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(CEPEJ)

CEPEJ WORKING GROUP ON CYBERJUSTICE AND ARTIFICIAL INTELLIGENCE

(CEPEJ-GT-CYBERJUST)

ARTIFICIAL INTELLIGENCE ADVISORY BOARD

(AIAB)

REFLECTIONS OF THE AIAB ON THE USE OF ARTIFICIAL INTELLIGENCE IN JUDICIAL SYSTEMS

Contents

I. Introduction

1. This document, which deals with certain aspects of the use of artificial intelligence (AI) in judicial systems, has been prepared by the members[1] of the CEPEJ's Artificial Intelligence Advisory Board (AIAB), in preparation for a consultation with the French Cour de Cassation in December 2024.

2. It was decided to publish these reflections as they may be useful to courts or judicial officials faced with the question of how to use AI best. This document refers in particular to the CEPEJ's glossary[2] on cyberjustice and AI.

3. The AIAB provides expert advice on issues related to AI in the judicial environment. The Board was created in 2022 to support the CEPEJ in monitoring the emergence of AI applications in the justice sector, to advise on related implementation strategies in this field, and to contribute to the reflections on the use of AI in judicial systems while respecting fundamental rights.

II. Potential benefits of using AI in judicial systems

4. AI offers significant opportunities to improve access to justice and simplify legal procedures.

A. Advantages for litigants

5. Many tools can help to improve access to justice. For example, information tools such as chatbots can make legal systems more accessible, by providing clear and immediate information on procedures and rights. These tools help to reduce the linguistic and legal barriers that can hinder litigants who are unfamiliar with the legal system.

6. In addition, AI can provide a quantitative estimate of the chances of legal success, offering litigants a better assessment of the risks before they initiate proceedings. This could lead to more informed decisions, while reducing unnecessary litigation. Furthermore, the automation of tasks such as drafting legal documents or organising arguments could lead to a reduction in lawyers' fees and procedural costs.

7. Finally, AI's ability to optimise judicial workflows could help to reduce case processing times, directly benefiting litigants by offering them faster decisions and reducing the frustrations associated with long waits.

B. For legal staff

8. The integration of AI into the work of judges, court clerks and other court staff also offers significant advantages in terms of time savings and efficiency. For example, the allocation of cases and the verification of admissibility and competence criteria can be carried out almost instantaneously using automated tools. This frees up time for tasks requiring human expertise.

9. In addition, AI can significantly improve document processing. Automated translation tools make it possible to manage cases in several languages, which is particularly useful in transnational cases. Automated transcriptions of hearings also simplify the monitoring of proceedings, while the generation of summaries and the sorting of case documents allow judges and lawyers to concentrate on the essentials.

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[2] www.coe.int/en/web/cepej/glossary-2

10. AI can also contribute to better management of judicial resources, in particular by automating the assignment of cases to the appropriate chambers or by quickly identifying the key arguments in a case. Drafting aids and augmented search tools, which use natural language to explore case law and doctrine, facilitate more precise and exhaustive legal work.

III. Major risks concerning the integration of AI into judicial processes

11. While the integration of artificial intelligence into judicial processes offers significant advantages, it also brings with it major risks that must be taken into account to ensure that justice is fair, transparent and respectful of fundamental rights. These risks affect both the fundamental principles of justice and everyday practices, and raise questions about data protection, transparency, fairness and accountability. Identifying and mitigating these risks is essential to avoid potential abuses and to build confidence in these new technologies by putting in place appropriate corrective measures.

12. The risks identified through the CEPEJ's work in this area are as follows:

A. Fundamental rights and legal principles

- Risk of AI replacing access to a judge
- Risk of vague or unjustified basis for decisions
- Risk of unfair advantage for one party to the proceedings, compromising the principle of equality of arms
- Risk of infringement of fundamental rights or imbalance in the reconciliation of conflicting fundamental rights
- Risk of generating and using non-existent legal provisions via generative AI
- Risk of reduced responsibility and ownership by judges due to the use of non-explainable AI
- Risk of legal homogenisation and amplification of the dominance of certain legal cultures, particularly due to the international use of AI models based on Anglo-American case law, to the detriment of continental legal systems
- Risk that AI tools do not accurately reflect legal reasoning
- Increased conformity of case law

B. Non-discrimination

- Risk of discrimination or amplification of discrimination, particularly due to biased data sets

C. Data quality and security

- Risk of disclosure of personal data or trade secrets
- Risk of profiling judges and forum shopping
- Risk of misuse of data

D. Transparency (algorithm design)

- Risk of lack of clarity in criteria or inappropriate weighting of treatment criteria by AI
- Risk of loss of confidence in AI systems if tool evaluations are not open to scrutiny

E. User control

- Risk of forced use of AI

F. Ignorance and/or inappropriate use

- Use of a trained AI model for other purposes
- Risk of gaps in understanding of AI performance in the absence of training
- Risk of misuse of AI

G. Other

- Automation bias

IV. Reflections on the quality and security of data used by judicial AI systems

13. To ensure the quality and security of the data used by artificial intelligence systems in the legal field, a number of recommendations can be made. Firstly, it is essential to select relevant, recent and representative data, in particular court decisions, while ensuring that they are annotated by recognised experts from a variety of disciplines, such as law, ethics, IT and the human and social sciences. These decisions also need to be weighted, and a classification and hierarchical system put in place, providing for their inclusion in training databases, as well as the terms and conditions for their maintenance (duration, conditions, etc.).

14. Digital certification of data and decisions, using metadata and cryptographic techniques, is essential, as is data traceability, which could be ensured using technologies such as blockchain. The pseudonymisation of personal data is also crucial to limit the risks of profiling. In addition, the use of single-purpose AI models, with limited interoperability, and the adoption of explainable models guarantee greater transparency and understanding of algorithmic processes while limiting the risks of misuse.

15. Regular auditing of AI data and models is essential to detect and correct any flaws or biases. In addition, a public debate involving all stakeholders - legal professionals, legal tech companies, and scientists - should be encouraged, in order to discuss the possible impacts of AI applications in judicial systems and to develop an appropriate ethical framework. The provision of training materials on AI for judges and administrators is also essential, as is the open publication of evaluations of AI tools before they are deployed, allowing for greater transparency.

16. Finally, it is vital to promote active vigilance, particularly through civil society and academia, based on initiatives such as Algorithmwatch, to ensure constant and independent supervision of AI tools in the judicial field.

A. Products marketed by private companies

17. The use of service providers using products marketed by private companies, whether national or foreign, may raise questions about their compatibility with data quality and security requirements.

18. With regard to foreign service providers located outside the European Union (EU), this recourse appears tricky overall, particularly when the data is hosted abroad, or when the artificial intelligence systems include black boxes, trade secrets or involve the transfer of personal data outside the EU, which raises issues of compliance with the General Data Protection Regulation (GDPR)[3] .

[3] REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

19. The use of systems designed by national European companies within judicial institutions seems more feasible, provided that these systems meet strictly defined internal specifications and are accompanied by rigorous supervision at each stage of their design. In addition, the use of licensed or « Software as Service » (SaaS) solutions could also be considered for low-risk, non-critical use cases, in order to guarantee controlled management of data and associated processes. The use of independent cloud or internally hosted systems would also appear to be essential for the controlled deployment of AI systems used by judicial institutions.

V. Reflections on the use of general-purpose Large Language Models (LLMs) to meet the needs of judicial activity in technical matters, particularly civil matters

20. Large Language Models (LLMs) can be used in a variety of ways, and the suitability of their use in a judicial context depends essentially on the specific uses envisaged, the expectations of the user and the user's ability to question the content generated by these generalist LLMs (this is also the case for LLMs that present themselves as specialised).

21. In the current state of development of generalist LLMs, if they are to be used by lawyers for drafting submissions or by judges for drafting decisions, these LLMs can provide an initial basis for drafting work, often in a form that meets expectations and with fairly well sourced information (especially when the model is based on *Retrieval Augmented Generation*, RAG), but generally not correctly interpreted.

22. The limits of this use of generalist LLMs are to be found in the absence of human intention, the content direction, the lack of capacity of the system to propose a human motivation or reasoning, potentially discriminatory biases, erroneous, reductive or marginal interpretation of legal provisions, case law or doctrines, the reference to inadequate sources and long, repetitive and irrelevant texts that waste the time of the reader, the opposing party and the judge.

VI. Reflections on reconciling the efficiency promised by AI tools while maintaining "human justice", centred on the individual

23. Symbolic AI systems (expert systems) can be useful for standardised tasks and uses without any risk that differs from that posed by assigning the task to a human being, since their deterministic nature allows them to produce explainable and comprehensible results.

24. Connectionist AI systems (LLM type) can be useful for non-standard, low-risk tasks and uses. For high-risk applications, the use of this type of AI should be carefully considered. An assessment of the AI project, taking into account the benefits and risks and enabling corrective measures to be identified, seems to be an essential preliminary step. If the use of AI is desired, humans must be involved at all stages, from design to use of the AI system, and alternative solutions to AI must be maintained.

25. Symbolic and connectionist approaches can also be combined into 'hybrid' systems that direct different techniques to the appropriate parts of the automation chain, matching techniques with the tasks where they are most effective.

26. In the jurisdictional field, human control and supervision must never be lost sight of. Users must not give in or be directly or indirectly encouraged to give in to automation bias, i.e. the tendency of human beings to uncritically consider the solution proposed by artificial intelligence as correct, leading to automatic validation by humans of the AI's proposals.

VII. Reflections on AI tools in the drafting process

27. It is important to distinguish between writing support and decision support, even if some AI systems partly combine these two objectives.

28. Some connectionist AIs are analytical, not generative, and can be useful for decision support insofar as they can cross-reference a large amount of data and provide reports on specific points, which could be useful for analysing case documents and facts. These solutions come under the heading of preparatory assistance.

29. Generative AI systems (LLM type) are designed to find the next most likely word, so even in their basic versions without RAG (*Retrieval Augmented Generation*) these AI systems can help judges to formalise their decisions, particularly if the LLM has been trained on the basis of court decisions that are similar in form. With RAGs, it is possible to search for information external to the model and add a more qualitative layer of information, moving towards decision support.

30. Generative AI with RAG could potentially be used for drafting assistance once the essential elements of the decision have been established by the judge. In that case, a guided process would be advisable :

- use of a template of essential points defined by the judge to be sent to the AI,
- use of standardised prompts,
- non-response from the AI if the process is not followed,
- verification that the initial points defined by the judge correspond to the pre-decision drawn up by the AI.

31. Furthermore, it seems essential for such a use that the training data, the AI model and the AI system are transparent, fully auditable and that the initiative of the creation of such an AI system is carried out under the supervision of judicial institutions. Additionally, such an initiative can only be carried out gradually and iteratively, within a controlled framework, based on one or more pilot courts accompanied by multidisciplinary experts in the field. Pre-training on relevant and targeted datasets should also be considered in order to maximise the accuracy of the AI model deployed in this context.

32. Insofar as decisions can be appealed, the question could arise of automating first instance decisions in certain standardised matters, in which the interpretation of the facts is generally univocal and the stakes are low and exclusively financial.

33. However, particular attention should be paid to how these tools are designed and used. The CEPEJ has developed a self-assessment tool for AI systems intended for judicial institutions, operationalising the CEPEJ's Ethical AI Charter[4] . This self-assessment tool helps to discern the precautions and corrective measures to be taken according to the types of AI, data and usage.

34. These systems must be considered as assistance and support tools, without attributing a decisive value to them or falling into overestimation, while taking care not to forget the necessary judicial motivation and the indispensable individualisation of sentences. The right not to be subjected to a fully automated decision, to be informed of the automated decision, to challenge or review automated or algorithmic decisions and to request human supervision and intervention should be guaranteed.

[4] CEPEJ, Evaluation tool for the operationalisation of the European Ethical Charter on the use of artificial intelligence in judicial systems and their environment, December 2023: https://rm.coe.int/cepej-2023-16final-operationalisation-ai-ethical-charter-en/1680adcc9c

VIII. Reflections on AI training for legal professionals

35. Faced with the emergence of artificial intelligence, judges need to develop essential skills to ensure that these technologies are used wisely and responsibly in the judicial sphere.

36. Firstly, an advanced understanding of how AI systems work is essential. This includes knowledge of the differences between symbolic and connectionist approaches, the way in which data corpora are constituted and annotated, and the different training models used. This technical understanding enables judges to assess the AI tools' working mechanisms, allowing informed decision-making on their use.

37. In addition, a precise understanding of the human rights impacted by the use of AI in judicial matters is becoming essential. Judges must be able to identify and assess the ethical and legal implications of AI-assisted decisions, while preserving fundamental principles such as equality before the law and the right to an effective remedy.

38. Understanding the risks of bias and discrimination associated with AI is also a key skill. Judges need to be able to identify potential sources of bias in the systems used, whether related to the training data or the algorithms themselves, in order to ensure fairness and non-discrimination in the application of justice.

39. Judges must also acquire practical skills to use the AI systems made available to them responsibly and appropriately. This includes the ability to assess the relevance of the tools to a given case and to understand the limits of the results produced.

40. In addition, knowledge of the uses and risks of AI in sectors other than justice, particularly in high-risk areas or in cultural contexts, is required. These skills make it possible to draw parallels between the challenges of other sectors and those of the justice system, while preparing judges to rule on cases involving the use of AI in these areas.

41. Finally, participation in specific training courses is essential to enable judges to develop an in-depth understanding and sufficient familiarity with AI systems. This training will enable them to interact effectively with these tools while ensuring that they comply with the ethical and legal requirements specific to their field.

42. Given the global transformation of the judicial sector, it is essential that key skills are strengthened, such as adaptability, innovative capacity, problem-solving, etc.

IX. Reflections on the implementation of a risk and impact assessment of AI systems

43. A pilot project of the (self-) "Assessment tool for the operationalisation of the European Ethical Charter on the use of artificial intelligence in judicial systems and their AI systems environment ", has been underway since September 2024 involving four jurisdictions including the French Cour de Cassation, as well as its Italian, Spanish and Estonian counterparts. Although this tool was designed primarily to target the risks in terms of fundamental rigths and ethics for high-risk AI in the judicial field, it is currently being tested on low-risk AI to enable the tool to be used for the first time. The projects concerned by this first stage of deployment of the self-assessment tool are generally low-risk projects that are immediately useful and effective (hearing transcription, pseudonymisation of court decisions and automatic sorting of cases for allocation to the appropriate chamber).

44. Furthermore, the CEPEJ did not conduct bilateral pilot projects on the implementation of AI systems with member states so far. Instead, the CEPEJ follows the emergence of judicial AI systems through its " Resource Centre on Cyberjustice and AI[5] ", forming a starting point

[5] https://www.coe.int/fr/web/cepej/resource-centre-on-cyberjustice-and-ai

for a concrete and detailed discussion of the systems and the identification of general trends on AI use in the judiciary.

45. Currently, the Resource Centre on Cyberjustice and AI lists 125 systems used in Council of Europe member states and beyond. On the basis of the systems identified, the CEPEJ has been discussing in more detail some of them that seem particularly promising for improving the efficiency of the administration of justice

X. Examples of promising AI applications in the field of justice

46. Tools for handling mass claims

OLGA - OberLandesGerichts-Assistent / Regional Court Assistant - Germany

This software-based system helps to analyse and classify claims according to the facts. It is used for thousands of diesel cases pending at the Higher Regional Court in Stuttgart, concerning false exhaust emission values. Complaints often exceed 100 pages, making the use of OLGA a practical solution for saving costs and achieving greater efficiency.

47. Anonymisation tools

ANOM / Anonymisation - Switzerland

ANOM uses AI to detect the names of experts or other information, such as parcel of land numbers, who are not involved in the procedure, and proposes a replacement. The tool is based on neural learning techniques.

48. Guide to procedure for potential litigants

Practical Guide to Justice (PGJ) - Portugal

PGJ is an advanced linguistic model based on machine learning, which informs citizens and businesses about the tools and services that the justice system makes available to meet their needs. It is formed from information already made available by the various judicial bodies. Its aim is not to create new information, but rather to provide, in a natural conversation, the information needed to answer the user's questions.

49. Automated recording and transcription of hearings

Speech-To-Text "Textualisation" - Spain

The tool is based on neural learning techniques and integrates with courtroom recording systems trained with real audiences and real transcripts. It can search for text in videos, download recordings, identify speakers in dialogues, view timelines, show/hide marks and textualisations, and create tags associated with specific moments in the recording.

50. Work is underway to identify more specific areas where the application of AI can improve efficiency (joint work of CEPEJ working groups).

XI. Future prospects

A. On the likely development of AI in the judicial sector

51. This document is based on observations and reflections up to 2024. It remains to be seen whether the shortcomings of current systems will be overcome and whether future versions will be robust and reliable. At least today, the question remains whether AI will structurally transform the judicial sector, as some authors suggest.

52. New version of generalist AI chatbots, such as ChatGPT are expected to be continued to be released at relative pace. Whilst speculation as to the features of the new versions can only be confirmed upon their release, expected features cover more advanced reasoning

abilities, better handling of multimodal data and a general improvement in performance accuracy.

53. AI 'agents' are programmes that are capable of autonomously performing tasks on behalf of a user (or even another system), akin to a personal assistant, and the deployed use of agents is a further anticipated development within the general field of AI. Guidelines and regulations for the deployment of AI in the judicial sector will need to consider the implications of agents as their expected prevalence increases.

B. The role of the CEPEJ vis-à-vis Council of Europe Committee on Artificial Intelligence

54. The CEPEJ and the Committee on Artificial Intelligence of the Council of Europe (CAI) interact regularly, and some individuals are members of both bodies. The work carried out on this theme is enriched respectively (in particular reference frameworks and evaluation tools), the work of the CAI considering all uses of AI and the CEPEJ focusing on the domain of justice and the operationalisation of the European Ethical Charter on the use of artificial intelligence in judicial systems and their environment.[6]

55. The Council of Europe's Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law[7] needs to be supplemented and enriched specifically in each domain. The CEPEJ meets these needs in the domain of justice.

56. Already 2018, the CEPEJ adopted the „European Ethical Charter on the use of artificial intelligence (AI) in judicial systems and their environment ", laying down key principles for the safe use of AI in judicial decision making. The then formulated principles are fully reflected in the AI Framework Convention.

57. The Ethical Charter is accompanied by an "Assessment Tool" helping in its practical implementation. The tool formulates 29 questions to assess the compliance of a judicial AI system with the Ethical Charter. This hands-on approach is a low threshold starting point towards a domain specific fully fledged Human Rights Risk and Impact assessment, as required by the Framework Convention.

58. Even more so, the CEPEJ is providing the necessary continuous peer forum to reflect on the emerging risks and opportunities of AI in the domain of justice.

- The CEPEJ's Working Group on Cyberjustice and AI is timely developing targeted guidance.[8]
- The "Resource Centre on Cyberjustice and AI" is a reliable monitor of emerging AI systems used in the administration of justice.
- The CEPEJ's "Artificial Intelligence Advisory Board" is providing expert advice on technical questions.
- The CEPEJ's Networks ensure necessary outreach and feedback. Namely the "European Cyberjustice Network" and the "Pilot Courts' Network". Together with the CEPEJ, the outreach covers the Ministries of Justice, the Courts and the IT departments of Court administration, of the Council's member States and beyond.

[6] https://rm.coe.int/ethical-charter-en-for-publication-4-december-2018/16808f699c
[7] https://rm.coe.int/1680afae3d
[8] https://www.coe.int/en/web/cepej/cepej-working-group-cyber-just

59. We see even a need to intensify the CEPEJ's work on AI in the domain of justice, to ensure an effective implementation of the Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law.

C. The CEPEJ's subsequent monitoring of emerging AI tools in the field of justice

60. The CEPEJ's self-assessment tool for AI systems in the judiciary is currently up to date with the state of the art in technology and use cases. It was designed to be evolutionary and adapt to technological and usage developments. The CEPEJ AIAB conducts regular reviews in these areas. Recommendations for using generative AI in justice have also been developed by the CEPEJ.

61. The Resource Centre on Cyberjustice and AI, will increasingly include regulation relevant information for individual AI systems, such as risk categories and references to risk and human rights impact assessment.

62. The CEPEJ Evaluation of judicial systems is capturing already AI relevant information through the "ICT Index" and an open question on the use of "innovative ICT systems" in the administration of justice (meaning AI). In the last report, examples of reported AI systems have been highlighted. The increase of the evaluation frequency to one report per year will be beneficial considering the fast technical developments.