# Exploring the Viability of AI as Judicial Replacements: a Cautionary Perspective

by **Gabriel Ernesto Melian Pérez**

**Abstract:** Considering the high pace of technological development, it is not futile to wonder whether AI could ever replace judges. This work analyzes this possibility and speculates on one fundamental question: Could AI effectively replace judges in all their functions? The paper proposes a cautious view: it counsels a comprehensive conception of the judicial function, where the human judge fulfills a much more complex role than just interpreting the norm and applying it to concrete cases. AI's lack of social understanding, moral agency, and rational autonomy prevents it from performing the fundamental social governance role of the judge. It does not seem that, in most cases, AI should go beyond a purely supportive role.

Keywords: Artificial Intelligence, Moral Agency, Rational Autonomy, Social Understanding, Social Governance, Judge.



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*«A legal system can be conceived without laws, but not without judges.»*

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## A. Introduction

1 The last century saw important changes in many areas of science and technology. The advent of computers meant one of the most important changes of our time and with them the emergence of the Internet and Artificial Intelligence (AI). Humanity has entered into what some authors have called the post-industrial era[1], the society of knowledge and information.

2 We live in a world "governed" by computers. These machines have the ability to solve difficult problems, in many cases better and faster than the human brain. They are not only useful in large manufacturing companies, in the construction of gigantic buildings, or in scientific projects, but they are also useful tools for lawyers. The computer's ordering and storage capabilities have made it incredibly easy to archive and retrieve legal data, court records, case law, and legislation. Now, the Internet offers us much more, all the knowledge of the world on our desktop. All

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1 Daniel Bell is recognized as one of the first to use and develop the term, especially from his book "The Coming of the Post-Industrial Society" in 1973. As well as Yoneji Masuda, in "An Introduction to the Information Society", 1968.

the information that we might need in the practice of law is there for us to consult. The next step would be to organize and analyze this massive amount of data. This is where AI becomes especially helpful[2].

3 Some time ago, AI abandoned the specter of science fiction to enter our lives. It is called to play a leading role in a revolution comparable to that which generated the Internet. However, their wide capabilities have awakened a fear in humanity: a feeling of replaceability. Every day people wake up wondering whether a new technological development could make us obsolete in our jobs[3]. AI provokes such existential questions.

4 The concept of "AI as courts" has been the subject of recent controversy and discussion, as many doubt whether AI can effectively replace the role of the judge. The urging question is whether judges will survive modern technology or whether, on the contrary, AI will allow computers to resolve disputes, perhaps with greater speed, objectivity, and independence. Under this reality, this short paper will analyze whether the human judge would surrender to the technological invasion, and if so, whether this would be desirable or positive. Regarding this issue, this paper adopts a cautious position. It upholds that implementation of the AI judge could bring advantages in some aspects, but it could be problematic in others. While its implementation could quicken the process, resolving more cases in less time, AI's lack of social understanding, moral agency, and rational autonomy would prevent it from performing the fundamental social governance role of the judge. Therefore, AI could be used to assist human judges, rather than replace them.

5 The paper is structured as follows: a first section is devoted to explaining basic issues about how AI works. The second section outlines some advantages of implementing AI in the judicial process and some real cases where it is already in use. A third section summarizes the problems that the literature commonly associates with the implementation of AI in judicial processes. The fourth section will develop the hypothesis by explaining which essential characteristics or functions of the judge are impossible to reproduce by AI and why such a substitution would ultimately be neither appropriate nor desirable. The choice of topic was encouraged by an essential motivation: to determine what characteristics and qualities define judges in the process of dispensing justice and whether such characteristics can be emulated by any AI technology. In this sense, the preliminary conclusion turns out to be rather cautious.

## I. Artificial Intelligence

6 In the 20th century, society became familiar with artificial intelligence mostly through art. The work of Isaac Asimov's "I Robot" is an unavoidable reference here. The stories about Robbie, Cutie, Herbie, or Stephen Byerley raise more than one ethical and philosophical question. In the field of science, Alan Turing's vision was perhaps the most influential. Turing started from the premise that humans use available information and reason to solve problems and make decisions, therefore: Why can't machines do the same? Can machines think? (Turing, 1950)[4]. Although these questions were asked more than 70 years ago, we are still debating their likely answers.

7 The earliest AI applications were in formal domains, like theorem proving, that are relatively divorced from the complexity of ordinary human experience. Progress in natural language processing, expert systems, planning, robotics, and qualitative reasoning have extended the range of human experiences and behaviors addressed by AI (Sartor & Branting, 1998). Its potential became well-known to the public in May 1997, when an extremely important event occurred: for the first time in history a machine defeated a world chess champion, the IBM Deep Blue won over the Russian Garri Kasparov[5].

2 "Legal technology", or "legal tech" encompasses a wide range of tools and platforms designed to streamline, enhance, or automate various aspects of the legal profession. They are aimed at improving the efficiency, accessibility, and affordability of legal services. Relevant examples include document automation, case management software, virtual law assistants (Chatbots), and online dispute resolution platforms.

3 For example, the Screen Actors Guild-American Federation of Television and Radio Artists (Sag-Aftra) and the Writers Guild of America (WGA) recently went on strike, warning of the threat AI poses to the jobs of Hollywood actors, writers, and production staff. "*Bargaining for our very existence': why the battle over AI is being fought in Hollywood*", The Guardian, 22/7/1023. Retrieved on 7/8/2023 from <https://www.theguardian.com/technology/2023/jul/22/sag-aftra-wga-strike-artificial-intelligence>.

4 It is important to mention that Turing's "imitation game" was challenged by Searle (1980), who developed in his *Minds, Brains, and Programs* the "Chinese Room Argument". This is used to dispute the claim that a machine can actually understand the meaning of the information it processes. In his words, "*The computer, to repeat, has a syntax but no semantics*" (Searle, 1980, p. 423), which would prevent it from truly emulating the human brain's cognitive capacity. The claims of both authors have been extensively explored and debated.

5 More recently AI has also succeeded in the go game (AlphaGo vs. Lee Sedol in 2015) and in bridge (Nook in 2022).

**8** In order to approach AI, we must briefly address the concept of human intelligence with which cognitive-science-experts work. Among several definitions or conceptions of intelligence, the common element is the capacity to process information to solve problems to achieve certain/specific objectives. Basically, our brain controls the capacity to process information from the environment and from our own body, which is used to evaluate and choose future courses of action. This is where the decision making process and evaluation comes in, which consists of selecting, filtering and organizing the available information (Corvalán, 2017). The term AI is then applied when a machine imitates these "cognitive" functions such as: "perceiving", "reasoning", "learning" and "problem solving" (Russell & Norvig, 2016).

**9** Haenlein and Kaplan (2019, p. 5) define artificial intelligence as "*the ability of a system to correctly interpret external data, to learn from that data and to use that knowledge to achieve specific tasks and goals through flexible adaptation*". The European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and their Environment defines IA as "*a set of scientific methods, theories and techniques whose aim is to reproduce, by a machine, the cognitive abilities of human beings. Current developments seek to have machines perform complex tasks previously carried out by humans...*".

**10** It is also necessary to analyze the concept of *machine learning*, because of its importance in decision making. A common misconception is that AI and machine learning are the same thing. AI is a concept that encompasses machine learning. They pursue a single goal: the creation of devices or algorithms that omit or replace human beings by emulating their cognitive functions. Specifically, machine learning allows computer programs to learn complex tasks through experience, rather than through handcrafted computer functions. Machine learning (ML) techniques use computational algorithms on large datasets to find patterns and build models for predicting future events. Unlike statistical tools, ML focuses on accurate predictions rather than understanding the underlying phenomenon or causal relationships between variables. (Harkens *et al.*, 2020, p. 3)

**11** Nowadays there are AI systems that create music, paint pictures, recognize faces and objects, detect diseases, and help protect the environment, among many other things. Artificial intelligence is currently advancing and developing at an exponential rate. Recently, the breakthrough of GPT-4 (Generative Pre-trained Transformer) model language by OpenAI caused a great impact due to its high generative capacity[6]. Therefore, one might wonder, if AI can do all this, could it also contribute to the administration of justice?

## II. Harnessing AI in court

**12** The judicial system in some countries is plagued by excessive costs (for individuals and society), long delays and inconsistencies leading to a growing lack of public confidence. One of the reasons for this is the large amount of information that must be collected and integrated for the legal system to function properly. The number of judges often cannot cope with all the cases that arise. AI could then be a useful tool to improve and facilitate the functioning of judicial bodies.

**13** To analyze how AI could be inserted into the judicial process, it is useful to distinguish between two big possibilities: "AI in the court" and "AI as courts"[7]. When we talk about technology "in the courts", we are referring, for example, to digitalization processes. An example of this is when courts are willing to accept complaints through electronic forms, or there is an electronic notification system to remind deadlines. Another level of court digitization is the electronic record/filing system, which provides access to any case file online from anywhere. The videoconference can also be used, which offers courts the possibility of holding hearings remotely in order to expedite proceedings and ensure the safety of children, witnesses and victims. There are fewer problems associated with these proposals because they mostly involve administrative support only.

**14** On the other hand, a more radical use of AI ("AI as courts") can operate in the following ways:

**15** 1) AI could increasingly be used as a support for judges, for example, to identify, organize and select relevant case law, detect patterns in case law or help highlight arguments presented by the parties. Judges could also follow AI suggestions or even let the AI write draft decisions. (*Direct impact on the outcome of cases*)

6 Generally, GPT 4 answers are difficult to differentiate from those of a human. It is this ability to generate natural language that has led some to wonder whether this system will make some occupations obsolete. In this paper we elaborate on this issue, focusing on the role of the judge.

7 According to Sourdin and Cornes (2018, p. 91) "*at the most basic level, technology is assisting to inform, support and advise people involved in the justice system (supportive technology)... Second, technology can replace functions and activities that were previously carried out by humans (replacement technologies) Finally, at a third level, technology can change the way that judges work and provide for very different forms of justice (disruptive technology).*"

**16** 2) The use of AI in court management promises to generate a wealth of valuable data on the functioning of judicial systems. Thus, AI can be used by users of the justice system to improve their processes and reduce costs through a predictive system. (*Indirect impact on the outcome of cases*)

**17** For example, Morison and Harkens (2019, p. 624) discuss the Traffic Penalty Tribunal (TPT)[8] in England and Wales, which enables drivers to appeal tickets via an online platform. It is a relatively easy process, where the user enters the penalty ID together with the arguments he/she considers relevant to his/her defense. Although an automated mechanism designed to facilitate the appeals process, it is a human judge who impartially assesses the evidence and arguments to arrive at a final decision.

**18** There does not seem to be much discussion about the advantages offered by digitalization processes in the legal field, where AI is used as a tool to facilitate the daily work of judges and lawyers. These are mainly the so-called ancillary activities, that include preliminary or complementary judicial tasks (e.g., jurisdictional screening, drafting routine court documents, procedural tracking). However, some countries have gone a step further and have begun to allow AI to play a more active role in the decision-making process, a more controversial issue[9].

**19** The first online private court in the Netherlands was established on January 11, 2010, offering fully digitalized court proceedings, but decisions were based on human reasoning. However, since 2011, certain types of decisions, specifically e-Court judgments in debt collection proceedings, have been solely rendered as the outcome of AI without human involvement.

**20** Estonia has also been at the forefront of developing "virtual judges" based on Artificial Intelligence[10]. The Estonian Ministry asked Ott Velbsberg and his team to implement artificial intelligence in smaller trials, those involving disputes of 7,000 euros or less. AI would allow for the acceleration of dozens of backlog cases that judges and court clerks cannot currently handle. Its application will work as follows: the two parties will upload their documents and information relevant to the case onto a platform, where the AI will make a decision that can be appealed by a "human" judge[11].

**21** In early 2023, it made headlines that a judge in Colombia for the first time openly incorporated generative artificial intelligence into his judicial ruling. In a case involving an "acción de tutela", a constitutional remedy, the first instance judge ruled in favor of the plaintiff and, on appeal, Judge Juan Manuel Padilla upheld the decision while using ChatGPT-3 to provide additional information on the scope of the "acción de tutela". He argued that a recent Law 2213/22 allows the use of AI systems such as ChatGPT to expedite judicial decision-making.[12]

**22** Chinese courts are also using AI to assist with making legal decisions. As reported by Chen and Li (2020, p. 15) "*new to the Zhejiang High People's Court is a virtual judicial assistant who specializes in financial loan disputes—Xiao Zhi. Xiao Zhi's duties extend beyond administrative tasks like scheduling. Xiao Zhi supports judges by analyzing case filings, summarizing points of contention as they are raised during trial, evaluating evidence, calculating awards, and drafting judicial documents on the fly*". Xiao Baogong Intelligent Sentencing Prediction System, another legal AI platform, is also used by judges and prosecutors in criminal law. The system has the capability to recommend penalties by analyzing vast amounts of case information and previous rulings in similar

8 <https://www.trafficpenaltytribunal.gov.uk/want-to-appeal/>

9 The use of Artificial Intelligence in decision-making has been used not only in judicial processes, but also in other relevant fields such as credit granting, subsidies and social benefits, insurance, human resources and employment, and diagnosis or treatment of diseases. Because this paper focuses on the judicial domain only, there is no space to address the ethical and legal issues of using massive amounts of data to develop automatic predictive models that impact dramatically people's lives. This is a topic that is also worth developing and researching further.

10 "*Your Honor, AI*", Harvard International Review (April 2020). Retrieved on July 31, 2023, from <https://hir.harvard.edu/your-honor-ai/>. "*Can AI Be a Fair Judge in Court? Estonia Thinks So*", Wired (25 March 2019). Retrieved on July 31, 2023, from <https://www.wired.com/story/can-ai-be-fair-judge-court-estonia-thinks-so/>.

11 However, the Estonian Ministry of Justice released a statement in 2022 explaining that this conception echoed by some media outlets is misleading: "*Estonian Ministry of Justice does not develop AI robot judge for small claims procedure nor general court procedures to replace the human judge... More precisely, Ministry of Justice is looking for opportunities for optimization and automatization of court's procedural steps in every types of procedures, including procedural decisions where possible... One of the aims is that all court cases are held digitally...*". Retrieved on July 31, 2023, from <https://www.just.ee/en/news/estonia-does-not-develop-ai-judge>.

12 "*Colombian judge says he used ChatGPT in ruling*", The Guardian (3 Feb 2023). Retrieved on August 8, 2023, from <https://www.theguardian.com/technology/2023/feb/03/colombia-judge-chatgpt-ruling>.

cases using big data analysis.[13]

**23** Brazil is another country that has begun to use AI to assist in judicial processes. According to DR.IA (Laboratório de Direito e Inteligência Artificial) of the University of Brasilia: "*The Victor is an AI system applied to cases pending in the Brazilian Federal Supreme Court and seeks to facilitate the process of identifying the so-called general repercussion, contributing to increased performance and efficiency in the processing stages of extraordinary appeals in the Court*"[14]. Although it is not the Victor system that provides the final decision, its indirect impact on it seems relevant.

**24** Artificial intelligence is sometimes not used to elaborate the judgment as such, however, the information it provides has a significant impact on the final decision. Take, for example the i-RATS (intelligence-led risk assessment tools) which are based on information primarily obtained from publicly-available documents. Yeung and Harkens (2023) analyze three of these tools: the London Gangs Matrix[15], the Durham 'HART' tool, and the Dutch SyRI tool. Each of these tools serves different purposes, such as reducing gang violence, improving offender rehabilitation, and efficiently identifying social welfare fraudsters. Despite their distinct technical features and objectives, all these tools generate algorithmic assessments of an individual's 'risk.' These assessments are then used by front-line decision-makers to determine appropriate actions against the individuals in question.

**25** Even law firms' use of this technology is influencing how they operate, and this indirectly influences the judicial process. The increasing use of AI in the legal field, like predictive coding, predictive analytics, and machine learning, is already changing how lawyers present evidence to judges and assess client risk within law firms[16]. (Sourdin, 2018, p. 1115)

**26** According to new research published in the journal PeerJ Computer Science, scientists at University College London, the University of Pennsylvania and the University of Sheffield have succeeded in developing a method that can predict the outcome of an international supranational court by analyzing trial texts using the automatic learning that is common in Artificial Intelligence. In 2016, they - only with machine learning - managed to predict the decisions of the European Court of Human Rights by 79% (Aletras, Tsarapatsanis, Preotiuc-Pietro, & Lampos, 2016). According to Nikolaos Aletras, the main author of the research, "*Artificial Intelligence cannot replace judges or lawyers, but it is useful in identifying certain patterns that will obtain certain results. This tool could be very valuable in finding out which cases may violate the European Convention on Human Rights*"[17].

**27** It is clear that judges and the current judicial system are not perfect. By using AI judges, we could exclude public pressure as a decisive factor in decision-making as these systems do not take the expectations of the press or the public into consideration. We could also rule out the problem of bribery. The use of algorithms, in principle, leads to improvements in efficiency, speed, predictability and security. However, does this mean that judges should be replaced by technology in order to gain efficiency and speed? Arguably not, or at least, this is not the solution that this paper argues for. This is partly because there are so many factors that impact on judicial decision-making, as it will be discussed later on. Then, it is time to analyze the phenomenon of AI as courts and its potential handicaps, moral and ethical implications.

## III. Problems arising from the implementation of the AI judge

**28** The first problem that arises when we think about replacing human judges is, "*as some commentators*

13 "*How China's AI is automating the legal system*", DW (20 Jan 2023), Retrieved on August 8, 2023, from <https://www.dw.com/en/how-chinas-ai-is-automating-the-legal-system/a-64465988>.

14 <http://dria.unb.br/teste-top/projeto-victor-stf-unb>.

15 "*Although not originally intended, the Matrix is also allegedly used in evidence to support the prosecution of gang-related offences*" (Yeung and Harkens, 2023, p. 3). So, although it was actually designed for use by the police, it has also been also used in court proceedings.

16 There are legal technology companies that specialize in designing services for lawyers, providing comprehensive access to judicial information and case law. With the use of these electronic tools, law firms want to reduce legal uncertainty and unpredictability of court decisions. At this point, it would be appropriate to introduce a disclaimer. The criticism intended in this paper focuses on the direct impact of artificial intelligence on judicial work. Algorithms are known to be used by lawyers and paralegals for the analysis of documents during litigation and the prediction of case outcomes. While these algorithms can influence the outcome to some extent, their main application is to assist lawyers rather than to directly influence the judicial process. So, they are not the subject of the discussion here. Note that in the following, we will not refer to this category of artificial intelligence, but rather to that which is used as a direct substitute for the judicial function.

17 "*AI predicts outcomes of human rights trials*", UCL News (24 Oct 2016). Retrieved on 31/7/2023 from <https://www.ucl.ac.uk/news/2016/oct/ai-predicts-outcomes-human-rights-trials>.

*have pointed out, the question of how to accurately translate the law into codes, commands and functions that a computer program can understand and apply. Legal language is nuanced and often requires contextual understandings*" (Sourdin, 2018, p. 1127). The clearer and more concise a legal rule is (the fewer exceptions it admits and the fewer vague terms it uses), the easier would be for AI systems to apply it. This could have controversial long-term consequences on the design of the laws since the rules would be developed with the objective of being interpreted by an AI and not by a human. Therefore, it is likely that the rules in the future would have a particular structure with the easy interpretation by the AI in mind. According to Sourdin (2018, p. 1128) *"such amendments may result in unfair or arbitrary decisions due to the lack of individualized justice and discretion, and a lack of nuance in the law".*

**29** As it was previously mentioned, there are some countries that have already implemented in one way or another the use of AI judges. In principle, this has been authorized in cases that have the characteristic of being less controversial to automate: non-rivals and non-complex cases. The supporters usually argue that an automated system to solve cases of this kind, can help to decongest the judicial bodies and offer faster, more impartial, and reliable responses. Non-rival cases are those where the parties are in full agreement on the desired outcome. They may even collaborate with each other and with the judge to achieve that outcome. Think, for example, of divorce cases where both parties agree on the terms of the separation. However, the more complex a case is, the more difficult it is for the AI to solve. This refers, first, to the complexity that is directly related to the specific aspects of the case such as the number of witnesses, documentary evidence, and the number of parties. But it also refers to the complexity of the legal matter itself. Certainly, it is not the same when, within the same divorce case, there are one or more children, and the judge must decide who gets custody. The human dimension plays a more important role in this case[18].

**30** There are some issues associated with AI that are still problematic and may also be pertinent to include in the discussion. One significant concern about AI judges is their dependence on a power source, making them vulnerable during power outages. Another critical risk is their susceptibility to hacking. If they are hacked, it could lead to severe consequences, potentially undermining citizens' privacy, and the integrity of the judicial process. It is usually argued that conventional judicial litigation is costly and that these technologies could lower costs. Although this seems like a good argument in principle, the development, programming, and maintenance of robot judges would also likely entail substantial costs. Moreover, not everything should be measured in terms of money since the environmental impact of their energy consumption might also be overlooked (Dhar, 2020; Van Wynsberghe, 2021). The latter deserves further study.

**31** There is also the problem of non-existent input data. These AI programs work with datasets full of judicial precedents on which they base their decisions. What would happen if a totally new case was brought before the AI and no precedent existed? Obviously, the AI should not produce any results, unlike a human judge who is obliged to settle the case even if there is no precedent. To make matters worse, generative artificial intelligences such as the GPT 3 Chat almost never produce an "I don't know" answer. Usually, in the absence of enough data to produce a meaningful answer, the AI ends up giving false, fictitious, or incoherent answers.

**32** Another of the limitations traditionally attributed to AI is its inability to understand contextual elements. In an effort to remedy this, it is fed large amounts of data, which often turns out to be personal data. However, this is also controversial since privacy laws and data protection laws impose limitations on the collection and processing of "personal data". This could be deemed disproportionate and a violation of the right to privacy under Article 8(1) of the European Convention on Human Rights (ECHR)[19].

## 1. I. AI biases. The case of COMPAS

**33** It is generally claimed that AI is desirable over humans because one of the advantages of these mechanisms, theoretically, is the absence of emotions or personal biases. After all, the AI does not care about people's money or status, it judges everyone equally. It is neutral, fair, and objective. However, as Fahimi and Lücking (2021) rightly point out this is just a common myth. The fact is that "*as part of society, AI is deeply rooted in it and as such not separable from structures of discrimination. Due to this socio-technical embeddedness, AI cannot make discrimination disappear by itself*". Several authors have remarked that AI tools can reproduce existing societal biases and ultimately ends up perpetuating

18 Further discussion of this issue will be provided in section E.

19 General Data Protection Regulation (GDPR) effective from 2018 in the European Union includes a provision granting individuals the right not to be subjected to decisions based entirely on automated processing, such as profiling if such decisions have legal consequences (Article 22(1)). This suggests an awareness of the potential risks and limitations associated with complete reliance on algorithmic decision-making.

structural discrimination[20] (Flores, Bechtel and Lowenkamp, 2016; Chander and Krishnamurthy, 2018; Noble, 2018; Sourdin, 2018; Yapo and Weiss, 2018; Wachter, Mittelstadt and Russell, 2021; Angwin *et al.*, 2022).

**34** In United States, AI has been implemented to support judges in estimating the likelihood of recidivism and the risk of evasion when deciding whether to grant bail. Although it leaves the decision up to the human judge, AI still has a strong impact on the outcome of the case. One of the most notorious and discussed cases is the Correctional Offender Management Profiling for Alternative Sanctions, or COMPAS[21]. It was designed to help make evidence-based decisions through assessment (based on 137 questions answered by the offender during an interview, and information obtained from criminal records) and ultimately reduce recidivism and increase public safety (Angwin *et al.*, 2022). By assessing the criminal history and criminological factors such as socio-economic status and stability, family history, employment, etc., the algorithm provides a report that includes a risk score calculated on a scale of 1 to 10. A risk average then appears which evaluates whether someone can be released on bail, sent to prison, or receive another punishment. When the person is already incarcerated, the algorithm also determines whether they deserve the benefit of parole.

**35** With COMPAS, the judges only get a result, but they don't know how exactly the AI reached that conclusion. This is known as "the black box problem". A black box, by definition, is a system whose inputs and outputs are known, but the operation of that system is unknown (Deeks, 2019). It is usually difficult to access the code of these systems because they are legally protected by trade secret. This is the case of COMPAS, which works through a proprietary algorithm. This lack of transparency in a judicial process is, to say the least, objectionable[22].

**36** This tool has already been legally assessed by the Wisconsin Supreme Court in *Loomis v. Wisconsin*[23]. The court determined that the use of COMPAS was not contrary to the right to due process, as alleged by the defendant[24], who had been sentenced to 6 years based on the results shown by this algorithm. Despite denying the appeal, Justice Bradley remarked that judges should proceed with caution when using such risk assessments. The judge stated that *"[i]t is very important to remember that risk scores are not intended to determine the severity of the sentence or whether an offender is incarcerated"* and that studies *"have raised questions about whether [COMPAS scores] disproportionately classify minority offenders as having a higher risk of recidivism"*[25]. Therefore, the court finds that judges must also explain the factors, other than the evaluation that support the decision made.

**37** This case highlights the importance of careful data selection and algorithm design to minimize such biases. Biases may arise if data is collected or sampled in a way that over- or under-represents certain groups, skewing the AI system's performance. AI systems learn patterns from the data they are trained on, and if the data contains human biases, the AI system may also reflect those biases in its decisions. It is important to have access to and monitor the code and dataset of these algorithms, as there is a risk that creators will incorporate, intentionally or unintentionally, biases, prejudices or other elements in the same programming that somehow "contaminate" the outcome[26].

**38** As indicated by Yeung and Harkens (2023), technical developers typically consider contextual factors as irrelevant "noise" due to a "contextual detachment mindset". They are trained to abstract prediction models from legal and constitutional considerations.

20 The core of AI technology lies in the data that it relies on, if data presents any inconsistency or bias, this will be reflected in the outcome. Noble's (2018) highlights how search engines and platforms, through their recommendations system, can (re)produce and perpetuate societal biases, including racism. Failure to recognize this issue could be dangerous. As is shown in the COMPAS case, algorithms used in the administration of justice are not free from this problem either.

21 Developed by a private company called Equivant (formerly Northpointe).

22 "*Most notably, many such tools are limited in their capacity to enable full and precise accounts of both the factors producing their calculative output and the weighting of relevant characteristics derived from training data. This hinders the ability to provide functional explanations concerning how an output has been generated*" (Harkens *et al.*, 2020, p. 25). In view of its legal relevance, this issue will be further addressed in section E.

23 881 N.W.2d 749 (2016).

24 Mr. Loomis appealed arguing that the basis of his sanction was an undisclosed algorithm, making it impossible to assess and thus violating due process.

25 The judge here may be referring to the well-known case study on AI bias, conducted by Propublica (Angwin *et al.*, 2016), which revealed that although the software was designed to maximize overall accuracy, it exhibited a significant bias. Specifically, it had twice the false positive rate for African Americans compared to Caucasians.

26 The new Artificial Intelligence Act in Europe would incorporate certain obligations in this regard, requiring companies developing these technologies to ensure that there is no bias in the AI training process.

However, the authors argue that algorithmic tool developers and authorities overseeing their implementation often fail to recognize or understand the constitutional and legal implications of these technical choices. In other words, the disconnect between technical development and legal implications may lead to unforeseen problems and biases in algorithmic systems.

**39** Modern risk assessment tools rely on algorithms trained with historical crime data, potentially leading to the replication of biases and past mistakes. Machine-learning algorithms use statistics to identify patterns in the data, which might be associated with crime but not necessarily causations (O'Hara, 2020, p. 4). Using statistical correlations from historical data can be misleading and doesn't guarantee accurate predictions.

**40** As it has become clear, the implementation of artificial intelligence in court proceedings has important implications that impact the guarantees of due process and other fundamental rights of citizens. The literature has addressed each of these issues to a greater or lesser extent, and some have even attempted to provide solutions. Although it must be recognized that the mentioned issues are sensitive and have a considerable legal relevance, this paper still argues that they may have a solution in the medium or long term due to technological progress itself, which will allow the development of better IAs. However, even if this technology reaches such a state, there are still essential elements of the judicial function that the most advanced technology will hardly be able to emulate. In the next section we will discuss what are those inherent characteristics of the judicial function that make the human judge irreplaceable.

## IV. Moral agency, rational autonomy, and the social dimension of the judicial function

**41** When someone thinks of the judicial function, the first thing that comes to mind is case management and resolving disputes. But the judge's role goes far beyond this[27]. Judicial commentary helps shape society's functioning, and judges also play an educational role, guiding litigants and lawyers and contributing to civic education (Sourdin and Cornes, 2018). Advocates of replacing judges with AI overlook the broader contributions judges make to society, including matters of compliance and acceptance of the rule of law, which go beyond mere adjudication (Sourdin, 2018). In the words of Sartor and Branting (1998, p. 105):

> *"Judicial decision-making is an area of daunting complexity, where highly sophisticated legal expertise merges with cognitive and emotional competence. Many of the central concepts in the judicial application of the law – such as "justice", "reasonable care", and "intent" – are deeply enmeshed in the fabric of human life. Judicial decision-making requires assessing the credibility of witnesses, evaluating the probative weight of evidence, interpreting the meaning and intended effect of legal statutes and other normative authorities and, especially in criminal cases, balancing mercy with justice. The hazards of replacing judicial discretion with a rigid computer model can hardly be overestimated".*

**42** The aim of this section will be to analyze these distinctive features of the judicial service in order to assess the extent to which the human element is central or relevant to its practice.[28]

### 1. Two interdependent functions

**43** What does a judge do? Well, the most simplistic view would say that the ideal prototype of courts is where an independent adjudicator applies the law to the facts, leading to a decisive ruling declaring one party legally right and the other legally wrong. However, most people today challenge this reductionist and formalistic approach[29]. Fiss (1979), for example, considers that the resolution of cases is not the main purpose of judges[30]. According to this

27 This paper assumes a comprehensive conception of the role of the judge. Although we recognize that there is no global and unique conception of what a judge should be, it is not the main purpose of this paper to discuss it. So, for the sake of argument, the particular social and proactive role of the judge discussed under this heading is a point I take for granted.

28 Please note that, although this section is divided into sub-sections for a better understanding of the arguments, all these ideas are closely related to each other.

29 *"Too often portrayed as mere private dispute resolvers, the public good performed by courts as vital institutions of governance is commonly sidelined. There is, in such an environment, an increasingly pressing need to explain what it is that courts actually do; to articulate precisely the function of a judge".* (McIntyre, 2020, p. 1). The European Networks of Councils for the Judiciary (ENCJ WORKING GROUP) in its Judicial Ethics Report of 2009-2010 recognized that **"***in our European societies, the judge's role has evolved: it is no longer confined to being "the mouthpiece of the law"; the judge is also, to a certain extent, a creator of law, which requires responsibilities and ethical rules consistent with this evolution*".

30 "*I doubt whether dispute resolution is an adequate description of the social function of courts. To my mind courts exist to give*

influential author "*adjudication is the social process by which judges give meaning to our public values*" (Fiss, 1979, p. 2). That is why courts bring about significant changes, essentially reconstructing social reality[31]. The structural reform, of which the judge must be a promoter, focuses on the broader aspects of social life and the role of large organizations, like courts, in shaping those conditions. To support his point, Fiss considers that paradigmatic cases such as *Brown v. Board of Education*[32], did not really focused on settling a dispute between individuals, but rather to give meaning to certain public values[33].

**44** Fiss's argument is meritorious; however, he errs in part in giving more weight to one function over the other. The social function of the judge is best expressed by McIntyre (2020, p. 1) when he recognizes that the essence of the judiciary is "*the unique way in which the two aspects of dispute resolution and social governance are woven together into a coherent single function*". The merit of this argument lies in acknowledging the dialectical relationship between both functions.

**45** Judges cannot administer justice effectively unless they possess an understanding of the social and cultural factors that may significantly influence individuals' behavior in specific situations[34]. Promoting greater awareness of the judiciary about local communities will increase confidence in the justice system in general[35]. By actively engaging in the community, judges will gain valuable insights into how their decisions affect people's lives, leading to better-informed and more impactful judgments (Ifill, 2000; Gargallo, 2007; Kamil, 2009). This is relevant not only for AI, but also for human judges themselves. It is not desirable to assign judges to dispense justice in communities or environments with which they are unfamiliar. Even if it is possible to explain to such a person the characteristics of the place, it is difficult for that person to really understand the context. If replacing human judges with other humans in certain communities can be problematic because of unfamiliarity with the context, it would be even worse if it were an AI.

**46** Therefore, judges are deeply influenced by social dynamics, which are complex and context dependent. The law, like all social phenomena, is loaded with values and principles present in society and which vary over time. A technology like AI may struggle to capture these complexities fully and accurately. AI lacks the capacity to replicate the inherently social dimension of delivering justice, and attempting to do so would involve compromising or distorting essential social relations and interactions. Since legal processes are deeply rooted in the social context, that is, human interactions and dynamics, no matter how advanced an AI is, it will never be able to capture the intrinsically social nature of law (Morison and Harkens, 2019)[36]. This socially active dimension of the judge contributes to making the law more dynamic, thus avoiding situations of legal stagnation[37].

## 2. Lack of moral agency and rational autonomy

**47** This section departs from the premise that moral agency is an innate quality of the human being and essential to exercise the judicial function[38], while

*meaning to our public values, not to resolve disputes*" (Fiss, 1979, p. 29)

31 Also (Ciacchi, 2014, p. 125): "*I understand judicial governance as societal policy-making through adjudication at both the national and the supranational level*".

32 347 U.S. 483 (1954). In a unanimous decision, the Supreme Court ruled that racial segregation in public schools was unconstitutional and violated the Equal Protection Clause (Fourteenth Amendment). The Court overturned the "separate but equal" doctrine established in *Plessy v. Ferguson* (163 U.S. 537 (1896)), declaring that racial segregation in public education was inherently unequal and therefore unconstitutional.

33 Specifically racial equality and non-discrimination.

34 "*Judges do not simply apply general legal provisions to specific cases in a vacuum, disconnected from political and social life; instead, they make decisions that have normative and distributional consequences—in fact, they are empowered to do exactly that. The most pressing of these implications is that judicial decision-making should not be viewed in isolation, as if it were divorced from ongoing social or political trends. Judges make choices about how to think about and decide cases, choices that may be influenced by political, institutional, and social context.*" (Taylor, 2023, pp. 288–289)

35 This contributes to the legitimacy of the judicial system itself and of the law in general, an issue that will be addressed below.

36 Schmid (2008) is another author who considers that adjudication is always shaped by the broader social context, including political, economic, and social factors that influence the minds of judges and their decisions. Schmid sees this influence as necessary and not undesirable because it allows the law to adapt to the changing social environment effectively.

37 Potential legal stagnation is discussed further in section E.V.

38 "*... the judicial decision is a legal one, and in all cases that legal*

AI lacks this element. Moral agency involves the ability to reflect on one's actions and understand their moral implications. For judges, this means considering how their decisions impact the parties involved and society as a whole. It also requires understanding and respecting social and cultural norms, treating others with dignity and respect, and acknowledging and upholding the rights and autonomy of individuals.

**48** In short, judges cannot simply apply the law without first interpreting it, and this interpretation is subject to the ideological and moral preconceptions of the interpreter. Therefore, to exercise the function of judging it is considered necessary to have certain personal attributes, ideology, and morals (such as fairness, justice, and compassion)[39]. According to the ENCJ working group[40], the judge "*in his assessment of facts and decisions he finds a measure between empathy, compassion, kindness, discipline and severity*[41]*, so that his application of law is perceived as legitimate and fair... This quality implies not only real open-mindedness and receptiveness but also the ability to call into question oneself*". The AI is simply incapable of replicating this, just because it does not even have a "sense of self".

**49** This is not to say that the judge is a person who is driven by his passions and feelings. It should be kept in mind that the human judge also has rational autonomy. For Tasioulas (2023), "rational autonomy" refers to the ability of human beings to detach themselves from their desires, social pressures, and established behaviors to objectively assess the pros and cons of a situation. It involves making a well-considered judgment on the right course of action based on this assessment and then choosing to follow that judgment in a specific case. The possession of rational autonomy is seen as a crucial aspect of human dignity.

**50** Related to this, Fortes (2020, p. 462) also raises a crucial point: "*one important lesson for our speculative reflection on the development of judicial robots is that contemporary artificial intelligence may not produce its decisions with prudence, which seems an essential quality for adjudication*". What he and Gargallo (2007, p. 121)[42] call prudence, is nothing more than the exercise of moral agency and rational autonomy in a given situation, which allows the human being to weigh the different alternatives available to him and analyze the potential implications of his decision. By contrast, AI is not able to consider the potential ramifications or long-term implications of a particular verdict on the life of individuals.

**51** Gargallo (2007, p. 130) also points out that judging is not simply applying a legal rule to facts through mechanical deductive reasoning. In the process of judging, a reasonable logic is used that is based on knowledge of the law, the legal institutions involved and the general values and principles of law. The judge takes into account the consequences of his decision when determining the facts and qualifying them legally. In essence, the judgment involves a complex process of consideration and reasoning beyond a simple logical syllogism[43].

**52** Moral agency is particularly relevant to the more challenging areas of the legal universe. How does an AI understand[44] such subjective legal concepts/principles like good faith, degrading treatment, human dignity, autonomy, hate crime, best interests of the child, etc.? How could it reach a nuanced opinion on issues such as abortion, clash of fundamental rights, death penalty or legal paradoxes?[45] This makes AI hardly applicable to complex areas such as criminal, constitutional, or family law.

**53** Everything depends on our position on the judiciary. If we desire laboratory judges who resolve disputes

*decision is inextricably tied to a moral one, either explicitly or implicitly*." (Mancini and Rosenfeld, 2010, p. 16)

39 "*Judicial responsiveness requires judges to act from the perspective of conscious legal rationality and also with intuition, empathy and compassion.*" (Sourdin and Cornes, 2018, p. 87). See also (Nava, 2008).

40 See 29.

41 Gargallo (2007, p. 117) refers to these qualities as "judicial virtues".

42 In fact, Gargallo (2007, p. 129) identifies prudence as the most important asset of the judge: "*There are many virtues that we can appreciate in a good judge (good judgment, perspicacity, prudence, farsightedness, a sense of justice, humanity, compassion, courage, temperance...), although the one that best serves the proper function of the judge and informs all the others is prudence. We could say that it is the most characteristic virtue of the 'good judge'*".

43 "*One may consider that the decision-making procedure is so complex, variable, uncertain, fuzzy and value-laden, that it could never be reduced to logical models*". (Taruffo, 1998, p. 314)

44 AI processes large amounts of data, but processing is not the same as understanding (See 4 [Turing vs. Searle]). As a society we need judges to understand and be aware of the significance of their work.

45 Another important concept, but one that is not particularly easy to apply, is that of the purposes of the sanction, a topic that has been discussed in law for hundreds of years. When the AI imposes a sanction, would it really be aware of the purpose of the sanction it is imposing? Could it reason why it is imposing such a sanction and not another?

in a "logical" and amoral basis, AI might be a good option. Now, if we want judges who are socially aware, empathic, proactive, and dynamic, AI will probably never meet that expectation. It is even difficult to develop the AI into a being with moral convictions, ethics and an inventory of the values mentioned here, since we do not even know exactly how this phenomenon works in the mind of the human being himself. Sourdin and Cornes (2018, p. 112) explain that in the pursuit of this, a paradox interferes: "*... such personal inputs, emanating from human judges', and society's unconscious, are by definition not consciously knowable and therefore not translatable into code*". Therefore, *decoding* the human mind and its moral agency would be a precondition for subsequently providing moral agency to other entities.

## 3. III. A role model

**54** When the human judge is replaced by an AI, more than a mere administrator of justice or public official is lost. This section attempts to highlight the social role of the judge as a pillar of the community and as a role model[46].

**55** The role model epitomized by judges is legally relevant because, pragmatically, moral sanctions operate more effectively when they come from someone who is valued as legitimate or deserving of respect (Seña, 2001). Throughout history, judges have been attributed a special ethical status and have been required to behave morally in their private lives, which seems to be relevant for the proper performance of their jurisdictional function. Seña (2001, p. 380) quotes the following words of Piero Calamandrei: "*so high in our estimation is the mission of the judge and so necessary is confidence in him, that human weaknesses which are unnoticed or forgiven in any other order of public officials, seem inconceivable in a judge.... Judges are like those who belong to a religious order. Each of them has to be an example of virtue, if they do not want believers to lose faith*"[47]. What for religious leaders is the loss of faith, judges would be the loss of legitimacy. It is argued that the judge must play this role model in order to generate confidence in those affected by his decisions and thus contribute to the stability of the legal system. The judge must also consider that his decisions have an impact not only on the subject concerned, but also on the rest of citizens.

**56** Aspen (1993) and Joy (2000) have studied this topic and argue quite logically that judges are seen as role models, primarily because they are expected to set an example through their conduct. They cannot expect others to adhere to standards of behavior they do not follow themselves. When judges demonstrate proper behavior and uphold their role model status, they inspire the public to follow suit, fostering high expectations of behavior and building trust and confidence in the judiciary (Martineau, 1981). This also relates to the aforementioned connection between the judge and the community[48]. Roche (2020, p. 2244), drawing on (Ifill, 2000) states: "*Judges should model all the qualities required of them by their codes of conduct to nurture those same qualities in the community they serve. However, judges who do not share the same values with their communities cannot be good role models for their communities*".

**57** This also relates to what was mentioned in the previous section on moral agency and rational autonomy. According to the ENCJ WORKING GROUP a judge should understands that their professional conduct, private life, and behavior in society significantly impact the perception of justice and public confidence. Building trust in the justice system goes beyond being an independent, impartial, honest, competent, and diligent judge. It also involves displaying personal qualities such as wisdom, loyalty, humanity, courage, seriousness, and prudence, as well as the ability to work diligently, listen effectively, and communicate clearly. The exercise of these moral attributes is what makes it possible for the judge to become a role model for his or her community.

**58** Sourdin and Cornes (2018, p. 97) also remind us that "*apart from their critical adjudicative role, judges also play an educative role, informing litigants and lawyers about approaches to be taken and contributing to civic education at a broader level*". The importance of this facet of the judge is often overlooked. Roche (2020, p. 2220), however, thinks judges are fundamentally teachers. Judges act as teachers when they exercise judicial power and uphold high standards of behavior. Their teaching role is vital for connecting judges to society, improving judicial efficiency, fostering a positive perception of judges, and ensuring access to justice.

46 However, it is important to clarify that the purpose here is not to glorify the figure of the human judge or to endow him or her with a halo of infallibility. "*The challenge however, will be for judges to use their role model status realistically without expectation of perfection, and for the public to have realistic expectations of judges, which understands that perfection is unattainable.*" (Roche, 2020, p. 2247)

47 Public confidence in the judiciary also seems to depend on the conduct of judges, which results in a higher demand on their behavior compared to an ordinary citizen. (Riley, 1992; Seña, 2001)

48 Section E.I.

## 4. IV. Legitimacy

**59** Tasioulas (2023, p. 1) quotes in one of his papers a famous passage from The Laws of Plato[49] that is highly illustrative of some of the issues discussed here[50]. In this dialogue, Plato intends to illustrate the qualitative difference between a "free doctor", one who is trained and can explain the treatment to his patient, and a "slave doctor", who cannot explain what he is doing and instead works by trial and error. In this case, Cleinias opts for the free doctor precisely because he is better able to provide his diagnosis through reasoning, dialogue and understanding. Judicial explicability[51] works in a similar way with the citizenry. There is a close relationship between the rationality of the decision, explicability, and legitimacy. In his book, McIntyre (2019, p. 152) articulates this point sharply:

> "That judicial decision must be rational, in the sense that is justifiable, as the judge must engage in the argumentative enterprise of persuading others that the chosen alternative is preferable. Persuasive decisions promote effective dispute-resolution, by giving disputants good reasons to accept even outcomes they disagree with. Similarly, justification affects social governance, as the normative impact of a resolution will vary with the persuasiveness of the reasoning."

**60** Judges must be aware of the impact their decisions have on the judiciary's ability to fulfill its social role. The effectiveness of their judgments relies on the overall social legitimacy of the courts. Thus, judges hold a responsibility in upholding the necessary public confidence in the judicial system (McIntyre, 2019). Maintaining the public's trust and confidence in the justice system is essential because when people believe in its integrity, they are more likely to accept and comply with the decisions made (Crootof, 2019). Legitimacy can be achieved, inter alia, through the judge's adherence to certain moral values, transparency, dialogue and explainability, all of which we have already seen that AI lacks.

**61** When analyzing the feasibility of an AI judge, Volokh (2018, p. 1137) states that we should "*Consider the Output, Not the Method*". Statements such as these should be taken with caution. It could be problematic to assume such a premise/principle. In the judicial process, what is important is not only the outcome, but also the process itself[52]. Going back to Plato's dialogue, both the "slave doctor" and the "free doctor" can reach the same outcome. The issue is which method is more desirable? Cleinias understands that the free doctor is better, because the patient does not feel alienated in the process. The patient here is not only a passive subject, but also an active participant in this bidirectional dynamic. Ultimately, there is value in the dialogue between two rational moral agents. On the other hand, the slave doctor represents an algorithm, dispensing the treatment, but failing to provide the patient with the rationale behind the outcome. The patient is more likely to follow the instruction in this case by means of imposition, not assimilation.

**62** Tasioulas (2023, pp. 10–12) argues that for AI to fully respect the rational autonomy of human beings, it must possess rational autonomy itself. Without this capacity, AI lacks the ability to judge humans without infringing on their dignity and due process guarantees. The use of AI tools as substitutes for human judges undermines the rule of law's goal of securing respect for rational autonomy, explainability, and accountability. Meaning, people might not value the persuasiveness of opinions rendered by artificial intelligence because they believe that human decision-making is the only legitimate form of judicial decision-making. They may hold this view due to a belief in human dignity, which requires their claims to be heard by fellow

49 Plato, *The Laws*, ed M Schofield (Cambridge, Cambridge University Press, 2016) 163-64 (720b-e)

50 "*ATHENIAN – And you realise, don't you, that the people who fall sick in our cities may be slaves or free-born? And that it is the slave-doctors who for the most part treat the slaves, either dashing round the city or sitting in their surgeries? None of these doctors gives any explanation of the particular disease of any particular slave – or listens to one; all they do is prescribe the treatment as they see fit, on the basis of trial and error ...*

*The free-born doctor spends most of his time treating and keeping an eye on the diseases of the free-born. He investigates the origin of the disease, in the light of his study of the natural order, taking the patient himself and his friends into partnership. This allows him both to learn from those who are sick, and at the same time to teach the invalid himself, to the best of his ability; and he prescribes no treatment without first getting the patient's consent. Only then, and all the time using his powers of persuasion to keep the patient cooperative, does he attempt to complete the task of bringing him back to health. Is a doctor who heals in this way a better doctor? Or the other way? Likewise a trainer who trains in this way? He has one single ability. Should he get it to complete its exercise by this dual method, or in the simple way – the less good of the two, and the one which makes the patient more hostile? CLEINIAS – The dual approach, my friend, is by far the better."*

51 AI explainability or explicability is a process that allows individuals affected by a machine learning decision, with legal or significant consequences, to request an explanation for that decision. Additionally, it grants the parties the right to access, to the extent possible and reasonable, the data used and information generated by the AI model.

52 The legal process is a crucial element in the administration of justice. It is not for nothing that the procedural law field exists.

humans. That is, the legitimacy of the justice system could be compromised due to potential public reluctance in embracing judgments delivered by no human entities[53].

**63** In a nutshell, transparency, reasonability and explainability of judicial decisions are elements that guarantee due process and legitimacy. According to the ENCJ WORKING GROUP, a judge should "*give reasons for his decision so that everyone involved can understand the logic on which the judge based his decision*"[54]. For instance, consider the problem raised by Loomis appeal mentioned in section D.I. Because the COMPAS operated as a "Black Box" system, one can know the result, but not exactly how it was reached, that is, the system lacks explainability[55]. How can the right to appeal even be guaranteed if the affected party is incapable of understanding the reasoning by which he/she was affected[56]? Therefore, Gargallo (2007, p. 132) is right when he states that "*the provision of a rationale is a guarantee against prejudice and arbitrariness, and facilitates jurisdictional control through appeals, which contributes to the strengthening of legal certainty*".

**64** There is another issue. Because an algorithm has no moral agency or rational autonomy, it cannot be held responsible for its decisions. Rational moral agents make decisions and are held accountable for them. So, AI also raises a problem concerning liability and accountability[57].

## 5. Risk of legal stagnation

**65** Judges have the difficult task of balancing legal stability and responsiveness to social change. On one hand, reforming the law to align with social values can make it more just and adaptable. Maintaining rigid laws can lead to inconsistency and lack of coherence. The constant interaction with society enables judges to tailor their decisions to real-life situations and achieve a normative coherence. On the other hand, this flexibility comes at the cost of certainty and predictability, which can challenge the overall legitimacy and acceptability of the legal system and judicial governance. Striking a careful balance between stability/ predictability[58] and the need for just flexibility becomes crucial for effective judicial governance.

**66** In this sense, the drawback of AI is its reliance on

53 Following this reasoning, one could even hypothesize whether, in the not-too-distant future, being judged by a human judge would be recognized as a fundamental human right. See (Górski, 2023). This is an interesting question that is left open for further discussion in further papers.

54 See 29.

55 According to O'Hara (2020) excellent article on the nature and purpose of explanations, the main objective of an explanation is to help the audience understand a phenomenon. Simply presenting information without additional explanatory context doesn't fully meet the needs of the subject. The subject needs to question the decision's logic. She also stresses that the purpose of explanations should be to guide future conduct, helping subjects to understand how their past behavior, as represented in the data, led them to make a particular decision and how they can change their behavior accordingly. Thus, she concludes that "*in order to contest a decision, the data subject must understand it. To facilitate this... we should take 'explanation' in its performative sense, not in the sense of a product or text... It does not seem plausible that the output of XAI* (explainable IA) *could function as an explanation*" (O'Hara, 2020, p. 5).

56 See GDPR recital 71 (on the right of the affected party to be given an explanation of the decision taken in order to be able to challenge it).

57 This issue has become increasingly debated since the rise of generative AI. Let's imagine that the AI judge makes a mistake, who would be liable? If we consider the literature on liability for unlawful acts resulting from AI (Giuffrida, 2019; Wendehorst, 2020), the discussions center on the following responsible parties: the one who programmed the IA, the one who selected and trained the dataset, or the one who introduced the prompts. Specialists are skeptical about the proposal that AI itself should be considered responsible (See, e.g. the Open Letter to the European Commission Artificial Intelligence and Robotics (2018)). There are several ethical and legal reasons for adopting this position, starting from the potential consequences of recognizing AI as a legal entity. In addition, one cannot ignore the fact that, as explained, AI lacks the rational autonomy to be held responsible ("*Conventional wisdom holds that punishing AI is incongruous with basic criminal law principles such as the capacity for culpability and the requirement of a guilty mind*" (Abbott and Sarch, 2019, p. 323)). People usually tend to look for a human being to be held accountable for AI actions (See Expert Group on Liability and New Technologies – New Technologies Formation (EG-NTF), Report on Liability for Artificial Intelligence and other emerging digital technologies (2019), Key Finding no 8). The fact that one tends to look for a wrongdoer other than the AI (being the developer or user) evidences people's skepticism of the fact of recognizing AI agency. So, in any case, before introducing a robot judge, should be considered the idea of the AI having legal personhood to be legally accountable for its actions, with all that this implies.

58 "*The judge is required to embrace the virtuous tension between the pursuit of clarity, predictability and order on one hand, and responsive and just flexibility and change on the other. In doing so, the judge injects a necessary vitality and responsive dynamic to the law.*" (McIntyre, 2020, p. 37)

past data. As a result, they often end up reproducing patterns and perpetuating the biases, choices, and arguments with which they were trained. Judicial robots would likely have difficulties making decisions that go against existing precedent. This design would make it difficult for them to adapt to dynamic social environments. Thus, while they perform well in terms of consistency and predictability, they are not so satisfactory in terms of flexibility and adaptability required for judicial governance (Crootof, 2019; McIntyre, 2020). It is unlikely that algorithms would have been capable of reaching groundbreaking and counter-hegemonic decisions such as *Brown v. Board of Education*. Most likely, this system will end up indefinitely reproducing the *status quo* and establishing a model of "legal recycling".

**67** An effective administration of justice requires judges who have the ability to adapt and recalibrate the legal machinery. AI is unfortunately limited to working on the same mistakes that were once made and contains few sophisticated social tools to overcome those mistakes and keep pace with society. Therefore, the implementation of the AI judge would not contribute to the efficacy of the norm itself. Every judicial application of legal rules directly impacts upon that particular law, strengthening, maintaining, or reforming it. The process of actively altering the law through judicial decisions ensures that it remains well adapted to its social purposes and reflects concrete social values. When a judicial decision is publicly declared, it clarifies the "contour" of the norm, reducing uncertainty and facilitating settlements. Through the application of the law in resolving disputes, judges reaffirm the public value of legal rules, making them active normative constraints within society. By adapting legal norms to the current social context, judicial decisions revitalize the law, making it more dynamic, responsive, and effective in guiding social behavior (Dickson, 2000; McIntyre, 2019, p. 59).

### 6. Public functions outsourced to private entities

**68** Lately, private companies have been increasingly exercising control over communications, media and public discourse. As Balkin (2018) rightly points out, freedom of expression is no longer a dual relationship (State-citizen), but a triangular one (State-citizen-platform). Over time, we all have witnessed how functions or powers, that were traditionally public, are being privatized. The change to AI judges would be another symptom of this phenomenon.

**69** Justice administration has historically been one of the classic public powers, within the classical theory of the tripartition of powers. The potential dangers of involving private sector technical developers in state functions are (i) market dominance, (ii) undue influence over public policy, (iii) lack of accountability, (iv) loss of control, and (v) erosion of public trust[59] (Krent, 2010; Morison and Harkens, 2019, p. 631; Calo and Citron, 2020; Grote and Di Nucci, 2020). If private companies are developing these AIs, how can we prevent them from influencing the outcome? How can we know for sure that there is no undue influence, if we cannot access the code? This is an extremely important issue and one that has deep ethical implications. Allowing them to design datasets and algorithms gives them influence over decisions that can impact fundamental human rights, including the right to freedom (Deeks, 2019). Proper regulations and ethical guidelines are essential to mitigate these risks and ensure a balanced approach to private sector involvement[60].

## B. CONCLUSION

**70** The judicial system faces various challenges, including excessive costs for both individuals and society, prolonged delays in case resolution, and inconsistencies in judgments. Additionally, the limited number of judges often leads to difficulties in handling the increasing caseloads. These issues have resulted in a decline in public confidence in the system. This makes the idea of deploying artificial intelligence increasingly appealing. However, McIntyre (2019) emphasizes the need for reflection on the essential functions of courts, their significance, and whether they still hold value before completely abandoning them in favor of new approaches. That was the aim of this paper.

**71** The contribution made by the digitalization of judicial processes to speed up decisions and save costs is undeniable. Then, should judges disappear? Not in our opinion, at least not at the moment. We will never know how far technological development can go. In any case, let us remember that the judge is not only the person in charge of imparting justice, but he/she is also a role model and reference to society. Moral agency is an attribute of the judicial agency that contributes to the social governance function of judges. Many judges also play a role in an educational sense by contributing to civic education on a broader level. Discretionary decisions must take into account the values of the community, society, the personal conditions of the parties and any other

59 In general, the principle of independence (specifically its judicial discretion dimension) would be compromised, as judicial decisions could be subject to the undue influence of private interests.

60 In Europe, the IA Act could mitigate these concerns.

circumstances that may be relevant (Sourdin, 2018). If jurists fail to advocate for this kind of judges, their decline is unavoidable. This could lead to the emergence of a new system, which may fulfill some aspects of the judicial role but leave others unaddressed (McIntyre, 2019, p. 297).

**72** This paper does not encourage the elimination of AI from courts. The author concludes that, although judges and other legal operators should not be displaced by these computer programs, the use of the latter could indeed optimize the exercise of judicial work in the future. AI programs could be cautiously used to assist human judges, rather than replace them.