EDITORIAL

THE USE OF ARTIFICIAL INTELLIGENCE IN JUDICIAL SYSTEMS: ETHICS AND EFFICIENCY

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1. Introduction

The subject "Artificial Intelligence (AI) and justice" can be addressed from two different perspectives: AI as the object of judicial proceedings, from one side, and AI as a tool supporting judges in the exercise of jurisdiction, from the other side.

It is not difficult to foresee that, in the future, an increasing number of disputes will regard the use of AI systems. This is the case, for instance, of claims for damages caused by driverless cars, drones or automated disease diagnosis and treatment systems. In such cases, the main issue is whether, and to what extent, consolidated legal principles on the law of evidence, on damages quantification and on liability, which traditionally refer to human behaviours, can be extended to robotic behaviours.

The use of AI systems may also trigger a different set of issues, when used to assist judicial authorities in exercising jurisdiction. Nowadays, new automated tools for due diligence exercises, for drafting documents and for technical assessments, including calculation of maintenance allowances for spouse or children or damages in the event of personal injury, are available

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on the market. Law firms and insurance companies increasingly use predictive AI systems to determine the possible outcome of a current or potential legal dispute. Why not using the same tools, then, to increase the efficiency of the judicial system? As a matter of fact, the use of AI systems may help to increase the quality and efficiency of justice. At the same time, however, the use of AI in the judicial field raises a set of new and open questions.

Below, I will address this second perspective. I will try to bring some thoughts on the opportunities and risks deriving from the use of AI in the justice domain.

2. The ongoing development of AI applications in the field of justice

In Italy and in most Member States of the European Union, the digitalisation of justice is completed or is nearing completion. The digitalisation regarding communication, filing and exchange of documents has resulted in great simplification for users and a strong contribution to greater efficiency of judicial offices. Furthermore, the possibility of holding online hearings allowed trials to be carried out in oral form even when the pandemic prevented physical access to the courtrooms. Digitalization has also allowed the creation of large digital databases that collect judicial decisions, an indispensable prerequisite for the development of AI systems.

Despite trials underway in some countries, including Estonia, China, the United States, Canada and the United Kingdom, justice systems in most countries still make little use of AI systems. In fact, the features of AI systems appear to be not compatible with a set of fundamental principles to be applied in the field of justice, including transparency and justification of judicial measures, right of defence and cross-examination. Furthermore, it has been established that AI systems can be biased and produce errors and discrimination, resulting in infringement of human rights. The case of COMPAS, an AI program designed to assess potential recidivism risk, is well known. Such program, used by certain US Courts, was found to be discriminatory because it tends to attribute a greater risk of recidivism to certain people in relation to the colour of their skin and the social environment of reference.

However, AI could contribute to solving the problems and inefficiencies that afflict justice today, especially in terms of the

excessive length of trials, which undermines the right to a fair trial. Also, the lack in many countries of a sufficient uniformity and predictability of judicial decisions, undermines legal certainty. AI could speed up the delivery of judgments and ensure more predictable trial outcomes.

The application of AI, in substance, entails at the same time risks and advantages. AI must be considered not only as a threat, but also as a tool to improve people's lives and their enjoyment of fundamental rights. Also, AI systems are developing at increasingly rapid speed. It is therefore not excluded that, over time, problems such as those regarding the opacity of AI systems (the black box effect) could be mitigated or overcome thanks to technological progress. The choice on whether to allow the use of AI systems in the judicial sector, therefore, must not reflect an alternative between ethics and efficiency. On the contrary, a human-rights perspective on the development and use of AI is possible and desirable.

The Ethical Charter on the use of AI in judicial systems, adopted in 2018 by the European Commission for the Efficiency of Justice (CEPEJ), has identified the core ethical principles to be respected in the field of AI and justice: respect of fundamental rights, non-discrimination, quality and security of data processing, transparency, impartiality and fairness, human control. The Ethics Charter is based on the idea that AI, if used as a tool not to replace, but to assist judges, can promote the efficiency and quality of justice. Judges' autonomy must be increased and not restricted by AI tools and services.

The European Union, in its policy on AI, has followed the same approach. The European Commission's proposal for a regulation laying down harmonised rules on artificial intelligence (AI Act), whose final approval is expected by the end of 2023, clearly states that AI should not substitute human autonomy or limit individual freedom. Also, the AI Act aims at introducing safeguards to ensure the development and use of ethically embedded artificial intelligence that respects Union values and human rights.

3. The forthcoming AI Act

The AI Act follows a risk-based approach that, in order to introduce a proportionate and effective set of binding rules for AI

systems, tailors the type and content of such rules to the intensity and scope of the risks that AI systems can generate.

It therefore prohibits AI systems which pose unacceptable risks for fundamental public interests as recognised and protected by Union law, including fundamental rights, democracy, the rule or law or the environment. The prohibition covers practices that have a significant potential to manipulate persons through subliminal techniques beyond their consciousness, or exploit vulnerabilities of specific vulnerable groups, such as children or persons with disabilities, in order to materially distort their behaviour in a manner that is likely to cause psychological or physical harm. AI-based social scoring for general purposes done by public authorities is also prohibited, as well as the use of 'real time' remote biometric identification systems in publicly accessible spaces for the purpose of law enforcement.

For systems entailing limited risk, such as chatbots, the AI Act requires transparency obligations aimed at making users aware that they are interacting with a machine. Free use is permitted for minimal-risk AI systems, such as AI-enabled video games or spam filters.

High-risk AI systems, the ones that may create a high risk to human rights, are subject to a strict regulation, requiring conformity assessment, certifications, registration obligations and ex post controls. The classification of an AI system as high-risk is based on its intended purpose. The AI Act classifies as high risk those systems that are "intended to be used by a judicial authority or administrative body or on their behalf to assist a judicial authority or administrative body in researching and interpreting facts and the law and in applying the law to a concrete set of facts or used in a similar way in alternative dispute resolution".

Therefore, AI systems at the service of justice shall comply with the strict regulation imposed by the AI Act.

4. The use of AI tools in legal analysis and decision-making by judges

It is worth noting that, as underlined in recital 41 of the AI act, the fact that an AI system is classified as a high risk AI system does not indicate that the use of the system is necessarily lawful or unlawful under other acts of Union law or under national law compatible with Union law, such as on the protection of personal

data. Any such use is permitted to the extent it complies with the "applicable requirements resulting from the Charter and from the applicable acts of secondary Union law and national law".

Several fundamental principles enshrined in national constitutions, the ECHR and in the CFREU prevent AI systems to replace human judges. As a matter of fact, a robot judge would affect the constitutional guarantees relating to jurisdiction, such as the right to a fair trial, the parties' right of defence, the obligation for judicial rulings to state the reasons on which they are founded.

Although AI cannot fully "replace" a human judge at present, it may still be useful in the courtroom in many ways. AI systems could provide more powerful search engines to improve the research for court decisions and other legal text. Also, AI tools may help judges in technical evaluations, such as calculation of indemnity against unfair dismissal, maintenance allowance in case of divorce etc. AI can be used to analyse evidence, translate languages, assess factual data as well as for preparing draft measures or for dealing with simple, serial, repetitive, entirely documentary cases. Finally, AI systems can be used in alternative dispute resolution procedures, in particular those involving small claims that would hardly be asserted before a judge. In such cases, effective legal protection of fundamental rights requires the provision of online platforms which, through AI systems, can offer inexpensive, rapid, and reliable forms of dispute resolution, not excluding recourse to judicial protection.

It is therefore no coincidence that the use of algorithms in the judicial field is spreading in many countries, in particular the USA, China, Canada, and the United Kingdom.

However, many scholars still today seem highly sceptical about the use of AI tools by judges. The problem lies in the risk of the so called "*effet moutonnier*" (sheep effect), which may lead the judge to avoid the responsibility not to follow the algorithm's advice. As a matter of fact, the risk of the judge being a captured by the algorithm cannot be underestimated. The AI support may relieve the decision maker from the burden of motivation and may help to qualify the decision with the chrism of "scientificity" and "neutrality" which today surrounds algorithmic evaluation and gives it a peculiar - yet unfounded - authority. The risk is that the advice provided by the AI system will be followed by the judge, without a further autonomous assessment of the peculiarities of the case and of the applicable law.

Such risks should be avoided. The autonomy of the judge, who is solely responsible for the interpretation of the applicable law and the evaluation of the peculiarity of the case in question, cannot be limited. It is therefore essential that, as the Wisconsin Supreme Court ruled in the Loomis case, the judge maintains full autonomy of judgment and does not base his decision exclusively on the indications coming from the AI.

It is therefore worth noting that, pursuant to the AI Act, high risk systems, such as the ones that may be used to support judicial authorities, must be designed and developed in such a way that natural persons can oversee their functioning. Human oversight shall aim at preventing or minimising the risks to fundamental rights that may emerge in the use of such systems.

5. Concluding remarks

The use of AI at the service of justice is possible and desirable, provided it is made in compliance with the applicable ethical and legal principles.

A fundamental role for the success of the AI Act will be played by the authorities entrusted with the power to enforce its provisions. High-risk systems will be permitted subject to an ex-ante conformity assessment carried out by conformity assessment bodies designated and monitored by national authorities. An ex-post supervision on the function of such systems by competent authorities will follow. To this end, the AI Act sets up a dedicated governance system at Union and national level. At Union level, a European Artificial Intelligence Board., composed of representatives from the Member States and the Commission will be established. At national level, Member States will have to designate one or more national competent authorities and, among them, the national supervisory authority, for the purpose of ensuring the application and implementation of the AI Act. Such national competent authorities "shall have a sufficient number of personnel permanently available whose competences and expertise shall include an in-depth understanding of artificial intelligence technologies, data and data computing, fundamental rights, health and safety risks and knowledge of existing standards and legal requirements" (Art. 59(4) AI Act).

In this respect, the difference between the high-risk systems listed in Annex III of the AI Act cannot be underestimated. The

requirements of AI systems intended to be used for recruitment or selection of natural persons, for example, may not be identical to those intended to assist judges in the exercise of jurisdiction. In addition, independence of the judiciary from undue external interference is a prerequisite of the rule of law, which is one of the founding values of the European Union (Article 2 TEU).

In the justice domain, a sound technical knowledge of ethical and legal principles applicable to jurisdiction, along with the need to avoid undue interferences by economic or political power, are therefore necessary. This means that the judiciary should be involved and have a voice in the assessment and monitoring procedures over those AI systems intended to be used in support of jurisdiction.

The judiciary cannot miss the opportunity to make use of the new technologies available today and in the future. AI may help to promote the quality and efficiency of justice. When using AI systems, however, human control remains necessary. Judges' autonomy cannot be restricted by AI systems. In addition, the issues regarding opacity, complexity, bias, unpredictability, and partially autonomous behaviour of certain AI systems must be duly addressed, in order to ensure their compatibility with fundamental rights.

The judiciary may well contribute to the assessment and monitoring of IA systems to be used in support of jurisdiction. AI, therefore, is a great opportunity and, at the same time, a great responsibility for the judiciary.