ODR and AI

The construction industry in India contributes 8–10% to the GDP of the Country. An estimated **40 million** people are employed in India's construction sector, both skilled and unskilled labourers, making it one of the major employers in the country. In India, the residential, commercial real estate and infrastructure sectors have both experienced significant expansions. Significant investment has been drawn to the building, real estate industries and infrastructure projects. However, impending are the issues of claims and disputes.

According to The Royal Institution of Chartered Surveyors (RICS), a body for the built environment, construction, land, property, and real estate, has joined forces with the India International Arbitration Centre (IIAC), an institution established under the India International Arbitration Centre Act, 2019, to enhance dispute resolution services in India. Both the institutions partnered up to tackle the problems related to dispute resolution***. Approximately, Rs 80,000 crore stuck in construction disputes in the courts. Though t****he ARCADIS (2021) report* listed negotiation, mediation, and adjudication as the most popular forms of alternative dispute resolution, but they have not been so successful in quick resolution and therefore new form are necessary of which one of is **ODR**- “*Online Dispute Resolution*” which has proved to be better in some ways to these traditional methods of dispute resolution.

It is evident that the expenses and length associated with dispute resolution are substantial for the construction industry. Regardless of the type of project, **disputes are inevitable and serious**, thus it is obvious that a good system is needed to reduce their frequency, potential harm, and speed of resolution. The average time taken to resolve disputes increased significantly, by almost 15%, from 2020 to 2021. Thus, it becomes necessary to research the numerous dispute resolution techniques and identify the most effective one for each particular set of circumstances.

ODR is basically a subset of Alternative Dispute Resolution ("ADR"), which uses technology to help resolve disputes through arbitration, mediation, and/or negotiation, or by combining any of these methods. ***Therefore, the adoption and use of ODR may potentially be impacted by the present rise in ADR demand***. ODR services are currently offered in a variety of ways by a number of start-ups, well-established businesses, and even higher-level government agencies like the European Commission. While some of these services adhere to traditional methods of settling conflicts, others provide novel ideas that could advance the industry and, as a result, become well-liked across the board.

ODR is frequently misunderstood to mean e-ADR or ADR made possible by technological means. Its potential advantages, therefore, go much beyond those of its ADR parent system. In addition to assisting with conflict settlement, ODR can support construction disputes as well as the nation's overall legal health by containing and preventing disputes. In a number of countries, including the **US**, **Canada**, **Brazil**, and the **UAE**, **ODR** has already been incorporated in the industry. In these jurisdictions, the government, the judiciary, and private organizations collaborate to maximize ODR's advantages in order to increase access to justice and quick resolution to disputes.

‘The COVID-19’ epidemic has caused great sorrow and has made adjustments necessary. The incorporation of technology is a move that justice delivery systems all around the world have accepted as inevitable. As such, justice is increasingly viewed as a service that may be rendered whenever it is convenient for the parties involved, rather than a location, such as the courts. The Indian judiciary has taken the lead in implementing technological solutions to maintain system accessibility even as safety precautions changed daily operations. Through its pioneering work and leadership in these challenging times, the judiciary has legitimized the use of technology to facilitate dispute settlement and, in turn, access to justice.

And because of the global pandemic like covid-19 we were able to see that we need better and new alternatives in resolving the disputes. Events like covid -19, despite being a catastrophic event for the whole world, actually gave us a new perspective of seeing things. It enabled us to overcome the challenges and come up with new solutions that were better than the traditional methods of doing things. As construction industry is mainly focused on doing tasks by leaving your houses. The delays in the day-to-day activities result in major cost overruns which are very detrimental for any construction project or a company. Also, we have realized this already that construction projects come with complexities of contractual obligations and these obligations are, if misunderstood, by either of the parties involved, leads to the birth of many construction disputes. And since it was a global lockdown, these disputes were not getting resolved and thus, caused time delays which made huge losses for both the parties involved.

Disputes frequently cause delays in the construction sector, which can result in overspending and project interruptions**. ODR can shorten the time it takes to resolve disputes**, which can lead to faster project completion.

**Thus, the need of ODR came in picture.** Companies and experts started testing the ODR process of disputes management and found that it has many advantages over the traditional methods. disputes.

**Mokhinur Bakhramova (2022)** in their paperdiscussed about the jurisdictional issues involved in online dispute resolution (ODR), particularly where potential legal conflicts exist. It implies that consideration should be given to elements like the location of the server, the domain's registration location, and the company's registration office. The significance of ODR platforms having affiliated arbitration centres with the power to provide and uphold rulings is also highlighted in the article. It goes on to explore the possibilities of online dispute resolution (ODR) in relation to smart contracts and suggests international agreements such as the UNCITRAL Technical Notes on Online Dispute Resolution or modifications to the New York Convention. It is also suggested to recognize and enforce ODR award recognition and enforcement under national laws and the UNCITRAL Model Law.

[**Hibah Alessa**](https://www.tandfonline.com/author/Alessa%2C+Hibah) **(2022**) in their paperaim to advance legal dispute resolution within online dispute resolution (ODR) by scrutinizing the current role of artificial intelligence (AI) and predicting its future evolution. AI, historically shaping social values, justice administration, and rights preservation, now influences legal discourse in ODR, serving beyond mere assistance to form an independent forum.

The examination revealed AI's development in ODR faced challenges similar to other AI applications; initial high expectations followed by adjustments. The ultimate benefit foreseen is highly supportive systems expediting legal processes, supplanting traditional litigation with a more efficient approach akin to advanced Alternative Dispute Resolution (ADR) methods.

However, the study cautioned about a potential two-tiered dispute resolution system, where wealthier entities gain early AI access, potentially creating disparities. Blind reliance on AI without periodic reassessment might divert AI systems from their original goals, necessitating continual oversight and control. The study underscored the importance of preventing AI-based ODR from limiting justice access, especially for the less fortunate. Upholding adherence to justice access requirements is pivotal to enhancing AI-based online dispute resolution's efficacy and fairness as a tool for resolving disputes.

**Abdul Lateef Olanrewaju *et al*. (2022)** in their paper discuss about construction disputes and claims during the COVID-19 pandemic, using an open-ended survey method to explore beyond existing literature and standard procedures. The inductive nature of this approach generates new theoretical insights. The pandemic has heightened challenges in the construction sector, amplifying the frequency and value of disputes and claims due to economic pressures and developmental limitations. While disputes historically arise from factors like variations and contract ambiguities, the pandemic introduces new layers of uncertainty, potentially driving more disputes. Resolving disputes amicably through Alternative Dispute Resolution (ADR) methods, strengthening force majeure clauses, and proactive identification and management of issues are essential to mitigate and manage conflicts in the construction sector during such unprecedented times. This proactive approach is crucial for preventing and resolving disputes amid uncertain conditions.

**John Zeleznikow (2021)** in their paperdiscusses the growth and progress of artificial intelligence (AI) in conflict resolution throughout history. AI systems were not developed methodically at first, with an emphasis on technology over user demands. It lists the essential elements of effective Online Dispute Resolution (ODR) systems, such as Drafting Software, Advisory and Communication Tools, Case Management, and Triaging. Even while all of the components are not necessary for every dispute, incorporating them is an important first step toward thorough ODR. The development of rule-based, case-based and game theory reasoning in negotiation assistance systems is also covered in the paper. It highlights a move toward user-centric design and suggests a six-phase paradigm that is in line with user requirements for developing intelligent ODR systems. In general, the paper emphasizes how crucial it is to consider user preferences and needs user preferences and needs into account while creating AI-driven dispute resolution systems for effective and comprehensive online dispute resolution.

**Tuan Nurhafiza Raja Abdul Aziz *et al*. (2020)** in their paper focuses on Online Dispute Resolution (ODR), which has become popular as a way to settle disputes amicably and quickly in the fast-paced, modern world that is driven by information and communication technology (ICT). ODR, a branch of Alternative Dispute Resolution (ADR), was first used in the late 1990s to resolve issues involving online purchases. It was created to improve access to justice, especially in developing nations. ODR has been accepted by some countries as an acceptable method of resolving disputes. The notion of ODR is explored in the study through the use of qualitative approaches such as content analysis and literature review. It emphasizes the value of alternative dispute resolution (ADR) as a timely means of resolving disputes and offering efficient remedies at a reasonable cost. Crucially, the study finds that even while ODR is effective remedies at a reasonable cost. The study comes to the conclusion that although ODR is effective and successful, it cannot completely replace traditional litigation. Rather, ODR and litigation can work together, complementing one another as we pursue justice.

**Joe McIntyre *et al.* (2020)** in their paperdiscuss about the response of Australian courts to the COVID-19 crisis, especially their transition to online justice delivery. It examines structural and systemic issues stemming from this shift, drawing insights from the emerging field of online dispute resolution. Key areas of concern include open justice, the symbolism and design of digital court spaces, technological limitations, access to justice, and systemic biases. The article contends that by addressing these issues, the current crisis offers an opportunity to map out potential reforms and improvements in the legal system for the future.

"Digital justice" can refer to the following: fully integrated ODR systems (information provision, negotiation, mediation, and adjudication), online evidence submission and management, AI-assisted decision-making, virtual hearings, and online case lodgement and management.

During the pandemic, the sudden shift to online courts restricted public access, particularly for media and observers whose access to physical courtrooms was restricted. In the beginning, Australian courts struggled to maintain open justice while adjusting to the digital format, focusing more on intentions than precise steps. Limitations and security concerns emerged despite efforts to strike a balance between accessibility and practicality, such as providing accredited journalists with access and providing video links to the general public. Judges such as Justice Perram recognized the tension between the needs of the court's operations and the principles of open justice. Some anticipated greater public access from the move to digital proceedings, which they saw as promising. Notwithstanding the difficulties, some judges saw the benefits of widespread live streaming and saw it as a way to improve open justice. This pandemic-induced digital shift might, despite limitations, mark a significant moment in expanding public access to legal proceedings.

**Udechukwu Ojiako *et al.* (2018)** in their paper investigates the use of online dispute resolution (ODR) platforms to small-claims arbitration in building projects, with a focus on the effects these platforms have on the "rule of law" and "justice." *Non-random sampling is used to gather data from a survey of construction stakeholders*, and SAS 9.4 software is used for analysis. Remarkably, the results show that minor *claim ODR has no appreciable "rule of law" or "justice" effects*. Despite this, the paper suggests that ODR adoption should be expanded because it has other advantages even though it might not have a significant impact on law and justice issues. This research is unique in that it targets the comparatively unexplored domain *of out-of-court settlements (ODR)* in small claims within the construction sector, establishing the framework for additional empirical inquiries into ODR as an element of alternative dispute resolution.

There are several obstacles to overcome in the adoption of Online Dispute Resolution (ODR), including system design, scalability, privacy, enforcement, and cyber security. Although ODR frequently uses automated processes, disputants may view it as a "black box," hence it is important to evaluate the historical fairness of the process. The four justice dimensions—distributive, informational, interactional, and procedural—are used in this study to theorize the advantages and disadvantages of technology-mediated conflict resolution. It incorporates ideas from the literature on retailing, claiming that identifying these justice dimensions is essential to allocating resources optimally and that they may be used to measure satisfaction in online interactions. The study significantly found no substantial impact on the ideas of "justice" and "rule of law" when examining the consequences of ODR platforms on minor construction project dispute settlement. On the other hand, it was discovered that ODR procedures promote open discussion and dispute resolution among concerned parties. Based on the literature research, these findings are explored in relation to respondent demographics, personal opinions, the prospects for national regulations on ODR, and layout and design problems.

**Karolina Mania (2015)** in their paperconducts a comprehensive examination of Online Dispute Resolution (ODR), encompassing its definitions, developmental stages, and its intricate relationship with technology. It divides its focus into three main areas: online mediation and electronic arbitration, their roles in e-commerce, and an assessment of their advantages and disadvantages. The report highlights the importance of EU rules on consumer disputes and makes recommendations for possible legislative reforms. It highlights barriers in national laws that prevent the full use of ODR, such as restrictions in the Polish legal system. Highlighting the effectiveness of alternative dispute resolution (ODR) in settling simpler conflicts, the article supports the use of electronic instruments in legal frameworks for automated resolution procedures. Additionally, it discusses the difficulty of building confidence in contemporary dispute resolution techniques and suggests the need for a central coordinating body to enhance accessibility and quality of out-of-court dispute resolution services. The study employs mixed methods, including document and statistical analysis, to explore the intersection of justice, alternative dispute resolution, and online dispute resolution.

**Heap Yih Chong *et al.* (2013)** in their paper aim to bridge the knowledge gap between data warehousing and contract administration, especially in view of the complicated legal issues and large amounts of data that are present in the construction sector. To accomplish this, it uses two important strategies. First, it creates conceptual data warehouse models that clarify the features and contents of the system. These models are then validated with feedback from twelve experts in Malaysia. Second, it develops a prototype of an electronic dispute resolution template called e-Dispute Resolution (e-DR), adhering to expert-agreed principles on contractual variations. 16 qualified quantity surveyors from a reputable consulting company assess this prototype. The findings show that practitioners in contract administration not only find the data warehousing idea practical, but also find it to be favourably accepted.

In the construction business, where such disputes are frequently seen as inevitable, the e-DR system promises to not only improve decision-making but also potentially prevent or lessen contractual disagreements. This study offers important new insights into the field both theoretically and practically.

**Sai on Cheung *et al*. (2004)** in their paper studiedthe impact of information technology (IT) is causing a major revolution in the building industry. An essential component of this change is the use of IT in the negotiation of construction disputes. The paper presents CoNegO (Construction Negotiation Online), an automated tool that makes use of the Smart Settle software. With the help of CoNegO, parties to construction disputes will no longer be limited by distance through online negotiations. "Even Swaps," the fundamental idea of Smart Settle, requires negotiators to rank the possibilities on a scale of priority. Construction disputes, which frequently involve several variables and dimensions, are ideally suited for this methodology. Through a simulated negotiation, the use of CoNegO is illustrated. This technological strategy represents the expanding impact of IT in streamlining and boosting the effectiveness of dispute resolution in the construction sector, adjusting to the changing needs of the industry.

The study entailed a simulated negotiation between a contractor and a client concerning disputes involving time extension, loss/expense, and acceleration costs. The negotiation involved two experts, one from a consultant firm and the other representing the contractor. Employing CoNego, a negotiation approach, the Dispute Resolution Information Framework (DIF) was utilized to gather initial data. This included case details, individual preferences, and bargaining ranges for each issue. Pessimistic values set the baseline, indicating the lowest acceptable point for concessions, while optimistic values represented the negotiators' maximum satisfaction.

The negotiators assessed the relative importance of each issue and navigated potential trade-offs using the Even Swap Method. Following this, negotiators rated their satisfaction with acceptable values and used Smart settle to visualize satisfaction graphs. The negotiation simulation concluded with a mutual agreement among the parties regarding the contentious.

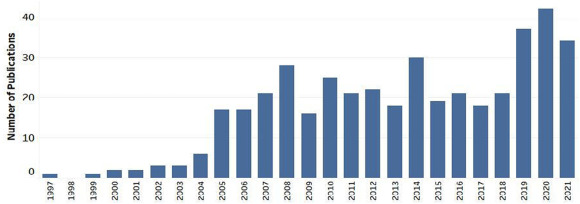
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Fig. 1. Research trend in online dispute resolution (ODR).[[1]](#footnote-1)

This graph shows the trend of research done in ODR. There has been an increase in the demand for ODR applications over the years (despite fluctuations).

However, when the term “construction industry” is added as the second search with the “AND” operator, the total number of publications shown drops to just seven, which constitutes less than 2% of the overall interest in ODR. Clearly, there is a significant gap in the literature here.

The construction sector is well known for its complex contractual arrangements and the likelihood of disagreements emerging during project implementation. **Conventional approaches to construction dispute resolution can include expensive and time-consuming procedures**, **which can delay projects and have financial repercussions**. Online Dispute settlement (ODR) has become a viable substitute for traditional dispute settlement procedures in recent years. The purpose of this thesis is to investigate how ODR has affected building contracts and industry practises for resolving disputes.

**The issues at hand are twofold**:

1. first, determining how much ODR can **speed up and simplify** the construction contract dispute resolution process, possibly preventing expensive project delays; and
2. second, examining the difficulties, ramifications for the law, and obstacles to ODR adoption that the construction sector may face.

**The study will explore the central question of whether ODR can transform construction project dispute resolution, providing advantages like- ‘*lower costs and time, more accessibility to resolution procedures, and possibly better relationships between the parties involved.’***

Arbitration which is often adopted as an alternative dispute resolution mechanism comes into play in civil matters where there is a conflict between two or more parties.4 In arbitration, the dispute is usually adjudicated by one or more arbitrators or permanent arbitral institutions and its arbitral awards is enforceable in court. The process of arbitration becomes complicated when these disparate parties are based in different jurisdictions (international)5 which could have different legal or political structures.

To specialists, some of these technologies could sound like they are merely another form of tech-marketing hype that clings to the verbiage of emerging technologies. John Macarthy famously defined AI as “the science and engineering of making intelligent machines.”1 Investopedia stated that one of Artificial Intelligence’s Ideal characteristic is the ability to rationalize and take actions that have the best chance 0f achieving a specific goal.2

Artificial Intelligence in business comes together with Machine learning to help accentuate our capabilities as humans to process this data and therefore turn them into actionable business decisions. This is achievable by engaging cognitive technologies such as the generation of data sets for machine processing on a real-time basis across multiple sources, points of origin, and contexts. For instance, it is estimated that the world creates 2.5 quintillion bytes of data daily as of January 2020.3

1. Saygili, Murathan, Isa Emre Mert, and Onur Behzat Tokdemir. "A decentralized structure to reduce and resolve construction disputes in a hybrid blockchain network." *Automation in construction* 134 (2022): 104056. [↑](#footnote-ref-1)