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Can artificial intelligence and virtual reality become part of the judicial reform in Ukraine?

The year 2024 may set a record for the number of statements by officials overseeing judicial reform regarding staffing issues in Ukrainian courts.

Here is the latest [statement](#) by the Chairman of the High Council of Justice (HCJ) Hryhoriy Usyk:

"Currently, the number of judges who are dismissed significantly exceeds the number of candidates for the positions of judges who can be conducted through competitive procedures by the High Qualification Commission of Judges of Ukraine and recommended for appointment by the High Council of Justice. Accordingly, the workload on those judges who work increases. Under such conditions, ensuring citizens' access to justice is extremely problematic. If the procedural rights of persons are not respected, effective, full, comprehensive and open judicial consideration of cases is not ensured, then trust in the judicial branch of power will not be achieved."

In the [notification](#) of the High Qualification Commission of Judges of Ukraine (HQCJ) on the announcement of a competition for vacant positions in local courts, an even harsher assessment of the situation was applied: "Catastrophic shortage of judges in local courts". According to [the official statistics of the HQCJ](#) (which is the most accurate), the number of judges in local courts should be 4956. At the same time, the number of vacant positions as of December 9, 2024 is 1197 (24%). The number of positions of judges of courts of appeal should be 1357. And the number of vacant positions is 745 (54%!). A difficult situation has developed even in the Supreme Court (SC). There should be 196 judges, but 6 years after the first competition, there are already 43 vacant positions (22%) in this court. This leads to an overload of judges, delays in the consideration of cases, a decrease in the quality of justice, and an increase in the possibility of political pressure and corruption risks, ultimately leading to a loss of trust in the judicial system.

Considering the forecast of the development of events, on December 11, 2024, the HQCJ announced a new selection of candidates for the position of judges of local courts for an unprecedented number of vacancies – [1800](#).

Given the complexity and duration of the procedures for selecting new judges, which depend on the coherence of the work of the HQCJ, the HCJ, and the Office of the President, it would be too optimistic to wait for a quick solution to the problem. Meanwhile, other technological tools, such as artificial intelligence (AI) tools, make it possible to simplify and speed up the work processes of judges, their assistants, and members of collegial bodies of judicial governance.

Judges' fears

The information contained in open sources in many languages demonstrates that judges in different countries of the world concerning AI are divided into several groups:

- (1) those who know nothing about AI except that they have heard the words "artificial intelligence" and are even unreasonably afraid of it because "it may someday replace a judge";
- (2) those who know nothing about AI but are already actively using it not only in everyday life but also at work;
- (3) those who have not only heard but also tried to use new fashionable generative AI tools such as ChatGPT, Copilot, and others;
- (4) those who actively contribute to implementing AI developments in professional life.

We will not criticise representatives of the first group if only because they do not suspect they already belong to the second group. At least, this can be said about Ukrainian judges, who have already been officially recorded, even by international organisations.

Oddly enough, this applies to the use of some important technologies with elements of AI, which the laws of Ukraine have long regulated. This is, for example, the Unified State Register of Court Decisions ([USRCD](#)), which has been operating for many years, the use of which is provided for [by the Law](#) "On Access to Court Decisions" and is carried out by the State Judicial Administration of Ukraine ([SCA](#)).

It is also a procedure for depersonalisation in the text of an electronic copy of a court decision or a separate opinion of a judge of information that cannot be disclosed by the requirements of the law using specialised software, followed by a selective visual check of the results of such masking. It is important to pay special attention to the fact that the USRCD, together with the procedure of depersonalisation of court decisions, are included in the database [of the Resource Center](#) Cyberjustice and AI of the European Commission for the Efficiency of Justice of the Council of Europe ([CEPEJ](#)).

We believe that this database should also include at least the procedure for the automated distribution of court cases among judges, which has been in force in Ukraine since 2010. The automated distribution also applies to disciplinary complaints among **HCJ members and cases between HQCJ members** in qualification assessment procedures, competitive procedures, and other procedures.

Since [2021](#), the Supreme Court (SC) has created and used the Database of Legal Conclusions of the Supreme Court, which, thanks to its updates in 2023, uses AI capabilities to search for relevant practices of the Supreme Court and the European Court of Human Rights (ECtHR).

You can see how this innovative development was created [here](#).

The key feature of the database is its full-text search capabilities. Thus, it is possible to upload a text document of a significant volume or a certain text fragment – several paragraphs, a page, or several pages – and the Database, for the available text in this document, selects the relevant practice of the Supreme Court (the practice of the Supreme Court by national legislation should be taken into account when considering such cases).

The database operates with open access and can be used by anyone who has access to the Internet, not just assistant judges and judges. According to some reports, the database will be improved again in 2025, and at this stage, the possibility of using generative AI is being explored. This is necessary to generate a key conclusion in a particular case from the full text of the Supreme Court's decision.

Also, the Supreme Court has created its translator from English into Ukrainian and vice versa for translating the ECtHR practice, which is trained on the official

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translations of ECtHR decisions carried out by **the Ministry of Justice of Ukraine**. Thus, this translator takes into account the peculiarities of the terminology used by the ECtHR and its translation, and helps solve, among other things, [the problem](#) of translation correctness.

Thus, for more than 15 years, Ukraine has been confidently using AI in judicial proceedings and procedures of judicial authorities. Moreover, it can be argued that introducing these systems resulted in successful reforms in terms of electronic justice.

And what about other countries?

Today, it can be argued that most AI tools for justice are classified according to two main criteria: those that save working time and those that reduce judges' workloads.

Chile. In [this country](#), judges already use Dragon Naturally Speaking software, which allows them to make decisions by converting audio to text in real-time. It also works with pre-recorded audio files.

The Oficina Legal Virtual (OJV) platform allows you to file lawsuits and written documents electronically anywhere, anytime, for all jurisdictions in the country and all levels of jurisdiction.

Experts say AI is already widely used in Brazil's legal sector. It is a standard tool for lawyers to monitor cases and research case law.

The Brazilian justice system is deploying a series of AI tools precisely to help reduce the huge number of cases.

As of 2019, there were [80 million trials](#) in the Brazilian judicial system, while there were only 18,000 active judges. That is, each judge needs to process 4440 claims per year. In addition, unlike the USSR of Ukraine, Brazil does not have a centralised database of court decisions in the public domain.

To solve these problems, the [National Council of Justice](#) of Brazil allowed 92 courts that it administratively supervises to develop their own AI models, which led to inconsistency of IT systems in courts across the country. After all, many courts create and use at least 8 [different litigation management systems](#).

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[A survey](#) conducted in 2021 found that the Initiatives are mainly focused on data structuring and automating workflows to improve the efficiency of judicial services.

The National Council of Justice of Brazil has created a national platform, SINEPSIS, to store and disseminate AIs developed or recommended by the Brazilian judiciary. The Supreme Federal Court also uses the Victor chatbot to analyse and classify cases.

Another AI tool already [used](#) in Brazil's judicial system is designed to make it easier to recognise patterns in legal texts (usually PDF documents) used by the Supreme Federal Court.

India is very similar to Brazil regarding the number of pending cases. However, the situation in India is even more complicated since 22 officially recognised languages are used in this country, which means that providing court services in the native languages of citizens is a constant problem.

NIC has also created a trial transcription tool that supports Indian languages, solutions for judicial search, and a tool for summarising case law.

An AI tool known as [AI Saransh](#) is designed to generate summaries of court cases.

[Singapore](#) has created a generative AI system that answers questions based on pre-loaded data. The system can inform the litigant how to act according to their requirements and point to relevant websites.

China, like Ukraine, has problems enforcing court decisions. Instead, China has introduced systems that track the parties' assets to the dispute, facilitate compliance with court orders, and facilitate the freezing or seizure of assets. For example, the Hangzhou Internet Court uses such an AI system to cross-check national databases automatically.

The U.S. **Court of Appeals for the Ninth Circuit** (Florida) uses [digital reporters](#) to monitor audio recordings of court hearings and create official written transcripts. They can work remotely and observe multiple courtrooms simultaneously.

Attention is paid to developing the digitalisation of justice and using AI tools at Europe's highest state and political level.

Every year since 2020, the European Union has prepared a Rule of Law Report, which systematically and objectively analyses changes in the rule of law in all Member States. At the same time, the analytical sections on the quality of justice highlight efforts to develop e-justice and, in particular, AI tools. The Rule of Law Report [2024](#) provides information for each EU member state and four candidate countries.

The European Commission for the Quality of Justice (CEPEJ) takes care of the quality of justice in the Council of Europe (CoE). This body was created due to the excessive workload of the European Court of Human Rights to reduce such a burden by increasing the efficiency and quality of justice in the member states.

The Report "European Judicial Systems—CEPEJ Evaluation Report—Evaluation Cycle 2024 (data for 2022)," published on October 16, 2024, contains reliable data and analytics on the functioning of the judicial systems of 44 European states (including Ukraine) and two observer states (Israel and Morocco), making it possible to measure the effectiveness and quality of these systems.

The CEPEJ questionnaire for the Report does not focus specifically on AI tools, as outlined in the "Information and Communication Technologies" section. However, the questionnaire includes thorough general analytics and samples of advanced features in various tools, which may consist of successful attempts to implement them. For example, it is noted that speech-to-text conversion already exists in 12 CoE member states. Automatic transcription from records to text is carried out in 8 countries.

In the database [of the](#) CEPEJ Resource Center for Cyberjustice and Artificial Intelligence, the above and other AI tools are classified into the following types:

1. Search, document review, and full-scale research
2. Online Dispute Resolution
3. Forecasting the results of litigation
4. Decision support
5. Anonymization of the texts of court decisions
6. Sorting, distribution, and workflow
7. Recording, transcription, and translation
8. Information and support services

AI, virtual reality and judiciary

In the last 2-3 years, another topic related to the digitalisation of law has appeared in the legal literature, particularly virtual reality. So far, little attention has been paid to the relationship between courts and judges with virtual reality. However, the number of publications in [UK](#), [Ukraine](#) and [other countries](#) (including on practical technology use) is multiplying.

Attention to this direction of justice development is also growing in international organisations. Thus, [in 2023](#), UNESCO emphasised:

“Virtual Reality (VR) and Augmented Reality (AR) are rapidly changing the trial processes in the courtroom. VR and AR can be used to recreate crime scenes, present complex data in real-time, and provide an interactive and immersive experience for the audience, all of which have important implications for the justice system.

This is not only a timely topic but also a crucial one. As technology advances, it is imperative that the legal system keeps pace to ensure that it remains fair, just, and effective. VR and AR have the potential to significantly impact how trials are conducted, how evidence is presented, and how justice is delivered. “

Important attention is paid to the development of legal aspects of the interaction of AI and virtual reality in the [G7's and the European Union](#).

Thus, today, in many countries (including Ukraine), various AI tools have been developed and are effectively used to optimise work processes in courts. International organisations, including Ukraine, are also involved in promoting the development of judicial systems in a highly pragmatic way. And this work is intensifying more and more every month. We can note with some optimism that significant successful results in Ukraine have been achieved thanks to the joint work, for example, of the Supreme Court together with the EU Project Pravo-Justice in the draft mentioned at the beginning of this text. Attention should also be paid to the draft of the new concept of the Unified Judicial Information and Communication System (USICS), developed by the joint efforts of the State Judicial Administration, the High Council of Judiciary, the Ministry of Digital Transformation of Ukraine with the political support of the Verkhovna Rada of

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Ukraine Committee on Legal Policy and USAID Justice for All Activity and the EU Project Justice-Justice.

Using reliable AI tools can become an optimistic component of the national judicial reform strategy and examples of successful individual projects in courts and judicial governance bodies.

The following blog will discuss how AI development is defined in state documents at the level of strategies and policies, how it is regulated by laws and bylaws, who can become agents of change, and who can prevent AI's introduction in Ukrainian judges' activities.