

Judicial Oversight of Smart Procedures in E-Arbitration

الرقابة القضائية على الإجراءات الذكية في التحكيم الإلكتروني

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Abstract:

This study examines the role of judicial oversight in electronic arbitration and its adaptation to the impact of technology and artificial intelligence tools on arbitration procedures. It also addresses its importance in achieving a balance between protecting the principles of party autonomy and ensuring the jurisdiction of the arbitral tribunal in procedural matters, while preserving the fundamental principles of procedural fairness. This is achieved by adopting an analytical and comparative approach to the provisions of the 1958 New York Convention and the UNCITRAL Model Law on International Commercial Arbitration. In this context, the study proposes a model "censorship test" for courts in annulling, recognizing, and enforcing arbitration awards.

Key words: electronic arbitration ; artificial intelligence; judicial oversight; procedural justice; technological neutrality.

Introduction:

Digitization has swept the field of international commercial arbitration through dispute settlement using modern communication technology. These methods have given it an electronic character, and with the development of technology, arbitration procedures have begun to use smart tools to speed up processes. This has encouraged the introduction of digital technologies into dispute management. The development of these technologies has led to the consideration of transforming commercial arbitration into a digital process that exploits the latest smart tools, especially the use of artificial intelligence within arbitration procedures, after their practical effectiveness and advantages in developing arbitration mechanisms and their contribution to legal solutions to a set of operational challenges in arbitration, including the systematic organization of large documentary evidence, providing multilingual interpretation in real time, facilitating remote hearings, and strengthening arbitration deliberations through analytical processing of complex evidentiary materials.

The importance of this study lies in the direct impact of technology on facilitating commercial arbitration processes. In light of the rapid development of technologies in the legal and procedural fields, potential conflicts may arise with the fundamental principles underlying arbitration law, which highlights the importance of judicial oversight of arbitration procedures that employ artificial intelligence tools.

However, this development raises many legal problems, particularly regarding the extent to which it is permissible to resort to artificial intelligence tools without undermining the guarantees inherent in due process, and also concerning the appropriate scope of judicial scrutiny of their use in proceedings to annul, recognize, and enforce arbitral awards. Although the principles of arbitration are based on the independence of the parties and the arbitral tribunal in determining the

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procedural framework, this independence is not absolute; it remains confined within the limits of safeguarding the fundamental guarantees of fair arbitration.

The problem of the study centers on the role of judicial oversight in smart arbitration procedures, particularly in balancing the independence and effectiveness of arbitration with the protection of defense rights and the principle of procedural equality.

The study adopts an analytical approach to relevant international legal texts, while also incorporating elements of the comparative approach between the 1958 New York Convention and the UNCITRAL Model Law, alongside modern institutional rules and technical protocols. It further draws on comparative judicial practices and contemporary jurisprudential trends.

In order to address the central problem of this study, the research is structured into two main parts. The first part, entitled Foundations of Judicial Oversight in E-Arbitration, lays the theoretical and legal groundwork. It is divided into three branches : the conceptual and legal framework, the comparative legal framework, and the limits of judicial oversight. Collectively, these branches provide the essential basis for understanding how judicial control interacts with the growing use of artificial intelligence in arbitration.

The second part, entitled Applications, Oversight Test, and Reform Proposals, shifts the focus to the practical dimension. It examines the use of AI tools in arbitration, proposes a structured oversight test to guide judicial intervention, and finally advances a set of recommendations and reform proposals.

1-Section I: Foundations of Judicial Oversight in E-Arbitration

To study judicial oversight in electronic arbitration, it is necessary to define the concept of artificial intelligence in arbitration procedures, determine its legal framework, and highlight the procedural risks involved, in light of the regulation provided by international agreements, model laws, and national legislation concerning the digital transformation of arbitration and the guarantees of procedural justice in this context..

1.1- Conceptual and Legal Framework

This section defines the nature of using artificial intelligence in electronic arbitration within a theoretical and legal framework.

1.1.1- The concept of artificial intelligence in arbitration

The digitization of arbitration began coinciding with the Corona period, as the use of digital technology developed, leading to consideration of the artificial intelligence tool in arbitration, which was limited to simple procedural aspects related to translation and organizing sessions. Its role was then expanded to include analyzing legal documents relevant to the dispute. Thinking has since evolved into the possibility of intelligent systems contributing to the formulation of arbitration decisions themselves.

Artificial intelligence, in the legal and arbitral context, may be defined as any software-based system capable of learning from data and patterns, and generating outputs, such as classification, analysis, translation, or text generation that influence the course of an arbitral dispute, whether in its procedural or substantive aspects.¹

In practical terms, the applications of artificial intelligence in electronic arbitration may be classified into four principal categories:

a-Administrative and Informational Uses :

These include session management, scheduling and coordination between the parties, machine translation of documents or pleadings, and automated notification and reminder systems. Such uses are purely service-oriented in nature and do not directly affect the substantive content of the dispute.²

b-Evidence-Supporting Uses :

These include sorting and classifying large volumes of documents, conducting intelligent searches

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within legal databases, and applying techniques to extract relevant documents from extensive data sets.³

c- Analytical and Inferential Uses :

These include summarizing complex evidence, structuring evidentiary elements and arguments, suggesting questions for witnesses or experts, and analyzing consistency across testimony and data⁴

d- High-Impact Automated Uses :

These include assessing the credibility of witnesses, evaluating competing factual accounts, and providing substantial assistance in the determination of the arbitral award. This category is the most legally contentious.⁵

1.1.2- Legal risks and procedural challenges:

The use of artificial intelligence in arbitration gives rise to several fundamental legal risks:⁶

a - The Problem of Transparency and Interpretability:

Many AI algorithms operate as “black boxes,” the internal mechanisms of which are not readily understandable, nor their outputs easily justifiable. This raises concerns regarding the parties’ ability to effectively exercise their right of defense.⁷

b - Impact of AI on Procedural Equality in Electronic Arbitration:

The principle of procedural equality between the parties in electronic arbitration is compromised, as compared to traditional arbitration, due to the procedural bias of the arbitral process in favor of artificial intelligence algorithms.⁸

c - Challenges to Confidentiality and Data Security in AI-Driven Arbitration:

The use of AI tools in arbitration proceedings raises concerns regarding the maintenance of the principle of confidentiality, as well as the protection and security of the parties’ information and the conduct of the proceedings, due to the reliance on digital technology, which increases the risk of hacking and may thereby undermine the integrity of the arbitration process.⁹

d - Challenges to the Review and Contestation of Automated Arbitral Awards:

Arbitral awards face challenges in having their validity reviewed or in being challenged, as they are issued automatically.¹⁰

1.2- Comparative legal framework

The comparative legal framework forms the cornerstone for understanding how electronic arbitration is organized at the international and national levels, especially with the emergence of artificial intelligence technologies in this field. In order to cover the topic, the most influential international legal references will be addressed, most notably the 1958 New York Convention and the UNCITRAL Model Law, in addition to reviewing some recent developments in national legislation that have initiated the integration of digitization into arbitration systems, before concluding with an analysis of procedural justice standards in the digital environment as a regulatory framework that balances technological efficiency with guarantees of a fair trial.

1.2.1- New York Convention (1958)¹¹

New York Convention sets out the grounds upon which the recognition or enforcement of a foreign arbitral award may be refused. These grounds are classified into two categories:¹²

a- Cases related to the parties to the dispute, including:

- Failure to provide appropriate notification to the party against whom the arbitration award is being invoked.
- Concerns the appointment of an arbitrator or the initiation of the arbitration proceedings.
- Involves forming the arbitral tribunal or carrying out the proceedings in a way that does not align with the parties’ agreement, or, if no agreement exists, with the law of the arbitration seat.

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- Covers situations where the arbitration panel decides on issues beyond the scope of the arbitration agreement.
- The award not being final, or having been annulled or suspended by a competent authority in the country of origin.¹³

b- Cases related to the public policy of the enforcing state, namely:

- The subject matter of the dispute being non-arbitrable under the national law of the enforcing state.
- The arbitration award being inconsistent with the fundamental principles and values of the state.¹⁴

We conclude that the New York Convention achieves a reasonable balance between promoting the enforcement of arbitral awards, to facilitate international trade, and safeguarding the fundamental legal principles of states ; although the "public policy" exception is occasionally invoked excessively by courts that are uneasy with foreign arbitral awards.

1.2.2- UNCITRAL Model Law¹⁵

The UNCITRAL Model Law on International Commercial Arbitration is based on the most important principles:

a- Parties must be treated equally, and all parties must be given the opportunity to present their disputes.

b- Granting the parties the freedom to agree on the procedures to be followed, provided that the arbitration panel manages the procedures in the manner it deems appropriate in the absence of agreement.

c- Determining the reasons for invalidity, refusal to recognize and implement.

1.2.3- National legislation

National experiences demonstrate that digital arbitration is not confined to international frameworks, but rather relies significantly on domestic legislative developments. France, Switzerland, and England have each updated their legal systems to embrace digital arbitration tools

a- French law :

This is considered one of the first pieces of legislation to recognize the legitimacy of digitization in the arbitration process. The French Code of Civil Procedure allows for the use of electronic means of communication and the exchange of documents via digital platforms, and also allows for remote arbitration sessions.¹⁶

b-Swiss law :

Swiss law explicitly recognizes the possibility of using digital means in arbitration. This update brings Switzerland into an advanced legal environment, particularly with regard to the use of artificial intelligence technologies to support proceedings.¹⁷

c-English law :

English arbitration law is currently undergoing reforms aimed at updating texts to suit the digital environment. One of its most prominent contemporary trends is dedication to managing cases electronically and adopting technological means to enhance the effectiveness of procedures and ensure procedural justice. This is why English legislation places itself at the forefront of open legal systems for digitization and artificial intelligence in arbitration.¹⁸

1.2.4- Standards of procedural justice

Ensuring procedural fairness in the digital environment has become an urgent necessity. It requires taking into account basic principles aimed at protecting the rights of all parties and ensuring the integrity and security of the judicial or arbitration process, mainly represented by the principle of technological neutrality, the principle of proportionality in oversight, as well as the commitment to transparency.

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a- the principle of technological neutrality :

The principle of technological neutrality is based on the idea that the law should not distinguish between different technologies, but rather focus on results and effects. In the context of arbitration, this principle means that the use of AI is not rejected simply because it is an "intelligent technology," but is assessed based on its impact on adversarial guarantees.¹⁹

b- the principle of proportionality in oversight :

The principle of proportionality requires that the intensity of judicial oversight be commensurate with:²⁰

- The degree to which the tool influences actions.
- The level of transparency and interpretability of the tool.
- The availability of review and objection mechanisms.
- The existence of adequate safeguards to protect the rights of the parties.

c- The Principle of Transparency and Proper Notification :

This principle requires the arbitral tribunal to disclose to the parties :²¹

- The nature of the tools used and the scope of their functions.
- The extent of their impact on procedural steps and arbitration decisions.
- Guarantees applied to ensure data protection and confidentiality.
- Availability of objection and review mechanisms.

1.3- Limits of judicial oversight

With the development of digital technologies and their growing influence on arbitration and judicial procedures, it has become necessary to establish clear standards that ensure respect for the principles of procedural justice in the digital environment. Among the most important of these are the principle of technological neutrality, the principle of proportionality in oversight—which defines the limits of intervention and control—and the requirements of transparency and notification.

1.3.1-Control of annulment procedures²²

Annulment actions are characterized by their exceptional and limited nature; they do not aim to reconsider the merits of the dispute, but rather to examine compliance with fundamental procedural safeguards.

a- Substantive Effect Standard :
Under the Substantive Effect Standard, an award may be annulled if the claimant can demonstrate substantial procedural harm caused by the use of artificial intelligence, such as:

- Inability to examine or challenge the methodology of the AI tool.
- AI tool decisively influencing the outcome without adequate human review.
- Breach of confidentiality or data security impacting the right to defense.

b- Monitoring Cancellation Procedures:

The approach depends on several factors:

- Following up on annulment requests submitted to the judiciary or the arbitral tribunal.
- Ensuring a balance between respecting the independence of arbitration and safeguarding fundamental procedural rights.
- Assessing the seriousness of the dispute and the potential impact of the alleged harm.
- Ensuring full adherence to the required procedures.

1.3.2- Oversight of recognition and enforcement²³

Under the New York Convention, the use of artificial intelligence can be assessed under several grounds :

a- Article V(1)(b) – Right to Defense:

Enforcement may be refused if a party was deprived of the opportunity to present its case due to a lack of transparency, or inability to object to the tools used.

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b- Article V(1)(d) – Departure from Agreed Procedures:

If the use of AI contravenes the parties' agreement, or the law applicable at the seat of arbitration

c- Article V(2)(b) – Public Policy :

The concept of "digital procedural public policy" can be developed to include minimum standards of transparency, data security, and the protection of the right to defense in a digital environment.

1.3.3- Levels of judicial oversight²⁴

The oversight intensity matrix here refers to the analytical framework that measures the degrees of judicial intervention in reviewing electronic arbitration awards, ranging from minimal formal oversight to advanced substantive oversight.²⁵

Judicial oversight intensity can be graduated according to the type of AI use :

a- Administrative and Informational Applications Requiring Minimal Oversight: ²⁶

- Automatic translation of non-substantive documents.
- Session management and scheduling.
- Automated notifications.

b- Evidence-Related Applications – Moderate Oversight: ²⁷

- Document sorting with review capability.
- Smart searches in databases.
- Disclosure requirements, and right to object.

c- Analytical and Reasoning Applications – High Level of Oversight²⁸

- Summarization of evidence with clear human review.
- Ordering of inferences with documented reasoning.
- Question suggestions, while retaining full tribunal control.

d- High-Impact Automated Applications – Strict Level of Oversight²⁹

- Automated credibility assessments.
- Algorithmic weighting of narratives.

Critical assistance in drafting the award

The study recommends the adoption of what may be referred to as the Judicial Oversight Intensity Matrix, an innovative analytical framework intended to delineate the varying degrees of judicial intervention in electronic arbitration disputes, thereby safeguarding a balanced relationship between the autonomy of arbitration and the preservation of fundamental guarantees of justice.

2-Section II: Applications, Oversight Test, and Reform Proposals

The inclusion of artificial intelligence tools in arbitration proceedings raises questions regarding their reliability and their compatibility with the fundamental principles of legal procedure. This section therefore moves from theoretical foundations to practical applications by identifying the main uses of AI in arbitration and the procedural standards involved, and then by proposing a structured test to guide judicial oversight in order to achieve a balance between efficiency and fairness.

2.1- Practical Applications and Detailed Criteria

We aim to highlight the most significant practical applications of artificial intelligence in electronic arbitration, as well as the legal controls and limits on adopting these technologies, to ensure a balance between procedural efficiency and the preservation of fairness guarantees. The chapter also explains how artificial intelligence can serve as a supportive tool without replacing the arbitrator in making substantive decisions.

2.1.1- Machine Translation:

We highlight the legal limits and procedural safeguards necessary to ensure that machine translations do not compromise the fairness of proceedings, particularly regarding substantive documents.

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a- Legal controls:

Machine translation is initially acceptable for non-essential documents, with parties entitled to object and request human translation when sensitive passages are involved. The law also requires disclosure of the accuracy limitations of machine translation to avoid confusion or misunderstanding.³⁰

b- Application criteria:

- Rely on reliable and validated translation tools.
- Document objections and corresponding responses.
- Subject substantive texts to human review to ensure procedural integrity.

2.1.2- Document Sorting and Intelligent Search

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We highlight the role of artificial intelligence in document management and intelligent search. We also explain how arbitrators notify parties, allow for sample review, and implement protocols to ensure transparency, accuracy, and the right to challenge automated results.

a- Legal controls

Arbitrators are obligated to notify the parties in advance of the methodology adopted in intelligent sorting and search, while granting them the right to review random samples of the results and to object to the criteria or outcomes if these affect fairness.³²

b-Application criteria

- Establish clear and transparent protocols for sorting and classification.
- Prepare samples for mutual verification between parties or experts.
- Record accuracy rates and error margins.

2.1.3- Analysis and Summarization of Evidence³³

This section analyzes AI-assisted summarization of evidence. It emphasizes that automated summaries are supportive tools and cannot replace human evaluation, and it outlines the importance of documentation and unrestricted access to original materials.

a- Legal controls

Automated summarization serves only as an aid and does not replace human evaluation of evidence. Each human review of summaries must be documented, ensuring that parties have unrestricted access to the original materials.

b- Application criteria

- Establish clear guidelines for acceptable summarization standards..
- Record any deviation between original texts and automated summaries.
- Conduct periodic reviews of the quality of summaries.³⁴

2.1.4- Evaluating Credibility and Reasoning

This section explores the use of AI in assessing credibility and reasoning. It provides guidance on balancing AI-assisted evaluation with human oversight, including full disclosure of methodology and access to independent technical expertise, while illustrating oversight intensity through a gradient matrix.

a- Legal controls

Exclusive reliance on automated assessments of the credibility of parties or evidence is prohibited. Full disclosure of the methodology used is required, and parties have the right to seek independent technical expertise to challenge controversial findings.³⁵

b- Application criteria

The oversight matrix can be illustrated as a gradient spectrum:

- **Low oversight:** limited to procedural aspects such as reporting and approval.
- **Medium oversight:** includes protecting fair trial guarantees and verifying the reliability of digital tools.

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- **High oversight:** extends to substantive review of the logic and fairness of automated decisions.³⁶

2.2- A Proposed Judicial Oversight Test

This chapter introduces an oversight test to evaluate the use of digital technologies in arbitration. It consists of three parts : test elements, which define the core standards; test applications, which show their practical implementation; and proportionality criteria in sanctions, which set limits on intervention to preserve procedural justice.

2.2.1- Core elements of the test

We propose a five-element test to evaluate the legitimacy of AI use:³⁷

a– Disclosure and Transparency:³⁸

- Were both parties notified in advance of the tool used?
- Was the scope of its use, and potential impact, explained?
- Was sufficient information provided on its methodology?

b– Human Control :³⁹

- Did the tribunal retain full control over substantive decisions?
- Was there any unjustified delegation of critical decisions to the tool?
- Was there an independent human review of AI-generated results?

c– Examining and Objecting:⁴⁰

- Were parties reasonably able to review methodology and records?
- Was an effective objection and review mechanism in place?
- Was access to independent technical expertise available?

d- Substantial Harm and Proportionality:⁴¹

- Was a substantial procedural harm established?
- Did AI use affect the right to defense, or equality?
- Was the impact on the outcome decisive and significant?

e- Digital Governance:⁴²

- Were confidentiality and information security standards respected?
- Was compliance with applicable data protection laws ensured?
- Were recognized security protocols followed?

2.2.2- Application in practice :

This section explains how to apply control testing to practical cases, by classifying results according to different levels of violation. This includes three main categories: the case of no violation where the use of technology is considered to comply with procedural justice standards, the case of a minor violation that requires limited corrective action without a material impact on the course of justice, and finally the case of a material violation that requires strict intervention that may amount to invalidation of the action or imposition of proportionate penalties.

a- No Violation⁴³

If the first three elements are met, and the fourth element (substantial harm) is absent, there is no justification for annulment, or refusal of enforcement.

b- Minor Violation⁴⁴

If one of the first three elements is absent, without substantial harm, the case may warrant a warning, or guidance, without significant sanction.

c- Substantial Violation :⁴⁵

If core elements are missing, with a tangible impact on defense rights or procedural fairness, this may justify annulment, or refusal of enforcement.

2.2.3- Proportionality Standards in AI-Assisted Sanctions

Sanctions in electronic arbitration involving artificial intelligence should be proportionate to :⁴⁶

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a-The severity, and magnitude, of the violation

The penalty must correspond to the seriousness of the violation : it should be more severe if it infringes upon the fundamental rights of the parties, and lighter if it relates only to minor formal aspects.

b- The extent of impact on the dispute outcome

It must be considered whether the violation actually affected the balance between the parties or the integrity of the arbitral award. A more severe sanction is justified when the outcome is compromised, compared to cases where no real effect is observed.

c- Availability of less harmful alternatives

The principle of proportionality requires exploring lighter sanctions or corrective measures that achieve deterrence without imposing excessive harm on the proceedings or the parties' rights.

d- Public interest in the stability of arbitral awards

The penalty should take into account that the stability of the arbitration system is not disturbed, so that excessive strictness does not undermine confidence in its effectiveness, and leniency does not undermine procedural justice.

2.3- Recommendations and Reform Proposals

This chapter offers practical recommendations to strengthen fairness and efficiency in AI-driven electronic arbitration, directed to parties, arbitral tribunals, arbitration institutions, and legislators.

2.3.1- Recommendations for Parties

The electronic arbitration process requires the parties to commit to adopting the following basic strategies :

a- Advance Planning : ⁴⁷

An essential step to ensure effective management when using artificial intelligence in electronic arbitration processes, helping to reduce technical and procedural risks. This includes setting relevant standards.

- Include clear clauses in the arbitration agreement on the use of modern technologies.
- Establish detailed protocols for data protection, and confidentiality.
- Agree on mechanisms for resolving technical disputes.

b- Active Participation : ⁴⁸

Effective participation in the field of electronic arbitration and the use of artificial intelligence means the conscious and direct involvement of the parties in all stages of the arbitration procedures, with the aim of :

- Demand detailed disclosure of tools used.
- Exercise the right to object when necessary.
- Request independent technical expertise in complex cases.

2.3.2- Recommendations for arbitral tribunals

It requires developing internal policies for conducting arbitration sessions, as well as strategies for training arbitrators and building capacities:

a- Internal policies related to the conduct of arbitration sessions: ⁴⁹

- Adopting a clear policy for the use of artificial intelligence.
- Establishing standardized disclosure and documentation procedures.
- Establishing criteria to assess the need for human review..

b- Training and building the capabilities of arbitrators: ⁵⁰

- Developing arbitrators' experience in modern technologies.
- Establishing partnerships with technical experts
- Implementing specialized training programs.

2.3.3- Recommendations for Arbitration Institutions

These recommendations are mainly related to

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a- Rules and Procedures Development: ⁵¹

- Include explicit provisions on AI use.
- Establish minimum standards for security, and transparency.
- Implement regular review, and update mechanisms.

b-Support Services : ⁵²

- Provide certified and secure tools.
- Establish technical expertise centers.
- Develop awareness, and training programs.

2.3.4- Recommendations for Legislators and regulators

It concerns legislators and regulatory authorities :

a- Legislative Reforms: ⁵³

- Codify the concept of “digital procedural public policy.”
- Set clear standards for substantial harm.
- Adopt the principle of technological neutrality in statutes.

b- Institutional Regulation: ⁵⁴

- Establish specialized bodies for digital arbitration.
- Develop professional standards for arbitrators.
- Implement effective oversight, and evaluation mechanisms.

Conclusion:

In light of digital transformation, electronic arbitration is increasingly incorporating artificial intelligence ; however, it requires a precise legal and regulatory framework that balances technological benefits with the preservation of procedural justice guarantees.

This research concludes that judicial oversight of AI in electronic arbitration must rely on clear scientific and legal foundations, particularly the principles of technological neutrality and proportionality, while fully accounting for the actual impact on the parties' rights and procedural safeguards.

The study concluded with the following recommendations:

1-For the parties before the start of arbitration :

-Review arbitration clauses related to modern technologies.

- Agree on a data protection protocol.
- Identify technical dispute resolution mechanisms.
- Provide independent technical expertise when needed.

2-For arbitration bodies:

- Develop a clear policy on the use of artificial intelligence.
- Disclose in advance to the parties the tools to be used.
- Document human audits.
- Maintain detailed records of usage and decision.
- Ensure compliance with data protection standards.
- Provide training for arbitrators in the field of artificial intelligence.

3-To adjudicate invalidation and enforcement claims :

- Apply the five-year control test.
- Assess the substantive impact on defense rights.
- Examine compliance with transparency standards.
- Verify that sufficient guarantees exist.
- Adopt the principle of proportionality when imposing sanctions.
- Allow engagement of independent technical experts to assist judges in assessing the legality and reliability of AI tools used in electronic arbitration.

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In conclusion, the use of artificial intelligence in electronic arbitration requires coordinated efforts from all parties to preserve the essence of justice and fairness.

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²⁴ The Judicial Oversight Intensity Matrix can be illustrated as a graduated spectrum:
Low Oversight → confined to procedural checks (e.g., ensuring notice and consent).
Moderate Oversight → involves safeguarding the process and verifying the technical reliability of digital tools.

High Oversight → extends to substantive judicial review of automated reasoning and the fairness of arbitral outcomes.

This spectrum highlights that judicial intervention in electronic arbitration is not binary, but varies in intensity depending on the context.

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⁴¹ Ibid, 160–162.

⁴² Paul De Hert et al., The Right to Data Protection in the Digital Age (Hart Publishing, 2022). 55–59.

⁴³ Born, International Commercial Arbitration, Ibid, 172.

⁴⁴ Born, Ibid, 173.

⁴⁵ Born, Ibid, 174–175.

⁴⁶ Born, Gary B. International Commercial Arbitration, 3rd Edition. Kluwer Law International, 2021.

⁴⁷ Chartered Institute of Arbitrators, Guideline on the Use of AI in Arbitration (2025), 5–8.

⁴⁸ Ibid, 7–9.

⁴⁹ Born, International Commercial Arbitration, 3rd ed. (Kluwer Law International, 2021), 200–202.

⁵⁰ Born, Gary B, Ibid, 200–202.

⁵¹ Ibid, 200–201.

⁵² Ibid, 201–203.

⁵³ Ibid, 190–192.

⁵⁴ Ibid, 192–194.