Judicial experts using AI

Artificial Intelligence to provide expertise in a judicial context
CEPEJ Working group on Cyberjustice and Artificial Intelligence (CEPEJ-GT-CYBERJUST).

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- Secretary of the Board at Foundation of the Dutch National Register of Judicial Experts LRGD
- Registered as a judicial expert in the field of Information Technology
- Co-Author of *'Handbook for judicial experts in the Netherlands.'*

EEEI

- European think tank, since 2006
- Contribute to the convergence of national systems of judicial expertise and to mutual trust.
- Observer with CEPEJ for 14 years
- Presently involved in 3 AI-projects (leader: Court of Appeal Venice)
  - **VR-DIGIJUST,** an interactive virtual academy
  - **DIGITAL RIGHTS** Adaptation of European law to new means of evidence and new processes
  - **EuroLegalBot**, an innovative solution creating a ChatBot, judicial cooperation in EU

- https://experts-institute.eu/)

Point of view

- How an individual judicial expert can make good use of AI
- View related to procedure expert investigation and the expert opinion
- How to 'instruct' experts how to work with AI
- NOT from a technical perspective on AI

LRGD: working on draft Guideline

- Knowledge of AI
- Confidentiality of (personal) data
- Responsibility for content
- Transparency on the use of AI
- Relevant laws and regulation

For individual experts

- Working on a program
  - Hands-On instructions for experts
  - Best Practices
  - Intervision groups

- Organised by LRGD but not under responsibility of LRGD

Dutch Regulation

- Expert appointed in person
- Expert must investigate in person
- Expert can choose means and tools
- Auxiliary experts allowed, but after approval of the parties
- Questions asked to the auxiliary expert may need approval of parties

Regular procedure

- The Expert is appointed in person
- Investigates in person
- Is transparent on sources of information: responsible for content
- Is transparent on means and tools: responsible for content and outcome
- Expert opinion holds: Theory – Findings – Motivated Answers
- All of the above accounted for in writing

In practice

- Investigation by judicial expert in person
- Writes the expert opinion in person
- Transparent on sources of information
- Motivated answers to the court's questions

Use of Large Language Model

- Then analyse that (anonymised) expert opinion by means of a Large Language Model
  - E.g. *Is the answer on question 1 motivated logically and consistent with the theory and statements in chapter x, and my investigation in chapter Y?*

- Expert is confident with the content of the basic document

- Procedure is comparable with peer review

- Procedure not in conflict with law or regulation

Use of Large Language Model

- Advised statement in expert opinion (concept)

- *Following the completion of my investigation, the compilation of this expert opinion, and my motivated answers to the questions posed, I have verified the logical structure and consistency of this report using the Large Language Model provided by [name LLM].*

- *To achieve this, I submitted an anonymized version of the report for linguistic analysis via the prompt: "Is the answer provided in Chapter 8 to question 1 [2 and 3] logically and consistently motivated based on the premises outlined in Chapter 6 and the research findings presented in Chapter 7?"*

- *I subsequently reviewed the linguistic suggestions by [name LLM], from a substantive perspective and incorporated them where necessary.*

Use of Large Language Model

- More efficient
  - For the expert: less time (peer) review
  - For the parties: less questions on concept?
- Quality improvement
  - For the court: logically and consistent expert opinion
  - For the parties: judgement based on better expert opinion

Use of other AI: Investigation

- Use other types of AI for the investigation
  - Big data, Image recognition, Machine learning, Predictive analyses, Cognitive computing, Expert systems, Algorithms in general
- Ask any AI–system for an answer to the question of the court

- Can the expert uphold that the investigation is done in person?
  - Is this different from using a scientific publication?
- Can the expert be transparent on sources of information?
  - Is the AI system providing sources? Can the sources be verified?
  - Is the basic information within the discourse of the case?
- Can the expert be transparent on means and tools?
  - Can the expert really explain how the result has been produced?
  - What if the investigation must be verified in an appeal court case?

I cannot answer these questions at this moment in time.
- Time will learn.
- Local or EU Jurisprudence might help.

Using AI for investigation

If AI is used for investigation itself, the expert must, in his expert opinion, be *transparent on the*

- *Used AI-system*
- *Information put to the system*
- *Prompt used*
- *Results*
- *Underlying sources*

Dutch jurisprudence is building: Recent separate cases Netherlands (Court of first instance, Court of Appeal and Administrative Court) confirm this, for the use of AI by a party.

- *Check the results with personal knowledge and theory*

- *Explain why the result is adequate and relevant*

- *If text analysis is used for the thus generated expert opinion: another AI-system must be used for that*

Experts cannot be replaced by AI
Experts will be replaced by Experts-using-AI

Thank you for your attention.

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