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Artificial Intelligence and Courts in the EU

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Structure

- Three questions for the present and future of courts and AI in the EU
 - Will (G)AI strengthen or hinder the rule of law values for court functioning?
 - How will the EU regulatory framework be implemented?
 - Will EU courts develop their own AI-systems or partner?



1. Will GAI strengthen or hinder the rule of law values for court functioning?

Examples of AI in courts

Hur AI kan hjälpa oss att spara tid och pengar

Att översätta dokument tar tid och kostar pengar för domstolarna. I filmen får vi veta hur innovationsteamet på Domstolsverket tog sig an utmaningen att lösa behovet med hjälp av AI.



Innovation - vi prövar idéer som kan ge stor verksamhetsnytta

Ibland räcker det inte med ständiga förbättringar som vi jobbar med varje dag utan det behövs lite större kliv, och då är innovationsarbete värdefullt. Innovationsarbetet inom Sveriges Domstolar handlar om att framtidssäkra vår verksamhet genom att kunna ta en större risk och pröva idéer som kan ge stor verksamhetsnytta och effektiviseringsvinster.

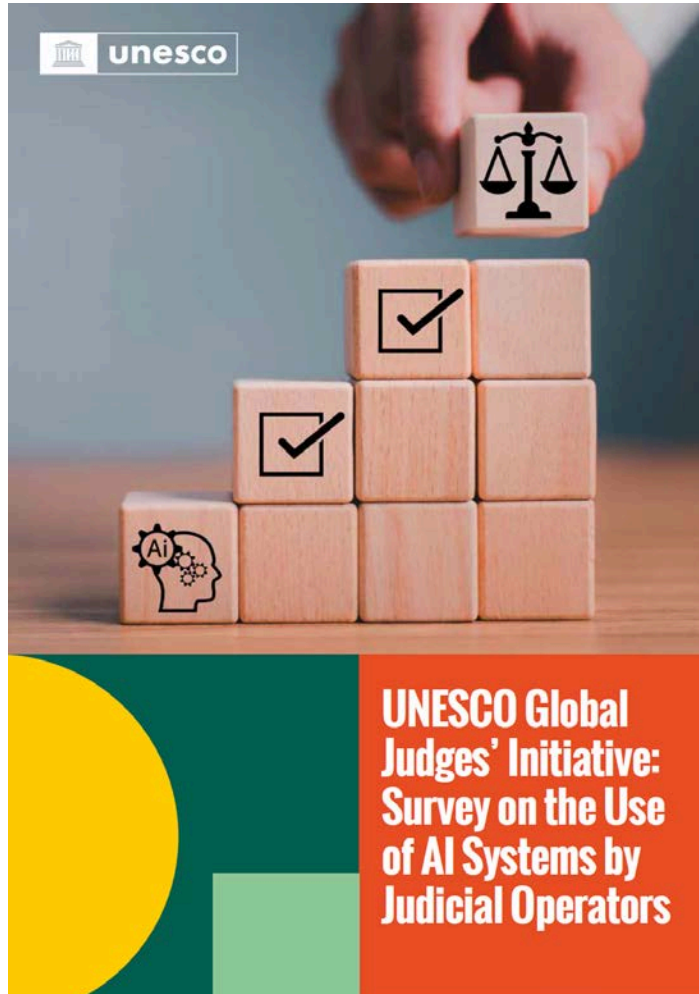
[Source: Sveriges Domstolar](#)

Connected to efforts of enhancing the openness and efficiency of courts:

- Translations
- Anonymisation
- Speech-to-text
- Case allocation
- Factual summaries
- Search
- Use of chatbots



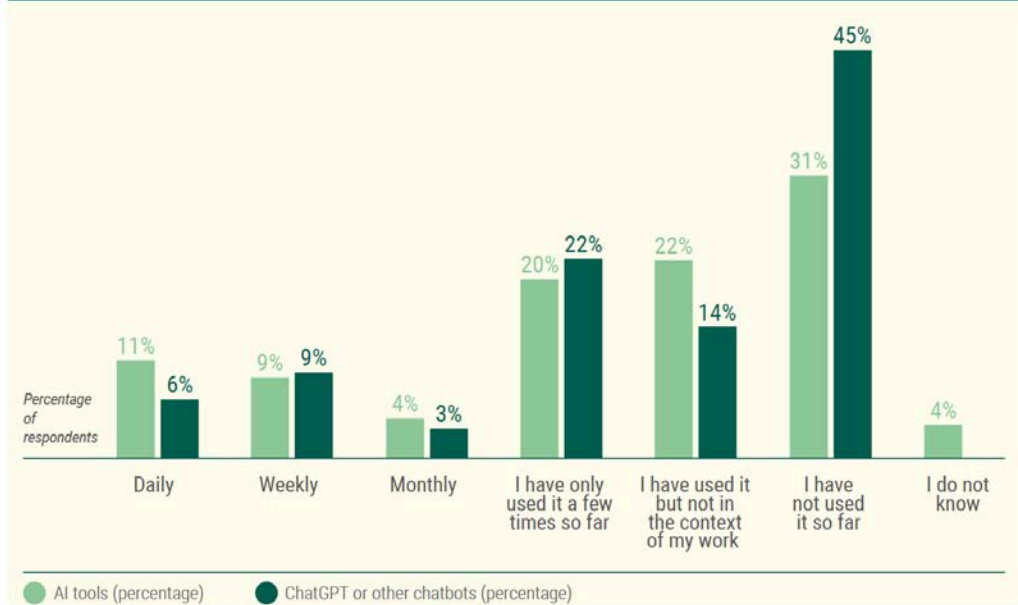
2023 UNESCO survey



B. How do judicial operators use AI systems?

Forty-four percent of the judicial operators who answered the survey stated that they had used AI tools for work-related activities, and 41% said they had used ChatGPT or other AI chatbots. When asked how often they use AI systems in their work, 20% of the respondents answered that they had used AI systems only a few times, 13% on a weekly or monthly basis, and 11% daily. The questions related to using AI chatbots in the workplace presented similar results. Figure 2 shows the distribution of respondents who do and do not use AI tools and chatbots for their legal work and how often they use these tools.

Figure No. 2 – Whether respondents use AI tools and AI chatbots for work-related activities



ChatGPT and judges

Court of appeal judge praises 'jolly useful' ChatGPT after asking it for legal summary

Lord Justice Birss used AI chatbot to write part of judgment in first known use by British judge



“I’m taking full personal responsibility for what I put in my judgment, I am not trying to give the responsibility to somebody else. All it did was a task which I was about to do and which I knew the answer and could recognise as being acceptable.”

📹 Sir Geoffrey Voss, control how lawyers



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Large Legal Fictions: Profiling Legal Hallucinations in Large Language Models

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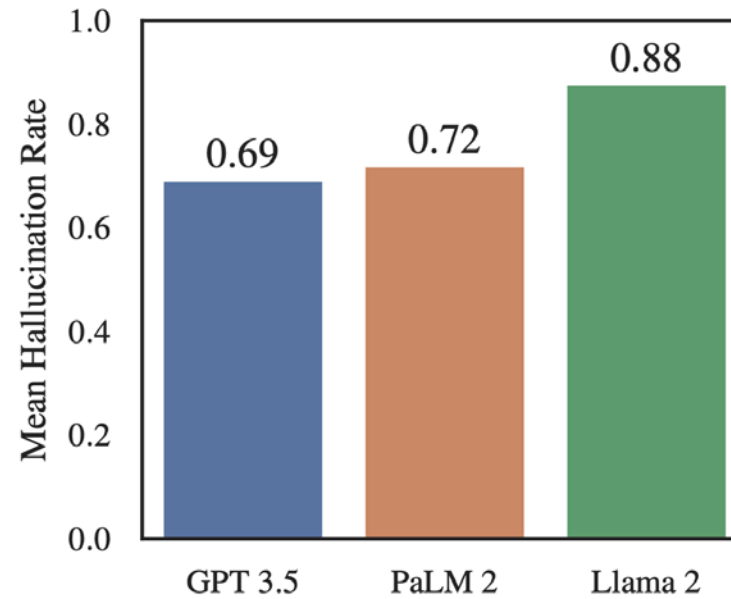


Figure 1: Hallucinations are common across all the LLMs we test when they are asked a direct, verifiable question about a federal court case. (Figure pools all reference-based tasks.)

2. How will the EU regulatory framework be implemented?

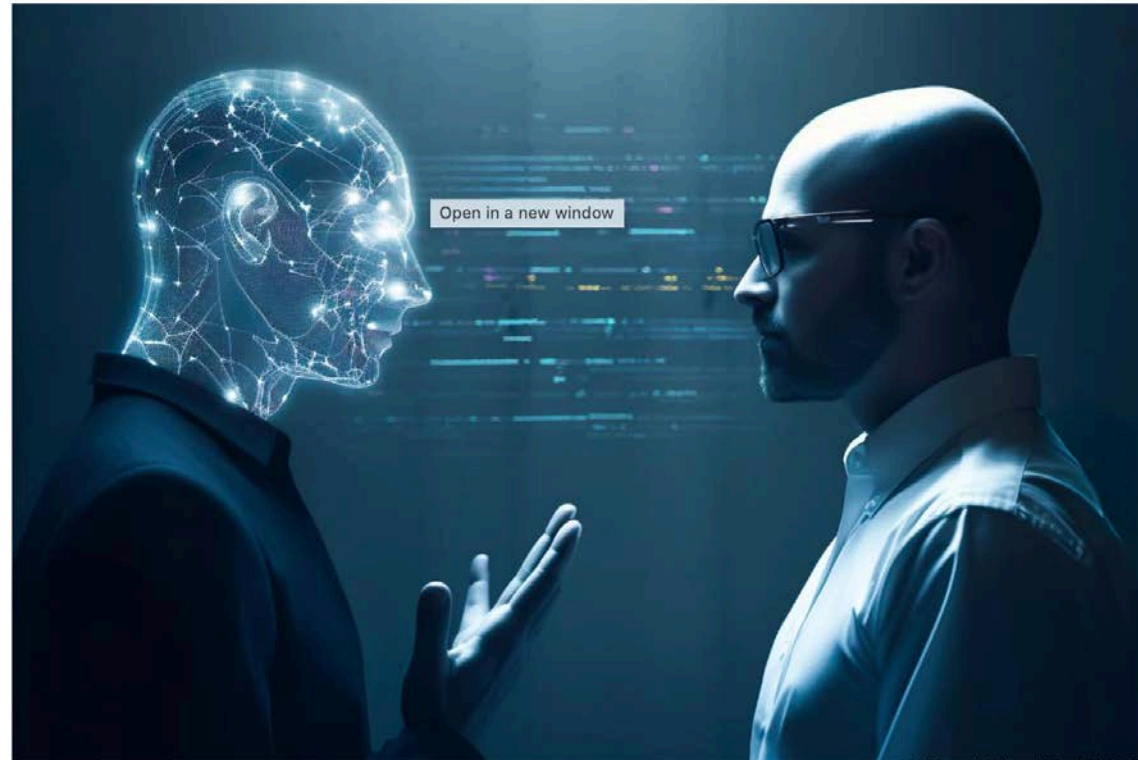
EU AI Act

European Parliament

EU AI Act: first regulation on artificial intelligence

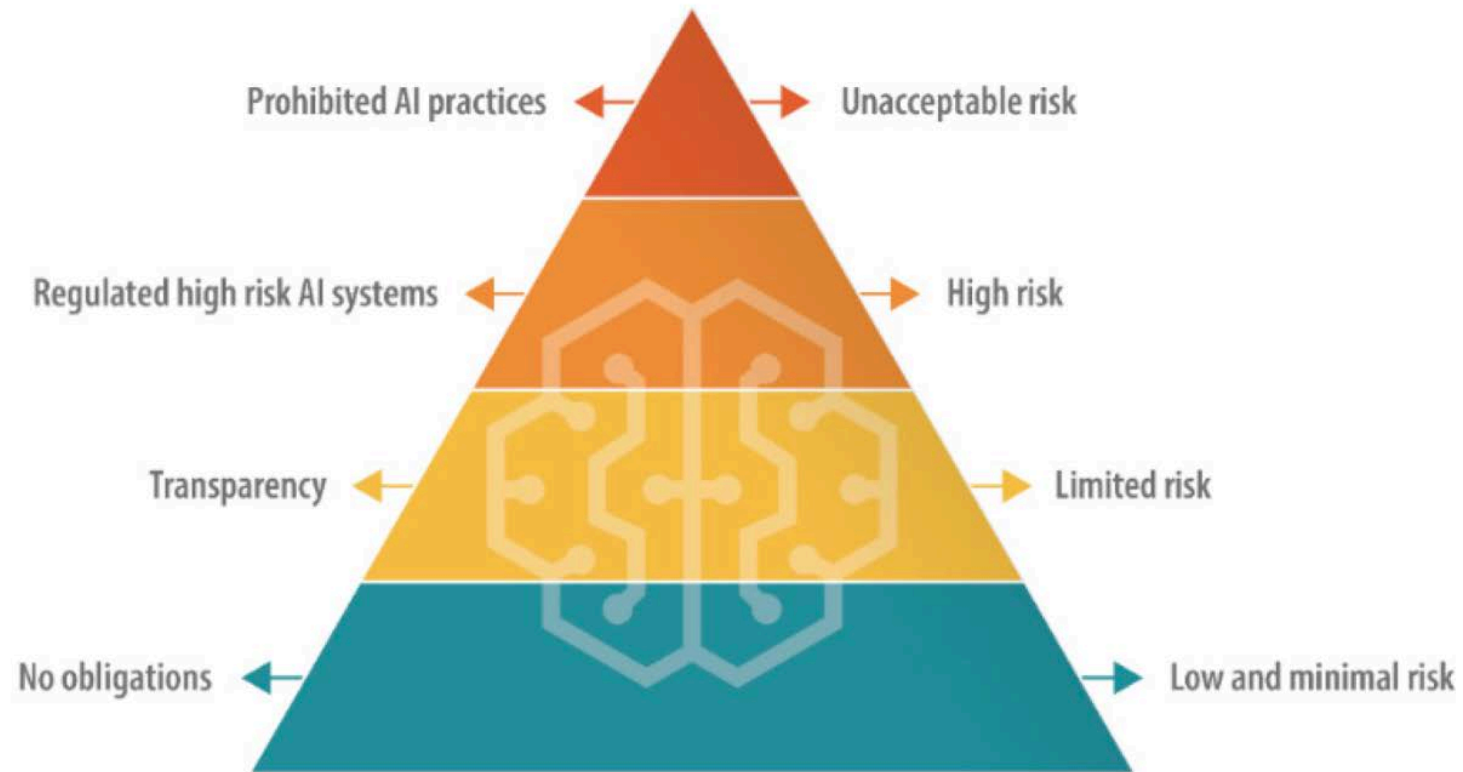
Society Updated: 14-06-2023 - 14:06
Created: 08-06-2023 - 11:40

The use of artificial intelligence in the EU will be regulated by the AI Act, the world's first comprehensive AI law. Find out how it will protect you.



Risk-based approach

Pyramid of risks



MEASURES IN SUPPORT OF INNOVATION

Article 53

AI regulatory sandboxes

1. AI regulatory sandboxes established by one or more Member States competent authorities or the European Data Protection Supervisor shall provide a controlled environment that facilitates the development, testing and validation of innovative AI systems for a limited time before their placement on the market or putting into service pursuant to a specific plan. This shall take place under the direct supervision and guidance by the competent authorities with a view to ensuring compliance with the requirements of this Regulation and, where relevant, other Union and Member States legislation supervised within the sandbox.
2. Member States shall ensure that to the extent the innovative AI systems involve the processing of personal data or otherwise fall under the supervisory remit of other national authorities or competent authorities providing or supporting access to data, the national data protection authorities and those other national authorities are associated to the operation of the AI regulatory sandbox.



3. Will EU courts develop or partner?

Customer Stories

The Need for AI in the Modern Judiciary

Each day, nearly 50,000 cases are listed in India's high courts and over a million cases are listed in the country's district courts. With such a high volume of cases, AI tools can help with managing case backlogs and analyzing legal texts to support judicial decision-making and alleviate the pressure on judicial workers. Under India's Digital Court 2.0 initiative, NIC is building AI-driven solutions to improve efficiency, transparency, and accessibility in the administration of justice.

Improving Transcription and Translation of Court Proceedings

With 22 officially recognized languages in India, providing judicial services in citizens' native languages is an ongoing challenge. NIC developed a speech transcription and translation service that supports Indic languages to improve the operation and accessibility of Indian courts.

The streaming automatic speech recognition (ASR) service can transcribe speech in English and seven Indic languages. The Indic language ASR models were trained using the NVIDIA NeMo™ framework. This was deployed on GPUs with Riva to enhance inference capabilities. The neural machine translation (NMT) service supports the translation of court proceedings in all 22 Indic languages. The ASR/NMT solution will assist over 18,000 daily district court sessions after full rollout.

Customer Stories

Building a Court-Proceedings Search Assistant

NIC has developed a RAG-based judicial search assistant for Supreme Court justices. It will serve as a specialized search service to help judges quickly find specific information to support the delivery of justice.

To create this assistant, Supreme Court judgments have been converted into embeddings with the NVIDIA NeMo Embedding microservice and stored in a GPU-accelerated vector database. In response to verdict-specific queries, the RAG solution retrieves information from the vector database using the NVIDIA NeMo Retriever microservice. Results are refined with the NeMo Reranking microservice and fed into a TensorRT-LLM-optimized large language model deployed using LLM NIM, which utilizes the query, prompt, and retrieved context to generate a natural response containing the necessary information and associated verdict documents. The solution was deployed on DGX A100 Tensor Core GPUs and uses NVIDIA AI Enterprise software for efficient embedding generation, reranking, and inference.

The solution will be available to all of India's Supreme Court judges with plans to scale the judicial assistant to the entire judicial system.

NIC has also developed abstractive and extractive document summarization to generate summaries of pleadings. It's crucial for those needing a quick, accurate summary, as manual summarization is time consuming.



Judicial values and AI challenges

- Maksymilian Del Mar (2020), Iris van Domselaar (2022)
- Values of adjudication: experimental character; future-orientedness and emphasis on emotion of judges
- AI challenges:
 - human language and text-based ‘mode of existence’ of law (Mireille Hildebrandt 2015, Bruno Latour 2013);
 - rules of interpretation for code and for law;
 - treatment of facts by judges and code (filtering out as ‘bugs’)
 - Human element of oaths

Fact finding with the help ethical values

114  E. MAK

Table 1. Virtuous judgecraft.

	Skills and techniques	Problem solving	Aesthetic
Judicial perception	Awareness of relevant legal and other aspects (ethics, psychology)	Conflict resolution	Creativity in legal reasoning
Judicial courage		Weighing of individual and societal interests regardless of pressures	
Judicial temperance	Professional display of emotions		Communication with caring and concern
Judicial justice		Alignment with societal development of legal norms	
Judicial impartiality		Adjudication from a neutral point of view	
Judicial independency		Autonomous role in political balance of powers	
Civic friendship			Communication with caring and concern



Thank you.

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