VOLUME 1 | ISSUE 3

INTERNATIONAL JOURNAL OF ADVANCED LEGAL RESEARCH

AI and Online Alternate Dispute Resolution- The Future of Dispute Resolution

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Abstract

Artificial Intelligence is the belief that computerized systems can replace human thought processes and relationships, is gaining traction in a various field, including the legal profession, especially in of dispute resolution.

For instance, 'Smart Contracts' are agreements that are deposited through computers (a concept known to be block-chain) and are derived from computer code rather than conventional written clauses. It is assumed that approximately one billion transactions take place online per year. In certain situations, conflicts over transactions are resolved globally with electronically, using ADR and ODR mechanisms. In the emerging ADR system, dynamic technologies are also essential. Technology has the power of supplementing and assisting the process in various types of conflict resolution procedures.

This article will be about the different ways Artificial Intelligence is used in the conflict resolution process. How can a conflict be resolved in a cost-effective manner while sitting in the comfort of your own home? However, each method has its own set of advantages and disadvantages

Introduction

Artificial Intelligence is process of teaching a computer machine, robot, or other product to think like a human. AI is study of, when attempting to solve problems how the brain of human thinks, reads, chooses, and works; at the end of the study, intelligent software systems are created. The aim/object of AI is to develop machine functions related to human knowledge, such as reasoning, to learn, and solving issues. Intelligence is a difficult term to define. It is made up of

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the following elements:

- Reasoning
- Education
- Problem-solving skills
- Linguistic Perception
- Intelligence

Reasoning, information representation, preparation, learning, natural language process, realization, and the capability to transfer and control objects are all goals of AI science. There are long-term goals in the intelligence sector. Several different definitions of AI exist in the literature. The common point of the different definitions is the capability of a device that is computer, robot or software to carry out tasks that necessitate the use of human intelligence. The following are the key aspects of intelligence that are investigated in AI:

- learning – cybernetics, concept formation;
- capacity to reason;
- solving problem – Perceptual quest, collaborative problem solving, automated problem writing;
- visual perception – pattern recognition, scene analysis;
- Using language – speech understanding, semantic information processing, information retrieval, question answering, language translation.

Alternative Dispute Resolution

The procedure is used on seeing the situation, the conflict can be resolved in one of two ways: judicial or alternative. ADR refers to any type of dispute resolution that doesn't include the use of litigation. Many conflicts, such as serious injury cases, high-profile labour issues, and divorce actions, can be decided outside of the legal preview. The decision of ADR is either to obey by parties (binding decisions) or may be ignored (non-binding decisions).

Types of ADR

1. **Arbitration:** It is technique of solving legal disputes between more than two parties by referring the conflict to an arbitrator, who is a neutral and independent third party.

2. **Conciliation:** Conciliation is a non-formal type to find solution and third-party conciliator tries to reach same level of understanding between parties involved. He does so by lowering tension, improving communication, and interpreting issues.
3. **Negotiation:** Negotiation means in a form of direct or indirect communication in which more than two parties communicate with each other settle their different opinion. It's a technique of reaching a consensus or agreement while avoiding conflict and disagreement.

How to Get Dispute Resolution on the Internet

The word on-line dispute resolution is employed everywhere the globe to ask variety of online process to get dispute solution that employ ADR. Existing ADR methods are given by ODR on the idea that such disputes, more specifically e-disputes, are often quickly and efficiently resolved via internet. ODR help in resolving dispute with employs and parties with the help of technology. It normally involves a mixture of all negotiations, mediation, or arbitration. By using new techniques and cutting-edge technology, these old methods of solving conflicts are going to be supplemented by ODR.

ODR Methods

- *Synchronous ODR* is a system of dispute resolution where the parties communicate with each other in real-time by using various video-conferencing applications
- *The non-contemporary form* is a situation in which contact is done by email or other means rather than in meal time
- *Online Mode Mediation* with nearly 70% of ODR platforms using it to draw a decision, it appears to be most favorable mode of solving dispute. Typically, online mediation begins with participants receiving an email containing basic details about the proceedings, accompanied by virtual meetings in chat rooms
- *Electronic Mode of Arbitration*, a less popular method in this dispute is solved online, but it hides the mechanism to some degree

Artificial Intelligence in Online Dispute Resolution

Artificial Intelligence research has help in development of many technologies that are nowadays in intense use, most of the times in the shadow of big systems. These technologies are

commonly used to improve knowledge-based processes, create easier-to-use products with usage of intelligent interfaces, or automate tasks. The new methodologies for solving problem, the challenges posed to us in terms how to represent knowledge and reasoning procedures, planning, learning, motion and manipulation, perception, social and evolutionary intelligence, feelings, or creativity are just a few of the major issues addressed by AI research. These steps can be used in a various different fields such as medicine, weather forecasting, banking, transportation, games, aviation, and law.

The implementation of AI techniques in legal domain is not recent, and it represents an opportunity for both fields. In fact, the first automated systems developed for the legal domain consisted of purely logical systems that were relatively complex to use and very domain-specific. As a outcome, they could only be used by a small number of highly qualified experts. At this stage, it is necessary to create applications that could make most use of these logical resources. Researchers should aim at the evolution of practical and intuitive applications that could be used by non-experts. Combining AI and legal principles to create ODR platforms is the finest way to achieve such applications that can efficiently address the challenges that the legal area is currently facing.

How Artificial Intelligence can improve ODR

It's a fact that computers are used extensively in almost every domain, and legal area isn't an exception. However, computers' capabilities are underutilized, and it's limited to simple back-office activities such as text processing, billing, agenda management, and correspondence, among others. Nevertheless, technology plays an important role in this field will slowly begin to change as AI techniques develop. Historically, the beginning of AI & The Law research was published in the paper some speculation about AI and Legal Reasoning. Research in this field began to increase, with the appearance of some international conferences, societies, and journals, demonstrating the scientific community's increasing interest in this field. We'll take a look at some of the various branches of AI research and see if each one can help us learn more about the legal system and, in particular, the existing conflict resolution processes. This includes many features such as:

- *Decision Support Systems (DSS*): This may be used in virtually any knowledge-based environment and the legal domain is not an exception. These are referred to as legal DSS in the legal world. However, since it is still new, there are no advanced systems in

place. However, the ones that are created so far all have one thing in common: they are rule-based. This is because of number of factors: System depend on rule are usually simple to comprehend and implement; there are various technique for developing rule-based systems, as well as it's too much of legal principles can be helpful using rules. These rules are IF condition THEN conclusion orders, which meant if those conditions are met, one or more assumptions will be valid. These systems thus have the power to analyze and refer the relevant facts inputted by the parties as well the legal information such as norms or past known cases make simpler legal decisions.

- *Expert Systems (ES):* Expert Systems represent a change in the programming pattern. These Systems are inference engines applied to information, while conventional computer programs are seen as procedures applied to data. Knowledge-based and a strong inference engine are two new main modules in this regard. However, if we want to be more specific, four main components can be identified in a fully functional The knowledge acquisition module, knowledge based, inference engine, and the user interface make up the Expert System. In that sense, Expert System is fully functional and expected to handle information relating to a specific problem domain, analyze it and generate knowledge, and then act make choices depending on what you've learned. Given what has already been said, it is reasonable to make assumptions that these acts and judgments are comparable to those that a human practitioner might make in a similar situation.
- *Knowledge-based Systems*: Knowledge is an abstract term that represents a set of specialized facts, procedures, and judgment conventions. There are various forms of ability and numerous methods for learning it. Firstly, knowledge can come from a solo source or it could be compiled from other sources. It can be collected from human experts based on the domain (for instance observing the behavior of a law practitioner), sensors, pictures (e.g. medical imaging), maps (e.g. pathfinding), flowcharts, or historical meaning, to name some. Several strategies for acquiring knowledge can be used based on the character and source of data, namely human observation, scanners, matching patterns, pattern recognition. Since AI and law are both information-based fields, the topic of KR is critical. In a nutshell, KR is associated with formalizing our way of thought, i.e., how interpretation is done in the domain with symbols. Making a system that can formally model legal knowledge is highly desirable, given the hardship

of legal knowledge. These are so-called Knowledge-based Systems.

- *Intelligent Interfaces*: Ironically, the same innovations that enabled the exponential availability of information also paved the way for the making the resources to handle it, such as Expert Systems, Systems that help in decision-making, and Knowledge-based Systems, which are now available to help practitioners. The assumption of these tools has been rather slow, wasting the theoretical advantages. When the author claims that in legal information systems, the interface modalities do not protect users from the internal data organization and increased workload associated with these systems, this may be a contributing factor with processing mechanisms, i.e., if legal professionals function in a certain manner, they encounter a logical void in this process, and systems of legal knowledge are either designed to work differently or are designed to work quite similarly to the internal framework of this system, offering no abstraction understanding of the process. This gap can be filled with the development of the so-called Intelligent Interfaces.
- *Case-Based Reasoning*: Case-based Reasoning (CBR) can be described as a problem-solving methodology that relies on past experiences and its data to make present choices. The retrieval re-uses, rewrite and retain stages of a CBR process are usually divided into four stages. The problem is evaluated in the 1st step, and similar cases are revived from memory and possibly arranged in ways to a similarity attribute. The measure of these similarities varies by problem domain, but it typically comprises of a difference in the quantities of the different attributes that separate the cases. In the method of reuse, the previous case's solution is identified to the target problem which may include adapting the solution to the new problem's particular requirements. The remedy is to be evaluated or simulated in the third process to evaluate the outcome of its operation. It may be possible that the results are not good as expected, which should conduct to the revision of the action. The adopted solution, along with the definition of the new case, may be retained in the case memory in the final process, leading to the case memory's enrichment. CBR is appropriate for use in the legal field, where the ability to predict or forecast an outcome is a critical component of legal advice.

Artificial Intelligence in Present and Future Prospects and ODR

After reviewing some ongoing research projects and commercially available ODR suppliers, an

evaluation of the present state of art in the ODR arena could be made. If there is a conclusion to be reached, it is that new technology is not being used to its full potential. Indeed, legal professionals use Information technology for word processing, office automation, case management, and, at a rudimentary level, client management, and case databases or electronic document exchange. Some needs should, therefore, be pointed out. To begin with, most current ODR implementations rely on conventional forms for data collection, offering little to no assistance. Furthermore, and data visualization is performed at the very lowest level, i.e., users see information in a way that is too similar to how it is processed. This is the primary drawback, as the deficiency of intelligent and intuitive interfaces may be an obstacle to widespread acceptance and usage of these systems. Technologies are also rarely used for even the simplest forms of processes. By automating simple tasks that don't require human interaction, this automation may help legal institutions and practitioners increase their throughput. Finally, another major drawback can be pointed out. It is fact that few systems use information technology for knowledge management and goal achievement, i.e., the usage of technologies capable of handling complex. Information structuring and retrieval would improve as a result of legal information models, thus improving legal practitioners' work. We have concluded that information technology continues to play a supporting role in the ODR arena.

Artificial Intelligence's Position in ODR

Artificial Intelligence and legal progress have been slower than expected. Indeed, during the early years of computing, it was thought that computers would soon have the expertise and computational capacity to handle the function of human beings like judges and attorneys. This is unlikely to happen, and that is no longer the case primary goal of the work being done in this field. The key argument made by lawyers against placing machines in the seats of judges and attorneys is that it's morally unacceptable. However, that alone would not stifle research in the fields of AI and law; it would only slow down the implementation, not the progress. The most important key factor is that machines merely rule executors, while the legal area necessitates interpretation. Computers would not be adequate to create judicial structures because they are not able to understand norms and their framework. Another challenge in that case future research in AI and the Law will face is related to the flexible nature of the laws. Indeed, the pace of legislation changes in civil law structures is increasing. Furthermore, as several common law cases resolved by courts grows, more and more separate cases can be considered

when resolving a new one. As the outcome, dealing with ever-increasing and ever-changing details in the data, or possibly in the law, would be another major challenge. From the technological ODR systems that work in civil law this means that whenever a legal norm changes someone will have to search the system for the rules that implemented that norm and change them accordingly.

Conclusion

ODR offers the opportunity to use technology to make major advances in access to justice. However achieving an approach to justice requires that careful attention is paid to every key design considerations, namely expertise, objectivity, fairness, and cost are all factors to consider. Different approaches may be available or be required, in hand to OADR as compared to online courts. OADR will start with a blank sheet and decide how to organize the dispute resolution process based on what it already knows about ADR, as well as what it doesn't know about ADR through employing technology in various ways. An online court should be seeking to use technology to innovate but it will be constrained by the essential characteristics of the judicial activity. However, those constraints should not be equated with requiring adherence to the conduct of litigation as currently conceived. The ODR design considerations speak to the requirements of justice, cost, and delay that already guide courts through the overriding or overarching purpose in the courts enabling legislation or rules. However courts might also consider how technology could assist them to deliver on the convenience consideration and enhance possibilities for automating expertise which would, in turn, assist with justice, cost, and delay. The online court has less freedom but technology will spur the redesign of civil justice procedures.