

TRANSFORMING ADR USING TECHNOLOGY: AI-DRIVEN TOOLS AND THE RISE OF ONLINE DISPUTE RESOLUTION PLATFORMS

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ABSTRACT

The digital era has led to a shift in dispute resolution to technology, with India's judiciary implementing the "E-Courts Mission Mode Project" to automate court systems and provide virtual hearings. This project aims to improve justice administration and resolve disputes before litigation. However, concerns like data privacy, cybersecurity, and the digital gap need to be addressed. This paper analyzes India's arbitration progress, focusing on advanced technologies like video and audio conferencing, e-discovery tools, blockchain solutions, and smart contracts, as well as new opportunities for secure and automated systems. The doctrinal research approach of this study entails examining legal documents, judicial precedents, and legislation concerning technology in arbitration. Analytically, it explores the development of the arbitration process in India and its future trajectory considering virtual hearings, e-discovery, blockchain, and smart contracts. India's digital arbitration process is expected to evolve, requiring lawmakers to establish legal principles and strong ethical standards to regulate its use. This shift towards digitalization may overshadow the fundamental principles of justice and legal proceedings in the digital environment, requiring careful consideration of potential risks and optimizing the positive effects of technology use

Keywords: Arbitration, E-Courts, Artificial Intelligence, ODR

Introduction

Alternative dispute resolution has been transformed into online dispute resolution because of the widespread use of digital technologies in recent decades. During the last several years, "online dispute resolution" (ODR) has made its way into the court system, further eroding distinctions between judicial and extrajudicial conflict resolution, as well as between virtual and physical spaces for seeking redress.¹ Recently, AI has entered the field of conflict

resolution, mostly via the application of AI to the task of prediction. It's safe to expect that as ODR develops and AI becomes more commonplace, the two will increasingly overlap in private and public conflict resolution, giving birth to a new kind of DR known as AI-DR. The use of AI in the legal and ADR sectors is on the rise, and its importance is only anticipated to expand in the years to come. Unanswered are issues about how AI will be designed and what strategies will be used to maximise its benefits and mitigate the risks associated with AI-based choices, suggestions, and forecasts. To retain their legitimacy and play their intended social function, dispute resolution

1 H. Alessa, "The Role of Artificial Intelligence in Online Dispute Resolution: A Brief and Critical Overview," *Info. & Comm'n's Tech. L.* 31(3), 319 (2022).

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mechanisms must be seen as fair, trustworthy, and responsible.²

The dreadful COVID-19 outbreak has forced urgent action. The use of technology is an unavoidable trend that has been accepted by justice delivery systems worldwide. This shift away from a focus on physical locations, such as courts, has led to the concept of "justice" being recast as a "service" that may be rendered whenever and wherever it is most convenient for the parties involved. When it comes to implementing technological fixes to make the system accessible even as security measures modify processes, India's judicial system has been at the forefront.³ The leadership and pioneering efforts of the court in these trying times have legitimised the use of technology to allow conflict settlement and, as a result, access to justice. There is an increasing need for change, an urgent requirement to reduce the backlog in the legal system, increased expectations for ways of dispute resolution that are both accessible and efficient in terms of cost, and, last but not least, the technological accessibility have all come together to put India on the cusp of a potentially game-changing transformation in the framework for the delivery of justice.⁴

AI, blockchain, big data, and machine learning (ML) are all examples of cutting-edge IT that potentially find widespread use in the judicial system. In addition, India is heading in the direction of ubiquitous connectivity, e-learning tools for legal guidance for the average person, the chance for litigants to exercise greater choice and agency in their selection of legal service providers, AI/ML-led drafting, case management automation document automation, and analysis.⁵ They are all developments in the correct way. Smart contract arbitration proceedings powered by blockchain technology are one area where the full potential of technology may be realised. Smart contracts are written in computer code and may leverage technology to make the transfer of rights

and duties automatically enforceable. Thus, disputes arising out of such smart contracts may be amicably settled via blockchain arbitration.⁶

Literature Review

Rakhmatullaev (2024)⁷ also focuses on the ODR revolution where he discusses the benefits that AI brings into the preparation and processing of the different ODR processes. The study shows how AI can help reduce mediators' and arbitrators' workload on non-core activities and provide them with a more time to devote to challenging tasks.

Androulaki (2023)⁸ explores the usage of Artificial Intelligence in digital justice platforms noting the capability to deliver time effective and affordable means.ution processes. The study highlights AI's ability to automate routine tasks, enabling mediators and arbitrators to focus on complex decision-making.

Schmitz (2024)⁹ provides that appropriate utilization of AI in civil matters should encompass an accurate presentation of the results and complete openness of the method employed to come to such outcomes. Her work also raises a pertinent question on how best to regulate the bias and the methods of making those regulating it accountable. Tihamiyu (2022)¹⁰ also highlights these concerns in the ethical question that arise in the use of modern technologies in ODR.

Vy (2023)¹¹ concerns about the impact of AI for data protection are analysed and, therefore, the author asks whether AI is an enabler or a threat to privacy in ODR.in dispute resolution processes. The study highlights AI's ability to automate routine tasks, enabling mediators and arbitrators to focus on complex decision-making. The ethical challenges of

- 2 E. Alsamhan, "AI and Online Dispute Resolution: Mediation," *J. Sci. Dev. Stud. & Rsch.* 4(13), 283 (2023).
- 3 M. Androulaki, "Digital Justice: AI and Platform-Based Dispute Resolution" (2023).
- 4 J. Bakst et al., "Artificial Intelligence and Arbitration: A US Perspective," *Disp. Resol. Int'l* 16, 7 (2022).
- 5 R.W. Campbell, "Artificial Intelligence in the Courtroom: The Delivery of Justice in the Age of Machine Learning," *Rev. Forumul Judecatorilor* 15 (2023).

- 6 C.J. Duger, "AI: Increasing Alternatives in Alternative Dispute Resolution," *Resolved: J. Alt. Disp. Resol.* 12, 21 (2024).
- 7 I. Rakhmatullaev, "AI and Online Dispute Resolution," *World Bull. Mgmt. & L.* 32, 63 (2024).
- 8 Androulaki, M. "Digital justice: AI and platform-based dispute resolution" (2023).
- 9 A.J. Schmitz, "Responsible Use of AI in Civil Dispute Resolution," *Ohio St. Legal Stud. Rsch. Paper No.* 870 (2024).
- 10 O.M. Tihamiyu, "The Impending Battle for the Soul of ODR: Evolving Technologies and Ethical Factors Influencing the Field," *Cardozo J. Conflict Resol.* 23, 75 (2022).
- 11 N.N.T. Vy, "AI Implementation in ODR: A Game-Changer or a Troublemaker of Data Protection," *Vietnamese J. Legal Sci.* 8(1), 1 (2023).

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AI integration are a recurring theme.

Duger (2024)¹² examines AI's potential to expand alternatives in ADR, highlighting its ability to offer innovative solutions to longstanding challenges. The study recognizes AI's capability to analyze vast amounts of data and provide insights, which can facilitate better outcomes. However, it also emphasizes the need for human oversight to prevent misuse or errors.

Methodology

The study uses a doctrinal research approach to analyze the use of AI instruments in dispute resolution (ADR) and other dispute resolution processes. It critically examines existing legal systems, theoretical literature, and technology to understand the legal frameworks and ethical issues surrounding AI application in dispute resolution. The study also examines statutory laws, case laws, international conventions, and policy papers to identify current discussions and directions. The methodology also compares global trends on AI and ODR, ensuring a clear understanding of the effects of AI-driven tools on efficiency and fairness in dispute resolution.

Evolution of Arbitration in India

Arbitration in India has seen a long history of development that was characterized by major legal changes towards the acknowledgement of arbitration as a viable mode of dispute resolution. The Arbitration in India was historically governed by the Arbitration Act of 1940 which was deemed to be overly procedure oriented and inefficient. Arbitration and Conciliation Act, 1996 was the turning point with the intention to bring Indian law of arbitration closer to the international standards, i.e. by implementing the UNCITRAL Model Law on International Commercial Arbitration. This law reform came up with a leaner more effective system that made arbitration a more appealing alternative to conventional litigation.¹³

Further reforms have continued to shape the arbitration landscape in India. The "Arbitration and

Conciliation (Amendment) Act, 2015", and subsequent amendments in 2019 and 2021, have focused on expediting the arbitration process, improving institutional arbitration, and promoting India as a global arbitration hub. The important aspects of these amendments are that a time limit is to be imposed on the arbitral awards, that the arbitrators are to be appointed by specified institutions and an Arbitration Council of India has been created to control and make commercial arbitration vibrant. Such reforms have made delays minimal and arbitration process highly credible in India.

Judiciary has been equally instrumental to the development of arbitration in India through realization of pro-arbitration judicial approach. Landmark judgments by the Supreme Court of India, such as "*BALCO v. Kaiser Aluminum*"¹⁴ and "*SBP & Co. v. Patel Engineering*"¹⁵, have clarified crucial aspects of arbitration law, reinforcing the principles of minimal judicial intervention and party autonomy. Additionally, the promotion of institutional arbitration, with institutions like the "Mumbai Centre for International Arbitration" (MCIA) and the "Delhi International Arbitration Centre" (DIAC), has provided a structured and efficient framework for dispute resolution.

Furthermore, the emergence of the rise of ad-hoc arbitration institutions in the industry including construction, maritime, and intellectual property industries symbolizes the flexibility and development of arbitration in India. The modernization of the arbitration process also implies the turn to technologies and the use of digital tools in arbitration proceedings which carry out with greater frequency. Overall, the evolution of arbitration in India demonstrates a robust commitment to enhancing the efficiency, transparency, and global competitiveness of the country's dispute resolution mechanisms, positioning India as a favorable destination for both domestic and international arbitration.

Virtual Hearings: Revolutionizing Arbitration

Virtual hearings have revolutionized arbitration by leveraging technology to create a more accessible, efficient, and cost-effective dispute resolution

¹² C.J. Duger, "AI: Increasing Alternatives in Alternative Dispute Resolution," *Resolved: J. Alt. Disp. Resol.* 12, 21 (2024).

¹³ M. Garg, "Promoting Efficiency of Arbitration in India by Using Technology," *Indian J. Arb. L.* 11, 79 (2023).

¹⁴ Inc. 2010 1 SCC 72

¹⁵ Appeal (civil) 4168 of 2003

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process. The COVID-19 pandemic accelerated the adoption of virtual hearings as travel restrictions and social distancing measures made traditional in-person arbitration impractical. This sudden shift demonstrated the resilience and adaptability of the arbitration community, paving the way for long-term changes in how arbitration is conducted.¹⁶

One of the primary advantages of virtual hearings is the elimination of geographical barriers. Parties, arbitrators, and witnesses can participate from different parts of the world without the need for travel, significantly reducing the costs and time associated with arbitration. This increased accessibility ensures that arbitration remains a viable option for parties regardless of their location, promoting inclusivity in the dispute resolution process.¹⁷

Technological advancements have also enhanced the efficiency of virtual hearings. Video conferencing platforms, electronic document management systems, and real-time transcription services streamline the arbitration process, allowing for seamless communication and collaboration among participants. The ability to share and review documents digitally reduces the reliance on physical paperwork, further expediting proceedings.¹⁸ However, the shift to virtual hearings also presents challenges that need to be addressed to ensure fairness and due process. Issues such as maintaining the confidentiality of proceedings, preventing witness tampering, and ensuring the integrity of evidence are critical considerations. Robust cybersecurity measures and protocols for authenticating digital evidence are essential to safeguard the arbitration process.

Moreover, the effectiveness of virtual hearings relies on the technological proficiency of all participants. Arbitrators, parties, and legal representatives must be adequately trained to navigate the digital tools used in virtual hearings. Ensuring that all participants have access to reliable internet connections and suitable technology is also

crucial to prevent disparities and ensure a level playing field. The hybrid model, combining virtual and in-person elements, is emerging as a preferred approach, offering the flexibility to choose the most appropriate format based on the specifics of each case. This model allows for greater adaptability and can cater to the preferences and needs of the parties involved.¹⁹

Online Dispute Resolution (ODR)

ODR refers to the use of technology, primarily the internet, to facilitate the resolution of disputes between parties. ODR encompasses a broad array of digital tools and platforms that assist in negotiation, mediation, arbitration, and adjudication. As technology continues to evolve, ODR offers a promising alternative to traditional court-based dispute resolution methods by providing faster, more cost-effective, and accessible means for resolving conflicts. This essay explores the fundamentals of ODR, its benefits and challenges, and presents notable case studies to illustrate its application in real-world scenarios (Marrow et al., 2020).²⁰

eBay, one of the largest online marketplaces, implemented an ODR system known as the Resolution Center. This platform allows buyers and sellers to resolve disputes related to transactions. When a buyer is dissatisfied with a purchase, they can open a case in the Resolution Center, where both parties are encouraged to communicate and resolve the issue. If they cannot reach an agreement, eBay intervenes and makes a binding decision.²¹

The Resolution Center has successfully resolved millions of disputes, significantly reducing the need for litigation and improving user satisfaction. This system demonstrates the potential of ODR in handling high volumes of relatively straightforward disputes efficiently. Modria, an ODR platform founded by the creators of eBay's Resolution Center, provides services to various organizations, including

16 Izzatullo R., "AI and Online Dispute Resolution," *World Bull. Mgmt. & L.* 32, 63 (2024).

17 N. Kahungi, "Dawn of Artificial Intelligence in Alternative Dispute Resolution: Expanding Access to Justice Through Technology," *U. Nairobi L.* 2(2) (2023).

18 G.H. Kasap, "Can Artificial Intelligence ('AI') Replace Human Arbitrators? Technological Concerns and Legal Implications," *J. Disp. Resol.* 2021, 209.

19 A. Malhoutra & F. Ahmad, "Artificial Intelligence and International Arbitration," *Novos Est. Jurid.* 27(2), 258 (2022).

20 P. B. Marrow, M. Karol & S. Kuyan, "Artificial Intelligence and Arbitration: The Computer as an Arbitrator—Are We There Yet?" (2020).

21 O. Rabinovich-Einy, "The Past, Present, and Future of Online Dispute Resolution," *74 Current Legal Probs.* 125 (2021).

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government agencies, insurance companies, and educational institutions. One notable example is the use of Modria by the American Arbitration Association (AAA) to handle medical claims disputes. Modria's implementation has streamlined the arbitration process for medical claims, reducing the time and costs associated with traditional arbitration methods. This case highlights the adaptability of ODR platforms to different types of disputes and industries.²²

In *'Schreiber v. Kelsey'*²³, a case heard by the United States Court of Appeals for the Ninth Circuit, the court addressed the enforceability of an arbitration agreement that mandated online arbitration. The court upheld the agreement, stating that online arbitration was a valid and enforceable method of dispute resolution, provided that it met the requirements of fairness and due process. This case set a precedent for the enforceability of ODR agreements in the United States, reinforcing the legitimacy of online arbitration as a viable alternative to traditional court proceedings.

In *'Heller v. Uber Technologies Inc.'*²⁴, the Supreme Court of Canada considered the enforceability of an arbitration clause in Uber's driver agreement, which required disputes to be resolved through arbitration in the Netherlands. The court held that such a clause was unconscionable and could not stand as it placed huge financial and procedural obstacles on the driver. This decision reiterated the significant role of making ODR agreements do not impose undue burdens on the parties especially less powerful parties in the transaction. It pointed at the importance of rootedness and inclusion in the development and practice of ODR systems.

What is Artificial Intelligence and Its Application in Law

Artificial intelligence, in its broadest sense, is a scientific discipline that includes not just computer science but also psychology, philosophy, linguistics, and other related fields. AI is the study and development of methods to enable computers to do jobs that traditionally have required human intellect.

AI is a computational concept that mimics human intellect by allowing a machine to understand and solve complicated problems in the same way people do.²⁵ From the introduction of the typewriter to the introduction of the computer, from the exclusive use of libraries for legal study to the use of internet portals to locate important case laws, and from fax machines to emails, each technological advancement in the area of law has been revolutionary. Right now is when AI will make its way into the legal field. It is widely held that the legal services industry, although one of the biggest in the world, is not fully digitalized. The legal industry tends to stick to tried-and-true methods and is slow to embrace innovation. There's no denying that AI has the potential to revolutionise the legal profession and public perception of the law in India. As stated by Justice D.Y. Chandrachud, *'technology is relevant insofar as it fosters efficiency, transparency, and objectivity in public government. AI is present to provide a facilitative tool to judges to recheck or evaluate the work, the process, and the judgments.'*²⁶ The ultimate goal is to improve the lives of people by expanding their access to justice.

As the legal field is still seen as labour-intensive, in India all of the work is done by hand. Hence, AI is still in its infancy; many established advocates hold the view that technology shouldn't be used widely out of fear that it may one day replace humans, and as a consequence, AI-related legislation has been mostly avoided.²⁷ There are many tech-savvy attorneys and huge legal firms who are embracing technology developments to gain an edge over their rivals. As is well-known, the Indian legal system is rather comprehensive, with our Constitution alone being the longest in the world. With the rapid pace at which the world is evolving, it is essential to use AI in law to keep up. With machine learning technology, attorneys may get an unparalleled understanding of the law in record time. Cyril Armarchand and Mangaldas is just one example of a company that is taking use of

22 A. J. Schmitz, "Responsible Use of AI in Civil Dispute Resolution," Ohio State Legal Studies Research Paper No. 870 (2024).

23 Civ. A. No. 13765

24 2020 SCC 16

25 Tania Sourdin, Bin Li & Donna M. McNamara, "Court Innovations and Access to Justice in Times of Crisis," 9 Health Pol'y & Tech. 447 (2020).

26 J. Tewari & M. Bose, "History of Artificial Intelligence," 5 Indian J.L. & Legal Rsch. 2 (2023).

27 N.N.T. Vy, "AI Implementation in ODR: A Game-Changer or a Troublemaker of Data Protection," 8 Vietnamese J. Legal Sci. 1, 1–24 (2023).

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AI because of the benefits it offers.²⁸ Being the first law firm in India to licence 'Kira,' a machine learning technology created by Kira Systems in Canada, CAM has made legal history. This software is powered by AI, so it can perform a wide range of tasks, reducing the need for human intervention. The 'Kira' software may examine legal documents, search for and flag potentially risky parts, and extract provisions from different legal documents.

The dramatic rise in money spent on AI has a straightforward cause: By relieving workers of mundane chores that can be performed by computers, businesses may boost productivity and save expenses while employees are free to concentrate on more value-added work. This series will continue to demonstrate why the legal profession is a natural match for this goal-oriented justification. Legal departments, in particular, will need to anticipate this shift and adjust to the usage of AI promptly.

As far as attorneys and the legal sector are concerned, AI is only hitting its stride. Where does this leave the practice of law in light of this new technology? In-house attorneys, in particular, will be the vanguard of the AI-driven legal revolution that will sweep the profession over the next few years. AI will become ubiquitous and invaluable assistance to nearly every lawyer, just like email did for business. Those who refuse to adapt to the new circumstances will be left in the dust. Those who do will find themselves with more time for thinking and counselling, two activities for which there is seemingly never enough time.

AI's Impact on Dispute Resolution

Face to face settling of disputes has been used by mediator. The disputes in the modern-day must be determined by the pace of human decision and the ability of the physical courts. As a result of these facts quite a great number of persons is not able to afford the very costly, as well as lengthy process of settling court cases. Although it might be possible that not so many individuals would be able to afford the outrageous costs involved in litigation through confrontation, self-representation had not been such a favourable thought within the courtroom. It was

28 O.M. Tihamiyu, "The Impending Battle for the Soul of ODR: Evolving Technologies and Ethical Factors Influencing the Field," 23 *Cardozo J. Conflict Resol.* 75 (2022).

those who already had possession of power, money and experience that benefited the most of such an environment. ADR developed in the 1970s and the resulting extension of mediation to most United States courts and, subsequently, other jurisdictions around the world saw the widespread institutionalisation of mediation. It was hoped that mediation would alleviate the court system's problems by reducing the caseload backlog and making litigation more accessible. It was also aimed to discover a method of settling the argument without litigation which is less costly and less time-consuming to litigation and which also provides the implicated parties a possibility to state their own interest in the process of resolving the dispute and to seek possibilities that can fulfill their particular objectives and will not split them but lead them farther than constrained by the law. The anticipation of ADR became stronger with time. It has been lamented that the privatisation of the legal system has prioritised efficiency above public interest in the creation of legislation, the proclamation of social values, and the protection of the rights of society's most vulnerable members.²⁹

The distinction between public hearings adhering to procedural due process and substantive legal standards and private methods, which allowed for more flexibility, became blurred with the introduction of formalized mediation and ADR-like instruments. The law field has been significantly impacted by automation and AI, with experts agreeing that attorneys will always be needed for difficult cases. However, automation of routine operations, such as document screening and filing, will become the norm. AI systems, such as Cambridge University's 'Case Cruncher Alpha', can analyze and anticipate case results more accurately than human lawyers. This could reduce the need for legal specialists like attorneys, leading to the merging of independent law practices and in-house legal departments of corporations.³⁰

Automation and AI have significantly advanced the field of ODR, raising questions about whether

29 Orna Rabinovich-Einy & Ethan Katsh, "Artificial Intelligence and the Future of Dispute Resolution: The Age of AI-DR," forthcoming (2021).

30 J.B. Rajendra & A.S. Thuraisingam, "The Deployment of Artificial Intelligence in Alternative Dispute Resolution: The AI Augmented Arbitrator," 31 *Info. & Comm'n's Tech. L.* 176 (2022).

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algorithms can replace human interaction and decision-making. Virtual venues and online mediation tools have made ADR more accessible and simplified, while big data and AI companies like Google are leveraging the potential of ODR systems. The AI negotiating system 'Smart Settle' played a crucial role in the Brexit negotiations between the UK and the EU, providing parties with 'ideal world' answers to shared problems and enabling them to develop 'ideal world' positions on the issues. This technology also enabled parties to map out their 'Best and Worst Alternatives to a Negotiated Agreement' (BATNA and WATNA), enabling them to reach mutually beneficial agreements. The exponential growth of AI and Moore's law suggest that human specialists may be replaced by AI-driven ODR platforms due to the exponential growth of AI and Moore's law, which states that computer power will double every two years.³¹

Procedures in Digital Arbitration

India has so far adopted the opt in model. It implies that the choice to mediate/negotiate is at choice. The opt-out model is the Italian model. There, a requirement to conduct at least one mediation session must be undergone, and afterwards, the parties receive the freedom to withdraw, in case they deem so. India must adopt the opt-out model where parties to a dispute are compelled to at least attempt mediation and negotiation before opting-out of it. Because the default option tends to become the de-facto option, making the decision to mandate the opt-out mechanism in some instances, may result in the proliferation of ODR. This will be a wise decision because 88 percent of civil cases may be solved through ODR. The implementation of a successful ODR regime will also contribute to India's economy expanding it to USD 26 Billion each year.³²

The Indian law permits ODR various provisions of the Indian Law such as Section 89 of Code of Civil Procedure, 1908 that advocates application of alternative dispute resolution among parties. Equally, Order X Rule 1A vests the court with the

powers to instruct the individuals involved in a suit to pick any ADR mechanism in order to resolve its differences. Besides, the Information Technology Act, 2000 provides the legal status to utilisation of electronic signatures and electronic records. Even the precedents established by the Supreme Court of India favour the usage of technology in resolving the disputes and promotes the usage of ODR practices in '*Grid Corporation of Orissa Ltd. vs. AES Corporation*'³³, the Supreme Court held-

'When an effective consultation can be achieved by resort to electronic media and remote conferencing, it is not necessary that the two persons required to act in consultation with each other must necessarily sit together at one place unless it is the requirement of law or of the ruling contract between the parties.'

ODR may encompass diverse means of dispute settlement such as Negotiation, Conciliation, Mediation, Arbitration and combination techniques such as last offer arbitration, Medola, Mini trial, Med Arb and Neutral Evaluation.

Some of the best practices promoted globally within the mechanism of ODR include the following:

Mediation:

The neutral third party suggests solutions to settle disputes between parties and actively takes part in the dispute resolution process.

Med-Arb or Arb-Med, and MEDALOA

Med Arb involves mediation first, followed by arbitration if mediation fails. MEDALOA is a process where a neutral, either the original mediator or an arbitrator, chooses between the final offers reached in the side-leaning process. Some jurisdictions merge mediation and arbitration, such as Med-Arb or Arb-med, and MEDALOA. The mediator becomes an arbitrator after unsuccessful mediation, making a binding decision. This combination allows parties to cooperate in mediation and confidence in a solution in arbitration. This saves time and money by avoiding the need for other dispute resolution procedures after mediation fails. An arbitral award is directly enforceable. However, there is a potential bias in this model, which can be resolved by hiring another

31 M. Łągiewska, "New Technologies in International Arbitration: A Game-Changer in Dispute Resolution?," 37(3) Int'l J. Semiotics L. 851 (2024).

32 D.H. Lindquist & Ylli Dautaj, "AI in International Arbitration: Need for the Human Touch," 39 J. Disp. Resol. 39 (2021).

33 (2003)1CALLT50(SC).

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individual to take the arbitrator's position.³⁴

Mini trial

The parties file summaries of their cases for assessing their cases on merits and negotiate a settlement with a neutral advisor which involves a non-binding procedure.

Neutral listener agreement

The offers are negotiated privately between these parties in front of a neutral third party and once the third-party listens to both parties, he/she advises on the most suitable offer to settle on. This is the short list of the techniques and we may not answer which one is the proper way of designing the ODR systems. In fact, the best way to refine and improve ODR is to launch many different programs in many different environments and see which one's flourish and which one's wither away.

ODR Platforms

India's ODR platforms are not yet mature, but organizations like 'perryforlaw' and 'ODRIndia' are working on developing online dispute resolution programs. The National Internet Exchange of India (NIXI) is also applying online arbitration for domain name disputes. ODR websites have simplified the process of dispute resolution by integrating the latest technology, making it more convenient and possible in terms of time. Sector-specific reds are needed for establishments.

- **CADRE or Centre for Alternate Dispute Resolution Excellence** is the foremost Indian website-based platform for ODR for arbitral disputes. The platform facilitates dispute resolution between parties through video calls, with time-stamped notifications provided via email or WhatsApp. If an agreement is reached, an arbitrator is hired, and legally binding decisions are made within 20-25 days. This process has been successfully implemented by CADRE, a company that has successfully resolved tenant and contract disputes in online home rental start-up

NestAway.³⁵

- **SAMA** is also one of the ODR sites to reach high-quality ADR service providers easily and enable people to fix the disputes online. ICICI Bank is utilizing SAMA as their ODR platform to conclude almost 10,000 cases worth as high as INR 20 lakh.³⁶
- **Juptice** is a company that considers itself in such a field as an institution which will run cases online end to end and provide 24/7 support.
- **JustAct** is an ODR portal which is aimed at developing a superior law and justice system through offering time and cost efficient and viable modes of resolving the disputes relating to BFSI, telecom, housing, family and workplace conflict.

Future Prospects of Digital Arbitration in India

COVID-19 has led to a shift in global industries, with companies seeking more efficient ways to replace human workers. This includes automation of labor and increased investment in artificial intelligence (AI) to support fields like health and law. Trial procedures and judicial procedures must adapt to accommodate the crisis, as disputes arise due to instability and terror. AI and ODR platforms may be used interchangeably with conflict resolution, but human specialists are essential for establishing confidence. Addressing the lack of ethics and privacy in ODR algorithms is crucial, and ADR experts can guide the use of these systems. Multi-national firms must automate activities for cost efficiency and collaborate with governments to rehabilitate laid-off employees. Integrating AI into one's practice would be a litmus test for those interested in fields like medicine and law (UNCITRAL, 2013).³⁷

Given the dynamic nature of modern society, each new institution must be accompanied by

³⁴ R. Abbott & B.S. Elliott, "Putting the Artificial Intelligence in Alternative Dispute Resolution: How AI Rules Will Become ADR Rules," *Amicus Curiae* 4, 685 (2022).

³⁵ J. Chauhan, "Transformation of Dispute Resolution: Technological Innovations in Dispute Resolution and Its Effect on International Law," SSRN (2023), <https://ssrn.com/abstract=4640977>.

³⁶ Akash Gupta & Arushi Bajpai, "Online Dispute Resolution in India: A Distant Reality or Dream?" (2023).

³⁷ U.N. Comm'n on Int'l Trade Law, "Working Group III (Online Dispute Resolution), Online Dispute Resolution for Cross-Border Electronic Commerce Transactions: Draft Procedural Rules," U.N. Doc. A/CN.9/WG.III/WP.119 (Mar. 11, 2013).

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a system of governance to ensure it is properly regulated. ODR was first formally developed in India with the release of the report from the high-level committee on deepening digital payments. The ADR and technological aspects of ODR are addressed by a number of laws.

ADR is governed by the Arbitration and Conciliation Act of 1996. The Code of Civil Process of 1908 is the underlying law. It is the court's prerogative under Section 89 of the Code to force the parties to participate in all kinds of ADR, not only arbitration, conciliation, and judicial settlement. This includes mediation and Lok Adalat. The Legal Services Authority Act of 1987 governs these Lok Adalats. In addition, pre-suit mediation was established in India under 'Section 12A of the Commercial Courts Act in 2015.' Unless the situation calls for immediate interim relief, the parties should explore the possibility of mediation before going straight to court. "Section 74 of the Consumer Protection Act, 2019," mandates the development of "Consumer Mediation Cells" in each and every district to provide customers with access to broad-based mediation. In addition, the "Consumer Protection Act (E-Commerce) Regulations, 2020" have laid the groundwork for ODR by making it mandatory for e-commerce businesses to build internal grievance redressal systems. (Harvard Law School, 2024)³⁸

ODR's technological aspects are also impacted by the Information Technology Act of 2000. Articles 4 and 5 of the Act specifically authorise the use of electronic records and signatures. This Act may be utilised to help get the legal recognition the digitization of the justice delivery system needs. The Supreme Court in the case of *Shakti Bhog Foods Ltd v. Kola Shipping Ltd.*³⁹ held that: "Online arbitration agreements are lawful as fulfilling the essentials of a complaint under sections 4 and 5 of the Information Technology Act."

"Sections 65-A and 65-B of the Indian Evidence Act, of 1872" are also noteworthy since they recognise electronically stored information, allow for the exchange of virtual documents, and may be used to control the conduct of virtual hearings. To appoint

an arbitrator, the Supreme Court, in the case "*Grid Corporation of Orissa Ltd. v. AES Corporation*"⁴⁰ enabled virtual meetings for the appointment of an arbitrator. Similarly, in the case of the "*State of Maharashtra v. Praful Desai*"⁴¹, The Supreme Court has ruled that videoconferencing is a reliable way to capture witness testimony and other evidence.

The apex court in the "*Meters and Instruments Private Limited & Anr. v. Kanchan Mehta*"⁴² observed that: the "Use of modern technology needs to be considered not only for paperless courts but also to reduce overcrowding of courts. There appears to be a need to consider categories of cases which can be partly or entirely concluded online without the physical presence of the parties by simplifying procedures where seriously disputed questions are not required to be adjudicated."

There are a number of laws in India that encourage ADR and technology (both together and individually), but there is still much need for improvement in the area of ODR. While the government's current initiatives show a constructive reaction to the previous lack of infrastructure and technology, there is still a long way to go. The government should take both a cautious and forward-thinking approach to the incorporation of technology in dispute resolution, with the latter allowing for maximum advantage and the former minimising danger. Indeed, ODR hasn't made it to the top just yet, but it's making great strides in overcoming roadblocks like a lack of cybersecurity and technological literacy throughout the nation.⁴³

Enhancing Public Access to Justice Via Robotic Technology

AI-built bots are increasingly used in various industries, providing conversational information and facilitating access to legal services. Legal robotics can play a crucial role in the administration of justice by acting as intelligent libraries of frequently asked questions (FAQs), helping the public and litigants better understand the law. This can lead to more

38 "Online Courts: Reimagining the Future of Justice - Harvard Law School," Harv. L. Sch., <https://hls.harvard.edu/today/online-courts-reimagining-the-future-of-justice/> (last visited June 23, 2025).

39 O.M.P. 194 of 2009

40 (2003) 1 CALLT 50 SC

41 Appeal (crl.) 476 of 2003

42 CRIMINAL APPEAL NO. 1731 OF 2017

43 "Can Artificial Intelligence, Machine Learning Put Judiciary on the Fast Track?," Dhyeya IAS (Oct. 7, 2023), <https://dhyeyaias.com/current-affairs/daily-current-affairs/can-artificial-intelligence-machine-learning-put-judiciary-on-the-fast-track.> (last visited June 23, 2025).

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informed decisions about legal actions. Legal robots can also provide access to basic legal knowledge and facilitate referrals to legal aid organizations and pro bono attorneys. AI can also be useful in ADR, such as assisting attorneys in preparing relevant files for litigation. Clustering technology and other AI techniques can be used to sort through disclosure and prepare relevant files for litigation. While AI has a long way to go before it can compete with human mediators, it can help parties achieve a resolution by knowing when to listen and when to push. Mediators are designed to recognize the emotional cost of a conflict, while algorithms can use rationality to put a value on a solution. Humans understand the importance of a settlement amount, while computers may not appreciate the significance of the settlement amount. Overall, AI and AI are transforming various industries and paving the way for more efficient and effective legal services.

Challenges in the implementation of AI in ADR

- **Ethical Considerations:** A fair and impartial trial is guaranteed by law in every country. This necessitates the presence of a living being as they integrate the rigid norms of law with the ideals of fairness and moral conscience. It's unlikely that a robot could understand such nuanced and fundamental ideas.
- **Failure to Consider the Option:** Despite the massive investment in its development, there is a chance that consumers may be reluctant to use the programme. Many people would be reluctant to submit to a judgement made by a computer and would not treat the outcome with the same level of respect as they would if it had come from a human judge. Because of potential concerns with rigidity, liability, trust, secrecy, and other technological issues, parties who have already tested the system may lose confidence in the notion of a Digital Judge.
- **Huge Investment:** Despite the fact that one of the primary goals of AI is to reduce costs, developing and testing such a system requires a massive investment of time and money. The greater the program's level of intelligence, the more it would cost to create.
- **Lack of Flexibility:** An AI would use historical case data and state legislation for decision-making, disregarding participants' personalities and motivations. Arbitrators may sometimes change their rulings due to differences in cases. An AI would follow a consistent procedure for categorizing cases and making decisions, limiting innovation. This rigid framework could halt the progress of Arbitration and Mediation legislation, as only a small number of possible judgment combinations exist.
- **Lack of Human Touch:** A human neutral, on the other hand, maybe more appealing to the parties since they may use their stories and emotions to sway the judge or jury in their favour. In ADR, there may be hundreds of possible outcomes. Humans are adept negotiators, with the knowledge to know what questions to ask and how to thoroughly investigate a problem. Although AI has its benefits, certain aspects of ADR can only be accomplished by human understanding and dialogue.
- **Legislation Required:** Given the revolutionary nature of the technology, ADR systems will need to adapt to accommodate it. Legislation like the Arbitration and Conciliation Act of 1996, as well as the regulations of the "United Nations Commission on International Trade Law (UNCITRAL)," as well as procedural and institutional statutes, would need to be updated.
- **Privacy Concerns:** The importance of keeping information provided in ADR procedures confidential cannot be overstated. Although humans can be relied upon to keep information private, dishonest actors armed with the right tools may penetrate AI systems to steal sensitive information. The software calibrators may have complete access to the programme being calibrated. It is in this context that data protection and privacy regulations become applicable, and it is necessary to control the use of AI.
- **Replacing Lawyers:** A potentially terrifying future awaits those who work in the legal field due to the fact that the same technology designed to aid them may one day put them out of business. With an AI system in place, fewer humans would be needed to keep things running smoothly, leading to a decline in the employment rate of

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mediators and arbitrators.

- **System Vulnerability:** The AI system would be susceptible to the same kind of cyber-attacks, spamming, viruses, software failure, and other computer flaws and technical malfunctions that affect all other technological innovations.

Conclusion

At least fifty years of study and debate have been dedicated to the issue of artificial intelligence and the law. AI, however, is moving quickly from the lab to the field. Research in this field in the future has to be interdisciplinary and reflective of the major obstacles that will be encountered when putting into reality AI technologies as services to better the legal profession. Maybe the next decade will be equally transformative for those who work in the legal field and for society as a whole and for those who rely on the justice system. Lawyers, despite (or possibly because of) AI's limits, should think about how the field's future dominance would affect their work and ethics. To ensure the responsible development of AI solutions in this sector, legal professionals should look at how they may take use of the present opportunity to improve legal service delivery by using new approaches and technology. This will allow legal practitioners to better meet the needs of their clients.

The production of lawyers has increased thanks to the contributions of many cutting-edge technologies in the legal industry, including contract analysis software, legal research software, trademark search software, and other similar programmes. Nevertheless, none of the AI-based programmes are intended to fully replace attorneys; rather, they are aimed to improve the quality of research and analysis.

A limited number of AI organisations are working on constructing machine learning models to predict the results of current cases by utilising the appropriate body of precedent and case facts as inputs. These models will be able to predict the outcomes of future cases. Any significant revisions to these projections will have a significant impact on the way legal work is done. They are being used by legal firms to improve their preparation for court and to lower the number of cases that actually get to trial. The field of law is expanding in India, and with it comes the promise of ever more sophisticated automated and AI-based support systems. The analysis, strategizing, and decision-making necessary in the legal profession will still be necessary, but these AI-based automated aid programmes will help attorneys be more productive and expert in their fields while also taking care of a lot of the routine paperwork.