the main types of AI tools used in dispute resolution;
- analyse their practical application in courts and arbitration;
- evaluate the benefits and risks associated with their use;
- analyse the existing legal framework and assess the compatibility of AI in litigation with fundamental legal principles;
- examine potential implications for the recognition and enforcement of judgments and arbitral awards abroad.

Finally, the research will propose several policy recommendations to better understand how AI integration in dispute resolution can be guided, regulated, and improved while minimizing potential risks.

⁵ Green, P.F. and Hull, J.J. (2019) ‘Decision Support Systems in Legal Systems: A Systematic Review’, *Journal of Decision Systems*, 28(2), pp. 125–157.

⁶ European Commission, Knowledge for Policy (2023) ‘Automated Decision-Making Impacting Society’. Available at: https://knowledge4policy.ec.europa.eu/foresight/automated-decision-making-impacting-society_en

⁷ Sourdin, T. (2018) ‘Judge v Robot? Artificial Intelligence and Judicial Decision-Making’, *University of New South Wales Law Journal*, 41(4), pp. 1114–1133. Available at: <https://www.unsw.edu.au/content/dam/pdfs/law/unsw-law-journal/2010-2019/Vol-No-41-4-Sourdin.pdf>

The paper also analyses general approach to the AI of the several jurisdictions - namely the United States, China, and the European Union, represented by the case of Estonia, which have been selected because they represent different legal traditions and are among the leading adopters of AI technologies. Their experiences are likely to serve as important reference points for other countries in the future. Particularly, Estonia was chosen as a representative example of advanced digital governance within the European Union due to its rapid digitalization. As of December 2024, Estonia has digitalized 100% of its government services⁸, making it a pioneer of digital innovation within the EU and serving as an example for other European countries. Given that digital innovation is a key part of state policy, even the field of adjudication could not remain unaffected by the integration of new technologies, including artificial intelligence.

It is also important to note that this research examines both judicial proceedings and arbitration, as, despite their different institutional frameworks and procedural approaches, they ultimately pursue the same objective: the fair and efficient resolution of disputes.

Considering that arbitration has become a key mechanism in the commercial world for resolving disputes and often demonstrates a greater capacity to adapt to innovation, including the integration of digital tools and AI technologies, focusing on this area is important. Developments in arbitration may therefore serve as a useful reference point for the judiciary, from which courts can draw inspiration when considering how to incorporate AI in a manner that remains consistent with fundamental legal principles. A comparative analysis of these two spheres therefore provides valuable insight into how AI technologies are being implemented across different forms of dispute resolution.

1. What Do We Mean by “AI” in Dispute Resolution?

Firstly, in order to fully understand the topic, it is important to begin with the definition of artificial intelligence (AI).

Due to the rapid development and widespread adoption of AI technologies, various international organizations and national governments have proposed different definitions of AI. Depending on the jurisdiction, definitions may either be included in a single legislative act or dispersed across multiple legal instruments. In some countries, definitions may vary between states, for example the USA, while others adopt unique national definition. Despite these differences, the core idea has remained relatively consistent across time and jurisdictions. The origins of this concept can be traced back to the definition proposed by John McCarthy in 1956, who described AI as “*making a machine behave in ways that would be called intelligent if a human were so behaving*”.⁹

A more modern and detailed definition was later adopted later by the OECD:

“AI—a machine-based system that, for explicit or implicit purposes, infers from the input it receives how to generate outputs such as predictions, content, recommendations or decisions that can influence physical or virtual environments. Different AI systems vary in their levels of autonomy and adaptability after deployment”.

⁸ **e-Estonia (2025)** ‘Estonia: 100% Digital Government Services, with Divorce as the Final Step’. Available at: <https://e-estonia.com/estonia-100-digital-government-services/>

⁹ **McCarthy, J., Minsky, M.L. and Rochester, N. (1955)** A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence.

Based on this definition, the EU¹⁰, the USA¹¹ and other countries have developed their own definitions while preserving the main characteristics of the OECD approach.

It was also adopted, without modification, by the Council of Europe in the *Framework Convention on Artificial Intelligence, Human Rights, Democracy and the Rule of Law*, the first binding international convention on AI.

The fact that this definition has been adopted by both the OECD and the Council of Europe demonstrates a significant degree of international consensus regarding the understanding and regulation of AI. Such convergence is particularly important in the context of cross-border litigation and arbitration, where cooperation between different jurisdictions plays a crucial role. The greater the level of consensus and cooperation, the lower the risk of legal uncertainty and complications in cross-border proceedings.

Additionally, the above-mentioned definition is quite broad, allowing it to encompass the wide range of AI applications currently found in dispute resolution. AI is increasingly used by law firms, parties, judges, and arbitrators across different stages of the process. Its applications range from the initial analysis of facts and the legal framework, through the assessment of the probability of success, to assisting in the drafting of judgments and arbitral awards or, in some cases, contributing to automated decision-making processes.

As we can see, the degree of AI assistance may vary significantly. Therefore, in order to obtain a clearer understanding of the possible levels of AI integration in dispute resolution, as well as their respective benefits and risks, it is necessary to distinguish between different levels of AI use. In particular, it is important to differentiate between systems that merely support legal actors and those that may influence or potentially replace certain decision-making functions.

Tania Sourdin distinguishes three levels of artificial intelligence use in the justice sector. At the most basic level, she identifies “*supportive technologies*”, which assist in informing, supporting, and advising individuals involved in judicial activities. It can include such tasks as legal research, document review, and case management, without replacing human decision-making.

For example, Jus Mundi¹² assists in identifying relevant case law and legal materials, while such tool as eBrevia¹³ extract relevant textual data from legal contracts and other documents by recognizing language patterns and identifying key concepts.¹⁴ Tools such as Clause Builder AI¹⁵ assist in drafting arbitration clauses, helping parties to structure agreements more efficiently and reduce potential ambiguities.

¹⁰ **European Union (2024)** *Regulation (EU) 2024/1689 (Artificial Intelligence Act), Article 3: Definitions*. Available at: <https://artificialintelligenceact.eu/article/3/>

¹¹ **United States (2020)** *National Artificial Intelligence Initiative Act of 2020*. Available at: <https://2021-2025.state.gov/artificial-intelligence/> <https://www.congress.gov/bill/116th-congress/house-bill/6216>

¹² **Jus Mundi (2025)** ‘Jus AI: AI-Assisted Research and Productivity for International Law and Arbitration’. Available at: <https://jusmundi.com/en>

¹³ **eBrevia (2025)** ‘AI-Powered Contract Review and Analysis Software’. Available at: <https://www.ebrevia.com/>

¹⁴ **Tritt, L. (2023)** ‘The Use of AI-Based Technologies in Arbitrating Trust Disputes’, *Wake Forest Law Review*, — Available at <https://www.wakeforestlawreview.com/wp-content/uploads/2025/10/58WakeForestLRev-3.pdf> and <https://ebrevia.com/#overview>

¹⁵ **ClauseBase (2025)** ‘ClauseBuilder’. Available at: <https://www.clausebuilder.org/>

The second level consists of “*replacement technologies*”, which substitute humans in performing certain tasks and functions. Such as drafting documents or predicting case outcomes, while still leaving final decisions to judges or arbitrators.

For example, predictive tools such as those used by LexisNexis¹⁶ and Westlaw¹⁷ can estimate the likelihood of success, the duration of proceedings, and even certain patterns in judicial decision-making. In addition, in some jurisdictions, such as China, courts use AI systems to assist in drafting judicial decisions.

Finally, at the most advanced level, she introduces “*disruptive technologies*”, which have the potential to fundamentally transform the functioning of the judicial/arbitral system.¹⁸ For example through fully automated decision-making processes.

Practical examples are difficult to provide, as fully automated decision-making remains rare, if not entirely absent, in judicial and arbitral contexts. While certain online platforms, such as the eBay dispute resolution system, operate with a high degree of automation, almost all legal systems still require human involvement in final decision-making.

This classification shows that AI in dispute resolution, especially cross-border one, can span a wide range of applications, from basic assistance to potentially transformative roles. However, at present, it is mainly possible to speak only about the first two levels. For this reason, the classification will serve as a point of reference throughout the paper when examining different jurisdictions, regulatory approaches, and the benefits and risks associated with AI implementation.

1.2. AI as a decision-support tool or AI as an automated decision-making system?

As can be seen from the tools discussed above, the current use of artificial intelligence in dispute resolution does not involve AI acting as an autonomous decision-making system. Instead, AI is primarily used as a decision-support tool that assists judges, arbitrators, and legal professionals in performing specific tasks. According to the analysed literature, fully AI-driven proceedings with minimal or no human oversight are unlikely to emerge in the near future for several reasons.

First, AI systems are still unable to replicate many core human cognitive abilities. As noted by Harry Surden, AI lacks capabilities such as “*abstract reasoning, concept comprehension, emotional intelligence, general problem-solving skills, and the broad spectrum of other functions associated with human intelligence.*”¹⁹ Because of these limitations, AI cannot replace human judgment in complex legal reasoning. At most, such systems may be capable of handling simpler and repetitive cases, for example certain categories of small claims.

From a legal perspective, most arbitration or judiciary frameworks implicitly or explicitly require human participation in adjudication. Some jurisdictions expressly state that only a natural person

¹⁶ LexisNexis (2025) ‘LexisNexis Legal Research and Analytics Platform’. Available at: <https://www.lexisnexis.com/en-us>

¹⁷ Thomson Reuters (2025) ‘Westlaw: Legal Research Platform’. Available at: <https://legal.thomsonreuters.com/en/westlaw>

¹⁸ Sourdin, T. (2023) Robo Justice: Constitutional Issues with Judge AI. *Indiana journal of global legal studies*. 30 (2), 293–323.

¹⁹ Surden, H. (2019) ‘Artificial Intelligence and Law: An Overview’, *Georgia State University Law Review*, 35(4), pp. 1305–1338. Available at: <https://readingroom.law.gsu.edu/cgi/viewcontent.cgi?article=2981&context=gsulr>

may serve as an arbitrator. For example, the French²⁰ and Dutch Codes of Civil Procedure²¹ provide that an arbitrator must be a natural person. Similar approaches can be observed in other jurisdictions. But for example, instruments developed by the United Nations Commission on International Trade Law take more implicit approach²². Judicial systems also generally rely on the implicit assumption of human adjudication, reflected in the constitutional and institutional framework governing the judiciary. Under Chinese law, judges are defined as individuals meeting specific qualifications, including citizenship and professional requirements, as set out in the Judges Law of the People's Republic of China²³. This reflects the assumption that judicial functions are exercised by natural person. Moreover, the Silicon Valley Arbitration and Mediation Center (SVAMC) issued Guidelines on the Use of Artificial Intelligence in Arbitration²⁴, which state that an arbitrator's mandate, especially the decision-making function is personal and non-delegable. While the Guidelines do not prohibit the use of AI, they emphasize that it must not replace human judgment, as responsibility and oversight remain with the arbitrator as part of their professional and ethical duties.

Additionally, fully automated decision-making may be restricted by national, international or European legislation, for example under Article 22 of the GDPR.²⁵ However, Article 22 does not constitute a general prohibition on the use of AI or automated decision-making. It applies only where a decision is based *solely* on automated processing and produces *legal effects or similarly significant effects* on the individual.

The adverb “solely” plays a critical role in the context of using deep learning techniques in adjudication²⁶, because as long as a human-in-the-loop approach is maintained and meaningful human oversight is present, such activity remains compliant with the GDPR. However, once humans lose ultimate control and responsibility, the general prohibition on decisions based solely on automated processing is applied. Nevertheless, this prohibition is not absolute and is subject to derogation as if it is necessary for contractual purposes between the data subject and a data controller; is authorised by Union or Member State law or is based on the data subject's explicit consent.²⁷

²⁰ **France (n.d.)** *Code de procédure civile*, Article 1450. Available at: https://www.legifrance.gouv.fr/codes/article_lc/LEGIARTI000023450931

²¹ **Netherlands (n.d.)** *Dutch Code of Civil Procedure*, Article 4:1023. Available at: <http://www.dutchcivillaw.com/legislation/civilprocedure044.htm>

²² **UNCITRAL (2006)** *UNCITRAL Model Law on International Commercial Arbitration (1985), with amendments as adopted in 2006*, Article 11. Available at: https://uncitral.un.org/sites/default/files/media-documents/uncitral/en/19-09955_e_ebook.pdf

²³ **People's Republic of China (2019)** *Judges Law of the People's Republic of China*. Available at: http://en.moj.gov.cn/2021-06/24/c_635995.htm

²⁴ **Silicon Valley Arbitration & Mediation Center (2024)** *Guidelines on the Use of Artificial Intelligence in Arbitration (First Edition)*. Available at: <https://svamc.org/wp-content/uploads/SVAMC-AI-Guidelines-First-Edition.pdf>

²⁵ **European Union (2016)** *General Data Protection Regulation (GDPR), Article 22: Automated decision-making, including profiling*. Available at: <https://www.privacy-regulation.eu/en/22.htm>

²⁶ Gherardo Carullo, “Large Language Models for Transparent and Intelligible AI-Assisted Public Decision-Making,” *CERIDAP*, no. 3 (2023), DOI: 10.13130/2723-9195/2023-3-100 <https://ceridap.eu/large-language-models-for-transparent-and-intelligible-ai-assisted-public-decision-making/?lng=en>

²⁷ **Levitina, A. (2024)** “Humans in Automated Decision-Making under the GDPR and AI Act,” *Revista CIDOB d'Afers Internacionals* 138 (2024): 121–143, doi. org/10.24241/rcai.2024.138.3.121/en

Beyond legal considerations, the issue also raises ethical and social questions related to authority and legitimacy. In legal systems, individuals generally comply with judgments/decisions not only because of the substantive outcome, but also because they are issued by a recognized and competent authority, such as a court or an arbitrator, whose power derives from law and ultimately from societal acceptance.²⁸ AI systems, however, do not possess such authority. They are tools created by humans and lack the institutional legitimacy required to issue binding decisions. A similar concern is reflected in Perry's observation that "nor [can it be assumed] that authority to delegate to a human decisionmaker will permit "delegation" to an automated system."²⁹ The statement suggests that legal authority conferred upon a human decision-maker does not automatically extend to AI systems, nor does a legal power to delegate necessarily include the power to transfer decision-making functions to automated technologies. As a result, there is currently no clear basis for obligating parties to comply with decisions made solely by an AI system.

Accountability further complicates the possibility of fully automated adjudication. Legal decisions inevitably require responsibility for errors, bias, or procedural violations. Because AI systems themselves cannot bear legal responsibility, the ultimate accountability must remain with human decision-makers.

For these reasons, both now and in the foreseeable future, AI in dispute resolution will most likely function primarily as a decision-support tool rather than as an autonomous actor or "forth party"³⁰, in order to ensure accountability, control, and compliance with ethical standards. Nevertheless, in the future, a shift towards a more widespread use of AI in a more autonomous form cannot be excluded and remains quite predictable.

2. AI in Practice: Courts and Arbitration Across Selected Jurisdictions

In this section, three jurisdictions are analysed to understand their current stage of implementation of artificial intelligence in cross-border dispute resolution, as well as the approaches and safeguards used to regulate its use.

It can be noted that the extent to which automated systems are implemented depends on 'in country' cultural, judicial, and political factors, as well as technological readiness.³¹

For this comparative analysis the jurisdictions selected are the United States, China, and the EU, represented by the case of Estonia. These countries represent different legal traditions and regulatory models, while also being among the most active adopters of AI technologies. Examining their approaches allows for a better understanding of both the opportunities and the challenges

²⁸ **Paterson, M. (2020)** 'The Human in the Loop: Artificial Intelligence, Administrative Decision-Making and Legitimacy', *Mississippi Law Journal*, 89(4). Available at: <https://www.mississippilawjournal.org/wp-content/uploads/2020/10/V89.4.3-PATERSON-8.15.20.pdf>

²⁹ **Perry, M. (2017)** 'iDecide: Administrative Decision-Making in the Digital World', *Australian Law Journal*, 91, pp. 29–31.

³⁰ **Łagiewska, M. (2024)** 'Artificial Intelligence and International Arbitration Law: Revolution or Evolution?

³¹ **Sourdin, T. and Cornes, R. (2018)** 'Do Judges Need to be Human? The Implications of Technology for Responsive Judging', in Sourdin, T. and Zariski, A. (eds.) *The Responsive Judge: International Perspectives*. Singapore: Springer, pp. 89—. Available at: https://www.researchgate.net/publication/326244385_Do_Judges_Need_to_Be_Human_The_Implications_of_Tech_nology_for_Responsive_Judging

associated with the integration of AI into judicial and arbitral processes, particularly in the context of cross-border disputes.

The analysis begins with the United States.

2.1 The United States of America

The United States is currently one of the most active jurisdictions in implementing AI technologies in both litigation and arbitration. Driven by the need for faster, more cost-effective, and efficient dispute resolution mechanisms, legal institutions in the U.S. are actively exploring ways to integrate AI tools while ensuring their compatibility with existing legal principles and procedural safeguards.

One notable example comes from the American Arbitration Association (AAA), one of the leading global providers of arbitration, mediation, and other alternative dispute resolution (ADR) services. In November 2025, the AAA announced the launch of an AI-powered arbitrator tool designed to support dispute resolution processes.³² The system is grounded in legal reasoning and has been trained on actual arbitrator reasoning from AAA–ICDR construction arbitration cases. It was calibrated using human arbitrator input and trained on more than 1,500 construction arbitration awards. As a result, the system is able to rely on a structured dataset based on real arbitral practice and expert knowledge, contributing to greater consistency and reliability compared to systems trained on unidentified public sources.

During the dispute resolution process, the AI system evaluates the merits of claims, generates explainable recommendations, and prepares draft arbitral awards. These draft decisions are then benchmarked against expert human judgment within a human-in-the-loop framework, whereby human arbitrators review the AI-generated reasoning, assess its recommendations, and retain full responsibility for the final decision.³³ Such a model aims to balance the efficiency of AI-assisted analysis with the need to preserve human accountability and procedural safeguards. This becomes even more important in cross-border disputes, where differences between legal systems and procedural expectations may increase concerns regarding fairness and legitimacy.

Importantly, the AAA is releasing this product in a narrow and controlled way. Currently, the AI Arbitrator is limited to two-party, document-only construction disputes. Participation is entirely voluntary, meaning both parties must opt-in to use the platform. As a practical matter, this means the cases will tend to be relatively small and straightforward.³⁴ As can be seen, the tool is therefore designed in a way to ensure all the key principles and legal and ethical standards that must be respected when AI is used in arbitration, as reflected in the Guidance on Arbitrators' Use of AI

³² **American Arbitration Association – International Centre for Dispute Resolution (AAA-ICDR) (2025)** *AAA-ICDR to launch an AI-native arbitrator, transforming dispute resolution*. Available at <https://www.adr.org/press-releases/aaa-icdr-to-launch-ai-native-arbitrator-transforming-dispute-resolution/>

³³ **AAA-ICDR (2025b)** *AAA-ICDR to launch an AI-native arbitrator transforming dispute resolution*. Available at: <https://www.adr.org/press-releases/aaa-icdr-to-launch-ai-native-arbitrator-transforming-dispute-resolution/>

³⁴ **AAA-ICDR (2026a)** *The AI Arbitrator is a worthwhile experiment*. Available at: <https://www.adr.org/news-and-insights/the-ai-arbitrator-is-a-worthwhile-experiment/>

Tools such as fairness, due process, independent decision-making, transparency (including disclosure of AI use where appropriate), confidentiality, data protection and human oversight.³⁵

From the perspective of Sourdin's classification, the AAA AI Arbitrator appears to fall within the category of replacement technologies. While the system performs functions traditionally carried out by arbitrators, including the evaluation of claims and the preparation of draft awards, the final decision-making authority remains with the human arbitrator. Consequently, the technology replaces certain adjudicative tasks without replacing the human decision-maker.

However, even though the AAA seeks to ensure that the model is properly designed and aligned with fundamental legal principles and safeguards, certain legal concerns remain.

For example, it is necessary to analyse whether the human oversight guaranteed by the AAA is meaningful or merely formal, as the distinction between nominal oversight (where a human is formally responsible) and effective oversight (where a human is cognitively and practically capable of meaningful intervention) is particularly important. Nowadays, the concept of “human in the loop” has increasingly become a comfort phrase, giving rise to what has been described as the Human Oversight Illusion, whereby companies and institutions refer to human oversight without fully demonstrating that such oversight is genuinely effective. The key question is not whether a human is formally involved in the process, but whether that human has a real opportunity, sufficient time, and the necessary expertise to critically assess, challenge, or override the AI-generated recommendation. In the context of arbitration, this requires arbitrators to do more than merely approve AI-generated outputs, they must actively review the reasoning produced by the AI, assess its recommendations, and revise the proposed outcomes where necessary. In this respect, the future of trustworthy AI is not simply human-in-the-loop, but rather a human fully present in the loop.³⁶

In the case of the AAA- ICDR, at least at the design level, the model appears to provide meaningful rather than merely nominal human oversight. Human arbitrators are required not only to review the AI-generated analysis but also to consider party feedback and independently evaluate the proposed outcome. Nevertheless, given the recent introduction of the system, it remains unclear whether such oversight will always function as a substantive safeguard in practice or whether there is a risk of excessive reliance on AI-generated recommendations. Indeed, automation bias may lead individuals responsible for oversight to accept AI-generated recommendations without adequate scrutiny, while practical constraints such as limited time and heavy workloads may further reduce the depth of human review.

Moreover, questions may arise regarding the recognition and enforcement of arbitral awards involving significant AI assistance, especially under the framework of the New York Convention. These issues will be discussed in more detail in a later section of this research.

³⁵ **AAA-ICDR (2025c)** *Guidance on Arbitrators' Use of AI Tools*. Available at: https://go.adr.org/rs/294-SFS-516/images/2025_AAA-ICDR%20Guidance%20on%20Arbitrators%20Use%20of%20AI%20Tools%20%282%29.pdf?version=0

³⁶ **THEMIS Trust (2024)** ‘Human Oversight in the Age of AI: The Captain’s Paradox – An Anthropological Perspective’. Available at: <https://www.themis-trust.eu/post/human-oversight-in-the-age-of-ai-the-captain-s-paradox-an-anthropological-perspective>

Unfortunately, due to its recent launch, there are still no published results or practical cases available for analysis. Nevertheless, while the practical effectiveness of these safeguards remains to be tested, the available information suggests that the AI Arbitrator has been designed with particular attention to the potential risks associated with AI use in arbitration.

The integration of AI is not limited to arbitration. Significant developments are also occurring within the judicial system. For example, in December 2025, the Pennsylvania Supreme Court approved the use of generative AI by judges and court personnel under an interim policy framework.³⁷

Under this policy, generative AI tools may be used for several purposes, including:

- summarizing documents,
- conducting preliminary legal research using reliable legal sources,
- drafting initial versions of communications and memoranda,
- editing public documents, and
- providing AI-powered informational chatbots for public use.

However, the policy also establishes strict safeguards. Non-public or confidential court information may not be shared with unsecured AI systems, and all AI-generated outputs must be carefully reviewed for accuracy, completeness, and potential bias. The policy also explicitly acknowledges the risk of AI hallucinations, emphasizing that human oversight is mandatory when using such tools.

From the perspective of Sourdin's classification, the Pennsylvania approach corresponds primarily to supportive technologies. The AI tools are used to assist judges and court personnel with administrative and research-related tasks, while all substantive legal analysis and decision-making authority remain with human actors. This reflects a cautious approach to AI integration, focused on improving efficiency rather than replacing judicial functions.

These developments demonstrate that the United States is actively introducing AI into both arbitration and judicial systems, although at different speeds. The adoption of AI appears to be more advanced in the private sector than in the public sphere, reflecting a more proactive and innovation-driven approach. At the same time, both contexts continue to emphasise the importance of human oversight and procedural fairness. Such approach reflects an attempt to balance technological innovation with the protection of fundamental legal principles.

2.2 China

In the last ten years courts in China have begun actively experimenting with the integration of artificial intelligence into judicial processes. In many ways, they have come to lead the world in their efforts to deploy automated pattern analysis to monitor judges, standardize decision-making, and observe trends in society. In practice, various software systems are being used to review evidence, suggest possible case outcomes, check the consistency of judgments, and provide

³⁷ **Pennsylvania Bulletin (2025)**

Use of Artificial Intelligence in Legal Processes. Available at:

<https://www.pacodeandbulletin.gov/Display/pabull?file=/secure/pabulletin/data/vol55/55-38/1289.html>

recommendations to judges regarding how cases might be resolved. These developments form part of the broader concept of the “smart court”, where algorithms are used to enhance court efficiency, improve consistency in judicial decision-making, and support case management.³⁸

Under its ‘smart courts’ strategy, China has already developed its first robot judges, called Xiaozhi. They appear able to adjudicate some civil cases efficiently – for example, cases involving consumer credit or private loan agreements.³⁹ Although ‘Xiaozhi’ is defined as an AI-based legal assistant for the judge and it is operated by the judge, AI determines the cause in the process. The AI lists questions of factual circumstances to be clarified, forms a chain of evidence, and reconstructs a timeline of the entire loan process. The Xiaozhi began with skills in automated review of particular facts, automatic scheduling of a hearing, voice recognition and transcription of the minutes of the hearing, identification of evidence, and analysis and then, in 2019, the assistants mastered new skills, such as generating the chain of evidence, asking factual questions (related to facts not in evidence), and formulating the draft of a judgement.⁴⁰ However, it is important to emphasize that all AI judge programs operate under close human judicial supervision, and no court decision is issued without human approval. The stance of Zhou Qiang, the current Chief Justice and President of the Supreme People’s Court of China, is that “AI will never replace human judges and can only serve judges [as assistants]”.⁴¹ Such a statement also appears to align with Sourdin’s classification of AI as a replacement rather than a disruptive technology.

Additional illustration of AI presence can be found in the **Beijing Internet Court**. According to the *Beijing Internet Court White Paper*, various digital technologies, many of them based on artificial intelligence, are employed to assist the court in delivering its services. Among these technologies is machine learning software capable of automatically generating draft judgments for judges, based on the facts and legal issues presented in a case.⁴² For example, in a drunk-driving case a judge would select a list of factors (such as blood alcohol level or amount of damages caused), and the software would display the average sentence imposed in past “similar” cases.⁴³

As can be seen, China has been implementing AI in litigation for a significant period of time and in a very active manner. At the same time, it is also important to examine the guarantees and legal basis on which such implementation is built.

³⁸ Stern, R. E., Liebman, B. L., Roberts, M. E. and Wang, A. Z. (2021)

‘Automating Fairness? Artificial Intelligence in the Chinese Courts’, *Columbia Journal of Transnational Law*, 59(3), pp. 515–553. Available at:

https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=3946&context=faculty_scholarship

³⁹ Wang, N. and Tian, M. Y. (2022) “Intelligent Justice”: AI Implementations in China’s Legal Systems’, in Hanemaayer, A. (ed.) *Artificial Intelligence and Its Discontents: Social and Cultural Studies of Robots and AI*. Cham: Palgrave Macmillan. Available at: https://doi.org/10.1007/978-3-030-88615-8_10.

⁴⁰ Härmand, K. (2024) ‘AI Systems’ Impact on the Recognition of Foreign Judgements: The Case of Estonia’. Liu, Y. and others (2022) “Intelligent Justice”: AI Implementations in China’s Legal Systems’. Available at: https://www.researchgate.net/publication/358318071_'Intelligent_Justice'_AI_Implementations_in_China's_Legal_Systems

⁴¹ Wang, N. and Tian, M. Y. (2023) “Intelligent Justice”: Human-Centered Considerations in China’s Legal AI Transformation’, *AI and Ethics*, 3(2), pp. 349–354. Available at: <https://doi.org/10.1007/s43681-022-00202-3>

⁴² Fan, M., Guo, R. and Deng, D. (2022) ‘Artificial Intelligence and Arbitration in China: Where Do We Come From? Where Are We? Where Are We Going?’, *Dispute Resolution International*, 16(1), May.

⁴³ Stern et al. (2021).

At the same time, it is important to note that the adoption of AI technologies also responds to institutional pressures within the Chinese judicial system. Judges in China may face professional consequences if their decisions are overturned on appeal, deemed incorrectly decided, or considered capable of generating social instability. As a result, AI tools that analyse past decisions and suggest consistent outcomes can serve as a form of decision-support, helping judges reduce the risk of errors and maintain alignment with established judicial practice.⁴⁴ However, this poses a big problem as AI-assisted adjudication may gradually shift Chinese courts toward a system in which judges increasingly align their decisions with outcomes recommended by algorithms. Although the judge would retain discretion to disregard the recommended sentence, research at the intersection of law and psychology suggests that reference points “anchor” judges’ decisions. Numeric anchors such as a damage cap, a damage award in an unrelated case, or a sentence recommended by a prosecutor all influence judicial decision-making.⁴⁵ As a result, the adoption of algorithmic tools may risk shifting the focus of judges from an independent assessment of evidence toward alignment with algorithmically generated recommendations. This dynamic could subtly undermine judicial autonomy, even where formal discretion remains intact.

Moreover, scholars argue that in jurisdictions characterized by strong centralized political authority, such as China, the use of AI in courts may have broader institutional implications. It may affect the balance of power between court users, between the state and society, and between the judiciary and other state bodies. This, in turn, may exacerbate existing inequalities in access to justice and raise concerns about the independence and neutrality of judicial decision-making.⁴⁶

Overall, China’s approach to the implementation of AI is highly active. Nevertheless, it is difficult to conclude that judges possess the same degree of freedom to disregard AI-generated recommendations as may exist in some other jurisdictions.

2.3 Estonia

The ongoing digital transformation has also affected European Union countries. In this context, Estonia is often cited as an example of advanced digital governance within the EU. Given that reforms in the European Union are typically introduced with significant caution and careful regulatory oversight, examining the Estonian approach provides valuable insight into how AI technologies may be gradually integrated into European legal systems.

Estonia has introduced several AI-driven tools to support judicial processes, primarily aimed at improving efficiency and reducing administrative burdens. These include:

- Speech-recognition software - Salme, based on natural language processing, which records court hearings and simultaneously generates transcripts;
- Anonymization software - Krat, which removes personal data from court judgments to ensure compliance with data protection requirements;⁴⁷

⁴⁴ **Judicial Commission of New South Wales (2025)** *Artificial intelligence and litigation – future possibilities*. Available at:

https://www.judcom.nsw.gov.au/publications/benchbks/judicial_officers/artificial_intelligence_and_litigation.html

⁴⁵ **Stern et al. (2021)**.

⁴⁶ **Stern et al. (2021)**.

⁴⁷ **Härmand, K. (2023)** ‘AI Systems’ Impact on the Recognition of Foreign Judgements: The Case of Estonia’, *Juridica International*, 32, pp. 107–118. Available at:

https://www.juridicainternational.eu/public/pdf/ji_2023_32_107.pdf

- Text analytics tools, developed by companies such as Texta OÜ, which optimize workflows and streamline routine judicial activities.⁴⁸

In addition to administrative support, Estonia has also implemented AI-assisted decision-making processes in specific areas. In the context of civil proceedings, a semi-automated procedure for small claims has been introduced, under which computer-generated payment orders are issued based on information provided by the parties. These payment orders have the legal status of enforceable judgments. The process applies to monetary claims of up to EUR 8,000. Applications must be submitted exclusively through the national e-File system and are handled by the dedicated Payment Order Department of the Pärnu County Court. The system relies on algorithms to prepare the orders, and human oversight is retained for specific functions such as determining jurisdiction and ensuring the proper service of documents.⁴⁹

Important to note that in 2024, Estonia adopted a new Courts' Development Plan 2024–2030, which outlines both short- and long-term objectives for the integration of digital technologies, including AI, into the judicial system. While acknowledging potential risks, the plan sets out several areas for further development, including:

- the generation of draft procedural documents,
- assessment of litigation costs and court fees;
- analysis of evidence and case law;
- translation and interpretation services;
- the provision of guidance on dispute resolution based on existing legal knowledge and etc.⁵⁰

At the same time, it is important to clarify a common misconception. Although significant attention has been given to the idea of an “AI judge” in Estonia, the Estonian Ministry of Justice has explicitly denied the existence of such a project. In 2022, it confirmed that no AI system has been developed or planned to replace human judges in either small claims procedures or general court proceedings.⁵¹ This clarification reinforces the broader European approach, which prioritizes AI as a supportive or replacement tool with the meaningful human oversight rather than disruptive tool for judicial decision-making.

Overall, Estonia's experience reflects a cautious and pragmatic model of AI integration, focused on enhancing efficiency and accessibility while maintaining human oversight and adherence to fundamental legal principles.

⁴⁸ **Oxford University – Better Governance and Society Programme (n.d.)** *Estonia: AI for crime prevention and judicial systems*. Available at:

<https://www.techandjustice.bsg.ox.ac.uk/research/estonia#:~:text=Decision%2Dmaking%20support-.In%20the%20context%20of%20civil%20proceedings%2C%20Estonia%20has%20introduced%20a,of%20the%20P%C3%A4rnu%20County%20Court.>

⁴⁹ **Oxford University – Better Governance and Society Programme (n.d.)** *Estonia: AI for crime prevention and judicial systems*. Available at: <https://www.techandjustice.bsg.ox.ac.uk/research/estonia>

⁵⁰ **Estonian Courts (2023)** *Court Development Plan 2024–2030*. Available at: https://www.kohus.ee/sites/default/files/inline-files/Court%20Development%20Plan_Estonian%20Courts_English.pdf

⁵¹ **Ministry of Justice of Estonia (2022)** *Estonia does not develop AI judge*. Available at: <https://www.justdigi.ee/en/news/estonia-does-not-develop-ai-judge>

Having analysed the information presented above, it can be concluded that the approaches of the United States, China, and Estonia demonstrate certain common principles, such as the importance of human oversight, while at the same time revealing the absence of a single unified model for the implementation of AI in litigation and arbitration, which may create additional challenges at the cross-border level. Although all of these jurisdictions are actively seeking to integrate AI into dispute resolution, they currently remain at different stages of practical implementation and regulation.

3. Governance Rules and Institutional Guidelines

The regulation of artificial intelligence (AI) varies significantly across jurisdictions. Nevertheless, several key regulatory trends, instruments, and guiding principles can be identified in relation to its use in judicial and arbitral processes.

3.1 The European Union Approach: The EU AI Act

One of the most prominent examples of AI regulation is the EU AI Act, which entered into force on 1 August 2024 (some provisions are subject to gradual implementation and will apply over several years). The Act adopts a risk-based approach to AI regulation and categorizes AI systems that facilitate the administration of justice and democratic processes as **high-risk systems**.⁵² Consequently, such systems are subject to a number of obligations imposed on providers, deployers, importers, and distributors before they can be placed on the market or put into service.

Among all for deployers these include:

- verification that they are based on high-quality datasets to minimize discriminatory outcomes;
- using AI systems in accordance with the provider's instructions;
- implementing appropriate human oversight measures;
- ensuring high levels of robustness, security, and accuracy.

These obligations are essential for safeguarding the rule of law and the fundamental rights protected under the EU Charter of Fundamental Rights. However, compliance with these obligations may prove considerably more challenging in practice than in theory. This is particularly evident in relation to the requirement of human oversight, which constitutes one of the central safeguards established by Article 14 of the AI Act. The provision seeks to ensure that human operators remain capable of understanding, monitoring, and, where necessary, overriding AI-generated outputs.

Nevertheless, Isabella Banks argues that effective compliance with Article 14 may be difficult to achieve in the context of high-risk decision-support systems used by judges. According to Banks, the task of overseeing high-risk decision-support systems in a way that both meets the AI Act's requirements and is consistent with judicial values may be too big for judges-in-the-loop alone, as many of the factors necessary for meaningful oversight remain outside the individual judge's control. For example, preserving judicial independence and autonomy depends not only on judges' capacity to deviate from AI outputs when they choose, but also on the certainty that their decision-

⁵² **European Union (2024)**

Artificial Intelligence Act, Article 6: Classification rules for high-risk AI systems. Available at: <https://artificialintelligenceact.eu/article/6/>

making process is not being influenced in line with the values or commercial interests of the system's developer. Or protecting the personal data of decision subjects in a way that preserves the propriety of the judiciary depends not only on the data protection measures that individual judges might take, but on the way that developers use and store their clients' data.⁵³

These examples are not exhaustive, and many others could be provided. Nevertheless, they illustrate that ensuring compliance with the obligations applicable to high-risk AI systems remains challenging in practice. As a result, the effectiveness of these obligations and the mechanisms for their implementation may require further assessment and clarification by legislators and regulatory authorities.

At the same time, it is important to note that not all AI systems used within judicial environments are classified as high-risk. Recital 61 of the AI Act clarifies that AI systems intended solely for ancillary administrative activities that do not affect the administration of justice in individual cases, such as anonymisation or pseudonymisation of judicial decisions, documents or data, communication between personnel, administrative tasks, should not fall within this category.

Furthermore, the EU AI Act seeks to regulate the broad ways in which AI can be used within the legal sphere, with particular attention to systems that directly affect fundamental rights, distinguishing them from those used for purely administrative purposes.⁵⁴ In this way, the legislator seeks to balance innovation and efficiency with the protection of fundamental rights by imposing obligations proportionate to the level of risk posed by the AI system. Although this risk-based approach appears justified, questions remain as to whether these obligations can be effectively implemented and enforced in practice.

3.2 United States

In contrast to the European Union, the United States has adopted a more decentralized and innovation-oriented regulatory approach and recent policy developments highlight this direction. In March 2026, the White House published a National Policy Framework for Artificial Intelligence⁵⁵, which although non-binding but signals the strategic direction of USA AI governance.

The framework:

- calls for the development of a unified federal AI standard;
- focuses on identifying priority areas for federal coordination and signaling where restraint and flexibility are warranted;
- encourages increased access to federal datasets for AI development.
- enabling innovation and ensuring American AI dominance and etc.

⁵³ **Banks, I. (2026)** 'Judges-in-the-loop? Judicial Involvement in Human Oversight of High-Risk Decision Support Systems under the EU AI Act', *International Journal of Law and Information Technology*, 34, eaag001. Available at: <https://doi.org/10.1093/ijlit/eaag001>

⁵⁴ **Global Arbitration Review (2025)** 'Planning and organising effective procedures for taking evidence', in *The Guide to Evidence in International Arbitration* (3rd edn.). Available at: <https://globalarbitrationreview.com/guide/the-guide-evidence-in-international-arbitration/3rd-edition/article/planning-and-organising-effective-procedures-taking-evidence/download>

⁵⁵ **The White House (2026)** *A National Policy Framework for Artificial Intelligence: Legislative Recommendations*. Available at: <https://www.whitehouse.gov/wp-content/uploads/2026/03/03.20.26-National-Policy-Framework-for-Artificial-Intelligence-Legislative-Recommendations.pdf>

As noted from the outset, the Trump administration has been explicit about its desire for the US to be a global leader in AI. Pursuant to that goal, it leans into regulatory sandboxes to foster a “try-first” mentality. This iterative and evidence-based approach to governance acknowledges that Americans will need to test and deploy AI tools to discover their risks and benefits.⁵⁶

Such a position is also reflected, for example, by the AAA. While launching its new pilot project, it stated: “*Are there any types of arbitral disputes that AI can decide right now? I do not know. There is only one way to find out – by trying. That is exactly what the AAA is doing with the AI Arbitrator.*”⁵⁷

Earlier developments also reflect this shift. In January 2025, a new Executive Order revoked previous regulations focused on AI safety and instead prioritized reducing regulatory barriers and strengthening US global leadership in AI. Similarly, the America’s AI Action Plan (2025) outlines initiatives aimed at accelerating AI deployment, including infrastructure expansion and private-sector collaboration.⁵⁸

As can be seen, the United States adopts a markedly different approach from that of the European Union with regard to AI regulation. Whereas the EU relies on a comprehensive risk-based regulatory framework, the United States generally favours a more innovation-driven and less restrictive approach, prioritising technological leadership and experimentation. However, this model may raise concerns regarding the adequacy of safeguards, particularly in sensitive areas such as judicial decision-making.

3.3 Soft law

In addition to binding legislation, soft law instruments and ethical frameworks play a crucial role in governing the use of AI in judicial systems.

A key example is the European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems⁵⁹, adopted in 2018 by the Council of Europe (CEPEJ). The Charter establishes five fundamental principles:

1. respect for fundamental rights
2. non-discrimination
3. quality and security
4. transparency, impartiality and fairness

⁵⁶ **The White House (2026)** *A National Policy Framework for Artificial Intelligence: Legislative Recommendations*. Available at: <https://www.whitehouse.gov/wp-content/uploads/2026/03/03.20.26-National-Policy-Framework-for-Artificial-Intelligence-Legislative-Recommendations.pdf>

⁵⁷ **American Arbitration Association – International Centre for Dispute Resolution (AAA-ICDR) (2026)** *The AI arbitrator is a worthwhile experiment*. Available at: <https://www.adr.org/news-and-insights/the-ai-arbitrator-is-a-worthwhile-experiment/>

⁵⁸ **Reem, N. (2025)** ‘AI Watch: Global Regulatory Tracker – United States’, White & Case, 4 March. Available at: <https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-tracker-united-states>

⁵⁹ **Council of Europe (2018)** *European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and Their Environment*. Available at: <https://www.coe.int/en/web/cepej/cepej-european-ethical-charter-on-the-use-of-artificialintelligence-ai-in-judicial-systems-and-their-environment#>.

5. user control

These principles emphasize that AI must remain aligned with core legal values, particularly fairness, accountability, and human control. Moreover, the Charter highlights that AI should support, rather than undermine, trust in judicial systems. Similarly, organizations such as UNESCO have initiated projects on Artificial Intelligence and the Rule of Law in order to develop training tools for courts and share experience among judges around the world.⁶⁰

3.4 Institutional Guidelines in Arbitration

In recent years, arbitral institutions have increasingly developed soft law instruments addressing the use of AI. A key example is the Guidelines on the Use of AI in Arbitration published by the Chartered Institute of Arbitrators (CI Arb) in 2025. These guidelines adopt a proactive approach, allowing the use of AI by parties and arbitrators, provided that risks are properly managed. Key recommendations include: addressing the use of AI at an early stage of proceedings, appointing AI experts where appropriate, requiring disclosure of AI usage, considering AI-related issues when allocating costs. A central principle of the guidelines is that the arbitrator's role is non-delegable. AI may assist in analysing facts, evidence, and legal issues, but it must not replace human judgment. The Guidelines also emphasize transparency, suggesting that parties may be required to disclose their use of AI tools. Importantly, the appendices include model clauses, such as an Agreement on the Use of AI in Arbitration and a Procedural Order on the Use of AI. These demonstrate how parties and tribunals can regulate AI use in practice.

In general, it can be said that the Chartered Institute of Arbitrators (CI Arb) adopts a proactive approach to the use of AI. Recognizing the increasing scale of its implementation, it has sought to develop a framework that enables parties and arbitrators to benefit from AI in a regulated, transparent, and responsible manner, where appropriate and agreed upon.⁶¹

Other institutions have adopted similar approaches, including:

- the International Chamber of Commerce⁶²
- the Stockholm Chamber of Commerce (2024 guide)⁶³
- the Vienna International Arbitral Centre (2025 note)⁶⁴

Across both regulatory and soft law instruments, several core principles consistently emerge:

- non-delegable decision-making authority of judges and arbitrators;
- human responsibility and accountability for outcomes;

⁶⁰ UNESCO (n.d.) *Artificial intelligence and the rule of law*. Available at: <https://www.unesco.org/en/artificial-intelligence/rule-law>.

⁶¹ Chartered Institute of Arbitrators (CI Arb) (2025) *Guideline on the Use of Artificial Intelligence in Arbitration*. Available at: https://www.ciarb.org/media/bpndtcgu/guideline-on-the-use-of-ai-in-arbitration_updated-sept-2025.pdf?utm_source=AI+Guidelines+Launch&utm_medium=News+Page

⁶² International Chamber of Commerce (ICC) (2025) *AI governance and standards: Policy paper*. Available at: <https://iccwbo.org/wp-content/uploads/sites/3/2025/07/2025-ICC-Policy-Paper-AI-governance-and-standards.pdf>

⁶³ Arbitration Institute of the Stockholm Chamber of Commerce (SCC) (2024) *SCC Guide to the Use of Artificial Intelligence in Cases Administered under the SCC Rules*. Available at: https://sccarbitrationinstitute.se/wp-content/uploads/2024/12/scc_guide_to_the_use_of_artificial_intelligence_in_cases_administered_under_the_scc_rules-1.pdf

⁶⁴ Vienna International Arbitral Centre (VIAC) (2025) *VIAC Note on the Use of Artificial Intelligence in Arbitration*. Available at: <https://www.viac.eu/wp-content/uploads/2025/04/VIAC-Note-on-AI-1.pdf>

- transparency and disclosure of AI use;
- reviewability and verifiability of AI-assisted outputs.

These principles are fundamental, as the authority of judicial and arbitral decisions ultimately depends on human responsibility and legitimacy.

Overall, it can be concluded that AI-specific regulation in the judiciary and arbitration remains limited. Most existing instruments are soft law, with a recommendatory and principle-based character.

However, it would be inaccurate to suggest a complete absence of binding regulation. AI use is also governed indirectly through:

- General Data Protection Regulation (GDPR);
- national arbitration and judiciary laws;
- the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards;
- professional and ethical obligations of legal practitioners.

These frameworks impose important constraints, particularly regarding confidentiality, fairness, and due process. While AI offers significant benefits for efficiency and innovation, its use must remain human-centered, transparent, and accountable, ensuring that the integrity of judicial and arbitral decision-making is preserved.

5. Benefits and Risks of AI in Cross-Border Dispute Resolution

Having analysed the use of AI in arbitration and judiciary, it is important not to overlook the benefits and risks of its implementation. Let us start with the benefits.

1. Time, quality and cost efficiency

Although arbitration does not typically face the same level of case backlog as state courts, the acceleration of proceedings is still highly valued. Speed and efficiency are among the primary reasons why parties choose arbitration as a dispute resolution mechanism. The integration of AI tools can significantly reduce the time required for tasks such as document review, legal research, and drafting procedural documents.⁶⁵ By automating repetitive and administrative tasks, AI allows legal professionals and arbitrators to focus on complex legal analysis and strategic decision-making.⁶⁶ Additionally, automation could make decision-making more accurate, efficient, and fair and has the potential to improve transparency and accountability in decision-making.⁶⁷

2. Consistency and predictability

⁶⁵ **Messias, F. (2025)** *The Practice of Law and International Arbitration in the Age of Artificial Intelligence*. 1st edn. Cham: Springer Nature Switzerland. Available at: <https://doi.org/10.1007/978-3-032-09127-7>

⁶⁶ **Fan, M et al. (2022)**

⁶⁷ **Zalnieriute, M., Moses, L. B. and Williams, G. (2019)** 'The rule of law and automation of government decision-making', *Modern Law Review*, 82(3), pp. 425–455. Available at: https://www.researchgate.net/publication/331713467_The_Rule_of_Law_and_Automation_of_Government_Decision-Making

Another important potential benefit of AI is the improvement of consistency and predictability in legal decision-making. AI systems can analyse large datasets of previous cases and arbitral awards, identifying patterns in legal reasoning and outcomes. By relying on existing jurisprudence and established practice, AI tools can help ensure that similar cases are treated in a similar manner. This may contribute to greater coherence in arbitration and court practice and reduce the likelihood of significantly divergent decisions in comparable disputes. Such consistency can increase legal certainty, which is particularly valuable in cross-border disputes where parties often operate under different legal systems and expectations.

At the same time, it is important not to overstate these benefits, as consistency should not automatically be equated with justice. Excessive reliance on consistency and predictability may encourage a more conservative approach to decision-making and reduce sensitivity to the unique factual circumstances of individual cases. These and other potential risks associated with AI-assisted dispute resolution will be discussed further.

3. Access to justice (especially small claims)

There are a number of persuasive reasons why the move towards Judge/Arbitrator AI would be a welcome one for the future adjudication. First and foremost, Judge/Arbitrator AI has the potential to increase access to justice,⁶⁸ particularly for smaller claims. Due to the heavy workload of many courts and the complexity of legal procedures, individuals and small businesses often refrain from pursuing legal action because they expect the process to be costly, time-consuming, and burdensome. As a result, some parties effectively abandon their legal rights. The introduction of AI technologies has the potential to simplify and accelerate legal procedures, making dispute resolution faster and more accessible. In particular, automated or semi-automated systems could be used for handling small claims, thereby encouraging individuals to pursue legal remedies that they might otherwise ignore.

Despite the numerous potential benefits, the implementation of AI in dispute resolution also raises several important risks and challenges. Such as:

1. Limited data availability, especially in arbitration

One of the major obstacles to the effective use of AI in arbitration is the limited availability of training data. Unlike court litigation, arbitration proceedings are typically confidential. As a result, many arbitral awards and procedural decisions are not publicly accessible. This lack of transparency makes it difficult to obtain sufficiently large and reliable datasets to train AI systems. Without adequate data, AI models may produce incomplete or unreliable analyses and recommendations. And as a result, data that is incomplete or selective (whether intentionally or unintentionally) will lead to unreliable results being produced by the algorithm.⁶⁹

⁶⁹ **Global Arbitration Review (2025)** *The Guide to Evidence in International Arbitration* (3rd edn.). Available at: <https://globalarbitrationreview.com/guide/the-guide-evidence-in-international-arbitration/3rd-edition/article/planning-and-organising-effective-procedures-taking-evidence/download>

However, several initiatives have attempted to address this issue. For example, Dispute Resolution Data⁷⁰ provides a database for data collection and reporting. The database contains information from a wide variety of disputes and is continuously updated as cases are closed.

Additionally, Arbitrator Intelligence⁷¹ uses post-award questionnaires to increase access to information about arbitrators and their decision-making processes. Of course, another option is to make confidential decisions available only for the purpose of building the algorithm, without making them publicly accessible.⁷²

2. Bias and discrimination risks

Another major concern is the possibility of algorithmic bias. AI systems rely heavily on the data used to train them.⁷³ If the training data is incomplete, unbalanced, or reflects historical biases, the AI system may reproduce or even amplify those biases in its outputs (the concept of ‘garbage in, garbage out’)⁷⁴ and for example it can end with the algorithm encoded with discrimination.⁷⁵ Considering that the litigation is a highly sensitive sphere, the possibility of such problem is unacceptable and should be minimized.

For example, the dataset used to train the system may contain limited or discriminatory historical decisions, which could lead the algorithm to produce biased recommendations. Additionally, AI systems are restricted to the datasets on which they were trained. Unlike human researchers, who have the flexibility to then look elsewhere for answers, the chatbot is restricted to its pre-trained/fed dataset and cannot deviate from that, unless it was originally programmed with the ability to scrape data from locations it was not earlier programmed for. That’s why human oversight is so crucial, as it is required to fix this incomplete dataset problem, and to program or improve the chatbot to search for and be trained on other sources.⁷⁶

It is also important not to overlook cultural bias. Even something as simple as language differences can create confusion, including within the same language used in different parts of the world, such as English. For example, practitioners at A&O Shearman have encountered situations where AI systems trained primarily on U.S. data misinterpreted UK documents. In some cases, the AI labelled responses as “positive” that UK readers would recognize as passive-aggressive.

⁷⁰ **Dispute Resolution Data (2025)** ‘Dispute Resolution Data’. Available at: <https://disputeresolutiondata.com/>

⁷¹ **Arbitrator Intelligence (2025)** ‘Arbitrator Intelligence’. Available at: <https://arbitratorintelligence.vercel.app/>

⁷² **Tritt, L. (2023)** ‘The Use of AI-Based Technologies in Arbitrating Trust Disputes’, *Wake Forest Law Review*, — Available at <https://www.wakeforestlawreview.com/wp-content/uploads/2025/10/58WakeForestLRev-3.pdf> and <https://ebrevia.com/#overview>

⁷³ **Onyefulu, A. O. (2023)** ‘Artificial Intelligence in International Arbitration: A Step Too Far?’, *Arbitration: The International Journal of Arbitration, Mediation and Dispute Management*, 89(1), pp. 56–77. Available at: <https://kluwerlawonline-com.ezproxy.unibo.it/api/Product/CitationPDFURL?file=Journals\AMDM\AMDM2023006.pdf>

⁷⁴ **Tang, O. (2021)** ‘Think Arbi: Will artificial intelligence help or harm arbitration?’, *Kluwer Arbitration Blog*, 22 December. Available at: <https://legalblogs.wolterskluwer.com/arbitration-blog/think-arbi-will-artificial-intelligence-help-or-harm-arbitration/>

⁷⁵ **Fan, M et al.**

⁷⁶ **Shum, H. H. (n.d.)** ‘Utilising generative AI in businesses: Risks and best practices’. Available at: <https://sahsol.lums.edu.pk/node/16905>

Considering that such issues may arise even within the same language, the difficulties may become even greater where different languages are involved. Such cultural biases are particularly relevant in arbitration and cross-border litigation, given their international nature.⁷⁷

Another concern is automation bias, namely the tendency of human decision-makers to place excessive trust in AI-generated outputs. Judges, arbitrators, or legal practitioners may be inclined to rely on AI recommendations without sufficiently questioning their accuracy or underlying assumptions. In this respect, automation bias may contribute to the phenomenon of the “human oversight illusion”, where human review formally exists but does not operate as an effective safeguard against erroneous or biased outputs. As a result, if biased data is used to train an AI system, the resulting decisions or recommendations may also be biased, potentially violating fundamental legal principles such as the right to a fair trial and due process.

As a result, it can be seen that bias in AI-assisted dispute resolution may take several forms, including historical bias, representation bias, cultural bias, and automation bias. These biases give rise to different risks and challenges and may therefore require different governance responses, ranging from improvements in dataset quality and representativeness to transparency measures, auditing procedures, and effective human oversight. For this reason, each form of bias should be analysed separately, as the sources from which it originates and the measures required to mitigate it may differ significantly.

However, we should not forget that humans can also be biased, not only machines. This is reflected in the well-known saying that “justice is what the judge ate for breakfast,” which suggests that decision-making may be influenced by the mood, inherent biases, beliefs, and values of the adjudicator.⁷⁸

3. “Black Box” Reasoning

Another significant risk is the so-called “black box” problem. In many AI systems, the internal reasoning process used to generate an outcome is not fully transparent or easy to understand. While the system may produce a result, it does not clearly explain how that result was reached⁷⁹. Because of this, parties may feel reluctant to rely on a system that does not provide any reasoning for its decision. Moreover, this issue may also raise concerns about judicial independence, particularly given the private nature of such software protected by intellectual property laws.⁸⁰ One possible response to this challenge is the development of Explainable Artificial Intelligence (“XAI”). XAI seeks to provide greater insight into the factors influencing an AI system's outputs and may

⁷⁷ **Global Arbitration Review (2025)** *The Guide to Evidence in International Arbitration* (3rd edn.). Available at: <https://globalarbitrationreview.com/guide/the-guide-evidence-in-international-arbitration/3rd-edition/article/planning-and-organising-effective-procedures-taking-evidence/download>

⁷⁸ **Shum, H. H. (n.d.)** ‘Utilising generative AI in businesses: Risks and best practices’. Available at: <https://sahsol.lums.edu.pk/node/16905>

⁸⁰ **Zalnieriute, M. and Bell, F. (2020)** ‘Technology and judicial role’, in Appleby, G. and Lynch, A. (eds.) *The Judge, the Judiciary and the Court: Individual, Collegial and Institutional Judicial Dynamics in Australia*. Cambridge: Cambridge University Press. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3492868

improve transparency, accountability, and user understanding.⁸¹ However, explainability should not be viewed as a complete solution to the black box problem. While XAI tools may help users understand certain aspects of a system's operation, they do not necessarily reveal how a model actually reasons or guarantee a full understanding of the decision-making process. Furthermore, different forms of explainability may provide varying levels of insight, and explanations themselves may be incomplete, simplified, or difficult for non-experts to interpret. For these reasons, even where explainable AI is used, additional safeguards remain necessary.

4. Loss of discretion and equity

The use of AI in adjudication may also lead to a loss of judicial discretion and equity. Algorithmic systems typically rely on patterns derived from previous decisions and standardized reasoning. However, legal disputes often require a nuanced evaluation of individual circumstances that goes beyond statistical patterns. In many cases, an arbitrator's reasoning may be influenced by broader considerations of fairness, context, and human behaviour - factors that are difficult to capture through algorithmic logic alone.

In this sense, predictive justice may encourage a more conservative approach to dispute resolution, as it tends to rely on existing patterns rather than allowing for new interpretations. This may create a risk that arbitrators, consciously or not, align their reasoning with previous outcomes instead of fully engaging with the specific circumstances of the case.

At the same time, AI tools can be useful in identifying relevant precedents and highlighting similarities and differences between cases. However, they should remain supportive in nature and should not replace the independent reasoning of arbitrators or provide definitive answers.⁸²

5. Confidentiality, Data integrity and Security

Additionally, it is important not to overlook the sensitivity of the data used in arbitral and judicial proceedings. In particular, many parties choose arbitration precisely because of the confidentiality it offers. In this context, introducing confidential or sensitive information, or data that parties simply wish to keep private, into third-party AI tools inevitably raises concerns. These concerns relate to how such data is stored, used, and protected, as well as to the technical measures in place to minimize potential risks. There is also a risk that such information may be accessed by third parties, for example in the case of data breaches or insufficient safeguards.

This issue becomes even more complex in cross-border disputes, where data may be transferred between jurisdictions with different standards of data protection. Another concern relates to the potential use of such data for training AI systems. In this regard, compliance with data protection frameworks, such as the GDPR, becomes particularly important.

As can be seen, the use of AI has both positive and negative aspects. At the same time, its implementation appears to be unavoidable, so the main task is to create conditions for its use in a way that minimizes the risks outlined above. As long as a human ultimately reviews and assesses

⁸¹ **Messias, F. (2025)** *The Practice of Law and International Arbitration in the Age of Artificial Intelligence*. 1st edn. Cham: Springer Nature Switzerland. Available at: <https://doi.org/10.1007/978-3-032-09127-7>

⁸² **Fan, M et al.**

the reliability and relevance of AI-generated outputs, these risks remain manageable. The greatest concern arises where legal professionals rely on AI findings without sufficient verification.⁸³

6. Enforcement of AI-assisted court judgments and arbitral awards

Considering that this research focuses on cross-border litigation and international arbitration, the question of recognition and enforcement of arbitral awards and foreign court decisions becomes central. From the outset, this process is already complex and involves a number of controversial aspects, and with the introduction of AI, it becomes even more critical. Indeed, regardless of how lawful or efficient the proceedings may be, if the resulting decision or award (whether AI-assisted or not) cannot be recognized and/or enforced, the entire process risks losing its value.

In order to better understand this issue, it is necessary to take into account the normative framework governing this area. This includes international instruments such as the New York Convention (on the recognition and enforcement of arbitral awards), model laws developed by UNCITRAL (which provide harmonized frameworks for areas such as international arbitration, mediation, and cross-border insolvency), as well as, in the case of court judgments, instruments like the Brussels I Regulation (concerning the recognition of judgments in civil and commercial matters) and the Hague Judgments Convention (on the recognition of judgments from foreign jurisdictions). This list is not exhaustive, but these instruments play a key role in regulating this area.

It is important to note that most of this legislation was drafted on the assumption of exclusively human involvement in the decision-making process, which creates difficulties today when interpreting it in the context of AI.⁸⁴

Additionally, the problem arises from the fact that parties come from different parts of the world and are subject to different legal systems, each governed by their own national legislation in addition to applicable international frameworks, which must be respected in their fundamental aspects. In this context, the introduction of AI creates even more uncertainty, even though it is still at an early stage of widespread implementation. Many countries regulate it through soft laws, general legislation, specific norms, or do not regulate it at all, which leads to considerable confusion regarding its use. Moreover, the rapid advancement of technology has led to a growing number of legislative and regulatory initiatives, which continue to evolve and may create a degree of uncertainty.⁸⁵ In this context, certain AI tools may be restricted or even prohibited in specific jurisdictions, making it difficult to keep pace with regulatory developments.

For example, it is important to consider European legislation, such as Article 22 of the GDPR, which restricts certain forms of automated decision-making, or the AI Act, which sets requirements

⁸³ **Global Arbitration Review (2025)** *The Guide to Evidence in International Arbitration* (3rd edn.). Available at: <https://globalarbitrationreview.com/guide/the-guide-evidence-in-international-arbitration/3rd-edition/article/planning-and-organising-effective-procedures-taking-evidence/download>

⁸⁴ **Onyefulu, A. O. (2023)** 'Artificial Intelligence in International Arbitration: A Step Too Far?', *Arbitration: The International Journal of Arbitration, Mediation and Dispute Management*, 89(1), pp. 56–77. Available at: <https://kluwerlawonline.com.ezproxy.unibo.it/api/Product/CitationPDFURL?file=Journals\AMDM\AMDM2023006.pdf>

⁸⁵ **Chartered Institute of Arbitrators (CI Arb) (2025)** *Guideline on the Use of Artificial Intelligence in Arbitration*. Available at: https://www.ciarb.org/media/bpndtcgu/guideline-on-the-use-of-ai-in-arbitration_updated-sept-2025.pdf?utm_source=AI+Guidelines+Launch&utm_medium=News+Page

for high-risk systems, non-compliance with which may create obstacles for enforcement. Moreover, the AI Act is going through gradual implementation, which further shows the evolving nature of AI regulation and may create additional challenges in cross-border enforcement.

Based on the above-mentioned legislation, it is necessary to analyze the specific grounds for refusing recognition and/or enforcement. As a primary ground, attention may be given to intangible procedural guarantees, particularly due process and procedural fairness.

Courts may refuse enforcement where the use of AI is perceived to undermine fundamental procedural rights, such as transparency and the parties' ability to understand and effectively challenge the decision. This is particularly relevant in cases where AI systems operate as "black boxes" and do not provide sufficient explanation for their outputs.⁸⁶ If AI is used in a manner that lacks transparency, or if the parties are not adequately informed about how it influenced the decision, this may give rise to arguments that due process has been compromised, particularly in relation to the right to present one's case. Furthermore, a lack of explainability in AI-generated reasoning may conflict with the requirement that decisions be reasoned and subject to review.

Additionally, awards rendered by an AI arbitrator may be challenged on grounds stated in Article 34(2)(a)(IV) of the UNCITRAL Model Law and Article V(1)(d) of the New York Convention, which provide that an award can be challenged if the arbitral tribunal is not composed of arbitrators agreed to by the parties, or is in significant contravention of the law of the seat of arbitration. Even if parties expressly agree to the appointment of AI arbitrators and the law of the seat of arbitration (*lex arbitri*) only permits the appointment of a natural person, the law of the seat shall prevail by virtue of Article 34(2)(a)(IV) of the UNCITRAL Model Law. As a result, an award rendered by an AI arbitrator duly appointed by the parties can be challenged if such appointment is contrary to the *lex arbitri*.⁸⁷

Another important ground is the public policy exception, which represents a particularly complex obstacle, as it evolves over time, lacks precise definition, and varies across jurisdictions. Invoking the public policy exception serves as a safety valve, to be applied only in exceptional circumstances where recognition and enforcement would undermine the fundamental principles of the legal system.⁸⁸ Public policy plays a crucial role in limiting the enforcement of arbitral awards where the use of AI undermines fundamental principles of justice. In particular, issues such as lack of transparency, absence of explainability, potential bias, or excessive reliance on algorithmic systems may be considered contrary to public policy, especially where they affect procedural fairness or the independence of the decision-maker. Similar concerns arise in the context of judicial decisions, where recognition frameworks also rely on fundamental principles such as fairness, transparency, and the right to a reasoned judgment. These risks become

⁸⁶ **Lagiewska, M. (2026)** *Artificial Intelligence and International Arbitration Law: Revolution or Evolution*. London and New York: Routledge. Available at: <https://doi.org/10.4324/9781003667834-3>.

⁸⁷ **Onyefulu, A. O. (2023)** 'Artificial Intelligence in International Arbitration: A Step Too Far?', *Arbitration: The International Journal of Arbitration, Mediation and Dispute Management*, 89(1), pp. 56–77 Available at: <https://kluwerlawonline.com.ezproxy.unibo.it/api/Product/CitationPDFURL?file=Journals\AMDM\AMDM2023006.pdf>

⁸⁸ **New York Convention (1958) (n.d.)** *Travaux préparatoires*. Available at: https://newyorkconvention1958.org/index.php?lvl=cmspage&pageid=10&menu=626&opac_view=-1

particularly visible in cross-border situations involving jurisdictions with different regulatory approaches to AI.

For example, in a cross-border dispute in arbitration between a Chinese party and a European party, for example a French party, the parties may choose Chinese law as the governing law of the dispute and conduct the arbitration in China while also agreeing on the use of AI-assisted tools within the arbitral process. Assuming that the proceedings are conducted without issues and the parties receive an arbitral award, the next step would be its recognition and enforcement in France under the New York Convention. However, the parties may encounter certain difficulties at this stage. While AI tools are increasingly used to enhance efficiency and consistency, their integration into the decision-making process may raise concerns in jurisdictions such as France. Having analyzed the case, a French court may potentially raise concerns regarding whether AI tools used by the Chinese arbitral tribunal complied with standards of transparency, explainability, and procedural fairness reflected in instruments such as the EU AI Act. In addition, the use of such AI systems may also raise due process concerns under Article V(1)(b) of the New York Convention, particularly if the parties were unable to properly understand, challenge, or assess the AI-assisted reasoning. Furthermore, such use of AI may be considered contrary to the forum's public policy under Article V(2)(b), potentially leading the court to refuse recognition and enforcement of the arbitral award. As a result, despite the completion of the arbitral proceedings, the outcome may ultimately prove to be ineffective.

Although this example is hypothetical, it illustrates how existing grounds for refusal under the New York Convention may be applied in the context of emerging technologies. So, from this situation we can see how important it is to align approaches regarding the use of AI in arbitral and judicial proceedings, as it may create situations where the whole procedure becomes ineffective.

7. Conclusion

We started with the observation of Tania Sourdin that the question is no longer whether artificial intelligence will reshape judicial functions and the justice sector, but when. Having now reached the conclusion of this article and considering the analysis conducted, it is possible to state that this transformation is already underway. AI is increasingly being integrated into litigation and arbitration and is expected to continue expanding in the coming years.

At the same time, it is possible to identify a certain degree of convergence among different jurisdictions regarding the red line of such developments. While approaches to AI governance differ, there appears to be a common understanding that AI should not evolve into a disruptive technology capable of replacing human decision-makers through fully autonomous decision-making without meaningful human involvement. Rather, its implementation remains accompanied by legal safeguards and governance mechanisms designed to preserve human control over adjudicative processes. In this respect, Sharma (2024) offers a particularly illustrative comparison, arguing that AI in arbitration should be viewed not as a robotic judge, but rather as a “digital telescope” - a tool that amplifies human vision without replacing the discernment of those who use it.⁸⁹

⁸⁹ **Messias, F. (2025)** *The Practice of Law and International Arbitration in the Age of Artificial Intelligence*. 1st edn. Cham: Springer Nature Switzerland. Available at: <https://doi.org/10.1007/978-3-032-09127-7>

As a result, the prevailing model remains a hybrid one in which human actors retain responsibility for the final decision while AI supports information processing, legal research, case management, analytical tasks, document drafting, and, in some cases, the prediction of case outcomes, while leaving the final decision to judges or arbitrators.

Such an approach is also confirmed by the comparative analysis of the European Union (including the case of Estonia), the United States, and China. Despite significant differences in regulatory approaches, the European Union following a risk-based regulatory model, the United States adopting a more innovation-driven and “try first” approach, and China pursuing a state-led and technology-driven integration of AI, a common trend can still be identified: the continued necessity of human involvement in decision-making. While AI may enhance human capabilities and assist decision-makers, it does not replace the judgment, experience, and discretion of judges and arbitrators.

The article has also demonstrated that the use of AI creates both significant opportunities and substantial risks. On the one hand, AI may improve efficiency, consistency, and access to justice, particularly in small claims. On the other hand, concerns relating to bias, transparency, explainability, meaningful human oversight, procedural fairness, accountability, and data protection remain unresolved. The challenge therefore is to maximise the benefits and opportunities offered by AI while understanding the risks and developing appropriate legal, technical, and institutional responses.

However, considering both these risks and the absence of a unified cross-border approach to AI governance, these challenges become even more complex in the context of cross-border dispute resolution. Differences in national approaches to AI regulation may create additional uncertainty regarding the recognition and enforcement of judgments and arbitral awards. Consequently, greater international cooperation and harmonisation of AI governance frameworks may become increasingly important in order to promote legal certainty, procedural fairness, and trust in AI-assisted dispute resolution.

It is therefore important to recognise that the challenge facing policymakers, courts, and arbitral institutions is not whether AI should be used in dispute resolution, but how it should be governed. The future development of AI-assisted litigation and arbitration will require a careful balance between innovation and efficiency on the one hand, and transparency, accountability, procedural fairness, and the protection of fundamental rights on the other. Achieving such a balance will be one of the central tasks of future AI governance in the field of dispute resolution.

8. Policy Recommendations

*Before presenting the recommendations, it is important to note that they are not directed at any single jurisdiction or organisation. Rather, they are formulated from a broader transnational perspective and seek to contribute to the development of a common governance framework for the use of AI in litigation and arbitration. This approach reflects the inherently cross-border nature of many disputes and the need for greater international harmonisation of AI governance.

Recommendation 1: Strengthen Human Oversight, Explainability, and Transparency

Policy objective:

Ensure that AI systems used in litigation and arbitration remain transparent, reviewable, and subject to meaningful human oversight.

Responsible actors:

- European institutions and regulators
- Courts and judicial authorities
- Arbitral institutions
- National regulators
- Professional associations and bar associations

Implementation instruments:

- Judicial guidelines
- Arbitral rules
- Professional codes of conduct

Proposed measures:

- Introduce minimum explainability requirements for AI systems used in adjudication.
- Encourage the development and use of Explainable Artificial Intelligence (XAI).
- Require meaningful human review before any AI-assisted judicial decision or arbitral award is finalized.
- Introduce disclosure obligations regarding the use of AI together with a brief explanation of how such systems were used during the proceedings.

Expected impact:

These measures would strengthen transparency, due process, and trust in AI-assisted dispute resolution, while reducing potential difficulties regarding recognition and enforcement in cross-border disputes.

Recommendation 2: Improve Data Governance and Technical Safeguards

Policy objective:

Reduce risks related to bias, poor data quality, confidentiality breaches, and non-compliance with data protection requirements.

Responsible actors:

- AI developers and providers
- Courts and arbitral institutions
- Data protection authorities
- National regulators

Implementation instruments:

- Regulatory standards
- Internal auditing procedures
- Data governance policies

Proposed measures:

- Introduce periodic audits of datasets used for training and operating AI systems.

- Assess datasets for bias, representativeness, and data quality.
- Verify compliance with data protection and cybersecurity requirements.
- Develop safeguards for international data transfers used in AI-assisted proceedings.

Expected impact:

Regular audits would improve the reliability, fairness, and security of AI systems, particularly in cross-border disputes involving parties from different jurisdictions.

Recommendation 3: Promote International Harmonisation of AI Governance

Policy objective:

Reduce regulatory fragmentation and improve legal certainty in cross-border litigation and arbitration.

Responsible actors:

- UNCITRAL
- Hague Conference on Private International Law
- Council of Europe
- National governments
- Arbitral institutions
- International arbitral organisations and professional bodies

Implementation instruments:

- International guidelines
- Model laws
- Soft-law instruments
- Legislative reforms

Proposed measures:

- Develop common principles regarding transparency, human oversight, and explainability in AI-assisted dispute resolution.
- Promote greater consistency between national and international approaches to AI governance.
- Encourage international cooperation regarding the use of AI in judicial and arbitral proceedings.

Expected impact:

Greater harmonisation would increase predictability, strengthen parties' trust, and facilitate the recognition and enforcement of judgments and arbitral awards across jurisdictions.

Recommendation 4: Clarify Existing Legal Frameworks and Adapt Them to AI

Policy objective:

Ensure that existing legal instruments remain effective in the context of AI-assisted dispute resolution.

Responsible actors:

- National legislatures
- International organisations
- Judicial authorities

- Arbitral institutions

Implementation instruments:

- Legislative amendments
- Interpretative guidelines
- Institutional rules

Proposed measures:

- Review existing procedural and judicial/arbitration frameworks in light of AI developments.
- Clarify the legal implications of AI-assisted proceedings with regard to due process, transparency, and accountability.
- Consider future amendments or official guidance concerning the recognition and enforcement of AI-assisted judgments and arbitral awards.
- Review international instruments drafted before the emergence of AI technologies. For example, the New York Convention does not contain any provisions regarding AI, as such technological developments could not have been foreseen at the time of its adoption.

Expected impact:

Clearer legal frameworks would reduce uncertainty and improve the compatibility of AI-assisted dispute resolution with fundamental legal principles.

Recommendation 5: Strengthen Institutional Capacity and Professional Training

Policy objective:

Ensure that legal professionals possess the necessary skills and institutional support to use and supervise AI systems responsibly.

Responsible actors:

- Judicial training academies
- Bar associations
- Arbitral institutions
- Universities and professional organisations

Implementation instruments:

- Professional training programmes
- Ethical codes
- Institutional guidelines
- Institutional governance reforms

Proposed measures:

- Introduce mandatory AI-related training for judges, arbitrators, lawyers, and legal personnel.
- Promote understanding of both the benefits and risks of AI systems.
- Encourage the creation of specialised AI governance and compliance functions within courts and arbitral institutions.
- Consider the introduction of dedicated AI oversight professionals (AI governance officers or AI compliance officers) responsible for monitoring AI systems, managing risks,

ensuring compliance, reducing bias, and preventing excessive reliance on automated processes.

Expected impact:

Better-trained professionals and dedicated oversight mechanisms would strengthen accountability, reduce the risks associated with AI use, and improve the quality and reliability of AI-assisted dispute resolution.