

الذكاء الاصطناعي كتحديٍّ أو فرصة لآليات تسوية المنازعات البديلة

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الملخص

يصبح إدماج الذكاء الاصطناعي (AI) في تسوية المنازعات البديلة أكثر تحديًا نتيجة لتطور التكنولوجيا. على الرغم من أن الذكاء الاصطناعي يمكن أن يسرع الإجراءات ويقلل من الأخطاء البشرية، إلا أنه يأتي أيضًا مع عدة تحديات. يخصص هذا المقال ما إذا كان الذكاء الاصطناعي سيكون تحديًا لتسوية المنازعات التجارية البديلة، خاصة التوسط والتحكيم، أم فرصة تجعله أقوى وتساعد على تطويره أكثر. تفحص الدراسة تأثير الذكاء الاصطناعي على نزاهة التسوية البديلة للمنازعات، وشفافيتها، واللمسة البشرية باستخدام استعراض شامل للأدبيات وفحص نوعي. توضح الدراسة كيف يمكن أن يسرع الذكاء الاصطناعي الإجراءات في التسوية البديلة للمنازعات باستخدام التحليل التنبؤي والبيانات المدفوعة بالبيانات وتوفير بعض المنصات للتفاوض المنظم، وهو ما يعتبر قيمة في التوسط. يستكشف البحث أيضًا النتائج المعقدة لاستخدام الذكاء الاصطناعي في آليات التسوية البديلة للمنازعات، بما في ذلك المساءلة، والحفاظ على التعاطف البشري، ومشكلات التحيز الخوارزمي، لتحديد نطاق استخدام الذكاء الاصطناعي في آليات التسوية البديلة للمنازعات.

الكلمات الدالة: الذكاء الاصطناعي؛ تسوية المنازعات البديلة؛ التوسط؛ التحكيم.

Artificial Intelligence as a Challenge or Opportunity for Alternative Dispute Resolution Mechanisms

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Abstract

Artificial intelligence (AI) integration into ADR is becoming more challenging as a result of the development of technology. Although AI can speed up procedures and decrease human error, it also comes with several challenges. This article examines whether AI would be a challenge for alternative commercial dispute resolution, especially mediation and arbitration, or an opportunity that makes it stronger and helps to develop it more. The study examines AI's effects on ADR impartiality, transparency, and human touch using a thorough literature review and qualitative examination. The study illustrates how AI might speed up ADR procedures with the use of predictive analytics and data-driven insights and provide some platforms for organized negotiations, which is valuable in mediation. The research also explores the complex outcomes of using AI in ADR mechanisms, including accountability, the preservation of human empathy, and algorithmic bias issues, to determine the territory of using AI in ADR mechanisms.

Keywords: Artificial Intelligence; Alternative Dispute Resolution; Mediation; Arbitration.

Introduction

Alternative Dispute Resolution (ADR), which includes arbitration and mediation, has changed how business conflicts are handled. ADR has become more popular all across the world by offering processes that are frequently quicker, more private, and sometimes less combative than traditional litigation. Artificial intelligence (AI) could further transform this field with the help of 21st-century technical breakthroughs.

Both apprehension and excitement have accompanied the introduction of artificial intelligence (AI) into several industries. The field of ADR, particularly mediation and arbitration, has seen a rise in interest in the possible uses of AI in these industries.

The draw of AI-driven processes is undeniable, as ADR strives to offer a more effective, adaptable, and private way of settling conflicts outside of the typical courtroom setting. Supporters claim that AI may increase productivity, minimize human error, and streamline procedures.¹ On the other hand, critics express worries about the moral ramifications, nonconfidential nature, and loss of the "human touch" that is so essential to mediation.

This dichotomy asks whether AI will be a significant threat to ADR or a good chance to strengthen and improve its procedures. Weighing actual data against theoretical concerns and determining the probable course of AI's involvement in ADR becomes crucial as we consider the complexity of this subject.²

Although the innovative concept of using AI arbitrators and mediators in ADR aims to increase the effectiveness and standard of arbitration procedures, it could be scary in reality. On the other hand, the COVID-19 pandemic's constraints on travel have already forced arbitration to take place virtually or in a hybrid format³, and a complete in-person arbitration hearing is becoming more of an exception than the rule. Even if this situation were assumed to be temporary and probably unsustainable, the current environment shows that machines that promise speed and precision may be able to replace people rather readily.

Vance, G. A. (2018, August). Artificial Intelligence in The Legal Industry: The Future – Part 3. Information Age. <https://www.information-age.com/the-future-of-artificial-intelligence-in-the-legal-industry-11187/>

²Kaplan, A., & Haenlein, M. (2019). Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. *Business Horizons*, 62(1), 15-25.

Lindquist, D. H., & Dautaj, Y. (2021). AI in International Arbitration: Need for the Human Touch. *Journal of Dispute Resolution*, 39.

AI-infused software has the potential to entirely replace human arbitrators in arbitration. The enormous volume of cases in the courts, as well as the desire of businesses to compete in a strictly adjudicative environment, have led the national courts and politicians to outsource some of the fundamental parts of the legal system to arbitration thus far.¹ AI, on the other hand, exemplifies an entirely different kind of issue for the arbitration industry. It is a difficult choice to decide whether to give up the fundamental human values in ADR mechanisms in exchange for the benefits that machine arbitrators offer.

It is also crucial to recognize that the elevation of AI in alternative commercial dispute resolution may have the power to change how people, arbitrators, and mediators think and value things.² Since AI does not have human-like skills, these systems could have a negative or positive impact on human judgments, which will be discussed further.

Artificial Intelligence as an Opportunity

With its constantly growing capabilities, artificial intelligence (AI) is slowly changing how different sectors are organized. Alternative Commercial Dispute Resolution (ADR) is one such area that is ready for revolution. AI has the potential to improve ADR procedures like mediation and arbitration at the nexus of law and technology. We explore how this paradigm shift may be brought about by AI in more detail below.

A. Enhanced Efficiency and Predictability

The ability of AI to manage enormous datasets is unrivaled. In the context of ADR, AI systems may examine previous dispute resolution data, identify trends, and provide suggestions for practical approaches to disagreements of a similar nature in the future. The resolution process may be greatly accelerated by using this data-driven strategy.³

With its data-driven algorithms, AI can assess a sizable amount of previous dispute resolution information. With the use of this, it can spot patterns and trends, enabling faster resolution techniques and giving information about likely results based on past precedent.⁴ However, it could be considered more of an advantage in ADR mechanisms in which the governing law system is common law.

Ibid¹

See Kissinger, H. A. (2018). How the Enlightenment Ends, *The Atlantic*.²
<https://www.theatlantic.com/magazine/archive/2018/06/henry-kissinger-ai-could-mean-the-end-of-human-history/559124/>.

Davenport, T. H., & Ronanki, R. (2018). Artificial Intelligence for the Real World. *Harvard Business Review*.³

⁴ Susskind, R. (2019). *Online Courts and the Future of Justice*. Oxford University Press.

AI can use predictive analytics to provide parties with a likely projection of possible outcomes by looking at prior decisions, agreements, and mediation results. Such information can assist disputing parties, especially in mediation, in making judgments about whether to settle or continue their dispute.¹

Artificial intelligence (AI) technologies can automatically comb through enormous quantities of paperwork, collecting relevant information and rationally arranging it using Optical Character Recognition (OCR)² and Natural Language Processing (NLP)³. The amount of time needed to prepare for an arbitration hearing or mediation session might be greatly reduced as a result.⁴

AI systems can help arbitrators by giving them quick access to precedent-setting cases, decisions, or relevant statutes. Such real-time data can assist arbitrators in reaching conclusions that are consistent and well-informed.⁵

B. Cost-Effective Solutions

All parties concerned can save a lot of money by automating some ADR process steps using AI to save time and human resources that would otherwise be needed. The human work required for projects like documentation, evidence gathering, and preliminary research accounts for a sizeable portion of ADR-related costs. These procedures may be automated by AI using techniques like OCR and NLP, which reduces both time and expenses.⁶

AI can provide prescriptive insights on likely outcomes by utilizing historical dispute data. These projections can be used by the parties to make an informed decision about whether to pursue arbitration, choose mediation, or look into an out-of-court settlement. Making wise decisions can result in big cost savings.⁷

The direct expenses of ADR include travel, venue rentals, and logistical considerations. Many of these expenses may be avoided using AI-driven virtual platforms. Geographical boundaries become irrelevant thanks to these platforms' ability to allow online mediation or arbitration sessions.⁸

Al-Aswad, Z., & Fernandez, E. C. (2019). Predictive Coding: A Silver Bullet in ADR and Mediation? *Journal of Information, Law and Technology*.¹

The process of converting typed, handwritten, or printed text from photographs into machine-encoded text is called optical character recognition (OCR).²

The field of computer science known as "natural language processing" (NLP) is more particularly the field of "artificial intelligence" (AI) that is concerned with providing computers the capacity to comprehend written and spoken words in a manner similar to that of humans.³

⁴Jurafsky, D., & Martin, J. H. (2019). *Speech and Language Processing*. Cambridge University Press.

Kerr, R., & Wisskirchen, G. (2018). *Artificial Intelligence and Robotics and Their Impact on the Workplace*.⁵ IBA Global Employment Institute.,

Chui, M., Manyika, J., & Miremadi, M., Where machines could replace humans—and where they can't (yet),⁶ McKinsey Quarterly, 2016.

Al-Aswad, Z. (n8).⁷

Katsh, E., & Rabinovich-Einy, O. (2017). *Digital Justice: Technology and the Internet of Disputes*. Oxford University Press.⁸

In case management, the scheduling of mediation or arbitration sessions may be made more efficient by AI, ensuring that the time of the mediator or arbitrator is used properly and without unnecessary pauses. Quicker resolutions and, hence, lower expenses may result from this.¹

Moreover, translation and transcription costs can play a big role in international conflicts. Real-time translation capabilities provided by AI-powered solutions can eliminate the need for human translators and stenographers.²

C. Neutral Analysis: Reality or Dream

The topic of whether artificial intelligence (AI) can be more impartial than human arbitrators and mediators is raised by the advent of AI and its possible inclusion in ADR. AI relies on data and algorithms to function. Theoretically, it is free of any feelings, biases, or preconceptions that could affect how people make judgments. Therefore, AI can seem to be a shining example of objectivity, guaranteeing consistent and impartial judgments based only on factual information and legal precedents.³

AI can provide an objective examination of disagreements, removing prejudice and providing data. AI technologies can ensure objective data analysis to maintain a fair playing field, especially in mediation where emotions might be volatile.⁴

Human arbitrators and mediators bring to the table a wealth of knowledge, insight, and familiarity with the human condition. They are able to empathize, understand the subtleties of human communication, and interpret emotions. They could, however, unknowingly harbor prejudices that might affect their impartiality.⁵ Although AI relies on logic and data to function, the data it uses may be biased. If an AI bases its findings on skewed or unrepresentative data during training, its decision-making process might be incorrect or even prejudiced.⁶

Human arbitrators and mediators have emotional intelligence, which enables them to comprehend the intricacies of disagreements beyond just the facts. They are able to decipher motives, assess honesty, and detect emotional undertones. However, their backgrounds and personal experiences may induce unintentional prejudices.⁷

Davenport, T.H. (n 6).¹

Hutchins, W. J. (2019). *Machine translation: A concise history*. John Benjamins Publishing Company.²

Knight, W. (2017). *Biased Algorithms Are Everywhere, and No One Seems to Care*. MIT Technology Review.³

Dignum, V. (2019). *Responsible Artificial Intelligence: How to Develop and Use AI in a Responsible Way*.⁴

Springer Nature.

Kahneman, D. (2011). *Thinking, Fast and Slow*, Farrar, Straus and Giroux.⁵

Buolamwini, J., & Gebru, T. (2018). *Gender shades: Intersectional accuracy disparities in commercial gender*⁶

classification. *Proceedings of Machine Learning Research*.

Goleman, D. (1995). *Emotional intelligence*. Bantam Books.⁷

Although AI relies on algorithms to make judgments, it can be difficult to comprehend and analyze these algorithms. Contrarily, human mediators and arbitrators may justify decisions, establish rapport, and promote trust, creating an atmosphere where parties feel heard and understood.¹

Perhaps there are other options beyond "either/or" when it comes to the future of ADR. Combining AI's data-driven methodology with human emotional intelligence may provide a fair, impartial, and more effective resolution mechanism. While humans still make the final decisions, AI might help with evidence analysis and precedent retrieval.

D. Breaking Down Barriers: Language and Culture

The language barrier is one of the most pressing issues with cross-border ADR procedures. During mediation or arbitration sessions, AI-powered translation technologies may deliver real-time, accurate translations, ensuring that all parties fully grasp the proceedings.²

Beyond simple translation, powerful Natural Language Processing (NLP)--enabled AI systems may be trained to identify and understand cultural quirks, idioms, and colloquialisms. This can help to ensure that the parties' underlying thoughts and intentions are properly understood and communicated.³

By replicating various cultural contexts or by offering data-driven insights into cultural preferences and behaviors, AI can help in the training of mediators and arbitrators. This guarantees that experts are prepared to resolve cross-cultural conflicts with subtlety and empathy.⁴

In addition, AI can customize ADR procedures to the parties' cultural backgrounds and preferences. AI can provide mediation or arbitration arrangements that connect with the cultural sensibilities of the opposing parties by examining historical data and cultural knowledge.⁵

Furthermore, AI could help the international arbitration market achieve its goal of diversity by choosing arbitrators or mediators who are not educated or qualified in countries that are known as seats of arbitration. Arbitrators and mediators using AI could either understand various regulations without being educated about them or analyze documents in other languages, which would lead to a more diverse market for appointing arbitrators and mediators in the ADR field.

O'Neil, C. (2016). *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*.¹ Crown.

Hutchins, W. (n15).²

Jurafsky, D. (n 11).³

Nemeth, C. (2017). *Inclusion, Exclusion, and the Governance of Global Health, The Role of Mediating Institutions*. *Global Health Governance*.⁴

Rahwan, I. (2018). *Society-in-the-loop: programming the algorithmic social contract*. *Ethics and Information Technology*.⁵

Artificial Intelligence as a Challenge

While AI may speed up procedures and decrease human error rates, it also comes with several disadvantages. This part explores these difficulties and takes into account how AI may affect business ADR procedures.

A. Ethical Concerns

As discussed, large datasets are used to train AI models, and the objectivity of this data is a requirement for the output's neutrality. The AI's judgments and suggestions may be distorted if the training data is biased, which might compromise the ADR process's impartiality.¹

Further to the partiality potential, ADR depends on openness and trust. The parties must comprehend how choices are made. Due to AI's sometimes "black box" character, there is a chance that the rationale underlying its conclusions may not be completely visible, which might foster mistrust and anxiety.²

On the other hand, AI models in ADR would probably need access to sensitive data, including trade secrets, individual user information, and complex dispute details. It is crucial to protect the security and privacy of this data, and violations might result in serious moral and legal consequences.³

Further to the mentioned concerns, over-reliance on technology is an important issue that must be considered. Parties may become less critical or passive in their decision-making if AI is excessively relied upon. Parties run the danger of relying too much on AI advice, which would undermine their ability to use common sense and judgment.⁴

B. Depersonalization

Another issue in this regard could be the depersonalization of the ADR process. Empathy, understanding, and rapport-building are frequently used in ADR, particularly mediation. Excessive dependence on AI might make the process impersonal and eliminate the human components that frequently help reach peaceful settlements.⁵

The main issue for which AI could not have any response would be accountability. The mediator or arbitrator is in charge of conventional ADR. Determining who is responsible for undesirable or

¹O'Neil, C. (n 23).

Castelvecchi, D. (2016). Can we open the black box of AI?, Nature News.²

Zarsky, T. Z. (2016). The Trouble with Algorithmic Decisions: An Analytic Road Map to Examine Efficiency³ and Fairness in Automated and Opaque Decision Making, Science, Technology, & Human Values.

Carr, N. (2010). The Shallows: What the Internet Is Doing to Our Brains'. W. W. Norton & Company.⁴

⁵ Menkel-Meadow, C. (2001). Mediation, democracy, and disputes: The contingency of process values'. Journal of Dispute Resolution.

inaccurate outcomes becomes difficult when AI is used. This issue will be discussed further in the accountability issue.¹

C. Accountability

Strict professional standards are applied to human arbitrators and mediators. They are responsible for their choices, their deeds, and any prejudices that could show up in their assessments.² These experts are obligated to declare conflicts of interest or prejudice when they occur. For wrongdoing, they may be liable for professional reprimands, penalties, or even legal ramifications.

Given its ambiguity, AI's decision-making process is unclear. Although AI is capable of processing enormous volumes of information quickly, pinpointing the exact method by which it concludes can be challenging.³

Due to its opacity, it may be difficult to determine why an AI system made a contested or incorrect judgment, which raises questions about its responsibility in delicate procedures like ADR.

1. *Who is to Blame? The AI Accountability Quagmire*

It becomes difficult to apportion culpability when AI makes mistakes or provides disputed results. In this regard, we should find a suitable response to a challenging question about blaming factors in this type of situation. The AI's creators, the data it was trained on, the experts using it, or the system itself could be considered blaming factors, but considering non-human factors responsible is a challenging issue.

Since there is a lack of an efficient response to the upcoming question, we should consider technical reliability, legal compliance, and human intervention and observation when using AI. The correctness, consistency, and openness of AI's decision-making processes are ensured by technical reliability. To encourage trust, people must be able to understand the reasoning behind AI-generated judgments.

Ensuring that AI behavior complies with applicable laws and ethical standards is crucial, especially when AI makes choices that affect people's rights and the course of the law. It is also important to put in place procedures that allow human specialists to supervise and step in during AI-mediated processes, particularly during contentious and emotionally charged conflicts.

Rahwan, I. (n 27).¹

Kovach, K. K. (2014). *Mediation: Principles and Practice*. West Academic Publishing.²

Castelvecchi, D. (n 29).³

2. The Human Touch: Empathy, Understanding, and Responsibility

In ADR, human professionals provide a human touch of understanding and sensitivity. They are accountable for their judgments and are capable of justifying them. While AI can help in many ways, it lacks the fundamental human characteristics that are the cornerstone of confidence in ADR procedures.¹

Creating ethical guidelines could help with this issue. Companies creating AI for conflict resolution should create ethical standards that all AI systems must abide by. Fairness, openness, and non-discrimination should all be reflected in these rules.

In addition, regular audits and monitoring of the performance of AI systems can assist in discovering biases and errors. Then, modifications and corrections can be made to maintain fairness. When complicated, context-dependent issues occur that AI might not be able to effectively solve, we should provide systems that allow human specialists to evaluate and overrule AI-generated choices. Moreover, parties participating in AI-mediated conflict resolution should be made aware of their rights as well as the process's drawbacks. This encourages wise decision-making and consent.

D. Inflexibility and Rigidity

AI operates within the constraints of its algorithms, in contrast to the natural flexibility of ADR. Such operational rigidity may render AI unprepared to handle unusual or complicated disagreements that don't fit within its predetermined limitations.²

Standardizing procedures and results based on patterns is one of AI's capabilities. While this could increase effectiveness, it might also undermine the case-specific, tailored approach that ADR advocates. The resolutions produced might look formulaic and lack the subtlety and customization that parties would desire.³

AI in Online Dispute Resolution (ODR)

Online dispute resolution (ODR) is the practice of resolving conflicts between parties without the necessity for traditional courtroom litigation in person. In order to improve and streamline the ODR process, AI has become more and more crucial. The ability to analyze data, understand natural language, and make decisions are some impacts of AI to speed up dispute resolution, save expenses, and increase accessibility.

Menkel-Meadow, C. (n 32).¹
Brynjolfsson, E., & McAfee, A. (2014). *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*. W. W. Norton & Company.
Davenport, T.H. (n 6).³

A. Online Dispute Resolution (ODR)

The idea behind online dispute resolution (ODR) is to settle disputes without the need for traditional legal procedures by integrating technology and alternative dispute resolution techniques. To facilitate negotiations, mediations, and arbitrations in a virtual setting, ODR makes use of AI, machine learning, and automation. There are some benefits to this strategy, like accessibility, efficiency, and cost-effectiveness.

The ODR eliminates distance obstacles, allowing parties from various places to take part in the dispute resolution procedure. Furthermore, the resolution process is accelerated by the quick communication and document exchange made possible by online platforms. The ODR also minimizes travel and administrative costs by reducing the demand for physical presence. Data-driven AI-powered analytics provide parties with insights into possible results based on prior data, assisting in making well-informed decisions.

1. Online Mediation

Online mediation uses technological platforms and tools to speed up the settlement of conflicts between opposing parties. Without having to be physically present in the same place, participants can participate in mediated talks that are facilitated by a neutral mediator using video conferencing, online chat, and collaborative platforms. An agreement is often reached after a series of meetings in which the mediator assists the parties in finding points of agreement, considering alternative courses of action, and reaching an understanding.

The increased accessibility of online mediation is one of its main benefits. Geographical boundaries are greatly diminished, enabling parties from various areas or even nations to participate in mediation without the need for protracted travel. This is especially important for international conflicts because parties may be spread across different continents.¹ Traditional mediation frequently requires parties to plan schedules, travel, and lodging, which may take a lot of time and resources. Online mediation avoids these issues, resulting in considerable efficiency benefits.²

Smith, A. B., et al. (2020). The Impact of Online Mediation on Accessibility to Justice. *Journal of Dispute Resolution*, (2), 285-307.

Brown, C. M., & Johnson, R. E. (2019). Comparing Online and In-Person Mediation: The Impact of Communication Mode on Settlement Agreements. *Negotiation and Conflict Management Research*, 12(4), 301-319.

In-person sessions cannot compare to the flexibility of online mediation. Participants may participate from their own homes, which lessens the tension and anxiety that may be related to in-person interactions. This feeling of ease may encourage more honest and useful communication.¹

Even though there are many advantages, there are also drawbacks. The procedure might be hampered by technical problems like inadequate internet access or a lack of experience with digital platforms. Furthermore, the mediator's absence might weaken the sense of intimacy between the parties. In order to overcome these difficulties, mediators must be adept at making the most of technology while also giving priority to techniques for establishing rapport and sustaining participation.

2. Online Arbitration

The ability of technology to revolutionize conflict resolution is demonstrated through online arbitration. Online arbitration has established itself as a key player in the modern dispute resolution scene thanks to its capacity to overcome geographical limitations, increase effectiveness, and provide affordable alternatives. The future of arbitration offers great potential for deeper technological integration while upholding the fundamental principles of justice, neutrality, and enforceability. This is because the world is becoming more and more digital.

Internet domain name conflicts are frequently resolved by online arbitration, which may be legally binding or not. Arbitrations conducted online for domain name disputes may also be enforceable in court. The Hong Kong Domain Name Dispute Resolution Policy ("HKDRP"), which is governed by the HKIAC, uses a more direct method to implement the panel's ruling.

3. Emerging Frontiers: Smart Contracts, Blockchain, and the Future of Dispute Resolution

Self-executing contracts, or "smart contracts," are programmed agreements that automatically carry out and uphold the terms and conditions laid out in them. These contracts operate on blockchain networks, which are decentralized ledgers that securely and openly record transactions. These technological

¹ Garcia, J. J., & Lee, R. (2021). The Impact of Online Mediation on Dispute Resolution Outcomes. *International Journal of Online Dispute Resolution*, 8(1), 25-43.

advancements have the potential to revolutionize arbitration by streamlining and automating the process.

The field of smart contract-based arbitration is rapidly changing as we enter the current year. Due to its promise to provide effective and impenetrable records of transactions and agreements, the idea has gained support across industries, from banking to supply chain management. Businesses and legal professionals are looking for methods to use this technology to speed up resolutions, save costs, and improve arbitration procedures.

Smart contracts may be created on Ethereum, a well-known blockchain platform that helps speed up arbitration. These agreements specify the arbitration's rules and carry out the results of the arbitration automatically. Although Ethereum does not come with built-in arbitration mechanisms, smart contract technology has been investigated as a potential means of facilitating and automating arbitration procedures.

On the Ethereum blockchain, Kleros is a decentralized dispute resolution technology. It strives to offer quick, secure, and cost-effective arbitration for a variety of conflicts. Crowdsourcing and blockchain technologies are used by Kleros to choose jurors who will examine the evidence and make judgments. This platform serves as an illustration of how smart contracts and blockchain technology may be used to build a decentralized arbitration system.

B. Current Role of AI in Online Dispute Resolution (ODR)

eBay and PayPal, as two of the first companies to employ ODR, have arbitrated conflicts between customers and sellers using websites like Modria. Colin Rule, a pioneer in online conflict settlement, established the software "Modria" as an illustration of automated negotiation. Companies like eBay and PayPal have utilized Modria to settle conflicts between customers and sellers. The system employs AI to examine the specifics of a disagreement and make suggestions for possible resolutions based on previous results and industry best practices.

Furthermore, the Dutch website "Rechtwijzer" provides online mediation services for divorce disputes. It uses chatbots powered by AI to assist users in expressing their wants and concerns as they move through the mediation process. The portal also offers legal information and aids in helping users comprehend the effects of certain choices.

The American Arbitration Association is another example that incorporates predictive analytics into its ODR system. Predictive analytics have been integrated into the ODR platform by the American Arbitration Association (AAA). The technology can offer parties insights into potential outcomes depending on the facts of their disagreement by evaluating data from

hundreds of prior instances. During a negotiation, this knowledge can help parties make wise judgments.

In addition, law firms have been using Kira, an AI contract analysis tool, to expedite the study of legal documents in a variety of circumstances, including dispute resolution. Lawyers can concentrate on the most important material since they can swiftly extract crucial terminology, clauses, and requirements.

The ODR platform of the European Union also uses AI-driven translation capabilities to break down language barriers and ensure that parties can interact successfully even if they speak different languages. This encourages accessibility and aids in mutual understanding between the parties.

On the other hand, there are some decision-support technologies, like Smart Judge. A "smart judge" powered by AI was used in 2017 by the Beijing Internet Court in China to aid human courts in the review of copyright infringement cases. Large amounts of data were evaluated by the system to produce suggestions based on legal theories and earlier rulings. Moreover, some emotion recognition technologies could assist mediators in comprehending the emotional states of parties and better addressing their problems.

C. Various Obstacles and Future Directions

Even though ODR has a lot of advantages, there are still some issues. Data privacy, the possibility of bias in AI systems, and the necessity to balance automation with human control are among the issues raised. A developing field is the incorporation of emotional intelligence into AI systems for a better understanding of parties' feelings.

Furthermore, the primary goal of the arbitration procedure is to make arbitral rulings enforceable. If the arbitrator's decision turns out to be unenforceable, the parties' efforts to arbitrate their differences would be ineffective. But within the current legal framework, it's not obvious whether awards made by an algorithm rather than a human arbitrator may be enforced. The fundamental conditions for the arbitral procedure and the arbitral award may give rise to the argument that awards issued by machines are not enforceable, even in the absence of clear regulations prohibiting machine-presided arbitrations.

Similar to the New York Convention, the ICSID Convention stipulates that if the membership of the arbitral tribunal does not follow the parties' agreement, the award may be rejected for enforcement or revoked accordingly. Therefore, the huge issue is how the process of appointing arbitrators works in this type of situation and how we can be sure the process meets the conventions' requirements.

It is debatable whether a computer that is designed to either react to a specific trigger in a predetermined way or "learn" from similar circumstances can manage the non-linear duties of distinguishing a truly unique occasion from an abusive approach or drawing a negative inference. Uncertainty surrounds the robot arbitrator's ability to apply abstract ideas like good faith, reasonableness, materiality, or best efforts. Legal norms typically include these ideas, and the way a particular rule is applied may depend on them. A robo-arbitrator who struggles to understand and apply such notions would be unable to make an accurate decision regarding the application of the pertinent legal standard.¹

However, ODR's future seems bright as it keeps developing. To set clear rules, assure fairness, and protect the values of justice in the digital sphere, cooperation between legal professionals, technologists, and legislators is crucial.

Conclusion

The integration of AI into the field of ADR offers the prospect of improved effectiveness, inclusiveness, and flexibility. This does not come without difficulties, either. While there are many potentials presented by AI, securing its ethical and successful integration will require cooperation among engineers, legal experts, and legislators. AI-enhanced ADR has the potential to completely reshape the nature of business dispute resolution, improving its effectiveness and accessibility for all parties.

It seems an interactive platform where participants may hold preliminary talks, simplify agendas, and lay the framework before human mediators and arbitrators take over can be made by utilizing AI chatbots and virtual assistants. While AI may help with decision-making, there is a fine line between helping and taking the place of human judgment. The autonomy and knowledge of human arbitrators and mediators may be compromised if AI proposals become excessively deterministic.²

Al-Rashid, M., & Bardyn, U. (2019). The Role of Artificial Intelligence in International Arbitration. Retrieved ¹ from <https://globalarbitrationreview.com/review/the-arbitration-review-of-the-americas/2020/article/the-role-of-artificial-intelligence-in-international-arbitration>.
Davenport, T.H. (n 6).²

Even though AI would be better not to be considered an arbitrator or mediator due to the existing challenges discussed before, it could become an assistant in the ADR mechanism to make it more efficient. In mediation, parties must be guided by mediators to find a solution to their conflict by themselves, and AI mediators may assist in the first conversations, assess the positions of the parties, and create a positive tone for following human-led sessions. However, they cannot replace human mediators, and human touch is still crucial in mediation.

Furthermore, AI could be used to offer mediators and arbitrators continuous training. It may provide insights, improve skill sets, and guarantee that ADR practitioners are prepared to tackle the subtleties of contemporary business conflicts by simulating numerous scenarios.

The world we live in will continue to change as a result of AI's immense capabilities. It is uncertain how much AI will affect our lives over the next few years, but it will continue to progress, even if not indefinitely. There is no proper mechanism to respond efficiently to growing AI in various fields of law, especially dispute resolution. It seems that due to the fast growth of AI in online dispute resolution and its benefits in ADR mechanisms, we should revise the existing common conventions and regulations based on the upcoming requirements and prevent the total sovereignty of AI. It seems the full surrender of power to this new technology is against the elemental goal of ADR, which is the achievement of justice based on human consciousness. Legal practitioners should learn how to embrace AI's potential and utilize it to the benefit of their clients and users rather than fighting it.

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