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Artificial Intelligence, Justice, and Certain Aspects of Right to a Fair Trial[1]

Nóra CHRONOWSKI
PhD, Senior Researcher, Centre for Social Sciences Institute for Legal Studies
Assistant Professor, National University of Public Service Ludovika (Budapest, Hungary)
e-mail: chronowski.nora@gmail.com

Kinga KÁLMÁN
Research Assistant, Centre for Social Sciences Institute for Legal Studies
e-mail: kingakalman2@gmail.com

Boldizsár SZENTGÁLI-TÓTH
Researcher, Centre for Social Sciences Institute for Legal Studies
e-mail: totboldi@gmail.com

Abstract. The study constitutes a synthesis of available knowledge on the worldwide implementation of artificial intelligence (AI) in the judicial process. The authors' objective is to present this information in a structured way and thereby assess the likelihood and potential risks of AI-assisted and AI-based adjudication. The real-life implementation of AI as a supporting tool for human adjudicators, as a means of aiding the drafting of judicial decisions, and as a machine adjudicator are presented and analysed. The authors then contrast available information on AI adjudication with these forms of AI participation in order to discover whether the basic guarantees of a fair trial could be ensured by AI. They examine AI's potential effects on the public legitimacy of the courts, on access to justice, on the duration of the judicial process, on the publicity of the trials, on the factors considered while investigating evidence, on potential situations of discrimination or bias, and on the (im)possibility of obtaining reasoned rulings from AI entities, permitting the subjection of their decisions to judicial remedies. The authors conclude that AI is likely to remain just an aid for the human judge in the foreseeable future.

Keywords: artificial intelligence, software, judge, trial, reasoning, civil procedure, criminal procedure

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1. Introduction

A rapidly evolving strand of the legal literature has focused on the implementation of artificial intelligence into the different fields of legal work. Amongst these concepts, the perspectives offered to the judiciary have always been highlighted.[2] At the first phase of this discussion, several authors argued for robot judges, who might be more rational and impartial than their human counterparts.[3] Nevertheless, other experts called for the careful assessment of the expected impacts, and currently more weight is given to the preservation of existing procedural safeguards than to the expected increase of efficiency.[4]

We will draw the conclusion that AI in the courtroom itself is a worthy idea; however, the introduction of decision-making algorithms should not take place until sufficiently extensive experience has been gained from AI participation in the judiciary. We may increase our knowledge from this phenomenon with the help of two methods.

On the one hand, those national examples should be examined in depth where AI has been involved in the judicial work. Most of these models come from places outside Europe, from legal systems where rule of law standards are less stringent or more flexibly interpreted. Mainstream literature has often relied on a series of AI-based judicial software examples already functioning in different jurisdictions;[5] however, these mechanisms have not been analysed in depth, at least with the intent of completeness.

A meticulous multi-level timeline is to be elaborated to implement AI into judicial work while highlighting prudential considerations. Those areas of judicial activity should be identified where AI involvement has a lower chance to undermine the current standard of fundamental rights protection, and a five-year-long first transitory period is proposed to using AI in these selected fields on a voluntary basis, depending on the will of the parties. With the help of this practical application, if experiences point in the right direction, a second transitory period may begin after a period of five years, when a more extensive but still prudent application of AI should be allowed.

2 From the latest literature, see as an example: Reiling 2020. 1–8.
3 See Nakad et al. 2015. 59–67; Yilmaz 2019. 67–102.
4 See Székely 2019. 231–244; Siboe 2020; Volokh 2019. 1135–1192.
5 Selected relevant sources will be cited below.

2. Real-Life Examples of Applying Artificial Intelligence in Justice Systems

We take the view that at the current level of scientific and technological development AI in the judiciary may be classified into three main categories based on their exact functions and roles played in the court. AI may consist in various *supporting software* for certain tasks of court work; it may be allowed to *submit concrete proposals* for the content of judicial decisions; and it may serve in the court as a *decision-maker*, fully independent from human intervention. The first two options are deemed to be widespread within the foreseeable future, so we will focus on these two categories during the outline of our proposal for a standard. Nevertheless, the already existing attempts to achieve an independent decision-maker AI will be also enumerated and assessed.

2.1. AI as a Supporting Software for Parts of Typical Court Work

A comprehensive knowledge of the relevant legislation, case law examples, and legal literature is essential for the court to base its adjudication activity on due reasoning. As a result, any judicial decision is preceded by lengthy and meticulous legal research. AI-based legal research software is designed to speed up this process. By entering all the relevant data, the program sums up the issue in a research result. Overseas, one, if not the most common, legal research tool is *LexisNexis*. Its database comprises more than 83 billion pieces of legislation and case law, 40,000 legal articles, and 700 million business registration data.[6] Among other similarly widespread applications, we can refer to *Westlaw*[7] or *Any Law*,[8] but these are all applications developed and operated by commercial companies and not courts or other state organizations. As a prominent example, the Supreme Court of India has advanced and deployed its own legal research operating system, SUPACE (Supreme Court Portal for Assistance in Courts Efficiency).[9]

In the further enhanced version of the legal research toolkit, we can account for a solution named *Alexsei*. The program provides responses to legal questions in a ready-to-use memorandum format relying on AI searching for all relevant information through the Internet. The memo consists of the research question,

6 https://www.lexisnexis.com/en-us/products/lexis.page.

7 https://legal.thomsonreuters.com/en/products/westlaw-a?abcd=b&cid=9005579&sfdccampaignid=7011B000001xaeFQAQ&chl=na&adobe_mc_sdid=SDID%3D26D8151462EDEB46-453868D00CF2F4D3%7CMCORGID%3DA7D63BC75245AE300A490D4D%40AdobeOrg%7CTS%3D1618770150&adobe_mc_ref=https%3A%2F%2Fabovethelaw.com%2F.

8 https://blog.anylaw.com/2020/06/10/new-machine-learning-technology-by-anylaw-disrupts-20b-legal-research-industry/.

9 Snehanshu 2021.

the program's conclusions, the legal background, and the key authorities in the given field.[10]

As another approach of supporting the judiciary's work, an AI-based application called *Prometea* creates judicial documents other than judgments for human judges at the Inter-American Court of Human Rights.[11]

The Chinese Internet Courts foster ways of introducing AI to help human judges in their work without substituting them completely. The Hangzhou Internet Court has deployed an intelligent evidence analysis system adopting blockchain, artificial intelligence, big-data, and cloud computing technologies. It 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.[12]

2.2. Submitting Proposals for Judicial Decisions

In the next subcategory, we can list examples in which the AI system independently assesses the question requiring a judicial decision and then submits a proposal containing its possible answers. The position put forward: 1. may later be approved by the court, and a decision with the same content may be rendered, and even become final; 2. may be altered by the human judge if he/she disagrees with certain parts based on his/her own convictions or resulting from his/her own research procedure; 3. may be rejected in its entirety, and a judgment based on exclusively human adjudication may be rendered. The proposal resulting from the automated process does not necessarily cover all aspects of the case but is suitable for resolving the dispute. This type of AI-based judicial software is demonstrated through various examples.

In some member states of the United States of America (for example: New York, Wisconsin, California, and Florida), the courts in criminal matters apply an AI-based system called COMPAS (Correctional Offender Management Profiling for Alternative Sanctions). This tool is available for data calculations performed in order to determine the recidivism risk of perpetrators. COMPAS's conclusions are formed by the following set of data: previous and pending accusations, criminal record, residence, employment status, community relations, and drug consumption habits. After comparing all these factors, it evaluates the chances of the perpetrator's relapse on a scale of 1 to 10, on which the court can later base its decision on the possible release.[13]

10 https://www.alexsei.com/solution/#structure.
11 Prometea 2020.
12 Xuan 2021.
13 http://www.northpointeinc.com/downloads/compas/Practitioners-Guide-COMPAS-Core-_031915.pdf.

The second example arises from Malaysia. The Malaysian courts can choose to use AI to propose the level of imprisonment imposed on the accused person for any crime related to drug possession or rape. We could not find a proper explanation for the reasons why AI is being used specifically in these two subcategories of crimes. When recommending a conclusion, the AI derives it from information such as the age, occupation, and other circumstances of the perpetrator, determined on a case-by-case assessment, if deemed relevant.[14]

In Mexico, courts can apply AI to give advice on determining whether someone is entitled to a form of social security or not. The program named *Expertius* grounds its calculations on information about past claims, results of the claims, hearing records, and final judgments.[15]

The Colombian justice system also seeks solutions for easing the human judge's workload. At the Colombian Constitutional Court, an AI system called *PretorIA* is being developed to help in guardianship selection procedures. *PretorIA* does not replace humans with this task but facilitates its completion by making a first analysis of the guardianship sentences to deliver more processed information to those who are in charge of identifying persons who need to be selected. At this moment, *PretorIA* is in the testing phase, undergoing final adjustments.[16] We can find similar products in Columbia's neighbouring country, Brazil. In the State of Minas Gerais, an application called *Radar* reads the claims submitted to the court, identifying repetitive arguments, and deduces the applicable law from that information. Furthermore, based on its previous legal research, it develops a suggestion for resolving the case at hand, which can be amended or implemented by court officers.[17]

2.3. AI as an Independent Decision-Maker

As the previous subchapter has shown, some examples will be provided, where AI fully takes over the adjudicative role of the judiciary. In this case, human involvement is excluded from the proceeding and can only have an effect as an appeal forum on the specific request of the parties.

Perhaps the most popular example of AI-led digital courts can be found in China: the first Internet Court was set up in 2017 in the city of Hangzhou,[18] followed by two more in Beijing and Guangzhou.[19] The judicial proceedings can be initiated by anyone on any issue related to digitization (e.g. consumer

14 Hafizah 2020.
15 Goretty 2012. 827–846.
16 https://ialab.com.ar/pretoria/.
17 Matt 2020.
18 https://www.netcourt.gov.cn/.
19 *What's the Magic of the Internet Justice China Program Cyberspace Administration of China?* 2019.

protection complaints, online copyright disputes, electronic payment).[20] The whole procedure takes place in the online space, the parties can participate in the hearing by video call, and they can also upload their evidence online in encrypted form using blockchain technology. The 'person' of the judge is an artificial intelligence entity, which – based on all data available – resolves the dispute using machine learning methods.[21]

Opinions have recently been disclosed[22] stating that the Internet Court is in fact operated by human judges and that AI performs only administrative functions. However, the reality has not been officially disclosed, and it is in fact rather difficult to ascertain in the case of China. According to the Cyberspace Administration of China, in Beijing, AI is only assisting in case handling instead of deciding on the merits.[23] Other sources report that humans oversee AI's procedure and rule exclusively in difficult cases[24] or that they only intervene when an emergency occurs.[25] In any case, AI would be able to engage in adjudication, so there is a real possibility that it is indeed being applied in China at this moment as well.[26]

A slightly different model emerging from Brazil is also worth contemplating. A court project called *VICTOR*[27] aims at classifying the legal complaints of the Brazilian Supreme Court with the help of a pattern recognition mechanism. In Brazil, the Supreme Court applies a separate admissibility test to adjudicate on the received applications. The court must take into account the importance of the case for the economic, political, and social aspects to determine the *general repercussion* the decision of the highest judicial forum may have, before it proceeds to trial.[28] A party's claim will only be considered on its merits if it is deemed appropriate in the admissibility test; otherwise it ends up rejected. The *VICTOR* system performs this test without human intervention.[29] Although the full content of a given case is not judged by the *VICTOR* system, an independent decision on the admissibility may prove to be a useful shortcut preceding the review of the case's merits, so we believe that, in view of the consequences, AI can be considered as a decision-maker in this case too, and through this channel it will exercise a significant impact on access to justice.

20 Zhu 2019.
21 *AI Judges, Verdicts via Chat App: Brave New World of China's Digital Courts.* 2019.
22 Soltau 2020.
23 Kong 2021.
24 Duca 2020.
25 *What's the Magic of the Internet Justice China Program Cyberspace Administration of China?* 2019.
26 https://www.youtube.com/watch?v=KQZxwbkm0sg.
27 Brazilian Federal Supreme Court 2018.
28 Maina 2008.
29 Nilton et al. 2018. 7–11.

As already mentioned above, in Argentina, the Public Prosecutor's Office of the City of Buenos Aires has set up a software called *Prometea* in order to automate judicial proceedings. Apart from automating document drafting, *Prometea* may be used for creating court rulings as well. The software operates as a chatbot whom users can talk to, specifying their legal problem on housing reaching the court level. It asks for the case number and then matches it with its underlying legal problems. In order to find the appropriate one, *Prometea* covers over 300,000 examples on the Internet. In the case of appeals, it searches through the case documents, including the judgments of lower-instance courts. Afterwards, it extracts the patterns of previous judgments and contrasts them with the legal opinions already signed by the Public Prosecutor's Office.[30]

The idea of algorithmic decision-making gained a foothold in Europe also: Estonia plans to introduce AI in property law cases not exceeding €7,000.[31] Other Estonian initiatives aim at replacing human judges with AI in automated expedited payment order procedures.[32] These projects are still in their preparatory phases but are well placed to draw attention to the possibility of evaluating and considering these solutions by other countries as well.

3. AI in the Courtroom and the Different Aspects of Right to Fair Trial

After having provided our methodology, as well as the technical background and practical experience behind our argumentation, now we turn to the main part of our research and will ground our findings concerning the impact of AI on the different aspects of right to fair trial.

3.1. Legitimacy of Courts

The respect and due execution of court rulings are based on the reliance upon the judiciary, wherefore the legitimacy of judges should stand beyond doubt, or at least should be deemed to stand beyond doubt.[33]

On the one hand, social trust may be served by the involvement of AI especially in plain cases, where AI might be able to decide faster and more accurately than a human judge ever could, and this might increase the efficiency of the judicial system.[34]

30 Elsa–Sebastián–Pablo 2020.
31 Rabbitte 2019.
32 Jan-Matthias 2019.
33 Michelman 2019. 1059–1063.
34 de Saint-Laurent 2018. 738–739.

Moreover, the delegation of certain tasks to AI in the judiciary might help with minimizing the distortive effects of external factors such as the current mental and physical circumstances of the judge or his or her precautions.[35]

On the other hand, as a first counterargument, numerous authors raised serious concerns primarily due to the obvious differences between human thinking and machine reasoning. The understandability, comprehensibility, and interpretability of robots are requirements that emanate from the inherently human surrounding and logic, where AI should deliver its contributions.[36] If the outcome or the path of logic through which the AI draws its inferences are not accessible or traceable for humans, this will generate severe distrust in AI judges or judicial assistants.[37]

Secondly, the alleged higher level of impartiality potentially provided by AI has also been questioned. AI does not rely on potentially flawed human considerations but may be manipulated or even managed by its software developers or the data provided to it. Consequently, according to this line of argumentation, although the prevention of certain human mistakes would be generally welcomed, the mere statistical analysis grounded on selected data should not lead to potentially illegitimate outcomes.[38]

Thirdly, according to the traditional concept, a trustworthy judge is supposed to spend long years during legal education and also obtain considerable practical experience with the necessary legal skills and social knowledge before his or her judicial appointment.[39] The reliance on courts is mostly explained by the assumption that judges are highly qualified and morally untainted, but, at the very least within the current circumstances, this is just as doubtful for human judges as it is for the developers of AI.

In the light of the above considerations, one may argue that despite the tangible and undeniable advantages the currently achievable level of potential legitimacy for AI is far from the requirements set for human judges,[40] wherefore AI may be currently involved only in legal research or in the judgement of plain or low-value cases under strict human control – at least at the first stage of implementation.

3.2. Access to Justice

AI would serve easier access to justice with the reduction of external barriers, which mean at the moment the limits of judicial capacity. The effectiveness of AI would not be diminished by the too severe burden of work, and an AI would be

35 Buocz 2018. 41–59.
36 Hildebrant 2017.
37 Ződi 2018. 253, 256.
38 Barroso 2020. 339–340.
39 Sourdin 2015.
40 Sourdin 2015. 1123–1124.

able to work in the place of several judges at the same time, so all activities of the judiciary would be remarkably faster.[41]

A further foreseeable advantage would be the money saved for the state budget and for the individuals involved in litigation.[42] Fewer judges would be able to fulfil the judicial tasks under the same timeframe, wherefore more attention would be paid to each case, and the number of the judicial staff might be decreased. From another perspective, it would be significantly easier technically to address the courts, while postal expenses would largely disappear.

Apart from these benefits, AI would assess the admissibility of cases, where mostly formal grounds should be checked. Human judges would deal at least with the more complex cases of admissibility, but most of such issues would be treated by AI. This would reduce the workload of courts while promising faster decisions on admissibility for the parties.[43]

Nevertheless, in spite of these obvious benefits, AI in courts would increase social inequalities from an access-to-justice perspective. Marginalized social groups, who may completely or partially lack the necessary knowledge, technical infrastructure, and information, may have additional difficulties in approaching the courts or taking part in judicial proceedings.[44] So, the presence of robot judges would support well-situated people but would establish just additional difficulties for groups whose interests are already underrepresented in the decision-making process.

Thus, caution is advised even in the field of access to justice; during the first period, AI should appear only as an option under rigorous human control, and the explicit consent of all parties should be necessary to involve AI at any stage of the proceeding, even as a supporting tool of the judicial assessment.

3.3. Duration of Cases

The duration of cases is that aspect of right to fair trial where the positive impact of artificial intelligence stands beyond all doubt. These new technologies could save money, time, and effort for courts, and thus the prolonging of a high number of cases might be prevented.[45]

AI would not be faced with such difficulties as human judges: the traditional bounds of working hours are not relevant for AI, while tiredness or lack of sleep would not be factors either. AI might be able to research the case law and prepare reports for the human judges from the previous relevant court rulings in seconds.

41 Rabinovich-Einy–Katsh 2017. 655–657.
42 http://plaw.nlu.edu.ua/article/view/201782.
43 Rabinovich-Einy–Katsh 2017. 655–657.
44 Salter 2017. 114–115.
45 Dymitruk 2019. 37–38.

The useful case law might be identified considerably faster, and AI may find which arguments might be invoked in the particular legal controversy from the pre-selected case law.

One may argue that AI as a judge or judicial assistant may contribute to deliver more cases within a shorter timeframe, at least with a level of precision comparable to that of human judges. So, from a purely case duration perspective, AI in the courts seems a fruitful idea, but its interdependence with aspects related to the right to fair trial should also be taken into account, which may lead to a more complex overall picture. To propose an example, evidence may be assessed by AI more efficiently but potentially less accurately with the neglect of particular factors, which might be obvious for a human being but completely alien to the algorithmic logic based on statistical analysis.

3.4. Publicity of Trials

Publicity is a crucial safeguard of judicial proceedings, which must prevail in all aspects of the process: during the trial, concerning documents, and also the content and the reasoning of the judgement.

AI may support the publicity of trials, since owing to modern technologies it might be significantly easier just to register and join the trial online than devote our time to the journey and also the physical exertions presupposed by our presence in the courtroom.[46]

However, according to our assessment, at least three main concerns may be relevant here.

Firstly, as partly conceptualized earlier and to be also detailed later, the reasoning of an AI-made judgement might not be – to use the technical term – human-readable.[47]

Secondly, parties may not have access to the documents of the procedure due to the lack of comprehensibility and the rapidity of AI decision-making. When the litigant could first request the revealing of any data created during the proceeding, it would be probably already too late, as the AI would make its decisions before giving a reasonable chance to submit such requests.[48] It is often hard to reconstruct the content and the functioning of AI software even for the developers after their activation as a consequence of the *black-box effect*, so the data produced during the proceeding may not be available and may not be archivable.[49]

Thirdly, several companies developing AI as well as public agencies may qualify the modus of decision-making itself as secret, based on its proprietary

46 Michael–Matthew–Suzor 2017. 422–423.
47 Kelemen 2019. 1336–1344.
48 Huq et al. 2017. 1–10.
49 Jootaek 2020.

character or on national security grounds, which may also undermine accountability. Transparency rules must be implemented to avoid these unwanted consequences, especially for those private stakeholders who provide technical facilities for exercising public power.[50] In the case of a non-deterministic artificial intelligence system, certification has to be carried out continually, and continuous human monitoring for certified artificial intelligence systems has to be solved independently,[51] i.e. not by self-assessment of legal-tech companies but by independent officials employed by judicial institutions.

It is argued by some scholars that such a high level of transparency and detailed reasoning is being required from AI that would not even be requested of human beings,[52] but it is also noteworthy that human judges should always provide a detailed reasoning of their judgement, and the standard for AI judges should also be set by the exigences of the right to fair trial and not those of traditional human ways of decision-making.

From a publicity perspective, the involvement of AI may be attractive. There are two main fears that should be addressed: lack of transparency should be avoided with the adoption of proper safeguards, and a system should be elaborated to secure access for judicial documents and also for their sustainable and safe long-term archiving.

3.5. Investigation and Assessment of Evidence

There are several ways to rely on AI during the assessment of evidence. AI may interact as an impartial expert and could give an opinion, which would be taken into consideration just as a scientific argument, and for the sake of rationality.[53] Moreover, AI could provide new perspectives to the assessment of evidence, especially in criminal investigations, with the help of modern technology.[54]

One could argue that in the case of an AI expert the impartiality of the opinion would be unquestionable[55] and that the AI should not be influenced by its previous social experience, good or bad impressions from certain individuals or groups of individuals or should not overgeneralize isolated inputs.[56]

By contrast, lots of relevant and reasonable considerations may disappear from the assessment of evidence since the logic of AI may operate with an inherently different approach than its human counterparts.[57] A human judge should rely on

50 Warren 2015. 227–232.
51 CEPEJ 2020. 6–7.
52 Reuben 2018. 1–11.
53 Walton 2020. 369–401.
54 Petit 2017.
55 Bench-Capon–Modgil 2017. 29–64.
56 Raso et al. 2018.
57 Martins 2020.

social reality, should consider whether the behaviour or the alleged behaviour of a person was expectable from a person with average mental capacity and prudence, etc.[58] Apart from this, a human judge may put the evidence into its social context, which may also add valuable points to the complete and balanced overview of all conflicting interests.[59] The AI cannot recognize cases caused by systematic deficiencies or discrepancies and could solve just certain specific issues; and it would also be unable to deal with controversies with new factual or legal elements (the overfitting problem).[60]

Besides this, a human judge may exercise clemency when an otherwise attributable behaviour may be explained by the exact circumstances or the benevolent or justifiable intents of the person concerned.[61] This kind of flexibility could not be reasonably expected from an AI entity. The 'long tail problem' is described in the relevant literature to outline this situation: AI is not able to reflect on unforeseeable situations and on challenges that may not be classified clearly with statistical methods or on the grounds of previous memories of the AI.[62]

In our view, the delivery of expert opinions is the only field of the judicial investigative process where AI may have an active role to play during the first stage of implementation. More experience and knowledge and further technical development would be necessary to use a trustworthy AI in preparing an overall assessment of evidence.

3.6. Non-Discrimination

AI may certainly eliminate some humanly constructed irrational precautions from the judicial proceeding,[63] but these alleged impacts are often outweighed by strong counterarguments.[64] In spite of the seemingly neutral and rational character of AI, it may be used easily even intentionally or just accidentally in a way resulting in discriminatory judicial practices.[65]

On the one hand, marginalized social groups, such as ethnic and racial minorities or people with disabilities, have usually worse criminal histories than other subgroups in society, wherefore they could easily be considered by AI judges as less reliable or to be at a major risk of committing further crimes after their release (recidivism).[66] An AI software usually does not provide race

58 Fabian 2020.
59 Rosin–Lampos 2018.
60 Verheij 2017.
61 Roth 2016.
62 Pastukhova–Lievens 2017.
63 Borgesius 2020. 1575–1578.
64 Risse 2018.
65 Rodrigues 2020.
66 Packin–Aretz 2018. 103–106.

or ethnicity as an 'explicit' factor for its decision (and may even be barred from doing so by technical means), but the system of criteria considered may itself be formulated in such a way that it will be significantly more unfavourable for persons from disadvantaged social backgrounds than for well-situated persons. The already mentioned COMPAS system has been developed in the USA to calculate the length of proposed imprisonment by considering a combination of several factors to gain a real profile from the criminal record of the person concerned. A convicted person lodged a judicial application against this system, but American courts upheld its constitutionality by stating that it mostly operates with factors relevant from the perspective of the criminal record, so it is supposed to be racially neutral. Nevertheless, certain investigations found that despite the overtly race-neutral character of the system, its real impact is seriously discriminatory for the black community.[67]

Another discrimination-related concern is the collection of training data: AI could rely exclusively on data provided to it before or during the proceeding. Consequently, the outputs provided by the AI may be easily manipulated, and a distorted set of training data would lead the AI to ill-founded conclusions.[68]

AI in the courtroom would have probably an ambiguous effect on discrimination in the judicial process. This is again an argument for our prudential approach. At the moment, we find it too risky to expect from an AI to calculate the length of imprisonment. In the first stage of implementation, AI may be used for determining the degree of less severe sanctions, for instance, the amount of the penalty imposed or of lower-value damages. This may give us some further impetus to analyse more in depth how AI could be a really impactful tool of a racially and ethnically neutral judiciary and how to exclude any possibility of a biased decision-making.

3.7. Reasoning of the Rulings

The involvement of AI would influence not only the main steps of the judicial proceeding itself but also the form and content of the judgement.[69] We have mentioned that AI at its current level of human comprehension is not necessarily able to provide reasons for its decisions in some cases. In the situation of AI involvement in the rendering of justice, social trust should be maintained, wherefore a human-readable reasoning in the broadest possible sense should be provided by any AI involved in judicial activities. We find the lack of this component problematic at least under three respects.

67 Larson–Mattu–Kirchner–Angwin 2016.
68 https://www.relativity.com/data-solutions/ediscovery/.
69 Morison Harkens 2019.

A key element of the aforementioned social trust in courts is the presumption that the judgement of the court is the result of a fair, balanced, and circumspect process.[70] Interesting considerations may be found in the case law of the European Court of Human Rights (ECtHR) on the assessment of jury systems from the perspective of lack of detailed reasoning, which has clear correlations with the level of social trust in these institutions.[71]

Reasoning is an integral part of a complete judgement, and it also plays an important role in maintaining legal certainty: interested stakeholders may examine past argumentations of the courts to preview the expected outcome of their particular legal controversy.[72] Without substantive reasoning, foreseeability and clarity of norms would be merely terms without real content, which would relativize the right to a fair trial and, more broadly, the rule of law itself.

In addition, human judges use several and different methods of interpretation (textual, contextual, comparative, teleological, precedent-based, moral, etc.) when qualifying a case: they have to create the most convincing and a well-based reasoning determined by all the circumstances of the case. Considering AI technologies, it is questionable whether the interpretative choices could be easily coded.

Requests for remedies are usually grounded on the alleged mistakes of the court's reasoning: the mere outcome of the logical process is not sufficient to become familiarized with the in-depth approach of the court and to decide whether the underlying argumentation provided behind the decision should be acceptable for the parties. In the process of judicial remedies, the initiator of the given remedy must outline the detailed factual and legal grounds of his/her appeal. This requirement cannot be fulfilled if the considerations of the first instance court do not stand at the disposal of the appellant.[73]

The potential of AI to be able to conduct effective bilateral communication with human beings and to provide a detailed reasoning should be an essential precondition of the substantial judicial involvement of these entities. Until this level of technical development is achieved, AI will not be an independent decision-maker[74] and will remain just a supporting tool, always subject to human review.

70 Lori 2019.
71 The case of Taxquet v Belgium, European Court of Human Rights, application no. 926/05. 13 January 2009.
72 Scherer 2016. 364.
73 Edwards–Veale 2017. 18–84.
74 Ulenaers 2020. 37–38.

4. Conclusions

On the grounds of the above considerations, at this stage we cannot consider robot judges or a justice app on smart phones likely for some time to come. In the field of the judiciary, legislation shall closely follow legal-tech developments, and – considering rule of law and implicitly fair trial requirements – it shall create legislative frameworks and guarantees.[75]

Our most important finding is that AI may usefully support legal research and reaching the judgment in low-value, similar, minor, and mass cases (e.g. contractual disputes over online shopping, services, and financial loans) while still remaining under human control. AI should be involved as a supporting tool, interacting with the first instance human court, and the parties should explicitly give their consent to the application of such techniques. Human dignity requires the possibility of choice and of self-determination when parties enter into a judicial dispute resolution. Special guarantees are necessary in criminal justice to observe human dignity when applying AI systems.

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