

Regulation of artificial intelligence in the Brazilian and European judiciary¹

Regulação da inteligência artificial no judiciário brasileiro e europeu

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Abstract:

Artificial intelligence has been used in the Brazilian Judiciary, especially in the face of normative acts of the National Council of Justice, however there is no regulation of the subject in the legislative scope. Considering the urgency of a regulatory framework, the present study aims to discuss the issue of artificial intelligence regulation in the Judiciary, especially what are the limits and possibilities related to the use of AI by the Judiciary, with emphasis on the judicial decision. Therefore, from the phenomenological-hermeneutic approach and the historical and comparative procedure methods, a comparative law study is carried out between the normative structures under construction in the European Union and in Brazil. It is concluded that the Proposal for a Regulation on Artificial Intelligence of the European Union, which is awaiting approval by the European Parliament, presents important norms, especially regarding ethical and security issues to be observed by AI systems, which deserve to be observed by Brazil at a global level legislative.

Keywords: Artificial Intelligence; National Council of Justice; judicial decision; Judicial Power; regulation.

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Resumo:

A inteligência artificial tem sido utilizada no Poder Judiciário brasileiro, sobretudo diante de atos normativos do Conselho Nacional de Justiça, todavia inexistente regulamentação da temática no âmbito legislativo. Tendo em vista a urgência de um marco-regulatório, o presente estudo visa discutir o tema da regulação da inteligência artificial no Judiciário, especialmente quais são os limites e as possibilidades relacionadas à utilização da Inteligência Artificial (IA) pelo Judiciário, com ênfase na decisão judicial. Para tanto, a partir da abordagem fenomenológico-hermenêutica e dos métodos de procedimento histórico e comparativo realiza-se um estudo de direito comparado entre as estruturas normativas em construção no âmbito da União Europeia e no Brasil. Conclui-se que a Proposta de Regulamento de Inteligência Artificial da União Europeia, que aguarda aprovação do Parlamento Europeu, apresenta normas importantes, especialmente quanto às questões éticas e de segurança a serem observadas pelos sistemas de IA, que merecem ser observadas pelo Brasil em nível legislativo.

Palavras-chave: *Inteligência Artificial; Conselho Nacional de Justiça; decisão judicial; Poder Judiciário; regulação.*

1 Introduction

Artificial Intelligence (AI) consists of a branch of Computer Science that proposes to develop devices that simulate the human ability to reason, perceive, make decisions and solve problems, in short, the ability to be intelligent. AI involves a machine learning process in which an algorithm is run multiple times with large amounts of data so that the system continuously adjusts and improves. Artificial Intelligence is no longer exclusive to science fiction, so the use of machines that think and act like humans is the focus of society and, consequently, of the Judiciary. This is despite the fact that the 2015 Code of Civil Procedure, through the legislature, did not regulate the use of AI. The truth is that, from the adoption of these technologies, computers can be trained to perform specific tasks by processing large amounts of data and recognizing patterns in this data, which can have positive and negative consequences for complex judicial activity. Technological advances and their effects are inevitable, especially the adoption of technological tools within the management of the courts, such as the Electronic Judicial Process (PJe), instituted by the CNJ with the purpose of optimizing the jurisdictional provision and adapting to new technologies. Artificial Intelligence, in particular, brings with it numerous and unequivocal advantages for the jurisdiction and society.

In the Justice 4.0 Program, the CNJ also instituted the Digital Platform of the Judiciary (PDPJ), created in 2021, which aims to modernize the procedural process in the Brazilian scenario, bringing speed and agility to jurisdictional provision, as well as expanding the population's access to justice. This platform is promoting the integration of 14 electronic process systems, which requires the collaboration of the Courts with the National Council of Justice so that it is effectively implemented in the country. However, it is important to ask how

technology can dialogue with the law and what are the limits for the use of algorithms by the Judiciary, especially in the context of the decision-making process.

In view of this, the objective of this research is to analyze what are the limits and possibilities related to the use of Artificial Intelligence by the Judiciary, with emphasis on the judicial decision, based on the study of comparative law between the regulatory structures published in the European Union and in Brazil. The European Union stands out in the global context in terms of the regulation of important issues involving technological aspects in this digital decade, leading the development of new standards that guarantee reliable Artificial Intelligence. The 2021 Proposal for a Regulation of the European Parliament and of the Council, known as the *Intelligence Act*, which is pending approval, brings extremely relevant aspects to the regulation of the use of AI and is considered essential to build an ecosystem of excellence in AI and strengthen the EU's ability to compete globally.

Taking into account that the focus of the research is focused on projecting a critical-reflective view on the proposed topic, the phenomenological-hermeneutic approach was used. They use the methods of the historical and comparative procedure to understand the historicity of AI and the contrast between the regulation of the subject in the European Union and in Brazil, as well as bibliographic and documentary research techniques. For the fluency of comprehension, this article was divided into two topics. The first addresses the legislation that is being built within the European Union, with reflections on the opportunities and challenges around the regulation of Artificial Intelligence. The second topic aims to address the Brazilian context in relation to the regulation of AI in the Judiciary, contrasting the two regulatory scenarios.

2 The regulation of the use of Artificial Intelligence in the Judiciary in the European Union: a look at the opportunities and another at the challenges

When it comes to the interfaces between Law and Technology, the European Union (EU) is always one step ahead in terms of debates and reflections, and Artificial Intelligence is no different. Proof of this is that among the priorities of the European Commission in the period 2019-2024 - to make the decade digital - is "a Europe prepared for the digital age", which includes "excellence and trust in Artificial Intelligence". This priority is based on the assumption that "[...] reliable Artificial Intelligence (AI) can bring many benefits, namely better

healthcare, safer and less polluting transport, more efficient production systems and cheaper and more sustainable transport" (European Union, 2019). The EU's aim is to give citizens the confidence to adopt these technologies through AI and will encourage companies to develop them. The European Union recognises the need to regulate Artificial Intelligence, insofar as, despite presenting potential benefits for society (including healthcare and improved education), there are risks in some Artificial Intelligence systems. By way of example, it is pointed out that "[...] the opacity of many algorithms can create uncertainty and hinder the effective application of current legislation on security and fundamental rights" (European Union, 2019).

The European Union recognises that AI is one of the most strategic technologies of the twenty-first century, taking the lead in these developments since "data and algorithms are, therefore, the inputs of AI, without which it would be unfeasible to develop the technology" (Mulholland, 2020, p. 331). To achieve this objective of trust, the European Charter establishes that the use of Artificial Intelligence tools and services in justice systems seeks to improve the efficiency and quality of justice and should be encouraged; however, such use must be carried out responsibly, in accordance with fundamental rights and principles, according to the European Parliament (European Union, 2018). The aforementioned Ethical Charter establishes that five principles must be observed on the use of Artificial Intelligence in judicial systems and their environment: a) Principle of respect for fundamental rights: ensure that the granting and implementation of Artificial Intelligence tools and services are compatible with fundamental rights; (b) the principle of non-discrimination: to specifically prevent the development or intensification of any discrimination between persons or groups of persons; (c) Principle of quality and security: with regard to the processing of judicial decisions and data, use certified sources and intangible data with models designed in a multidisciplinary manner, in a secure technological environment; d) Principle of transparency, impartiality and fairness: making data processing methods accessible and understandable, authorising external audits and, finally, e) Principle "under the control of the user": avoiding a prescriptive approach and ensuring that users are informed actors and control their choices (European Union, 2018). Always in view of the risks of the use of Artificial Intelligence, in April 2019, the European Union published the "Ethical Guidelines for Trustworthy AI" (European Union, 2019). Although this document is not binding, "[...] has the power to serve as a model for the possible rules to be created by European legislators when regulating the use of technology, especially by the Judiciary" (Faria; Pedrón, 2021, p. 214-215).

It should be noted that, on 18 December 2018, a first version of the document was published, on which more than 500 participants spoke in the public consultation carried out subsequently (European Union, 2019). Therefore, contributions were taken into account for the new revised publication. On the basis of fundamental rights, Chapter 1 of the document identifies the ethical principles and respective values that must be respected during the development, deployment and use of AI systems, providing important guidelines. Chapter 2 provides information on how to achieve trustworthy AI, listing seven requirements that AI systems must meet. Both technical and non-technical methods can be used in its application. Chapter 3 then provides a concrete and non-exhaustive list of the assessment of a trusted AI, in order to implement the requirements set out in Chapter 2. That evaluation list will need to be tailored to the specific use case of the AI system (European Union, 2019).

In April 2021, the European Commission presented a Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on Artificial Intelligence (Artificial Intelligence Act) and amending certain Union legislative acts (European Union, 2021). The proposal was called *the Artificial Intelligence Law* and is currently under discussion within the Council of the European Union and, after its evaluation, requires the approval of the European Parliament. It is, therefore, a regulatory approach based on the hierarchy of risks offered by the systems and technologies they use. The Regulation classified the risks linked to AI systems as follows: (a) "unacceptable risk", the systems of which are prohibited; (b) "*high-risk*", which is permitted, albeit within strict requirements; c) "low risk", which is distinguished into "*limited risk*" and "*minimal risk*" (European Union, 2021, p. 14).

It is clear that the European Union is not only concerned with technological development but also with ethical and safety issues, with humans at the epicentre, because "the rules applicable to Artificial Intelligence technologies made available on the Union market or affecting people in the Union must, therefore, focus on the² human being", so that "people can trust that technology is used safely and in accordance with the law, including respect for fundamental rights" (European Union, 2021, p. 1). The proposal, in this sense, moved away from the idea of "objectification of the human being", assuming that the approach should be anthropocentric, that is, based on the defense of the fundamental rights and safety of its users,

² In this sense, Magrani (2019, p. 264) states that "[...] We must improve and encourage human-centred design models that are sensitive to constitutional values, regulating, for example, ethics, security and privacy through design. The law must be aware of its role in this scenario so that, on the one hand, it does not hinder ongoing economic and technological development and, on the other, it effectively regulates technological practices, with the aim of curbing abuses and protecting existing rights."

which is why the systems were categorized according to the risk they may represent (Maia, 2021, p. 140).

They highlight some weaknesses of the proposal, such as the breadth of the definition of AI, flaws in the categorization of risk levels, the existence of loopholes in the prohibition of some systems, impossible requirements (such as a completely error-free dataset, which is utopian) and omitted issues (such as liability for defective products operating with AI) (Raposo, 2021, pp. 9-24). Finally, Raposo (2021, p. 20) criticizes the lack of encouragement for technological innovation, since this proposal brings the preservation of rights as a primary concern.

Regarding the confrontation of the use of AI with the Judiciary, a fact that drew attention worldwide, consists of the position of France, which, since March 2019, has criminalized the prediction of the analysis/publication of statistics of judicial decisions as a crime in the country (França, 2019). This, therefore, "[...] the great litigants already use Jurimetry as a form of strategic litigation, through the predictive analysis of the Law, even influencing the decision of the magistrate" (Núñez; Duarte, 2021, p. 501). Some authors defend jurimetry combined with the applications of Artificial Intelligence as one of the greatest promises of technology applied to Law. Jurimetry reflects a kind of marriage between law and statistics, consisting of "[...] measuring facts and conflicts, anticipating scenarios and planning behaviors for lawyers, legislators and public managers" (Wolkart; Becker, 2020, p. 9). According to article 33 of the Law on the Reform of the Judiciary, "[...] the identity data of magistrates and judicial servants may not be reused for the purpose or effect of evaluating, analyzing, comparing, or predicting their professional practices, real or supposed" (França, 2019). This legislative initiative aims to avoid the use of Artificial Intelligence mechanisms, through jurimetry, to analyse how judges usually decide and behave in certain matters to try to predict the outcome of sentences and compare them with those of other judges, in order to prevent them from being pressured and influencing the decision of the Magistrate (Nunes; Duarte, 2020, p. 417).

Considering a dispersion associated with the multiplicity of regulations that are being produced on the subject, it is clear that the effective need for regulation of Artificial Intelligence must be thought of globally, with Delmas-Marty's contributions being important. The prescription of indeterminate (and not indeterminable) rules, by means of a "placement of arrows" (Delmas-Marty, 2004, p. 122), which indicate which path interpreters should follow, respecting the human rights already enshrined, turns out to be a good alternative. The definition of concepts, risks and limits, with these arrows that Delmas-Marty handles, are also essential

to the extent that the technological world is permeated by non-state actors, such as large companies, such as Internet giants (*Google, Microsoft*, among others).

There is also a Global Legislation on Artificial Intelligence under development by the United Nations Educational, Scientific and Cultural Organization (UNESCO), which aims to establish a list of recommendations for the ethical use of Artificial Intelligence (Miranda; Souza, 2022, p. 10). This idea also brings with it a multicultural, integral, integrative and pluralistic intention, but it will not have binding force (Miranda; Souza, 2022, p. 11). The EU proposal entitled *Artificial Intelligence Law*, once approved, will be applied in all Member States of the European Union, without the need for each state to transpose it, which ratifies the extreme relevance of this regulatory document. From these considerations, it is evident that the European Union is at the forefront of AI regulation, which radiates effects to other countries, such as Brazil.

3 Regulation in the Brazilian scenario: the legislative vacuum on the use of Artificial Intelligence

Artificial Intelligence is a reality in the context of the 21st century and has been used in the most diverse areas of knowledge and sectors, both in the public and private spheres. Within the Judiciary, the reality is none other, since Artificial Intelligence has been widely used, for numerous purposes. Due to its exponential growth and its multiple potentialities, AI is pointed out by the National Council of Justice of Brazil as a tool to guarantee stability, uniformity, predictability, coherence and integrity to the jurisprudence of the courts (Brasil, 2019, p. 8).

In January 2021, the CNJ developed the Justice 4.0 Program, in order to bring the Brazilian judicial system closer to society by making new technologies and Artificial Intelligence available. This Program promotes the digital transformation of the Judiciary to guarantee faster, more effective and accessible services, guaranteeing more productivity, speed, governability and transparency of processes. This program aims to make Brazilian justice more innovative, as it develops and uses disruptive technologies to improve the services provided to society (Brasil, 2021), such as Artificial Intelligence. According to recent data provided by the CNJ in January 2022 (Brasil, 2022, p. 5), 100% of the Councils (National Council of Justice, Federal Council of Justice and Superior Council of Labor Justice), as well as the Superior Courts (Superior Court of Justice, Superior Labor Court, Superior Electoral Court and Superior

Military Court) adhered to 100%. As for the federal, specialized and state courts, there was 100% adhesion of the Federal Justice and the Labor Courts. However, the Electoral Justice, Military Justice, and State Justice have not yet fully adhered to the Justice 4.0 Program, with adhesion percentages of 59%, 33%, and 96%, respectively (Brasil, 2022, p. 5). In this context, the CNJ has made efforts to use Artificial Intelligence in the digital transformation of the Brazilian Judiciary, which includes, for example, the search for the integration of the courts through a Digital Platform of the Brazilian Judiciary (PDPJ-Br), launched in August 2021 (Brasil, 2022, p. 9), as will be analyzed below.

In Brazil, however, although there are some bills in progress on the subject proposed in 2019 and 2020³, in the Federal Senate and the Chamber of Deputies, there is still no regulation on the use of Artificial Intelligence, especially in the field of the Judiciary. In the field of the Judiciary, on August 21, 2020, Resolution No. 332 of the National Council of Justice (BRASIL, 2020) was published, which establishes ethics, transparency, and governance in the production and use of Artificial Intelligence in the Judiciary. The guideline of the Resolution is to enable the development of Artificial Intelligence, promoting the well-being of citizens and the provision not only of equitable jurisdiction, but also of justice accessible by different means and through different doors (Cachapuz; Kurban; Levenfus, 2021, p. 34). Article 3 defines algorithm, which is the "finite sequence of instructions executed by a computer program, with the aim of processing information for a specific purpose." The Artificial Intelligence model, in turn, corresponds to the "set of computational data and algorithms, designed from mathematical models" with the aim of "offering intelligent results, associated with or comparable to certain aspects of human thought, knowledge or activity" (Brasil, 2020).⁴

From Articles 4 to 6, the Resolution addresses the observance of fundamental rights, provided for in the Federal Constitution, with emphasis on legal certainty and equal treatment

³ On September 16, 2019, Bill No. 5051 was created, which establishes the principles for the use of Artificial Intelligence in Brazil, which is pending in the Federal Senate. On October 24, 2019, Bill No. 5691/2019 was created, which establishes the National Policy on Artificial Intelligence, with the aim of stimulating the formation of a favorable environment for the development of technologies in Artificial Intelligence, which is also being processed in the Federal Senate. In addition, there is Bill No. 21/2020, proposed on February 4, 2020 in the Chamber of Deputies, which creates the legal framework for the development and use of Artificial Intelligence (AI) by the government, companies, various entities and individuals. This bill passed the House in September 2021 and passed the Senate. In addition, there is Bill No. 240/2020, proposed on February 11, 2020, which creates the Artificial Intelligence Law, pending in the Chamber of Deputies.

⁴ "AI systems have the ability to 'learn' based on past data, results, and patterns, dynamically solving problems, even if they haven't been programmed to do so. From the training databases, the algorithm learns to make generalizations and eventually predictions, often from categorizations. Thus, machine learning makes it possible to make predictions on the most diverse topics, including whether a certain person has a greater or lesser probability of honoring a loan, about which type of drug will potentially produce better results in a certain type of disease, or even about which strategy of buying or selling shares can bring greater profits to the investor" (Wimmer, 2020, p. 385).

in equal cases, and the observance of sensitive personal data (Brasil, 2020), which is in line with the General Data Protection Law (LGPD) of 2018 (Brasil, 2018). Article 7 of the CNJ Resolution mentions non-discrimination (BRAZIL, 2020), which is extremely relevant today, especially considering the existence of the aforementioned *Correctional Offender Profiling for Alternative Sanctions* (COMPAS) algorithm in the US, which is considered racist. Next, Article 8 deserves to be highlighted in this study, as it addresses transparency in a broad way (BRASIL, 2020). There is no doubt about the importance of ensuring transparency in judicial proceedings, even if Artificial Intelligence tools are used.

On December 4, 2020, the CNJ published Ordinance No. 271, in order to regulate the use of Artificial Intelligence within the Brazilian Judiciary. In accordance with the provisions of Article 3, there are important requirements that must be observed for research and development in the field of economics, promotion of technological interoperability of systems, access to information, transparency, human training, procedural celerity, among others. As can be seen, transparency is a factor to be observed and not only procedural speed. In the same sense, it was determined by the CNJ in Article 4 that "[...] the use of Artificial Intelligence within the Judiciary will be carried out on a common platform, accessible to all, which promotes collaboration, transparency, improvement and dissemination of projects" (Brasil, 2020). This Resolution established, in the sole paragraph of Article 4, that the National Artificial Intelligence Platform of the Brazilian Judiciary is "Sinapses", which is made available by the CNJ in partnership with the Court of Justice of the State of Rondônia (Brasil, 2020).

Also in 2020, the CNJ published Resolution No. 335, which instituted a public policy for the governance and management of electronic judicial procedures, in addition to integrating the country's courts with the creation of the Digital Platform of the Brazilian Judiciary (PDPJ-Br) and maintained the PJe system as a priority electronic process system of the National Council of Justice. In fact, this normative act was influenced by ordinances that had been published by the CNJ in 2020 and 2021, related to the PDPJ. The CNJ's position on the digital transformation in the Judiciary to the institution of a public policy for the governance and management of electronic judicial processes is clear. Based on Article 2 of Resolution No. 335 (Brazil, 2020), there are four objectives of the PDJB, which are: I - to integrate and consolidate all the electronic systems of the Brazilian Judiciary in a unified environment; II - Implement the concept of community development, in which all courts provide the best technological solutions for common use; III - establish standards for the development, architecture, user experience (*UX*) and operation of software, in compliance with the best practices of the market and

disciplined in the Ordinance of the Presidency of the CNJ; and IV - establish a single platform for the publication and availability of applications, microservices and Artificial Intelligence (AI) models, through cloud computing. Thus, it can be seen that, based on this regulatory initiative, the Platform was created in August 2021 (Brasil, 2022, p. 5), which aims to reduce the number of systems, in order to bring an integrated platform between the 91 Brazilian Courts and a "single face" for the national Judiciary.

One of the points that permeate this idea of integration brought by the aforementioned Resolution (Brasil, 2020) is the reduction of costs, since there are budgetary difficulties for the implementation of AI in Brazil, a reality that is not only faced by the Judiciary. This integration, when fully implemented in the country through the collaboration of the Courts with the CNJ, may represent a great advance in reducing procedural slowness and in promoting compliance with the principles of speed and reasonable duration of the judicial process. In this way, the possibility for society and professionals to access all the judicial proceedings that are processed in Brazil in one place will represent a great advance in reducing delays and in the realization of rights.

In the Platform's electronic portal (Brasil, 2021), it is stated that it is derived from Resolution No. 335, of the CNJ, and that "the main objective of this regulation is to modernize the Electronic Judicial Procedure platform and transform it into a multi-service system that allows the courts to make adjustments according to their needs". in order to ensure the unification of the procedural process in the country. It is worth mentioning that the CNJ (Brasil, 2021) recognizes that the systems that are being developed internally are valid and are not in total disagreement with the public policy of consolidating the Digital Platform of the Judiciary, but there is the premise that the new developments will be carried out in the model of the new Platform. The CNJ's idea, according to the available primer (Brasil, 2021, p. 3), is that there is a strengthening of the "[...] interoperability between different systems and the creation of an enabling environment for courts to voluntarily migrate to a single system in the medium and long term". For this reason, efforts are being made to integrate and bring together processes in the Digital Platform of the Judiciary, which has been gradually implemented in the country since 2021.

In addition to these CNJ initiatives in the Judiciary, there are two bills pending in the Federal Senate, proposed in September and November 2019, which are Bill No. 5051/2019 and Bill No. 5691/2019, respectively, both proposed by Senator Styvenson Valentim. In response to these initiatives, the Executive Branch, through the Secretariat of Telecommunications

(under the Ministry of Science, Technology, Innovation and Communications - MCTIC) initiated a public consultation, which was called the Brazilian Strategy for Artificial Intelligence (Brasil, 2019). There was no satisfactory result in this consultation, since participation was very low, being restricted to academics in the area and few research centers (Parentoni; Valentine; Alves, 2020, p. 5).

As for Bill No. 5051, of September 16, 2019, authored by Senator Styvenson Valentim, a pioneer in the subject of AI in Brazil, establishes the principles for the use of Artificial Intelligence in Brazil, it is still pending in the Federal Senate (Brasil, 2019). This request is processed together with PL 5691/2019, which is already attached to Bill No. 21, of 2020, with Bills No. 5,051, of 2019, and 872, of 2021, as they are a related issue" (Brasil, 2019). This project is based on the recognition that Artificial Intelligence is a technology developed to serve people with the purpose of improving human well-being in general, establishing, in its article 2, that, in the use of AI in the country, the following principles must be observed: respect for human dignity, freedom, democracy and equality; respect for human rights, plurality and diversity; guarantee of the protection of privacy and personal data; the transparency, reliability and auditability of the systems; human supervision (Brazil, 2019).

As a critique of this legislative proposal, Vale (2020, p. 636) considers that it is too simplistic and does not specifically detail how algorithmic transparency is operationalized, which would remedy one of the risks of implementing AI in the Judiciary. In fact, in a recent study, Parentoni, Valentini, and Alves (2020, p. 25) analyzed the aforementioned Bill No. 5051/2019 and identified the existence of two main problems in regulatory frameworks on AI, namely: 1) the mismatch between what is proposed and the way AI works in practice; 2) Errors in legal technique. However, it should be noted that such a proposal may still undergo changes or not be approved. Precisely for this reason, Faria (2020, p. 91) points out that, although the guidelines of the aforementioned Bill gain prominence, the specific legislative vacuum on the subject will remain, until there is a conclusion and entry into force, which, for the author, "[...] makes it difficult for machines to supervise and control decision-making."

In addition, Bill No. 5691/2019, also proposed by Senator Styvenson Valentim, on October 24, 2019, establishes the National Policy on Artificial Intelligence, with the aim of stimulating the formation of a favorable environment for the development of technologies in Artificial Intelligence, as provided for in Article 1 (Brazil, 2019). This bill is also being processed in the Federal Senate (Brasil, 2019). This legislative proposal addresses the instruments of the National Policy on Artificial Intelligence (Article 5) and the signing of

agreements to support and strengthen the National Policy on Artificial Intelligence (Article 6) (Brasil, 2019).

For this reason, on February 4, 2020, Bill No. 21/2020 (Brazil, 2020), authored by Deputy Eduardo Bismarck, was proposed in the Chamber of Deputies, which creates the legal framework for the development and use of Artificial Intelligence (AI) by the government, companies, various entities and individuals. This bill establishes principles, rights, duties and governance instruments for AI and is pending in the Chamber of Deputies. For Parentoni, Valentini, and Alves (2020, p. 6) "[...] despite having some points of contact with the Senate's projects, Deputy Eduardo Bismarck's initiative is more complete and technically precise, although it also needs improvements." Consequently, "[...] this bill has attracted the prominence of the issue in the Chamber of Deputies and has been treated as the main project on AI in that legislative chamber" (Parentoni; Valentine; Alves, 2020, p. 6). In September 2021, Bill No. 21/2020 was approved by the Chamber of Deputies and passed to the Federal Senate (Parentoni; Valentine; Alves, 2020, p. 6).

It should be noted that, in March 2022, the Temporary Internal Commission of the Senate was installed to support the preparation of an alternate project to instruct the consideration of bills No. 5,051, of 2019; 21, of 2020; and 872, of 2021, which aim to establish principles, rules, guidelines and foundations to regulate the development and application of Artificial Intelligence in Brazil (Brazil, 2022). The regulatory initiatives underway in the National Congress seek to create a law that says that the principles must be complied with. This regulatory movement forgets the deontic character of principles, since they are a category of the genre of the "legal norm". It would not be necessary to create a law to say that principles must be complied with and respected. This is a point that escapes the initiatives underway, including the members of the Temporary Commission of Experts of the Federal Senate.

Brazilian experts on the subject published, through the Getúlio Vargas Foundation (FGV), a technical note on Bill No. 21/2020 (Salomão, 2021). In this note, regarding the scope of the bill and its urgent processing, it was mentioned that, because the issue has a relevant impact on several areas of knowledge and action, its vote should not be carried out in an excessively hasty manner and without the participation of society and experts in the legislative process. The holding of other public hearings, as well as the participation of working groups and consultations, is considered essential (Salomão, 2021, p. 13). Regarding the nature of the regulatory provisions and the absence of sanctions in case of non-compliance, experts point out that the project is not a mere recommendation, but a true legal framework for the development

and use of this technology in the country (Salomão, 2021, p. 16). Unlike the European initiatives, the Brazilian project under discussion, in relation to its regulatory effectiveness, does not clearly provide for responsibilities, nor does it establish sanctions in the event of non-compliance (Salomão, 2021, p. 16). Regarding the normative treatment of ethical issues, the technical note provides an important consideration: Brazil should not limit itself to importing ethical standards from other countries, but should take into account our cultural particularities (Salomão, 2021, p. 23). The note also points to the need to improve the principles of transparency and explainability (Salomão, 2021, p. 24-25), as well as addresses the issue of responsibility and accountability, in relation to which the legislative proposal leaves open questions about what would be the effective measures for the proper functioning of systems and for risk management (Salomão, 2021, p. 25). In terms of risks, the proposed legal regulation published by the European Union is proving to be an important basis for the legislation that is being built in Brazil. In addition, the researchers suggest that legislators reconcile a regulatory design for risk management with the complexity of the uses of different AI systems (Salomão, 2021, p. 26).

Consequently, Bill No. 240/2020, authored by Deputy Léo Moraes, subsequently proposed on February 11, 2020, which creates the Artificial Intelligence Law, was initially attached to Bill No. 21/2020 (Brazil, 2020), which is awaiting analysis by the Federal Senate. On the occasion of the approval of Bill No. 21/2020, the proposals were rejected. It should be noted that both proposals are in line with the pioneering Bill No. 5,051/2019, proposed by the Federal Senate, which is in a more advanced stage of processing.

In March 2021, the Brazilian Artificial Intelligence Strategy (EBIA) prepared by the MCTIC was published (Brasil, 2021, p. 3). This Strategy develops actions by the federal government to guide the actions of the Brazilian State in favor of the development of actions, in their various aspects, that stimulate research, innovation, and the development of solutions in Artificial Intelligence, as well as their conscious, ethical use and in favor of a better future (Brasil, 2021, p. 3). The EBIA is aligned with the OECD guidelines endorsed by Brazil, based on the five principles defined by the Organization for the responsible management of AI systems, which are: a) inclusive growth, sustainable development and well-being; (b) values centred on the human being and equity; (c) transparency and explainability; d) robustness, security and protection and, finally, e) accountability (Brasil, 2021, p. 17). This strategy is guided by the following objectives: a) To contribute to the development of ethical principles for the development and use of responsible AI; b) Promote sustained investments in AI research

and development; (c) removing barriers to innovation in AI; d) To train and train professionals for the AI ecosystem; e) To stimulate innovation and development of Brazilian AI in an international environment; f) Promote an environment of cooperation between public and private entities, industry, and research centers for the development of Artificial Intelligence (Brasil, 2021, p. 8). The Brazilian Strategy therefore implies the establishment of guidelines to promote an AI entrepreneurship environment in the country (Brasil, 2021, p. 9).

Regarding the decision-making scenario, in addition to the European Proposal already analysed, the Strategy under consideration establishes that AI systems must be human-centred, as well as reliable. It means that, "[...] if, on the one hand, the service of justice requires facilitation and debureaucratization, on the other, it requires respect for the person and security of his or her information" (Cachapuz; Kurban; Levenfus, 2021, p. 34). In this sense, the aforementioned document also includes the issue of risk that involves decisions and the need for human supervision. Thus, "[...] in cases where the risk assessment of automated decisions indicates a high risk to individuals, human intervention may be an important risk mitigation factor to consider" (Brasil, 2021, p. 21), both by private organizations and the public sector.

In this way, it is revealed that "[...] desirable that decisions made by automated systems be subject to explanation and interpretation", especially with regard to the "provision of meaningful information that allows the system to be interpreted". It is also highlighted that "[...] the development of a human-centred Society of the Future is one of the guidelines adopted by the "G20 - Ministerial Declaration on Trade and Digital Economy - Principles for Human-Centred AI" (Brazil, 2021, p. 21), a document that dealt in 2019 with the digital economy, AI and the means for digital policies to maximise benefits and minimise challenges. The responsibility for decisions lies with the judge, so the implementation of AI tools in the context of decision-making permeates the need to take appropriate measures that seek to reduce possible ethical problems that may have important repercussions on society (Cárdenas; Molano, 2021, p. 23-24).

The limits to algorithmic instrumental decision-making should be well established, especially to support the judge's work. Even if Artificial Intelligence tools are used by the Judiciary, the understanding, collaboration and direct intervention of human cognition should not be dispensed with, replacing the judge-human with the judge-machine. Therefore, human participation should not be dispensed with, based on the legislation that is being built in Brazil and in the European Union, as demonstrated in this study. We believe in combining technology with human reasoning to find the best answers and solve problems.

It should be clarified that, as Grün (1998, p. 59) points out, it is not possible to know what goes through the minds of judges when sentencing, but it is possible to observe the externalization of this process through what they say in their sentences. The path followed by the judge to reach the final conclusion is described in the grounds of the decision, a requirement provided for in the Federal Constitution. Language serves as a means to interpret reality, reason and transmit knowledge, forming transitory truths based on consensus (Zanon Junior, 2019, p. 34-35).

This justification of the charges, therefore, permeates the responsibility of the judges, also known as *decisional responsibility* (Tomio; Robl Filho, 2013, p. 30). In the case of robots, this characteristic of justifying elections is not evident in practice, given the opacity and the absence of algorithmic transparency, since machines are often like "black boxes". If there is an opacity of the algorithms that is not decipherable for the majority of the population, which is a risk to constitutional due process, especially "[...] for making it impossible to exercise the guarantee of contradictory and comprehensive defense, also violating access to justice" (Nunes; Marques, 2018, p. 11). In addition to subjectivity, there is a weakness in transparency, which is extremely important in decisions, including because it allows parties to file appeals.

Precisely in relation to fundamental principles and rights, Fröhlich and Engelmann (2020, p. 136), in addition to ratifying their importance in the context of decision-making, argue that "[...] only with the observance of the principles in all stages of judicial decision-making, the entry of AI into the Judiciary will be able to guarantee a fair, effective and timely decision on the merits", so that the fundamental rights of litigants are not neglected. In view of this, "[...] the application of artificial intelligence in the decision-making process has the power to bring together indispensable guidelines for the democratic process, which are the reasonable duration of the process, due process, equality among litigants, transparency and reasoning of decisions" (Fröhlich; Engelmann, 2020, p. 136).

A clear and accentuated concern of jurists for a possible setback is underlined, that is, the commitment to principles that were enshrined in the Constitution, which cannot happen with the view to technology. In this way, the dichotomy between risks and potentialities of AI is also referred to by Nunes (2020, p.21), when he points out that "[...] AI makes it possible to parameterize a large mass of data (*Big Data*), processing information, which is unstructured", however, there is no "[...] risks of erroneous generalizations, opacity (not understanding how the results were reached), generation of prejudice and discrimination." This understanding is also expressed by Boeing and Morais da Rosa (2020, p. 79), authors who recognize the risks

presented by AI, insofar as "[...] Algorithms, not being able to understand natural language on their own, will have to 'import' certain pre-understandings from human beings, which will be present in the data through which they are trained."⁵ As a consequence, there may be the "[...] concealment of certain opinions, which will directly impact its results" (Boeing; Morais Da Rosa, 2020, p. 79). This shows that algorithms can be non-transparent black boxes, producing results without being able to report how and why this happens and generating demands for algorithmic transparency (Greco, 2020, p. 33-34).

It should be noted that by putting the human being at the center, as proposed by the European Union and as proposed in the Brazilian Strategy for Artificial Intelligence, through Gadamer's hermeneutical theory (Engelmann, 2007), it is possible to glimpse the incorporation of information technologies into the humanist culture, in which they will serve as instruments for the implementation of the horizons of possibility of society's action (Ferrerres, 2004, p. 532). Thus, in the current stage of the controversy, algorithms should be thought of as instruments to be used by legal interpreters, without robots being the interpreters (Zanon; Kirtschig, 2021, p. 213). Algorithms are part of the process of interpreting the specific case, but they do not attribute meaning to it, a task that falls to the judge in the application. Following the same idea, Mozetic (2017, p. 449) ponders that "[...] at the moment, Artificial Intelligence and intelligent legal systems can only be considered mere systems of support and support for decisions; much less substitute for the judge and with the capacity to judge." This is because "[...] it is doubtful that the evolution of the computer has been able to adequately represent all the complexity involved in law and, more specifically, a legal decision" (Belloso Martín, 2015, p. 133).

Thus, it is argued, based on Mozetic (2017, p. 450) and a legal (critical) hermeneutics of technology as a path towards the theory of judicial decision, that "[...] No matter how complete the decision-making support system is, both technically and legally described, a machine cannot replace the judge's evaluation." Moreira (2021, p. 306) bases the idea of not replacing humans with machines on the principle of the dignity of the human person, so that "[...] Decisions that affect people's freedom and lives should not be made by anything other than a human judge. The principle of the dignity of the human person, a basic principle of our Society and of our Law, sustains our understanding." That said, the author considers that, even for cases that deal

⁵ For Soares, it can be said, figuratively, that algorithms build, decide and follow digital paths and, therefore, determine the paths of all subjects in the digital environment, through the collection, comparison of calculations and automated actions, sometimes through predetermined specifications, other times through authorizations of actions resulting from the self-learning of the system itself (Soares, 2021, p. 43-64).

with, for example, property issues, the implementation of AI systems in the Judiciary should be extremely cautious (Moreira, 2021, p. 307).

The European legislative initiative can serve as a parameter for Brazil's quest to fill the existing regulatory vacuum in terms of regulating the use of Artificial Intelligence, with the recognition that AI comes to assist the judge and not to replace him. Technology is especially important for handling the large amount of information and assisting the judge in the decision-making process, which has been done in some Brazilian courts (Brasil, 2020), especially in expensive jobs, which can be optimized with the help of AI, giving judges the possibility of being relocated to better fulfill their duties. It can be considered that "[...] the use of machines in the Judiciary is totally acceptable, when they have a merely bureaucratic function, in repetitive work, even under the supervision of a person" (Sales; Coutinho, 2021, p. 49). Artificial Intelligence cannot occupy all the functions required in a judicial decision, so "[...] Human discernment is still necessary in the competence to judge, and artificial intelligence does not fit into this function" (Sales; Coutinho, 2021, p. 50).

Although: "[...] Although saving time is a relevant factor in the promotion of justice, it cannot abdicate ethical criteria in the process of its production." That said, the author speaks of the need for all those involved in the legal field not to abdicate "[...] of a minimum essential ethical substrate of the decision-making process, under penalty of reducing the value of Justice to mere statistical numbers, which do not respond to the social reality that the Law seeks to regulate" (Pinto, 2020, p. 43 and 58). Taking into account the theoretical framework examined, it is found that, despite its great potential and its use, even in its embryonic phase, AI should not replace the role of the judge, but rather assist him in the decision-making process. It should be noted that the tasks performed by algorithms are supervised and that the center of the decision is the human being, responsible for ensuring reasoning and transparency, respecting ethical standards and observing fundamental rights.

These points deserve attention from the legislator for the regulation to be effective. In addition, as can be seen, the eventual implementation of the robot judge, however, permeates the need for legislative changes, especially of a constitutional nature, considering that the Brazilian Federal Constitution establishes, in Article 5, XXXVII, that "there shall be no trial or court of exception", and, in item LIII, that "no one may be prosecuted or convicted except by the competent authority" (Brasil, 1988). The judge, according to Constitutional Law and Positive Law as a whole, would only be the human being and not the robot judge (Greco, 2020, p. 41). Ideally, in this passage we would consider ourselves as the "robot-judge". In this regard,

Bahía (2021, p. 442) questions whether a resolution or similar infralegal act of the CNJ or any court could replace a judge in the trial of a case with a robot and states that this would not be possible, as a result of the constitutional provisions (legality and legal reserve). Based on the basis of principles established in the Constitution, the author also stresses the need to observe the competence for the exercise of jurisdiction and the principles of due process of law and of the natural judge. In this line, the author thus stresses "[...] violates, therefore, not only the legal reserve, but also due process of law and the natural judge, the possibility for a robot to make decisions (even if it is "only" on the admissibility of extraordinary and special appeals) without this being regulated by law (and I add, a law approved after an Amendment to the Constitution)" (Bahia, 2021, p. 444).

Following this line of reasoning, Bahia understands that "[...] a robot cannot be considered a 'judge' for the purposes of the regularity of the offer of jurisdiction", on the basis of Article 5, paragraph XXXVII of the Federal Constitution. Therefore, the author's criticism is in the sense that the algorithm, linked to programming, would have the role of replacing the human being and with it the aforementioned constitutional guarantees, exchanging, therefore, the human interpretation for the Cartesian-mathematical rationality of *software*. Along these lines, Crespo (2021) states that AI has several applications capable of affecting our daily lives. Even so, the idea that AI is as autonomous and intelligent as humans is definitely a stretch, although *machine learning* already provides the ability to excel in specific activities (Crespo, 2021, p. 1004-1012). In terms of the legislative context, the position of Faria (2020, p. 90-92) is appropriate, who defends the implementation of institutional protocols, common in the European Union, until there is specific legislation on the matter. Despite the relevance, there is still no news that such a measure has been adopted by Brazil in the context of AI.

As has been pointed out, considering the regulatory context, what is in force, directly to the Judiciary, is Resolution No. 332, of August 21, 2020, of the National Council of Justice, which derives from its regulatory activity, provided for in Article 103-B, § 4, I, of the Federal Constitution (Brasil, 1988). It is evident that the Judiciary is observing institutional regulatory pathways to direct its efforts towards the implementation and use of AI. Despite filling an existing void and directing the efforts of the Judiciary, the normative acts published by the CNJ do not make the regulation of the Legislative Branch any less necessary. This absence of regulation shows that we live in a context of serious subordination of people to Artificial Intelligence, due to the lack of rules and control. It is extremely important that limits are placed on the use of AI, especially with the delineation of the risks and ethical issues that guide it.

The legislation, which is still under construction in the Chamber of Deputies and the Federal Senate, must balance the technological advancement of AI tools and the fundamental rights and principles already consolidated in the Brazilian legal system, in addition to providing security to its users. The regulatory regulation of AI, with a wide scope in the Brazilian scenario, is essential in a context of so many uncertainties and risks, which represents a challenge for Brazil to face. This is because the use of AI and algorithms, on a large scale and in all sectors of society, is unstoppable, as well as the dichotomy between the benefits and the problems/risks of using AI, essentially in the context of decision-making. These Brazilian legislative initiatives aim to adapt to the current technological paradigm in which the Judiciary suffers the impacts of the Fourth Industrial Revolution and seeks to appropriate Artificial Intelligence tools and algorithms. To this end, it is important for Brazil to build its legislation for the regulation of AI in view of the important parameters that have been defined within the European Union.

4 Final Thoughts

The objective of this study, without pretending to exhaust the subject, was to understand and discuss the limits and possibilities of the use of Artificial Intelligence by the Judiciary, with emphasis on judicial decisions. This critical-reflective analysis was carried out based on the contrast between the European and Brazilian regulatory scenarios, which is under construction. Artificial Intelligence brings countless potentialities to society and, consequently, new regulatory challenges to the currently existing regulatory framework. Regarding the regulatory context, there are important global discussions focused on the need to define good practices for the development and use of Artificial Intelligence, with the development of global rules regarding the use of AI.

In the European Union, there is the Proposal for the Artificial Intelligence Regulation of 2021, which is still pending approval by the European Parliament, but which already presents important rules concerning, above all, the ethical and safety issues that AI systems must observe. This proposal meets the European Union's objective of achieving a leading position in the process of regulating AI, thus occupying the center of the narratives that are disseminated on a larger scale on the subject today. Despite the effervescence of the issue, it was found that there is a legislative vacuum in Brazil regarding the regulation of the use of Artificial Intelligence, including in the field of the Judiciary. There are currently bills pending in the Chamber of Deputies and the Federal Senate, which depend on their approval, including the

Bill that creates the Legal Framework for the Use of Artificial Intelligence in Brazil. In view of this, only the normative acts of the National Council of Justice (CNJ) are in force, which especially provide for ethics, transparency and governance in the production and use of Artificial Intelligence in the Judiciary.

Although there are no laws on the subject, the CNJ has made several efforts in the digital transformation of the Judiciary, especially aiming at procedural speed, the acceleration of the digitization of processes, the use of electronic processes in order to facilitate digital access to the Judiciary and the implementation of Justice 4.0. In addition, the CNJ seeks the integration and connection of judicial systems and standardization through the Digital Platform of the Judiciary, created in 2021, based on Resolution No. 335, of 2020. This context demonstrates the Judiciary's concern for technological issues and their advantages for judicial processes and, consequently, for professionals and society.

Thus, the initiatives of the European Union addressed in this study – and considered more advanced than the Brazilian ones – provide important premises, which can, in comparative terms, influence the legislation that is being built in the country. Among them, the classification and mapping of risks stands out, as well as ethical guidelines and the dissemination of the idea that human beings should be kept at the center of the discussion. It is necessary for Brazil to also incorporate in its regulatory proposals, in relation to its regulatory effectiveness, the clear provision of responsibilities and the establishment of sanctions in case of non-compliance, and it is essential that risk management is carried out in a manner compatible with the complexity of the uses of the different AI systems, as provided for in the regulatory framework under construction in the European Union. In addition, the European legislative initiative can serve as a parameter for Brazil's quest to fill the existing regulatory gap in terms of regulating the use of Artificial Intelligence, with the recognition that AI comes to assist the judge and not to replace him.

The greatest challenge for regulation and, even more so, for the sufficient and adequate treatment of the matter, is undoubtedly the speed of development and the changes brought about by new technologies and the consequences of this, both for society and for institutions, in the public and private spheres. Parallel to this, there is the premise that regulation cannot make technological (and economic) development unviable, which deserves special attention. The uncertainties, risks, impacts, ethical issues, liability, limits, and possibilities of AI systems are discussed on a global scale. This means that the regulation of Artificial Intelligence, which already has many proposals in the world, must be comprehensive and responsible, curbing

abuses and protecting rights already conquered. However, there is not even an unequivocal conceptual definition of Artificial Intelligence, which demonstrates the theoretical incipience that is being experienced, in the face of complex technologies that are developing rapidly, without spatial and temporal boundaries.

Thus, despite the urgency of a legal-regulatory framework, it is essential that legislative proposals involve an adequate debate with society and experts in the areas of knowledge that involve the subject. To this end, it is worth considering the international initiatives that already point to possible paths to be adopted in the Brazilian strategy, as well as those that have been built within the European Union. Also in this sense, it is a fact that artificial intelligence has also been increasingly applied in decision-making processes, which implies the need to define what are the limits and possibilities for this use, especially in the field of the Judiciary.

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