

LAW, MAN AND MACHINE – NECESSARY CONSIDERATIONS ABOUT THE APPLICABILITY OF ARTIFICIAL INTELLIGENCE IN CONFLICT RESOLUTION MECHANISMS IN BRAZIL



<https://doi.org/10.56238/arev6n4-188>

Submitted on: 11/12/2024

Publication date: 12/12/2024

Murilo Pedro Rosa¹ and Ronaldo Fenelon Santos Filho².

ABSTRACT

Society is dynamic and the law, in the same way, accompanies it. Under this premise, technologies are daily invented and offered by the most varied segments and it would be no different with the legal area. Artificial Intelligence is a specific branch of Information Technology that, applied to the field of law, brings numerous benefits, thus imperatively ensuring the achievement of fundamental rights and guarantees. The use of AI in conflict resolution promises to bring significant benefits, but it also raises a number of important considerations that need to be addressed. Thus, the main objective of this work is to investigate the applicability of Artificial Intelligence in the field of law and its logical ramifications. Incidentally, he analyzed the inflation of the Judiciary through the culture of judicialization in Brazil. Alternative means of conflict resolution in the country were presented, such as mediation, conciliation, negotiation and restorative justice. Artificial Intelligence and its imbrication with the field of the Judiciary were conceptualized, especially with regard to procedural management and automation of analysis of procedural themes and data. The alternative means of online conflict resolution and their synergy with Artificial Intelligence were exposed. It was concluded that the use and applicability of Artificial Intelligence as an alternative mechanism for conflict resolution is a skillful instrument to deconcentrate the Judiciary and eradicate the culture of judicialization in the country. The research methodology was deductive, through the compilation of works on the subject in a quali-quantitative way through bibliographic research.

Keywords: Artificial Intelligence. Judiciary. Alternative Means of Conflict Resolution.

¹ University degree completed - Master's student

Unaerp

E-mail: murilopedrorosa@gmail.com

² Doctorate in Law

Unaerp

E-mail: rphenelon@bol.com.br

INTRODUCTION

The applicability of artificial intelligence in conflict resolution mechanisms in Brazil is a topic of great relevance and applicability in current times. This mechanism has stood out as a tool capable of transforming various sectors of society, and the legal system is no exception.

First of all, it is crucial to understand that the application of AI in conflict resolution involves the use of algorithms and computer systems to assist in the analysis of court cases, mediation, negotiation, and even the issuance of decisions. This technology can speed up the conflict resolution process, make it more efficient and accessible, and reduce the workload of legal professionals.

Secondly, the increasing adoption of artificial intelligence in conflict resolution mechanisms in Brazil represents a significant opportunity for the modernization and enhancement of the country's legal system. With the use of advanced algorithms, data analysis, and process automation, AI can streamline the resolution of court cases, reduce costs, and make justice more accessible to a larger portion of the population.

However, the effective implementation of AI in this context also requires careful consideration of ethical, legal, and technical issues, such as the elimination of algorithmic biases, the protection of privacy, and transparency in automated decisions, and it is imperative that Brazil quickly adopt specific regulations on the subject.

Thus, the main objective of this work was to investigate the applicability of Artificial Intelligence in the field of Law. As an accessory, he analyzed the inflation of the Judiciary through the culture of judicialization in Brazil. Alternative means of conflict resolution in the country were presented. Artificial Intelligence and its imbrication with the field of the Judiciary were conceptualized. Alternative means of online conflict resolution were exposed

The present research is justified by the academic, political, economic, legal and social relevance that the theme arouses. To carry out the study, the quali-quantitative research methodology and the hypothetical-deductive method are applied to reach the conclusions.

JUDICIARY TO THE TEST – CULTURE OF JUDICIAL DEMAND IN BRAZIL AND ALTERNATIVE MEANS OF CONFLICT RESOLUTION IN THE BRAZILIAN NORMATIVE-LEGAL SYSTEM

The culture of judicialization in Brazil is a complex phenomenon that refers to the growing use of the judicial system as a means to resolve issues that, in many cases, could be resolved through other mechanisms, such as negotiation, mediation, or dialogue. This phenomenon has intensified over the past few decades and has significant impacts on the legal system and society as a whole.

One of the main causes of judicialization in Brazil is the lack of trust in public institutions, which leads people to turn to the Judiciary in search of solutions to their problems. The delay and slowness of the judicial system also contribute to this culture, since people often see the Judiciary as the only alternative to obtain justice effectively.

Zaganelli et al (2020, p. 118) put it this way:

The judicialization of claims in Brazil is widely considered a problem, although the exact assessment of this problem may vary depending on the context and perspectives. There are several reasons why the judicialization of claims is seen as a challenge in the country: a) overload of the judicial system: The increasing number of cases that reach the Brazilian courts overloads the judicial system, leading to delays in the resolution of cases and increasing the slowness of justice. This negatively affects the efficiency of the system and the ability to offer a quick response to citizens' demands; b)-cost to the parties involved: Legal litigation is often expensive, both in terms of legal costs and time. This can be especially detrimental to people and businesses who do not have the financial resources to sustain lengthy and costly court proceedings; c) Complexity of cases: Often, cases that could be resolved in a simpler and faster way through negotiation, mediation or conciliation end up in the courts due to the complexity of the Brazilian legal system and the lack of confidence in other conflict resolution mechanisms; d)-slowness: The slowness of the judicial system can take years to resolve a case, which is detrimental to all parties involved, creating a sense of injustice and disbelief in the system.

Adding a consequence to this list listed above, a characteristic element is noted among them, that is, the pressure on public resources. In this way, the high judicialization also puts pressure on the public machine, since the government, via taxpayers, is responsible for financing the judicial system. This means that resources that could be directed to other essential areas, such as health and education, end up being used to fund the judicial system.

In addition, the complexity of laws and regulations in Brazil also fuels judicialization, as many citizens and companies turn to the courts to interpret and apply the rules to their

benefit, constituting a litigious culture that undoubtedly burdens the judicial system, increases costs for the parties involved, and delays the resolution of conflicts.

On the other hand, judicialization can also be seen as a way to ensure access to justice for those who would otherwise have no means of resolving their disputes. However, it is important that the judicial system be improved and that other forms of conflict resolution are promoted to reduce the overload and excessive litigation culture that prevails in Brazil.

According to the latest annual report "Justice in Numbers", produced by the National Council of Justice, it is found that, in Brazil, in 2022, 21.5 million new lawsuits were filed³, which, added to the lawsuits already in progress, have the amount of more than 31.5 million lawsuits to be judged in the country, between knowledge and execution, without taking into account the processes that reach the National Council of Justice or the Federal Supreme Court⁴, which in turn have their own systems for measuring demands.

This panorama demonstrates that, in the country, the culture of judicial litigation is a real premise, and that, in the way it is conducted in the Brazilian democratic system, it makes justice bureaucratic, slow and too unfair, and the law is dynamic and needs the institutions that deliberate it to be so too, so any annotation other than this would mean putting in check the normative-legal and political order of the country, most of the time, the right to access to justice⁵, or the jurisdictional inalienability.

On this perspective, Zaganelli, (2020, p. 121), asserts that:

Thus, mass judicialization in Brazil is harmful to justice for several reasons that affect both the judicial system and society as a whole. First, the overload of lawsuits in the courts resulting from mass judicialization leads to a generalized slowness. Cases can take years to resolve, which undermines the effectiveness of the system

³The Brazilian Judiciary is composed of five justice segments, namely: State Justice and Federal Justice, which are part of the Common Justice, and Labor Justice, Electoral Justice and Military Justice, which are part of the Special Justice. The following tables present an explanatory summary of the competences and structure of each branch of justice. In addition to the Federal Supreme Court, there are also four Superior Courts: STJ, STM, TSE and TST (BRASIL, 2023).

⁴The information made available maintains the history of consolidating data from the 91 bodies of the Judiciary, listed in article 92 of the Constitution of the Federative Republic of Brazil of 1988, excluding the Supreme STF and the CNJ, which have separate statistics. Thus, "Justice in Numbers" includes: the 27 State Courts of Justice (TJs); the six Federal Regional Courts (TRFs); the 24 Regional Labor Courts (TRTs); the 27 Regional Electoral Courts (TREs); the three State Military Justice Courts (TJMs); the Superior Court of Justice (STJ); the Superior Labor Court (TST); the Superior Electoral Court (TSE) and the Superior Military Court (STM) (BRASIL, 2023).

⁵During the eighteenth and nineteenth centuries, in liberal states, the expression "access to justice" referred to the formal right of aggravated subjects to contest or bring an action, corresponding to a formal and not effective equality. With the transition to the *welfare state*, in which actions progressively assumed a less individual and more collective character, efforts were made aimed at recognizing and enforcing the social rights and duties of governments, individuals, associations and communities (CAPPELLETTI, 1988).

in providing swift and efficient justice. This discourages the parties involved, undermines trust in the system and perpetuates the feeling of impunity.

In addition, it is imperative that excessive judicialization puts financial pressure on the State, since it is necessary to allocate substantial resources to maintain a properly functioning judicial system. This can compete with other essential sectors, such as health and education, leading to an imbalance in public spending.

The culture of judicialization also contributes to the bureaucratization of the judicial system. The large number of cases results in complex and time-consuming procedures, increasing the workload of judges and judicial staff. This can, in turn, make the system less accessible to those seeking justice.

For Nascimento Junior, (2017, p. 267):

Another negative consequence is the incentive to excessive litigation, since the ease of resorting to the courts can lead to the use of the system as a means of pressure in disputes or as a strategy for personal gain. Finally, mass judicialization can limit the promotion of conflict resolution alternatives, such as mediation and conciliation, which are often more effective, faster, and more cost-effective than judicial litigation. Therefore, the overload of the judicial system can inhibit the search for more efficient and collaborative solutions to conflicts.

Thus, the judicialization of the demand in Brazil is a complex phenomenon that brings challenges and opportunities to the judicial system and society as a whole. In conclusion, it is important to highlight that judicialization in itself is not necessarily good or bad; It is a reflection of the country's social, economic and political issues. However, when it occurs en masse and in an uncontrolled manner, it can become harmful.

Increasing judicialization overwhelms the judicial system, makes it bureaucratic and time-consuming, negatively affecting the efficiency and accessibility of justice. In addition, it puts pressure on public resources that could be directed to other important areas.

On the other hand, judicialization can also be seen as a way to ensure access to justice for those who do not have viable alternatives to resolve their conflicts. It is important to seek a balance between the need for access to justice and the promotion of alternative conflict resolution mechanisms, such as mediation and conciliation, to ease the burden on the judicial system.

Ultimately, the judicialization of demand in Brazil highlights the importance of judicial reforms, modernization of the system, simplification of procedures, and investment in alternative methods of conflict resolution. This can help restore trust in the justice system,

reduce slowness, and ensure that justice is accessible, efficient, and effective for all citizens.

ALTERNATIVE MEANS OF CONFLICT RESOLUTION IN BRAZIL – MEDIATION, CONCILIATION AND ARBITRATION, NEGOTIATION AND RESTORATIVE JUSTICE

In the normative-legal system, judicial policy must be aimed at resolving the demand quickly and effectively, without, however, leaving aside the objectivity and technique necessary and indispensable when judging a dispute.

In this scenario, making the Judiciary less bureaucratic is an objective of the so-called alternative means of conflict resolution, which are mediation, conciliation, arbitration, negotiation and restorative justice, which appear in the national legal system as instruments of deconcentration of the Judiciary with regard to available rights.

These alternative dispute resolution mechanisms, in Brazil, are methods that offer alternatives to dispute resolution through the traditional judicial system. These mechanisms are used to resolve conflicts in a faster, more effective and collaborative manner.

With regard to mediation, it is a process in which an impartial third party, the mediator, helps the parties involved in a conflict to reach a mutual agreement. Conciliation is similar to mediation, but the conciliator can offer suggestions and proposals to resolve the conflict.

Mediation has played an important role in promoting democracy in Brazil. By offering a collaborative approach to dispute resolution, it contributes to reducing the burden on the court system, making it more agile and accessible. In addition, mediation empowers the parties involved, allowing them to take an active role in finding solutions that meet their needs, rather than relying solely on court decisions.

The 2015 Mediation Law was a significant milestone for mediation in Brazil, establishing clear guidelines for its application and recognizing the importance of mediation in promoting citizenship and social pacification. However, there are still challenges to be overcome, such as raising awareness and training professionals in the legal field and society in general. Mediation continues to be a valuable tool for strengthening democracy in Brazil, encouraging the peaceful resolution of conflicts and promoting justice in a more participatory and effective manner (SABO AND ROVER, 2020).

Arbitration in Brazil has a history dating back to the early twentieth century, but it was only with the enactment of the Arbitration Law in 1996 that it gained strength and legal

recognition in the country. The law established a regulatory framework for arbitration, aligning Brazil with the best international practices in this area. Since then, arbitration has evolved significantly, being widely adopted in business, contractual, and commercial matters.

For Brito, (2019, p. 220):

Arbitration is a process in which an arbitrator or panel of arbitrators makes a binding decision on the dispute, which is legally equivalent to a court decision. The application of arbitration in Brazil covers a variety of sectors, including corporate disputes, business contracts, civil construction, among others. Companies and individuals opt for arbitration due to its speed, confidentiality and the expertise of arbitrators specialized in specific issues. This choice helps to relieve the Brazilian judicial system, reducing the overload of cases in the courts.

The influence of arbitration on the Brazilian democratic system lies in its ability to promote more efficient and accessible justice. The use of arbitration for the resolution of business and commercial conflicts helps to ensure legal certainty and attract foreign investment, strengthening the country's economy. In addition, by allowing parties to choose their own arbitrator and resolution process, arbitration reinforces the democratic principles of autonomy and contractual freedom. However, it is important to ensure that arbitration is used ethically and transparently, so as not to compromise the democratic values of equality and fairness for all.

When we talk about alternative means of conflict resolution, we have, in the same way, negotiation. This instrument involves the parties to the conflict discussing directly to reach an agreement.

Negotiation as an alternative means of conflict resolution has a deep history in Brazil, linked to conciliation traditions and the culture of dispute resolution through dialogue. Historically, negotiation was widely used in informal and cultural contexts, but its formalization as an alternative instrument of conflict resolution gained strength with the development of the legal system and the promulgation of the 1988 Constitution, which encouraged consensual conflict resolution (ARBIX, 2017).

The evolution of negotiation in Brazil took place with the improvement of negotiation techniques and practices, as well as with the diffusion of education and training programs in negotiation. The application of negotiation is broad, covering areas such as business, labor, family, environmental and commercial law. It is often used in divorce situations, commercial agreements, collective bargaining and resolution of consumer conflicts.

Negotiation positively influences the Brazilian democratic system in several ways. It promotes the autonomy and freedom of the parties involved, allowing them to actively participate in the search for solutions that meet their needs and interests. Additionally, by reducing the burden on the court system, bargaining contributes to the efficiency of the court system, ensuring that courts can focus on more complex cases. The promotion of negotiation and collaborative practices also reinforces the culture of conflict resolution through dialogue, strengthening the democratic values of inclusion, participation, and mutual respect (ARBIX, 2017).

Regarding restorative justice, it is noted that it focuses on repairing the damage caused by the conflict and on reconciliation between the parties. It is often used in criminal cases, seeking an approach more focused on restoring relationships than on punishment.

Restorative justice as an alternative means of conflict resolution (MARC) in Brazil has roots in the 1990s, when it began to be introduced into the country's justice system. Historically, restorative justice is an approach that is based on restoring relationships and repairing the damage caused by conflict, in contrast to the traditional system, which focuses on punishing the offender. In Brazil, this approach has developed as a way to deal with non-violent crime and disputes in communities, especially in youth contexts (ANDRADE, 2010).

The evolution of restorative justice in Brazil took place with the enactment of Law No. 12,594/2012, which established the National Socio-Educational Service System (SINASE) and officially recognized restorative justice as a valid alternative to the traditional penal system. Since then, restorative justice programs and practices have been applied in different Brazilian states, especially in cases involving young offenders, promoting accountability, reparation of damages, and reconciliation.

In Brito's assertions, (2019, p. 225):

The application of restorative justice in Brazil covers a variety of situations, including minor crimes, family and community conflicts, as well as disputes in schools and workplaces. This approach is applied with the participation of the parties involved, mediators and facilitators, promoting the construction of agreements and solutions aimed at restoring relationships and preventing recurrence. Restorative justice positively influences the Brazilian democratic system by emphasizing values such as participation, dialogue, and accountability. It provides an opportunity for parties affected by the conflict to voice their needs and concerns, promoting the voice and agency of those involved. Additionally, restorative justice helps to reduce the burden on the traditional penal system, freeing up resources for more serious cases, while strengthening social cohesion and trust in democratic institutions. Its application contributes to the construction of

a fairer and more inclusive society, in line with the democratic principles of peaceful conflict resolution and reconciliation.

Thus, these alternative mechanisms play an important role in the Brazilian legal system, alleviating the overload of the Judiciary, making justice more accessible, and offering parties in conflict the opportunity to actively participate in the resolution of their disputes.

It is imperative that such instruments promote the peaceful resolution of conflicts, the speed and efficiency of the legal system, contributing to a more just and equitable society. Mediation in Brazil has a history dating back to the 1990s, when it began to be introduced as an alternative to traditional litigation. Initially, mediation was mainly used in family matters, such as divorces and alimony. Over time, its application expanded to areas such as consumer, labor, business, and even criminal law, through the so-called "restorative justice". This evolution of mediation in Brazil reflects the growing search for alternative methods of conflict resolution.

ARTIFICIAL INTELLIGENCE AND THE BRAZILIAN JUDICIARY

Artificial Intelligence (AI) is a field of computer science that focuses on the development of computer systems and programs capable of performing tasks that, when performed by humans, often require intelligence. This includes the ability to learn, reason, solve problems, understand natural language, perceive the environment, make decisions, and adapt to new situations. AI seeks to create machines and algorithms that can mimic or replicate some of the cognitive abilities of humans.

It is noted that there are branches of Artificial Intelligence and these are diverse and include machine learning, which is a sub-area of AI that focuses on developing algorithms that allow systems to learn and improve based on data. Machine learning is widely applied in pattern recognition, natural language processing, prediction, and recommendation (ANDRADE AND MARCANCINI, 2017).

Another important technical perspective of Artificial Intelligence is computer vision, which focuses on enabling computers to understand and interpret visual information, such as images and videos. It is used in applications such as facial recognition, autonomous vehicles, and medical imaging.

In the same way, there is natural language processing, when it involves the ability of computers to understand, interpret and generate human language. It's used in *chatbots*, machine translation, sentiment analysis, automatic summaries, and more.

With regard to Robotics, it is noted that robots are used to allow them to perceive and interact with the environment, make autonomous decisions, and perform complex physical tasks. Applications include medical robotics, industrial automation, and service robots.

There is strong and weak Artificial Intelligence, which can be defined as such, respectively, as the idea of creating AI systems with human cognitive capabilities, although this is still the subject of debate and research. On the other hand, weak AI is one that focuses on specific tasks, without aspiring to general intelligence (RIEGER, 2021).

With regard to ethics and responsibility, it is understood that, with the advancement of AI, important ethical and legal issues arise related to the responsible use of technology, prevention of algorithmic discrimination, privacy, among others.

In short, these are just a few of the many ramifications of Artificial Intelligence, and the technology continues to evolve rapidly, with increasingly diverse and impactful applications in areas such as healthcare, transportation, finance, education, and more.

The introduction of artificial intelligence (AI) in the Brazilian Judiciary has represented a significant transformation in the way justice is administered and processes are managed. AI has been applied in various areas within the Judiciary, bringing both benefits and challenges.

One of the main applications of AI in the Brazilian judicial system is the analysis of legal data and documents. AI algorithms can be used to examine large volumes of information, identify patterns, and extract valuable insights that can assist judges and lawyers in their decisions and arguments. This contributes to the speed and efficiency of the judicial system, reducing the time needed for case law research and document analysis (RIEGER, 2021).

In addition, AI has also been used in the automation⁶ of repetitive and bureaucratic tasks, such as process screening and the generation of standard documents. This frees up

⁶In this sense, the possibility of creating *software* supported by specific algorithms, aligned with the desired purpose, enabled a new paradigm in the sphere of conflict resolution: Online Dispute Resolution (ODR). Raised by Information and Communication Technologies (ICTs) and Internet functionalities, ODRs manifest themselves in the resolution of disputes in which information and communication technologies are not limited to replacing traditional communication channels, but act as vectors to offer the parties environments and procedures absent in conventional mechanisms for settling conflicts (ARBIX, 2017).

human resources to deal with more complex and cognitive issues, improving the quality and accuracy of judicial decisions.

However, the introduction of AI in the Judiciary also brings challenges, such as issues related to privacy and ethics in the use of data, as well as the need for training and qualification of professionals to deal with this technology properly. Additionally, it is essential to ensure that AI is used transparently and impartially, without perpetuating bias or bias.

Overall, the integration of artificial intelligence into the Brazilian Judiciary represents an opportunity for modernization and improvement in the administration of justice, but it requires a careful approach to ensure that its benefits are maximized and its challenges minimized, while preserving democratic principles and the fundamental rights of citizens.

ARTIFICIAL INTELLIGENCE IN THE MANAGEMENT OF JUDICIAL PROCESSES

With regard to the use of Artificial Intelligence specifically in procedural management and its consequent ramifications, it is noted that its applicability in the management of the judiciary has the potential to significantly improve the efficiency, transparency, and quality of judicial services.

In this regard, Artificial Intelligence can be used to analyze large volumes of judicial data⁷, identifying trends, patterns, and relevant information for strategic decision-making. This helps judicial managers to identify bottlenecks, allocate resources effectively, and monitor the performance of the system, being, imperatively, a skillful tool in the management of procedural data and information.

Regarding workload forecasting, it is envisioned that Artificial Intelligence algorithms can predict future workload based on historical patterns, assisting in the allocation of personnel and resources appropriately to avoid delays and system overload, anticipating even previously and historically detailed and observed patterns.

When it comes to case management, Artificial Intelligence systems can automate tasks such as case screening, case classification, hearing scheduling, and judge assignment, reducing the time spent on bureaucratic tasks and allowing employees to focus on more complex issues.

⁷The STF, by way of illustration, receives an average of 70 thousand cases per year, 350 of which per day. It is enough to divide this number by the number of justices we have available in the court, and we will be faced with a humanly absurd and totally unfeasible number: 6,363 cases per minister/year (ZAGANELLI *ET AL*, 2020).

In turn, sentiment analysis can be used to analyze public sentiment and opinion towards the judiciary, based on social media analysis and other data sources. This helps to identify areas of concern and improve communication with the public.

This tool, imperatively, has been a way of approaching (democratizing) the process in relation to the public in general, and virtual assistance through *Chatbots* and virtual assistants based on Artificial Intelligence can be implemented to provide information and guidance to citizens, lawyers and parties involved, relieving the workload of judicial employees and improving service to the public.

As for human resource management, it can help in personnel selection, training, and employee performance evaluation, ensuring that judicial teams are well-prepared and efficient.

In the same way and interconnected with the functional characteristic listed above, there is the analysis of judicial decisions, when algorithms can analyze past judicial decisions to identify inconsistencies or biases, helping to promote a more impartial and transparent justice.

It is important to note that the successful implementation of AI in the management of the judiciary requires ethical and legal considerations, as well as guarantees of transparency and accountability to ensure that the technology is used fairly and impartially. However, when implemented carefully and strategically, AI can contribute to a more efficient and effective management of the justice system.

The Victor Project, which uses the *Machine Learning method*, is an example of how technology can be applied in the legal context, especially in courts and judicial bodies and has already been used by the Federal Supreme Court since 2018 in the achievement of procedural and procedural management, proving to be a skillful tool in the promotion of fundamental rights and guarantees, especially with regard to the speed and thematic automaticity, since this robot can, among others, catalog subjects (themes) similar to the one proposed in an Extraordinary Appeal, for example, thus making it susceptible to possible general repercussion, for example.

In the lessons of Sabo and Rover, (2020, p. 174), it is noted that:

The main functions and applicability of Project Victor include case analysis, when using *Machine Learning* algorithms, the software analyzes a wide range of past court decisions to identify patterns, trends, and relevant legal precedents. This helps judges make more informed and consistent decisions. This technology is also capable of predicting outcomes, i.e., based on the analysis of historical data, the software can make predictions about the likely outcomes of similar cases in terms

of sentences, decisions, and legal outcomes. This assists the parties involved in assessing their chances of success. To this premise, it is added the fact that such an instrument is able to provide recommendations of relevant jurisprudence based on similar cases already tried. This saves both lawyers and parties time and resources, helping them find relevant precedents.

Other characteristics link Artificial Intelligence to the achievement of fundamental rights and guarantees, this being the efficiency in case processing, as Victor can be used to automate case screening tasks, identification of repetitive litigation, and management of judicial resources, increasing the efficiency of the judicial system. The software can also track and monitor emerging legal trends, helping judges and lawyers stay up-to-date on changes in case law.

The application of *Machine Learning* in the judicial context, such as in Project Victor, can contribute to more efficient, transparent, and consistent justice. However, it is important to ensure that the algorithms used are trained impartially, ethically, and transparently, in order to avoid bias and discrimination. In addition, human oversight remains essential for making final decisions on complex legal issues.

In the Superior Court of Justice there is Sócrates, a project similar to that of the Federal Supreme Court with similar characteristics, acting, preferably, in the management of processes and themes that aim at repetitiveness, to be used as paradigms in cases of Incident of Resolution of Repetitive Demands, Incident of Assumption of Jurisdiction, for example, and this is a remarkable initiative that seeks to improve the efficiency and quality of decisions within the scope of the Superior Court of Justice. Justice (STJ) of Brazil. The use of *Machine Learning* in judicial systems is a growing trend that aims to leverage data analysis and AI algorithms to assist judges and magistrates in their decisions.

For Sabo and Rover, (2020, p. 178), it is clear that;

The functions and applicability of the Socrates Project may include; a) analysis of jurisprudence, being able to analyze a vast volume of case law of the STJ, identifying patterns, relevant precedents and similar decisions in previous cases; b) the prediction of results based on the analysis of historical data, the system can predict the probable outcomes of specific cases, helping judges to understand the implications of their decisions; c)-efficiency in decision-making, by automating legal research and case screening tasks, the system can save time for judges and improve efficiency in case analysis; d)-transparency and uniformity in judicial decisions and for greater transparency in the decision-making process.

It is important to note that AI, including *Machine Learning*, must be used responsibly and transparently in the justice system. Human oversight remains essential, especially in complex cases that require evaluation of legal and ethical nuances.

ARTIFICIAL INTELLIGENCE APPLIED TO ALTERNATIVE MEANS OF CONFLICT RESOLUTION – (REAL) ACCESS TO FUNDAMENTAL RIGHTS AND GUARANTEES

The application of Artificial Intelligence to alternative means of conflict resolution represents a promising evolution in the legal system that can positively impact the real access to citizens' fundamental rights and guarantees.

In this perspective, the mechanisms of online dispute resolution emerge in the national normative-legal scenario⁸, that is, the applicability of the means of self-resolution by administrative means, without necessarily having the intervention of the Judiciary.

For Amorim, (2017, p.515):

The modes of Online Dispute Resolution (ODR) consist, therefore, in the use of technology resources for Alternative Dispute Resolution - ADR, whether they arise exclusively from legal relationships established in cyberspace, or originate from legal relationships constituted in the so-called "physical" world. In this sense, ODR can be considered a species of the genus ADR. But it would be too simplistic to imagine that the means of Online Dispute Resolution are reduced to a simple expression of the means of Alternative Dispute Resolution. The possibilities of using technology for dispute resolution are immense and involve complex issues, both from a theoretical point of view and from a technological point of view, such as the use of artificial intelligence to provide a solution to the conflict. [...] From a more pragmatic perspective, computerized systems and data transmission and reception platforms constitute a third party in the conciliation process, or even may constitute a fourth party, in cases of online mediation and arbitration.

This instrument refers to the use of technology and the internet to resolve disputes and conflicts between parties, often without the need to resort to physical courts. It is noted that this premise has some peculiar characteristics of organization and applicability, such as self-composition (mediation and arbitration), online conflict resolution platforms, accessibility and inclusion (democratization and deconcentration of the Judiciary).

⁸It was in this scenario that in 1999, in the United States, the e-Bay company's online conflict resolution platform was born, the first Online Dispute Resolution system. The function of this e-commerce giant was (and continues to be) only to connect sellers and buyers, but it began to see its name integrating several lawsuits for consumer conflicts. Initially, everything took place through the exchange of e-mails. In the first fifteen days after creation, 225 people used the service, achieving a success rate of 50%. Today, after more than 20 years of its invention, the platform uses negotiation software between buyer and seller, resolving the incredible number of 60 million conflicts per year, reaching the closing of 8 agreements out of every 10 disputes. The system allows a negotiation phase between the parties, as well as a judgment phase that is carried out with an employee of the e-commerce and marketplace e-Bay. In the first phase, the parties have total freedom to talk about the conflict, as well as to establish the terms they deem fair. If this first attempt is unsuccessful, those involved are "taken" (in the same virtual environment) to another environment, in which each one says their reasons and attaches whatever is necessary for the purposes of proof. At this stage, there is a kind of judgment carried out by a specialized employee of e-Bay itself (transforming the process into arbitration), which to decide who is right is based on rules that are part of the internal policies of the site itself (FACHIN, 2022).

Mediation is a process where an impartial third party helps the parties resolve their differences. In ODR (Online Dispute Resolution), this can be done through video conferencing, chat, email, or other online communication platforms.

Arbitration, on the other hand, involves the appointment of an arbitrator or a panel of arbitrators who issue a decision binding on the parties. ODR allows this process to be carried out virtually, using online tools.

There are several platforms dedicated to ODR, which provide tools and processes to help parties resolve conflicts. Some examples include the dispute resolution system such as [consumidor.gov](http://consumidor.gov.br) and Leegol⁹.

It should be noted that the online conflict resolution platform is [consumidor.gov](http://consumidor.gov.br) a place where consumers can directly make their complaint against the contracted company. In this system, what prevails is the system of self-settlement by direct negotiation, when the consumer has the freedom to negotiate directly with the person who sold him the product or service, being a skillful mechanism in the resolution of claims between private parties in which the dispute put to the test provides for available rights.

In relation to the Leegol platform, it has the same essence as the [consumidor.gov](http://consumidor.gov.br) platform, that is, the deconcentration of the Judiciary's disputes and the promotion of self-settlement. In this model, there is the application of the alternative means of conflict resolution by mediation, where a third party disinterested and unrelated to the cause acts as an intermediary of agreements that aim to structure those who were somehow harmed in the legal relationship and, from another perspective, to provide efficiency and maintain the credibility of those who are eventually responsible for repairing the damage.

Regarding online conflict resolution mechanisms, Sabo and Rover (2022, p. 180), deliberate as follows:

[...] Security and Privacy: ODR must ensure the security and privacy of the information and communications of the parties involved. Accessibility and Inclusion: It is important that ODR solutions are accessible to all parties, regardless of their ability to use technology or their specific needs. Education and Awareness: For

⁹Following a global trend, in 2012 the first ODR companies began to emerge in Brazil. In June 2017, the Brazilian Association of *Lawtech* and *Legal Techs*, also known as AB2L, was created, the body responsible for taking care of *startups* focused on the development of technological solutions against legal problems. On the subject, it is also worth noting that there is already the possibility of establishing partnerships between Private Chambers that use Online Dispute Resolution and Courts, in order to judicially ratify the agreements made on these platforms. In other words, this partnership allows everything that was settled by self-composition to gain the effectiveness of a judicial enforcement title. For this to be viable, it is necessary that companies adapt to what is set out in the regulations of each court. As an example, we have the Court of Justice of São Paulo, which has the registration of at least two companies, namely: ITKOS and leegol, for example, (GONÇALVES, 2018).

ODR to be effective, stakeholders need to be aware of their options and how to use these tools. Education and awareness are key. Continuous Evaluation: ODR solutions should be continuously evaluated and improved based on feedback from stakeholders and changes in technologies and laws.

There are also intrinsic characteristics to all these alternative means of conflict resolution over the internet, that is, online, being Computer Aided Negotiation (CAN) where algorithms and artificial intelligence can be used to facilitate negotiation between the parties in conflict. This can include *chatbots* that help parties reach an agreement based on historical values resulting from analysis obtained via jurimetrics, alerting parties to the values of any convictions and/or settlements in similar cases.

Another striking feature is the hybrid methods used in the attempt to resolve conflicts, and in many cases, ODR combines elements of mediation, arbitration, and computer-assisted negotiation to find the best solution to the conflict.

Legal Compliance is another peculiar characteristic of these mechanisms, as ODR solutions must comply with local, national and international laws and regulations. This can be challenging, especially in cross-border disputes.

ODR has the potential to make conflict resolution more efficient, accessible, and convenient, but it also presents challenges, such as ensuring impartiality, compliance with legal regulations, and the trust of the parties involved. Therefore, its implementation requires careful consideration and development.

Regarding the potential benefits deliberated by these online conflict resolution mechanisms, Sabo and Rover, (2022, p. 181) list them as follows:

a)-Increased Efficiency: AI can automate routine and bureaucratic tasks in MARCM processes, such as case triage, information gathering, and scheduling mediation or conciliation sessions. This speeds up the process, making it more efficient and affordable; b)-Access to Information: *AI-based chatbots* and virtual assistants can provide information about citizens' rights and legal procedures, making it easier to understand the process and access to justice; c)-Data Analysis: AI can analyze large volumes of data to identify trends and patterns in disputes, helping to prevent conflicts and develop more effective public policies; d)-AI-Assisted Mediation and Conciliation: AI systems can assist in identifying points of agreement between parties in conflict, suggesting possible solutions and promoting collaborative dispute resolution.

These alternative conflict resolution mechanisms offer periodic monitoring and evaluation, as Artificial Intelligence can monitor the progress of cases in its database, identifying the need for additional intervention or follow-up, ensuring that the rights of the parties are respected.

It facilitates and brings access to the fundamental guarantees of the citizen as it presents itself as a place to promote self-settlement and at the same time works to relieve the Judiciary in demands that most of the time could (and now are) resolved administratively, leaving to the Judiciary the cases in which there is really a need for intervention.

Another positive point in this scenario is the possibility of remote access, since Artificial Intelligence technology also makes it possible to carry out ODR sessions remotely, further expanding access to these services, especially in geographically remote areas.

Imperatively, this instrument is based on the foundation of transparency and impartiality, even if there is the participation of a third party in this litigation, it does not remove from it the self-compositional characteristic, since its demands are placed in an administrative manner, without the need to relegate the last word to the Judiciary, giving, undoubtedly, greater autonomy of wills.

So, in summary, ODR is a promising approach to resolving conflicts in the digital age, providing significant benefits in terms of accessibility, efficiency, and convenience.

However, it is essential to ensure that the application of Artificial Intelligence in online dispute resolution mechanisms is accompanied by data protection measures and ethical concerns, avoiding algorithmic biases and preserving due process. In addition, it is important to remember that AI is a tool that should assist, but not replace, human intervention when necessary, especially in complex cases involving fundamental values and rights.

CONCLUSION

The present work was concerned with investigating the application of Artificial Intelligence in the optimization of procedural management and as an alternative mechanism for conflict resolution by self-settlement in Brazil.

In this way, it investigated the culture of judicialization of demands in Brazil, when it tends to inflate the Judiciary with demands that, in most cases, could be resolved administratively, causing serious damage to the country's democratic system and also harming access to justice.

In the same way, the alternative mechanisms of conflict resolution by self-settlement that exist in the Brazilian legal system were outlined, such as mediation, conciliation, arbitration and negotiation and restorative justice, understanding that such mechanisms

are skillful instruments in achieving conflict resolutions, which, in a positive way, tends to streamline and make faster and more efficient the response to litigants in any administrative demand.

The concept of Artificial Intelligence and its technological ramifications was presented, which is a branch of information technology that aims to optimize certain social and industrial segments, bringing numerous benefits to its users and the final destination of its applicability.

The performance and applicability of Artificial Intelligence to the Judiciary in the procedural management and automated analysis of themes and processes was delimited, in relation to the parties, whether or not there are conflicting jurisprudential decisions, for example, being of great value in the achievement of fundamental rights and guarantees, especially the guarantee of the reasonable duration of the process, combined with the speed and efficiency in the jurisdictional provision, translating into concretion of rights.

Finally, the existence of online conflict resolution mechanisms was exposed, these platforms using mediation and negotiation to foster and apply self-settlement in the national legal system. Platforms such as [consumidor.gov](http://consumidor.gov.br) and [Leegol](http://leegol.org.br) are sites intended for conflict resolution without the help of the Judiciary, and these practices should be fostered and disseminated on a daily basis.

Beforehand it was possible to characterize and specify several nuances that imply, firstly, accepting the use of sustainable and responsive technologies capable of purging data and even decisions equipped with accuracy, as already exposed throughout the development of the present work. Moreover, there needs to be training and specialization directed to the judicial system itself and its users, all with the aim of providing an associative conjuncture that allows, not only to associate such technologies with the rational judicial process, without this resulting in a pernicious connotation capable of distancing the jurisdictional party from its minimally acceptable resolute needs.

What is envisioned, therefore, is the concomitant use of technology in step with judicial technical analysis, which would shorten paths that, today, propagate delay and vicissitudes in access to justice.

It was concluded that the use and applicability of Artificial Intelligence as an alternative mechanism for conflict resolution is a skillful instrument to deconcentrate the Judiciary and eradicate the culture of judicialization in the country, contributing to a faster and more democratic judiciary.

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