

## **ARTIFICIAL INTELLIGENCE IN THE COURTROOM: A SUPPORTIVE ROLE OR AN ALTERNATIVE ROLE, A ROBOT JUDGE OR AN ASSISTANT ROBOT?**

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### **Abstract**

This paper tackles the suitable areas to apply AI in the judicial system by examining the power and weakness of AI in the justice field and analyzing the functions of human judges and their complex tasks in the litigation processes. Furthermore, this article examines the current application of AI tools in the EU and China and addresses the power of AI as an assistant tool in the judicial system. Based on that, this article answers the substantial question of the best form of AI in the courtroom: a robot judge or an assistant robot.

*Keywords: artificial intelligence, robot judge, Judge AI, AI used in judicial system*

### **1. Introduction**

In the last decade, an enormous transformation of employing artificial intelligence permeated many aspects of our lives; governments, companies, institutions, and individuals have gotten involved in one way or another in AI applications. However, a noticeable contrast in the implementation of AI came into view depending on the field in which AI is to be applied. In this regard, and while AI has many successful achievements in many sectors of our lives, the judicial system doesn't have a significant portion of AI technology. The nature and sensitivity of the judicial work, on the one hand, and the rejection, fear, and resistance to change of many legal professionals, on the other hand, could be the reason for the delay in applying AI tools to the judicial environment. It is essential to acknowledge that the judicial system has been successfully transformed into an online environment in many courts worldwide<sup>1</sup>. This includes the implementation of online hearings, e-file systems, electronic informing processes, and more. Although this current stage of technology may not fully align with the workings of AI, they share similarities in their ability to enhance and improve upon one another in various ways.

As a start, this article tackles the suitable area to apply AI in the judicial system by examining the power and weakness of AI in the justice field, analyzing the functions of human judges and their

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<sup>1</sup> Goda STRIKAITE-LATUSINKAJA: The Rule of Law and Technology in the Public Sector, *Access To Justice in Eastern Europe*, (18) 2023/1, 35. <https://doi.org/10.33327/AJEE-18-6.1-a000104>.

complex tasks in the litigation processes. Furthermore, this article examines the application of AI tools in the EU and China. It addresses the power of AI as an assistant tool for human judges in the judicial system by reviewing the types of judicial tasks that AI can and should contribute even before parties file the lawsuit, and in all stages of litigation, with a focus on assistance with litigation procedures and final judgments, with giving practical applications of AI tools in such context. Based on that, this article answers the substantial question of the best form of AI in the courtroom: a robot judge or an assistant robot. In my opinion, the use of AI tools can significantly benefit the judicial system. However, it's essential that all parties involved offer strong support and carefully evaluate the potential risks that may arise from the implementation of AI in the judicial system.

## 2. Qualifications of AI tools

Artificial intelligence is not magic<sup>2</sup>, it is a field of computer science that the European Commission defined as “systems that show intelligent behavior to achieve specific goals through the analysis of their environment and their actions with a degree of autonomy.” The definition indicates that AI is not a single system or technology but a set of combined technologies that work together. One of the advantages of AI is the ability to quickly store, analyze, and access vast amounts of data<sup>3</sup>. To explore this issue, it was argued that AI can be classified into two main strands; the first one is the rules-based approach, which Ray Worthy Campbell has described: “involves the creation of complex logic trees, involving “if A, then B,” kind of commands. Once an event or fact has been characterized, the software will apply the prescribed rule”<sup>4</sup>. This kind of AI is known as the old version of AI tools; it works within specific problems consistent with a sequence of logical rules and is a step-by-step deduction. Therefore, this kind can be helpful in similar cases consistent with the principle of operation of this kind. However, not all problems meet the same logical sequence; this is why there is a second kind, which is based upon data analysis, which involves a kind of machine learning; it reaches the relationships and correlations by looking for patterns in large amounts of data, where results can be achieved, and specific services can be provided<sup>5</sup>. Adrienn Nagy has clarified the power of new AI tools by stating, “the capability of processing data and the availability of training “data” and “big data” that leads to practical breakthroughs ... coupled with complex algorithms, have resulted in beneficial outcomes for areas such as medical diagnoses and self-driving vehicles among many other AI applications”<sup>6</sup>. What AI tools can provide in the field of justice was described by the European Union, which states that the use of artificial intelligence will lead to “analysis, structuring and preparation of case information, automatic transcription of oral recordings, provision of machine translation services, support for analysis and evaluation.

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<sup>2</sup> A. Amarendar REDDY: Legal Implications in Artificial Intelligence, *International Journal of Law Management & Humanities* 5 (2022): 1776.

<sup>3</sup> Linda FOIT: Your Artificial Mediator Is Ready for You Now: The Role of Artificial Intelligence in Conflict Resolution, *American Journal of Mediation* 15 (2022): 47.

<sup>4</sup> Ray Worthy CAMPBELL: Artificial Intelligence in the Courtroom: The Delivery of Justice in the Age of Machine Learning, *Colorado Technology Law Journal* 18, no. 2 (2020): 326.

<sup>5</sup> CAMPBELL op. cit. 326

<sup>6</sup> Adrienn NAGY: The Importance of Artificial Intelligence and Digitalization and Possible Areas of Use in the Judiciary from a Hungarian Perspective; *Publicationes Universitatis Miskolcensis. Sectio Juridica et Politica* 2019/1, 180. <https://doi.org/10.32978.sjp.2020.010>.

Legal documents and judgments, estimating the chances of success of a lawsuit, automatic anonymization of case law and providing information through legal chatbots”<sup>7</sup>.

In order to apply the qualifications of AI to the judicial function, it is necessary to clarify the features, characteristics, and nature of human judge’s roles in the judicial work.

### **3. Functions of human judges**

The functions of the human judge should be examined to evaluate whether the most trend AI tool, “the robot judge,” could support or replace the role of the human judge. The role of the judge is miscellaneous, diverse, and expanded. In this regard, the judicial function starts even before enacting the laws; human judges could participate in preparatory committees for the law by making suggestions and revising the legal text proposed for modification. Within the scope of lawsuits, the role of the judge begins by supervising registration lawsuit processes, conducting trials, organizing the court’s schedule, evaluating and accepting the evidence, hearing witnesses, extracting the judicial facts, finding the applicable law to the facts, interpreting the law whenever necessary, interaction with parties, verifying that the sanctity of the court is not violated, taking into account all of the considerable circumstances when he regulates his discretionary authority, issuing preparatory and final decisions, and more.

As a start, and based on what was previously stated, creating subcategories for the human judge tasks is crucial to assigning these tasks to the qualifications of AI. Here, an important question arises on what criteria such classification should be based on: time-consuming tasks, routine tasks, procedural tasks, investigations tasks, or evaluation tasks. Such classification should be based on criteria that can distinguish between the qualifications of AI and human judges, emphasizing highlighting both parties' strengths and weaknesses. The possible options in this regard are classifying the tasks into tasks that require collecting and analyzing data and tasks that require evaluating processes. This classification makes it possible to find suitable options for applying AI tools. Another classification that depends on the nature of judicial work could also be applicable; for example, the judicial function could be classified into three main categories. The first one is the non-pure judicial tasks, such as tasks related to judicial and notification procedures, which could be included in this category. The second is the purely judicial tasks, such as verifying and evaluating the evidence. The third category could be mixed tasks between judicial and procedural work, such as preparing decision drafts and analyzing legal data and sources.

The best methodology for evaluating AI qualifies to examine the experiences of different countries in applying AI in legal and judicial systems.

### **4. Countries’ experiences in applying AI in the litigation process**

The application of AI in the legal system varies from country to country. Some countries have fully integrated AI in their litigation processes, while others have only adopted AI in certain aspects of litigation. Additionally, some countries have implemented AI tools in legal assistance applications. It should be noted that the digitization of the judicial process is a natural progression following the

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<sup>7</sup> Andra IFTIMIEI – Mihai IFTIMIEI: Law and IT Technologies. Predictive Justice, *Perspectives of Law and Public Administration* 11, no. 1 (March 2022): 170.

automation of numerous other services in a country. As such, introducing AI into a country's judicial system is not advisable unless it has high technological capabilities within the government and supporting institutions and a culture of technology adoption among its citizens.

#### 4.1. European Union

The European Union is not oblivious to the importance of AI. Many meetings, drafts, and projects have been worked on regarding the use of AI technology in general. Recently, the EU has been planning to regulate the use of AI by enacting the “AI Act,” the world’s first comprehensive AI law. The EU recognizes the importance and benefits of AI in all aspects of life. However, the EU’s strategy for using AI was expressed by adopting the European Commission's first EU regulatory framework in April 2021. According to this framework, the uses of AI are classified according to the risk they pose to users, and the regulation for the use of AI depends on the risk level of such use. In the judicial regard, assistance in legal interpretation and applying the law was classified under high-risk use. This classification indicates how careful the EU’s strategy is toward using AI in the judicial environment. This concern is demonstrated by what was approved by the European Parliament; the priority of the parliament is the safety of AI systems, the transparent, non-discriminatory, and environmentally friendly, and the most critical issue is that people, rather than by automation, should oversee AI systems.<sup>8</sup>

Previously, but in a more relevant context, The European Commission for the Efficiency of Justice (CEPEJ) of the Council of Europe adopted in December 2018 the first European text setting out ethical principles relating to the use of artificial intelligence (AI) in judicial systems. Five principles must be considered by policymakers, legislators, and justice professionals when applying AI in the judicial process<sup>9</sup>. The use of AI in European countries is growing rapidly, and the implementation of the AI Act is expected to accelerate this trend further.

#### 4.2. China

China has adopted a distinctive model for applying AI in the litigation process. Several “smart courts” have been established in different Chinese cities<sup>10</sup>. The aim is to use the internet, cloud computing, big data, and artificial intelligence to promote the modernization of litigation systems.<sup>11</sup> China also uses robots to publicize the legal culture in the courts. “Xiao Fa” is a robot that was used in more than 100 courts in China to dispense knowledge about substantive and procedural law. To educate the public, Xiao Fa explains complicated legal terms in everyday terms to calm disputants.<sup>12</sup> Furthermore, AI tools were used in China to provide advice, estimate the risk

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<sup>8</sup> [https://www.europarl.europa.eu/doceo/document/TA-9-2023-0236\\_EN.html\\_\(2023.11.5\)](https://www.europarl.europa.eu/doceo/document/TA-9-2023-0236_EN.html_(2023.11.5)).

<sup>9</sup> Andra IFTIMIEI – Mihai IFTIMIEI op.cit. p. 170.

<sup>10</sup> Rachel E. STERN – Benjamin L. LIEBMAN – Margaret E. ROBERTS – Alice Z. WANG: Automating Fairness? Artificial Intelligence in the Chinese Courts, *Columbia Journal of Transnational Law* 59, no. 3 (2021): 524.

<sup>11</sup> Ummey Sharaban TAHURA – Niloufer SELVADURAI: The Use of Artificial Intelligence in Judicial Decision-Making: The Example of China, *International Journal of Law, Ethics, and Technology (IJLET)* 2022, no. 3 (Winter 2022): 14.

<sup>12</sup> Benjamin Minhao CHEN – Zhiyu LI: How Will Technology Change the Face of Chinese Justice?, *Columbia Journal of Asian Law* 34, no. 1 (Fall 2020): 9-10.

of an unsuccessful suit, and compute potential litigation costs.<sup>13</sup> Also, several Chinese courts have established websites and mobile applications that offer online litigation services, and another ambitious project like “Mobile court” is being tested in several Chinese cities.<sup>14</sup> In developing the litigation process in the courtroom, China uses a smart court application, which can reduce at least 75 percent of the time judges spend on pre-trial document review.<sup>15</sup> What is also impressive is a virtual judicial assistant who can analyze case filings, summarize points of contention as they are raised during trial, and evaluate evidence. Furthermore, AI tools were used in China as supportive oversight tools for judicial decisions by discovering anomalous decisions based on similar previous decisions.<sup>16</sup>

## 5. Possible areas of applying AI tools in the judicial systems

Using AI in the litigation process is not a luxury or a blind pursuit of technological development. The judicial systems have a massive load and urgently need to receive help from AI technology. The numbers coming from courtrooms indicate an unprecedented increase in the volume of lawsuits. It is indisputable that the most significant concern of the judicial systems around the world is to rule the largest number of cases to prevent any unreasonable backlog of judicial cases and delays. Furthermore, less litigation efficiency and human bias are considered the main challenges in the judicial field<sup>17</sup>. In simple words, the litigation process needs reform and improvement. Fortunately, this need coincided with the growth and promotion of AI tools, big data, cloud technology, data analysis, and algorithms, which made remarkable achievements<sup>18</sup>. As a result, there is an inevitable combination of technology and law. The litigation process places a heavy burden on human judges with its many tasks, some of which are considered routine and not directly related to the core litigation process. These tasks include notifying parties, experts, and witnesses of judicial papers, scheduling cases, assisting in legal research, drafting judicial decisions, and more. All these tasks consume significant time and effort from human judges.. Based on this analysis, AI has the potential to be profitable by assisting human judges in various situations. If AI can successfully take on some of the judicial procedures, human judges will have more time and effort to focus on other vital tasks. This assurance will ultimately result in the improvement of the quality of judicial rulings. Ummey Sharaban Tahura and Niloufer Selvadurai confirmed this result when they evaluated the Chinese experience in the smart courts' project by stating, “Early AI deployments in China's courts primarily targeted time-consuming, repetitive, and communicative tasks to improve operational efficiency in these courts and allows human judges to focus more on evidence evaluation and investigation, which are the core value of trials.”<sup>19</sup>

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<sup>13</sup> Chen – Li: op. cit. p 10.

<sup>14</sup> Chen – Li: op. cit. p 13.

<sup>15</sup> Chen – Li: op. cit. p 15.

<sup>16</sup> Chen – Li: op. cit. p 19.

<sup>17</sup> Chen MINGTSUNG – Li SHULING: Research on the application of artificial intelligence technology in the field of Justice. p. 5 <https://iopscience.iop.org/article/10.1088/1742-6596/1570/1/012047>, (2023.10.7).

<sup>18</sup> MINGTSUNG – SHULING: op. cit. p. 5.

<sup>19</sup> TAHURA – SELVADURAI, The Use of Artificial Intelligence in Judicial Decision-Making: The Example of China, op. cit. p. 15.

This article will address how AI tools assist human judges in several litigation tasks in the next stage.

### 5.1. Assisting parties of the disputes

As a start, and even before the lawsuit is filed, “Advisory AI” is a tool that can assist human judges by advising parties of the conflict about many related issues of the dispute. Firstly, AI tools can provide the parties with substantial information about their rights and obligations, advise them about the effectiveness and risks of their legal position, and calculate the costs and time of litigation that can be faced before the lawsuit is filed. These tools, called litigation risk assessment systems, which are based on judicial statistics and analysis of similar cases, give basic information that could evaluate the possible judgment result in advance and help parties decide whether to enter the litigation process<sup>20</sup>. Furthermore, AI can guide court users to navigate many legal issues without the need for a lawyer. One of the famous applications in this context is the “ROSS” robot in the US, which can scan more than 10,000 pages per second, listen to and interact with human language, and provide fast responses. The services that “ROSS” provides are various and cover most of the court users’ need for information in the courtroom, providing legal suggestions and anticipating the judge’s approach by tracing his previous decisions and the parties involved in the trial. Most important in this context is the ability of Ross to learn from his own experiences<sup>21</sup>. Also, “ROSS” can track cases and their outcomes at various levels of court to give correct legal advice to his clients<sup>22</sup>. Indeed, “ROSS” is not alone in this context; there are many similar robots in countries like Argentina which has a “Sherlock-Legal robot”<sup>23</sup>. This is important for litigation for several reasons; on the one hand, if the parties consider, based on the outcomes provided by AI tools, that the litigation process is not the appropriate way to resolve their dispute, this will encourage them to resort to alternative dispute resolutions (ADR) such like mediation and arbitration, on the other hand, this assessment will reduce non-serious lawsuits and improve the quality of lawsuits submitted by non-lawyers. These benefits will be reflected positively in reducing judicial burden, the backlog of judicial cases, and providing more time for human judges to rule complex cases. In addition to that, AI can provide an optional Online Dispute Alternative (ODR) system, which can be managed either by the private or public sector and used by the parties to adopt automated processes that rely on algorithmic tools to aid in reaching fair and low-cost solutions to the parties’ disputes<sup>24</sup>.

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<sup>20</sup> Cinara ROCHA – João CARVALHO: Artificial Intelligence in the Judiciary: Uses and Threats. Algoritmi Centre, University of Minho, Portugal, <https://ceur-ws.org/Vol-3399/paper17.pdf> (2023.10.5).

<sup>21</sup> Ramona DUMINICA – Diana Maria ILIE: Ethical and Legal Aspects of the Development and Use of Robotics and Artificial Intelligence. Protection of Human Rights in the Era of Globalization and Digitisation, *Journal of Law and Administrative Sciences* 19 (2023): 28.

<sup>22</sup> Sonia Merlyn SACOTO: Artificial Intelligence (AI): Beyond Legal Limits, *Revista de la Facultad de Jurisprudencia (RFJ)* 10 (2021): 375.

<sup>23</sup> SACOTO: op. cit. p. 376.

<sup>24</sup> Cary COGLIANESE – Lavi M. BEN DOR: AI in Adjudication and Administration, *Brooklyn Law Review* 86, no. 3 (Spring 2021): 813.

Assisting dispute parties does not stop at the stage “before filing a lawsuit” but continues during the consideration of the lawsuit and even after issuance of the final decision. AI tools can provide a colossal help for parties and lawyers to evaluate the legal situation. Also, it can help lawyers analyze data and collect legal resources related to the case, strengthening the legal arguments presented before the human judge. Indeed, all of these considerations mean a lawsuit that includes a legal debate that is useful and effective for the litigation process in general. Also, it means a lawsuit is free of disputes that are not related to or beneficial in the case, which saves the judiciary’s time and effort to focus on the core issues of the conflicts. Furthermore, after the issuance of the final decision, AI can advise the parties on the effectiveness of appealing the decision.

## **5.2. Under procedural process**

Procedural processes contain several tasks and obligations that consume human judges’ effort and time. Here, the role of AI is raised; the procedural process is the best place for AI tools to show their capabilities since procedural processes mainly depend on AI tools’ field, which is data analysis. Indeed, schedules of lawsuits, notification procedures, hearing procedures, and analyzing documents and evidence are the main of the litigation procedural tasks of the human judge. And AI can promote all these procedures to increase the quality and reduce time and effort. To detail this context, notification of judicial papers is considered the main reason for the delay of the litigation process. If AI offers an effective method through its ability to guarantee informing parties, lawyers, and witnesses about the judicial papers, this will positively affect the whole notification system. However, the success of AI in such a context depends on the entire technology environment of the country, especially in the legal sector. This is the reason behind the successful experience of some countries in applying AI tools in the litigation process. For this reason, fully digitizing court records is the first essential step to creating the appropriate environment for AI tools. Furthermore, the ability of scheduling by AI tools is considered a vital leap to schedule tasks of human judges and lawsuits since AI considers various factors like case complexity, judge’s expertise, and courtroom availability.

In the context of the hearing, AI tools can establish an online platform environment for hearing procedures and transcription, which can be used to receive the related documents and papers from parties of the lawsuit and save them in digital form to be used by human judges. one of the practical examples in this field is the electronic court ‘e-court’ in Poland which is used in the civil cases as an electronic payment order procedure, where the claimant submits his complaint electronically and mentions the evidence that supports his request without the need to submit it, where the defendant is notified of the payment order and the complaint request. If the defendant disagrees with the payment order, he files a statement of opposition. This statement revokes the payment order, and the case starts from the beginning. The practical experience of e-court in Poland has

proven to be highly effective in resolving civil cases; only in the first half of 2018, 1,334,284 civil cases were determined by the e-court<sup>25</sup>.

Furthermore, AI has a great benefit related to translation services; AI has powerful language translation tools that can be used in cases involving parties who speak different languages without the need to nominate a specialized translator, which saves more time and cost. Also, speech-to-text applications convert spoken language into written text used in courtroom records or hearings<sup>26</sup>. In the same field, AI tools can be used to translate judicial papers from any language and interact electronically with orders of parties based on specific rules.

### 5.3. The evidence

AI tools can quickly review large volumes of documents, identifying relevant information and patterns. This is particularly useful in cases involving massive amounts of digital evidence. In China, the Hangzhou Internet Court has applied an intelligent evidence analysis system that “analyses and compares all the evidence submitted by the parties, transforming it into a list of evidence and corresponding exhibits. After sorting and classifying the relevant information, it visually presents the evidence for the human judge’s consideration”<sup>27</sup>. In addition, AI algorithms can potentially revolutionize criminal justice by analyzing various types of evidence, including photos, voices, fingerprints, and DNA samples. Furthermore, forensic medicine can be improved by utilizing AI algorithms to analyze related evidence or medical images, which can help determine the time and cause of death. AI can also be used to detect fraudulent activities, and financial and tax crimes by analyzing large volumes of data and identifying anomalous patterns.

### 5.4. Final judgements

There is a fear of AI being involved in making the final judicial judgments. However, inserting AI in the final judgment process doesn’t mean AI will rule the case or replace the human judge. Making the final judgments is a complex process containing several roles and tasks, and AI has much to offer in this context.

Firstly, legal research assistance systems, AI systems provide two main categories of legal research; case law analysis and statutory research, and in both cases AI-based legal research software is designed to speed up the process of research<sup>28</sup>. AI can assist human judges by providing them with an effective tool through legal databases to find relevant precedents and jurisprudential opinions. Also, human judges can use AI to access all applicable laws, regulations, and instructions in the same country or other countries. In this context, AI tools are now used in many countries to assist lawyers in legal research, such as the UK’s machine learning system “Luminance”, which

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<sup>25</sup> Maria DYMITRUK: Artificial Intelligence as a Tool to Improve the Administration of Justice?, *Acta Universitatis Sapientiae: Legal Studies* 8, no. 2 (2019): 184.

<sup>26</sup> ROCHA – CARVALHO op.cit.

<sup>27</sup> Nora CHRONOWSKI – Kinga KALMAN – Boldizsar SZENTGALI-TOTH: Artificial Intelligence, Justice, and Certain Aspects of Right to a Fair Trial, *Acta Universitatis Sapientiae: Legal Studies* 10, no. 2 (2021): 172.

<sup>28</sup> CHRONOWSKI et.al.: op. cit. p. 171.



improves legal analytics by reading, understanding, and learning from analyzed documents. It can identify similarities, differences, and abnormalities in legal documents. Since 2016, Luminance has been used by over 14 global top 100 law firms<sup>29</sup>. Another successful experience in Brazil is the project VICTOR, which is used to provide analysis of Brazilian Supreme Court cases<sup>30</sup>. The unconventional advantage that AI can offer in this context is the unique communication options between AI and its users through wide modes, whether by speaking, writing, or hints, which can be easier and more effective for human judges to use than the current technology.

Secondly, legal writing assistance systems. AI tools have demonstrated tremendous ability in legal drafting. Currently, AI chat platforms are used by many in different aspects. Therefore, legal drafting should not be deprived of these capabilities, especially since human judges need assistance preparing final judgment drafts. Final judgments contain several repeated elements, some of which are a summary of the trial proceedings, which aren't related to the evaluation of the evidence and applying the law to the facts. AI can summarize massive legal documents and give human judges an outline of the essential points. If AI is used in this context, the human judge will have more time and effort to evaluate the evidence and respond to the parties' arguments. Moreover, AI can provide legal opinions based on input data. What shows the strength of AI is the ability to predict outcomes using algorithms to analyze past judgments, and then submit a proposal containing dispute possible answers. This proposal could be approved, altered, or rejected by human judges. In this context, AI could predict the outcome of 79 percent of the cases it analyzed that were before the European Court of Human Rights<sup>31</sup>. Another example in 2017 was a study by outside researchers that a machine-learning statistical model correctly predicted the outcome of seventy percent of 28,000 U.S. Supreme Court decisions<sup>32</sup>. This feature can help judges by providing them with a brief about previous similar cases. More importantly, this feature can be combined with the bias detection feature in order to detect any bias or injustice in previous cases, which will be reflected in the result to reach fair judgments<sup>33</sup>. The final tool could be used whether by courts of first instance or appeal courts.

Thirdly, In the field of risk Assessment, AI algorithms can analyze various factors to assess the risk of recidivism, helping judges make more informed decisions regarding sentencing and parole. The Compas algorithm (Correctional Offender Management Profiling for Alternative Sanctions), is one of the assistant AI tools used by US judges. Compas can calculate the risk and dangerousness of the accused by evaluating a number of personal factors like the criminal history<sup>34</sup>. Similar to the Compas algorithm, another essential tool is LSI-R (Level of Service Inventory-Revised), which is used in a number of US states to predict a defendant's risk of recidivism by weighing a number of factors such as criminal history, educational and employment background, financial, mental,

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<sup>29</sup> DYMITRUK, op.cit. p. 182.

<sup>30</sup> Ibid.

<sup>31</sup> Willie J. EPPS JR. – Jonathan M. WARREN: Artificial Intelligence: Now Being Deployed in the Field of Law, *Judges' Journal* 59, no. 1 (Winter 2020): 17.

<sup>32</sup> COGLIANESE – BEN DOR: op.cit. p 800.

<sup>33</sup> EPPS JR. – WARREN: op.cit. p. 17.

<sup>34</sup> SACOTO: op.cit. p. 379.

and familial state<sup>35</sup>. What is worth noting is that the practical application of these tools by American courts indicates that the court did not rely entirely on the results of the algorithm in assessing risks. Still, it was an auxiliary part of the rest of the factors<sup>36</sup>. There are many other examples in this context; in Mexico, the program named “Expertius” is used by courts to give advice on determining whether someone is entitled to a form of social security or not based on past claims, results of the claims, hearing records, and final judgments<sup>37</sup>. Also, in Brazil, an AI application called Radar is used to deduce the applicable law and suggest a resolution for the case based on previous legal research<sup>38</sup>.

The door should not be closed regarding making the final judicial decisions by AI. Indeed, the classification of cases as easy or hard cases should be given more attention in legal analysis where the importance of this is powerfully demonstrated in the field of applying AI in the courtroom<sup>39</sup>. “Easy and hard cases” don’t exist in legal terms. However, the theory of this classification indicates classified cases depending on a number of possible factors: primitive factors, such as the amount of a claim and the scope or the number of parties or charges, and advanced factors, such as cases are resolved with or without the need to interpret the law, nature, and kind of the case, nature, simplicity and evident of the evidence. The importance of this classification appears through the possibility of giving AI an alternative role in making whole litigation processes. What supports this trend is the increasing number of successful uses of AI in online dispute resolution (ODR) and ambitious projects in some countries. In fact, “easy cases” may be suitable to be solved through robot judges. In such a context, traffic ticket cases, licensing violation cases, commercial cases, and more can be solved through robot judges. On the contrary, as G Strikaitė-Latušinskaja stated “hard cases” – those that usually have a particular impact on legal systems – would remain at the discretion of human judges rather than robot judges, at least until the development of technology reaches a certain level when we can confidently delegate even cases of this scale to an AI<sup>40</sup>.

## 6. Riks of using AI in the judicial system.

The idea of applying AI in the litigation process has faced a number of criticisms, and legal scholars have stimulated a number of concerns. Some caveats should be highlighted by policymakers, AI developers, users, and human judges to ensure the suitable use of AI.

First, one of the most critical objections to using AI is procedural fairness, or what is called (the human-AI fairness gap); this concern arises from the question, “Do some AI tools like robot judge

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<sup>35</sup> COGLIANESE – BEN DOR: op. cit. p. 804.

<sup>36</sup> COGLIANESE – BEN DOR: op. cit. p. 811.

<sup>37</sup> CHRONOWSKI et.al.: op. cit. p. 173.

<sup>38</sup> CHRONOWSKI et.al.: op. cit. p. 173.

<sup>39</sup> Goda STRIKAITE-LATUSINKAJA: Can We Make All Legal Norms into Legal Syllogisms and Why Is That Important in Times of Artificial Intelligence?, *Access to Justice in Eastern Europe* 2022, no. 1 (February 2022): 10.

<sup>40</sup> STRIKAITE-LATUSINKAJA: op.cit. p. 22.

systems infringe the constitutional right to a fair trial<sup>41</sup>”. Because of the insufficient degree of talking and being heard by AI tools such as robot judges, one study shows that proceedings conducted by human judges were seen as fairer than those undertaken by AI judges<sup>42</sup>. On the contrary, some could argue that AI as an assistant tool in litigation procedures is not related to fairness because, in the end, it is not a final decision for the case. Such an argument undervalues procedural justice. Dovile Baryse affirms the procedural justice value by stating that “It is important to stress that procedural fairness—which is the fairness of the decision-making process is not less important than the fairness of the outcomes, especially in the legal domain”<sup>43</sup>. What must always be focused on is that a human judge should always supervise AI as an assistant tool in the courtroom and should not work alone or as an independent decision-maker. It is not advisable to rely on algorithms for dispute resolution until sufficient experience is gained from AI involvement in the judiciary.

Second, another critical concern is the impact the AI will have on the nature of litigation itself. The question here is, Is AI shifting justice from “equitable justice” to “codified justice,”? In fact, using AI in the litigation system will make standardization above discretion, as Richard M. Re and Alicia Solow-Niederman clarify that “AI introduces what is, in essence, a new kind of adjudication, whereby machines produce correlations across vast amounts of data without constructing an explanatory or causal model”<sup>44</sup>. Also, Analisa Morrison gives an approach between human and automated adjudicators by stating “Even if automated adjudicators were shown to be unbiased and not corrupt, they still lack the human faculty of conscience, and thus would not necessarily be better at delivering justice than humans.” This is because human judges possess qualities that AI lacks such as values, morals, knowledge of human life, and the ability to understand the intentions and motivations underlying human behavior.. Again, Analisa Morrison implicitly indicates the “codified justice” by stating that” What human judges cannot do, however, is predict each case's facts beforehand and make a decision ahead of time. That is the impossible task we are asking of robot judges when we try to employ them as judges”<sup>45</sup>. To conclude, Zichun Xu says, “There is a danger that more and more robotic enforcement and adjudication, and less and less human interaction and communication, will turn citizens into “tame bodies”<sup>46</sup>. In fact, this risk should be dealt with seriously by maintaining “equitable justice” in cases whose nature requires considering social factors, conditions, and circumstances, especially in criminal cases.

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<sup>41</sup> Benjamin Minhao CHEN – Alexander STREMITZER – Kevin TOBIA: Having Your Day in Robot Court, *Harvard Journal of Law & Technology* Volume 36, Number 1 Fall 2022, p 129.

<sup>42</sup> CHEN ET AL. op. cit. p. 169.

<sup>43</sup> Dovile BARYSE: People's Attitudes towards Technologies in Courts, *Laws journal* 11, no. 5 (October 2022): 6. <https://doi.org/10.3390/laws11050071>.

<sup>44</sup> Richard M. RE – Alicia SOLOW-NIEDERMAN: Developing Artificially Intelligent Justice, *Stanford Technology Law Review*. 242 (2019):246.

<sup>45</sup> Analisa MORRISON: Artificial Intelligence in the Courtroom: Increasing or Decreasing Access to Justice?, *International Journal of Online Dispute Resolution* 7, no. 1 (2020): 85.

<sup>46</sup>Zichun XU: Human Judges in the Era of Artificial Intelligence: Challenges and Opportunities, *Applied Artificial Intelligence*, 36:1, (2022) 2013652, <https://doi.org/10.1080/08839514.2021.2013652>.

Third, another substantial risk is AI bias when making judicial decisions. Does AI violate fundamental rights and result in discrimination? Is AI actually objective? This question stems from two facts; on one hand, the “unintentional bias” occurs when AI depends on the available data when making decisions. Therefore, if the data is biased, AI decisions will inevitably reflect this. On the other hand, “intentional bias” occurs when the creators of algorithms create the algorithms and represent their value judgments and priorities<sup>47</sup>. The most common AI tool that can fall into the bias trap is the risk assessment tools such as the Compas algorithm which faced many criticisms because of the apparent bias shown by the system if the accused was a black person<sup>48</sup>.

Fourth, the cost of using AI in litigation could also be an essential challenge. AI is very expensive to develop from scratch<sup>49</sup>. Developing AI technology is a high-cost investment, and companies in such sectors invest a lot of money to build and operate AI systems. Thus, the application of AI in the litigation process by governments or the private sector needs sufficient financial solvency. In contrast, some opinions say that using AI in the litigation process will save more money for the state budget and the individuals involved because the number of judges and judicial staff might decrease<sup>50</sup>. Indeed, the use of AI in the litigation process is a subsequent stage to the automation of many other services in the country. Therefore, it is unreasonable to introduce AI into the litigation process in any country that doesn't have high technological capabilities in the state or supporting institutions, which means that non-developed countries don't have strong opportunities to use AI in the early stages.

Fifth, applying artificial intelligence to assist judges may raise risks related to judges' overconfidence and overreliance on judicial artificial intelligence decisions<sup>51</sup>. The risk is that judges could use AI systems to evade the decision-making process and not increase the quality of their decisions. In fact, this risk is related to the values of litigation principles. Therefore, there is an urgent need to ensure the optimal use of AI tools by judges.

Lastly, concerns related to the lack of understanding of AI results and the inability to trace the sequence and complexity of algorithms or what is called the “black box problem”<sup>52</sup>. In fact, the opacity of algorithms' results doesn't affect only humans; even AI creators may not understand or explain how the result was achieved<sup>53</sup>. This ambiguity prevents the parties of the lawsuit from refuting and disputing the results of the algorithm in a way that violates the right to a fair trial, and because of that, the European Commission for The Efficiency of Justice (CEPEJ) in the European Ethical Charter on the use of artificial intelligence in judicial systems and their environment has

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<sup>47</sup> ROCHA – CARVALHO op. cit.

<sup>48</sup> Paul W. GRIMM – Maura R. GROSSMAN – Gordon V. CORMACK: Artificial Intelligence as Evidence, *Northwestern Journal of Technology and Intellectual Property* 19, no. 1 (December 2021): 9-106.

<sup>49</sup>Justin SNYDER: RoboCourt: How Artificial Intelligence Can Help Pro Se Litigants and Create a "Fairer" Judiciary, *Indiana Journal of Law and Social Equality* 10, no. 1 (2022): 218.

<sup>50</sup> CHRONOWSKI ET AL.: op.cit. p 170

<sup>51</sup> XU: op.cit.

<sup>52</sup> SNYDER: op.cit. p. 220.

<sup>53</sup> Elisa Alfaia SAMPAIO – João J. SEIXAS – Paulo Jorge GOMES: Artificial Intelligence And The Judicial Ruling, <https://portal.ejtn.eu/PageFiles/17916/TEAM%20PORTUGAL%20I%20TH%202019%20D.pdf> (2023.10.9)

affirmed in the first principle of the charter “principle of respect for fundamental rights” that Before implementing the use of AI in the judicial systems, EU member states should ensure that the design and implementation of artificial intelligence tools and services are fully compatible with fundamental human rights. It is essential to ensure that AI tools do not undermine the guarantees of the right to access a fair trial and the right to a fair trial.

## **7. Conclusion**

AI is the next force that will lead most aspects of our lives, and the judicial system is one of these aspects that will be developed, and perhaps its form and nature will be changed due to AI. In fact, AI has a lot to offer in the litigation process; effectiveness, quality, and low cost are all significant gains. On the contrary, concerns related to fundamental rights, such as the right to a fair trial, must be treated with caution to ensure the suitable application of AI in the litigation process. Undoubtedly, AI robots should be in the courtroom via two main avenues. Firstly, as an assistant robot, AI supports human judges through data analysis, advising involved parties on various issues concerning the dispute, notifying them of procedures, assisting in risk assessment, legal research, and drafting of judicial decisions. Secondly, a robot judge bears the legal burden in noncomplicated cases unrelated to social values or tied to human nature. To conclude, AI should not be prevented from entering the courtroom. Instead, it should be given a passport to enter the courtroom, but this passport should not be diplomatic without restrictions or inspection.