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SMART TECHNOLOGIES IN JUSTICE: PERSPECTIVES FOR UKRAINE

Abstract. Purpose. This article aims to substantiate the feasibility and ways of implementing the smart justice paradigm in Ukraine in the context of the digitalization of judicial processes and the improvement of the functioning of the judicial branch of government. The article aims to explore the concept of smart justice, identify prospects for its implementation in Ukraine, and consider legal aspects and necessary legislative changes for the full integration of innovative technologies into the national justice system. **Research methods.** The paper employed a set of various general scientific and special methods for a comprehensive study of the problem and substantiation of the prospects for implementing smart justice in Ukraine. The method of analysis was used to study scientific publications, legal acts, and international documents on the digitalization of justice and the application of innovative technologies in the legal sphere. This allowed us to explore the theoretical foundations of the concept of “smart justice”, existing practices, and legal regulation. Comparative analysis was conducted to compare the current state of digitalization of the judicial system of Ukraine with international experience in implementing smart technologies and identify gaps and opportunities for improvement. The systematic approach was used for a comprehensive consideration of smart justice as a multi-component concept with various interrelated elements. Empirical methods were applied to study the experience of using digital technologies in documenting war crimes in Ukraine. The modeling method was used to develop the proposed model of a chatbot for sending electronic court summons as an example of a smart tool for process optimization. The project method contributed to determining the necessary legislative changes and developing a regulatory framework for the full implementation of smart justice. **Results.** According to the set goal and objectives, the following key results were obtained in the study: I. the concept of “smart justice” was explored as a paradigm of modernization of the justice system through the widespread introduction of modern information technologies (IT) into judicial processes; II. the main goals, elements, and technologies of smart justice were identified; III. the prospects for the implementation of smart justice in Ukraine were considered; IV. the urgent need for digitalization of justice was substantiated amidst war conditions to ensure the continuity of justice; V. the experience of using IT tools for documenting war crimes was analyzed; VI. the legal aspects of the introduction of smart technologies in the judiciary of Ukraine were studied; VII. the existing regulatory framework and gaps in legislation were identified; VIII. the need to develop special comprehensive legislation was substantiated; IX. a model of a chatbot for automated sending of electronic court summons was developed as an example of a smart tool for optimizing judicial processes; X. the ways were outlined and recommendations were given on the harmonious integration of digital technologies into the judicial system of Ukraine, taking into account the principles of the rule of law and protection of citizens’ rights. The obtained results provide a basis for a substantiated implementation of the smart justice paradigm in Ukraine to digitalize and improve the functioning of the judicial branch of government. **Conclusions.** The expediency and ways of introducing the smart justice paradigm in Ukraine for the digitalization of judicial processes and modernization of the judicial system have been substantiated. The concept of smart justice involves the wide integration of the latest technologies, including electronic

document management, video conferencing, AI, and blockchain in the judiciary to increase its efficiency, transparency, and accessibility. The study revealed the urgent need for the active introduction of digital solutions in domestic courts in the conditions of war to ensure the continuity of justice. At the same time, there is a need to develop specific legislation to regulate the use of innovative technologies in judicial processes while observing the principles of the rule of law and the protection of human rights. The proposed model of a chatbot for electronic court summons demonstrates the capabilities of smart tools for optimizing judicial proceedings. The results of the study provide a basis for a substantiated and balanced implementation of the smart justice paradigm in Ukraine, which will contribute to the digitalization, and increase in efficiency and transparency of the national judicial system while simultaneously observing the principles of the rule of law and protection of citizens' rights.

Key words: smart justice, digitalization of justice, electronic court, artificial intelligence, electronic evidence, judicial reform, legal regulation of IT in the judiciary, digitalization of judicial system, cybersecurity.

1. Introduction.

The modern world is rapidly transforming into a "smart" one thanks to innovative IT and smart devices. Artificial intelligence (AI), big data, blockchain, Internet of Things, smart cities, digitalization, automation, robotics, and nanotechnologies are opening up new opportunities for all spheres of human activity, including the military sphere, national security, and justice. At the same time, these technological revolutionary changes are creating new threats that will intensify in the digital society of the future. Smart devices are vulnerable to cyberattacks, leading to an increase in cybercrime and security threats. Therefore, judicial and law enforcement bodies must focus on IT, data science, and analytics, which provide innovative opportunities for detecting, preventing, and solving cyberspace-related crimes. However, along with this, ensuring fair justice and respect for human rights remain key priorities for any society. The introduction of smart technologies in the judiciary must guarantee impartial and equal access to justice for all citizens, as well as protect their fundamental rights and freedoms. The use of AI, data analytics, and automated decision-making systems in the judicial system must be based on the principles of transparency, accountability, and non-discrimination to prevent bias and violations of human rights.

Recently, the field of smart justice has been actively studied at both the national and international levels. The relevant topic is actively examined by organizations such as the UN, WHO, Council of Europe, and the European Commission for the Efficiency of Justice. They publish reviews, guidelines, and recommendations on best practices for using innovative technologies in judicial systems. The number of scientific publications dedicated to smart justice is growing. In particular, R. Sathyaprakasan et al. studied the possibilities of implementing blockchain technology for the digitization of the forensic evidence management system and to ensure the proper maintenance of the chain

of custody over evidence (Sathyaprakasan et al., 2021). G. Lupo and D. Carnevali examine the institutional, organizational, and technological factors that shape the development of smart technologies within highly regulated public institutions, such as justice systems (G. Lupo and Carnevali, 2022). Demertzis et al. proposed a framework that leverages artificial intelligence innovations like natural language processing, ChatGPT, ontology alignment, and semantic web technologies, combined with blockchain and privacy techniques, to analyze and provide recommendations for improving the administration of justice (Demertzis et al., 2023). The researcher M.A. Wojcik studied the possibilities of applying algorithmic decision-making for making decisions regarding the prosecution of arrested individuals (Wojcik, 2020). D. Garingan & A.J. Pickard investigated theoretical frameworks for promoting algorithmic literacy among legal information professionals (Garingan & Pickard, 2021). A. Zhuk investigated the application of blockchain technology to the legal system through decentralized online dispute resolution mechanisms, with a specific emphasis on the Kleros platform (Zhuk, 2023). D. Barysé studied the implementation of legal technologies in courts (Barysé, 2022). To date, an international environment has been formed for a fruitful exchange of ideas and best practices in the field of digitalization of justice. However, this area is insufficiently studied. In addition, IT is rapidly developing, constantly offering new technological solutions. The digitalization of justice is one of the priorities of judicial reform in Ukraine. The introduction of innovative IT into the judicial system is considered a means of increasing the efficiency, transparency, and accessibility of justice. Therefore, research on smart justice is relevant and important for modernizing the judicial system of Ukraine through current technological trends and best global practices.

The study employed a set of general scientific methods, including analysis, synthesis, comparison, and modeling, as well as specific

empirical and project methods for a comprehensive study of the problem and substantiation of prospects for implementing smart litigation in Ukraine. The method of analysis was applied to study scientific publications, legal acts, international documents on digitalization of legal proceedings, and the application of innovative technologies in the legal sphere. This allowed us to examine the theoretical foundations of the “smart litigation” concept, existing practices, and legal regulation. Comparative analysis was used to compare the current state of digitalization of the judicial system in Ukraine with international experience in implementing smart technologies to identify gaps and opportunities for improvement. A systematic approach was implemented for the systematic consideration of smart litigation as a comprehensive approach with various interrelated elements – electronic document management, video conferencing, AI, blockchain, electronic evidence, etc. Empirical methods were implemented to study the experience of using digital technologies to document war crimes during the war in Ukraine. The modeling method was used to develop the proposed model of a chatbot for sending electronic court summons as an example of a smart tool for optimizing court processes. The project method was used to determine the necessary legislative changes and develop a legal framework for the full implementation of smart litigation in the Ukrainian judicial system.

The main goal of the study is to substantiate the feasibility and ways of implementing the smart litigation paradigm in Ukraine to digitalize court processes and improve the functioning of the judicial branch of government.

2. The Concept of Smart Litigation

Against the backdrop of the informatization of information activities of judicial and law enforcement bodies, there is no doubt about the feasibility of using machine learning, big data, AI algorithms, and blockchain technology in the justice system (Kovalchuk et al., 2023; Sathyaprakasan et al., 2021; Vasconcelos et al., 2023). These and other innovative technological tools have become the basis for the paradigm of smart litigation. Smart litigation is the concept of modernizing the justice system through the widespread introduction of modern IT into court proceedings. It is a comprehensive approach aimed at increasing the efficiency, transparency, and accessibility of litigation through digital solutions. The goal of smart litigation is to optimize processes, reduce case processing times, reduce administrative costs, ensure equal access to justice, and increase transparency of the judicial system as a whole. At the same time, it must be based on the principles of the rule of law, impartiality, and fairness.

This innovative approach to the administration of justice involves the widespread introduction of digital technologies into court proceedings and the justice system as a whole (Lupo & Carne, 2022). Its main purpose is to modernize and optimize the judicial system and increase its efficiency, transparency, and accessibility for citizens. One of the key components of smart litigation is the concept of an electronic court, which involves the complete digitalization of document flow, case registration, scheduling of court hearings, and communication between participants through a single electronic platform (Kovalchuk & Teremeckyi, 2023). Such a system ensures a rapid exchange of information, reduces paperwork and bureaucratic procedures, accelerates case processing, and saves resources. Digital tools for smart litigation include electronic document management systems, video conferencing, analytical systems, AI, cloud services, and more. They optimize workflows and increase productivity.

Smart litigation actively employs artificial intelligence (AI) and big data analytics technologies for automated searching and analysis of precedents, legislative acts, and judicial practice, providing judges with a powerful tool for making more substantiated and consistent decisions (Ho et al., 2022; Berezka et al., 2022). Ensuring the digital integrity and authenticity of electronic evidence is also an important aspect, which is addressed through appropriate technologies for protecting and verifying digital data.

The justice system bodies are increasingly using blockchain technology for transparent and secure collection, processing, and access to evidence. Blockchain technology is a distributed database or electronic ledger under decentralized control, allowing it to deviate from traditional investigative actions (Demertzis et al., 2023). The most widespread application of blockchain technology is Bitcoin, which is increasingly becoming a tool for committing crimes on the dark web (Kovalchuk et al., 2021). With blockchain solutions, evidence can be tracked throughout the entire investigation period: from the crime scene to the courtroom, ensuring transparency, integrity, and immutability. Blockchain can provide reliable information support to criminal justice investigators, court authorities, and prosecutors in criminal decision-making. The implementation of blockchain technologies in law enforcement practice will reduce the rate of wrongful convictions, ensure fairness and transparency of the criminal justice system, and increase trust in it.

The widespread use of video conferencing allows court hearings to be conducted remotely, saving time and money for the participants and making justice more accessible for peo-

ple with disabilities or those living in remote regions. Providing citizens with online access to information about court cases, the ability to submit documents and track their status significantly increases the overall transparency of the system (Garingan & Pickard, 2021).

One of the elements of smart litigation is digital evidence. It plays a key role in modern litigation and criminal investigations. This is any information collected in digital form that can be used as evidence in court or investigation (Karagiannis & Vergidis, 2021). Digital evidence can include electronic documents, digital photographs, audio and video recordings, metadata, geolocation data, digital traces in social networks, and messengers. Ensuring the integrity, authenticity, and protection of digital evidence from unauthorized changes is an extremely important task (Lone & Mir, 2019). Therefore, special methods of collecting, processing, storing and verifying digital data are needed, as well as appropriate technologies and expertise for presenting them in court proceedings.

Providing citizens with online access to information about court cases is an important step toward ensuring transparency and accountability of the judicial system (Barysè, 2022). Through special web portals or mobile applications, people can access registers of court decisions, review case materials, and track their status and progress. This increases public trust in the judiciary, as anyone can trace the progress of a particular case. Online access also makes it easier for citizens to submit documents to the court in electronic form, saving time and resources. At the same time, it is necessary to ensure proper protection of personal data and confidential information when providing such online access (Zhuk, 2023).

Enhanced cybersecurity measures are critically important for ensuring data protection in smart litigation. As huge amounts of confidential information and personal data will be processed in electronic court systems, robust barriers against cyberattacks, data leaks, and unauthorized access are needed. This includes the use of encryption, multi-level authentication, data backup, regular software updates, and training staff on cybersecurity hygiene principles. Judicial institutions must carefully control and audit access to their information systems. Collaboration with cybersecurity experts and continuous threat monitoring will help detect and quickly respond to potential incidents, ensuring the integrity and confidentiality of court data (Demertzis et al., 2023).

An essential element of implementing smart litigation is digital tools for the training and professional development of judges,

court staff, and lawyers. Online courses, webinars, virtual training, and simulations allow effective mastery of new technologies, legal innovations, and best practices. Interactive learning platforms provide convenient access to materials anytime and anywhere. The use of virtual and augmented reality can simulate court proceedings for skills practice. Digital tools also facilitate experience sharing between professionals and experts from different regions. Regular training of court system employees in new digital tools is necessary for the successful implementation of smart technologies in court operations.

Smart litigation is a cutting-edge approach to organizing court proceedings with the widespread use of digital technologies. Implementing smart technologies in litigation requires careful planning, staff training, building the necessary infrastructure, and strengthening cybersecurity measures to protect confidential data from leaks and cyberattacks. However, the benefits of such a digital transformation of the judicial system are obvious – increased efficiency, transparency, accessibility of justice for citizens, as well as strengthening the rule of law and trust in the judicial branch of government.

3. Prospects for Implementing Smart Litigation in Ukraine

Since the mid-1990s, leading countries around the world have been actively researching and implementing IT in the judicial system. This changes not only the usual process of hearing court cases but also breaking the established stereotype of court proceedings in a “face-to-face” format. Such radical changes raise concerns about the rapid and reckless implementation of new technologies, which must take place in harmony with the main mission of law and the court. Many progressive countries have already introduced so-called virtual litigation, based on the comprehensive use of modern IT and telecommunication means in the administration of justice (Romdoni et al., 2022). The informatization of Ukrainian litigation is currently limited to the automatic distribution of cases, technical recording of sessions, an automated document management system, and infrequent cases of virtual proceedings with video conferencing, which are additional to the traditional procedures of court interaction with the participants (Teremetskyi, 2023a; Kovalchuk & Banakh, 2023). The achievements of the Ukrainian judicial system in recent years should not be underestimated or dismissed. On the contrary, it is necessary to use the existing, proven technologies for the further development of the entire information system, up to a full-fledged virtual court in the future. The implementation of true virtual litiga-

tion involves not only an extensive system for recording proceedings but also means of communication between the court and participants, the possibility of remote case consideration, automated workplaces for judges, assistants, experts, automated decision-making and support systems, forensic examination, generating statistical reports, and more (Barysé, 2022).

In Ukraine, smart litigation is still in its initial stage. Since March 2023, it has been possible to receive notifications about court cases and court decisions in digital format through the “Diia” mobile application (Mobilnyi zastosunok Diia zavantazhyly 1,9 mln ukrainsiv, 2020). However, modern innovative technologies can become the basis for creating smart litigation in Ukraine. The issue of digitalization and automation of court proceedings is becoming particularly important in the context of the full-scale war unleashed by Russia against Ukraine (Teremetskyi, 2023b). This aggression has caused enormous destruction to the country’s infrastructure, including the judicial system. Many court buildings were damaged or destroyed due to shelling and bombing. Hundreds of judges and court staff had to evacuate from the combat zones. In such a critical situation, digital technologies and automated court processes can ensure the continuity of justice and citizens’ access to legal protection. Smart litigation enables the use of electronic document flow, video conferencing, online case registration, and more. This allows courts to function remotely and avoid work interruptions due to the war.

Ukraine is actively using advanced digital tools for systematic documentation, thorough investigation, and ensuring accountability for war crimes committed by Russian troops during the full-scale invasion. Unlike past conflicts, where the main focus was on crimes against life and health, the current war investigates a wider range of violations. In particular, cases of sexual violence, environmental crimes (such as damage to nuclear facilities, and destruction of the natural environment with long-term negative consequences), and cyberattacks in the context of their potential qualification as war crimes are being thoroughly studied. One of the most challenging tasks is identifying specific perpetrators of crimes. For this purpose, the latest IT solutions are being actively used, such as Palantir tools for big data analysis, and Microsoft for voice and face recognition based on artificial intelligence. These unique technologies help to comprehensively analyze and properly record the evidence base (Bergengruen, 2022).

The Ministry of Digital Transformation of Ukraine has created several digital tools to engage citizens in documenting destruction,

collecting evidence, and classifying violations during the war. These include crowdsourcing chatbots, programs for recording damage to buildings, tools for adding geotags, timestamps to photos/videos, and recognizing the faces of military personnel. All collected information is stored in a single centralized database of the Office of the Prosecutor General. In combat zones, civilians can use smartphones to quickly collect photo and video evidence of violations directly at the scene. Specialized software allows recording time, geolocation data, and cryptographic tags to confirm their authenticity and integrity. Blockchain technology prevents the loss or substitution of digital evidence (Batista et al., 2023; Ali et al., 2022). Public-key cryptography provides reliable source authentication, while cloud storage ensures the backup of collected materials in different data repositories (Bergengruen, 2022).

The use of IT tools for documenting war crimes is regulated by several international documents, including the Geneva Conventions (Zhenevski konventsii pro zakhyst zhertv viiny 1949 roku, 1949), Additional Protocols (Dodatkovi protokol do Zhenevskykh konventsii vid 12 serpnia 1949 roku, shcho stosuietsia zakhystu zhertv mizhnarodnykh zbroinykh konfliktiv, 1977), the Statute of the International Criminal Court (Rymskyi statut mizhnarodnoho kryminalnoho sudu, 1998), UN Security Council resolutions (Rezoliutsii, 2023), and the UN Guidelines on the Collection of Digital Evidence (Cybersecurity and New Technologies. Guide for First Responders on the Collection of Digital Devices in the Battlefield, 2023). This helps to increase the legal force of digital evidence for effectively bringing those responsible for war crimes to justice (Guidelines First Responders on the Collection of Digital Devices in the Battlefield, 2023).

The active implementation of smart litigation in Ukraine is an urgent necessity in the context of the war with Russia. This will help preserve the functioning of the judicial system, ensure citizens’ access to justice, and increase the efficiency and transparency of court proceedings. On 02/23/2023, the State Judicial Administration of Ukraine approved the order “On Approval of the Procedure for Sending Court Summons, Notifications and Subpoenas to Participants in Court Proceedings in Electronic Form” (Pro zatverdzhennia Poriadku nadsylannia sudovykh povistok, povidomlen i vyklykiv uchasnykam sudovoho protsesu v elektronnii formi, 2023). In this regard, the development of chatbots for the automated sending of court summons is appropriate and promising. Such a chatbot can perform the following functions:

1. Send messages to persons to whom a court summons is addressed, informing them of the need to appear in court at the specified time and place. The message may contain a summary of the case and the date, time, and location of the court hearing. If necessary, the chatbot can request confirmation of receipt of the summons from the recipient.

2. Send reminders a certain period before the court hearing date (e.g., 3 days, 1 day, etc.). Reminders may contain details of the court hearing and links to relevant documents or instructions.

3. Send special messages to persons whose appearance is mandatory (witnesses, experts, etc.). The message may contain a warning about possible consequences of non-appearance without good reason. The chatbot may require confirmation of receipt of the mandatory summons.

4. Promptly inform all recipients of changes in the date, time, or location of the court hearing. Provide updated information on the new date and time of the hearing.

5. Provide additional information upon request about procedures, required documents, court address, etc. Send instructions or links to detailed explanations on how to get to the court, where to wait, rules of conduct, etc.

6. Collect feedback from users on the quality of the information sent, clarity of instructions, etc. Allow users to ask questions and provide answers within the competence of the chatbot.

The proposed chatbot can significantly facilitate the process of notifying participants in court proceedings, ensure prompt communication, and improve the efficiency of case consideration. However, it should be taken into account that not all participants in court proceedings can receive electronic summons. Of course, this is a significant minority. Nevertheless, it is necessary to provide alternative options for ensuring equal access to legal information for all categories of the population and to develop legal mechanisms that would regulate this issue at the state level. At the same time, the introduction of digital technologies in litigation contributes to increasing the transparency and efficiency of the judicial system. All procedural actions can be recorded electronically, ensuring access for parties and the public. Automation of certain processes reduces the workload on judges and staff, accelerating case consideration.

The legal basis for the implementation of smart technologies is the legal framework (regulatory framework for electronic litigation, electronic document flow, electronic digital signature). Currently, Ukraine does not have special legislation that would comprehensively regulate the use of smart technologies in litigation. However, there are a number of regulations that

create a legal basis for the introduction of individual digital tools in the judicial sphere: The Law of Ukraine “On the Judiciary and the Status of Judges” (Pro sudoustrii i status suddiv, 2016) provides for the possibility of using video conferencing during a court session; The Law of Ukraine “On Electronic Trust Services” regulates electronic document flow, electronic signatures and seals (Pro elektronnu identyfikatsiiu ta elektronni dovirchi posluhy, 2017); The Law of Ukraine “On Electronic Communications” concerns the use of electronic means of communication in various fields (Pro elektronni komunikatsii, 2020); The decision of the National Security and Defense Council of Ukraine “On the Concept of Artificial Intelligence Development in Ukraine” identifies the use of AI as a priority, including in the field of justice (Pro skhvalennia Kontseptsii rozvytku shtuchnoho intelektu v Ukraini, 2020); separate procedural codes (Civil, Commercial, Criminal Procedure Codes) contain norms on the use of electronic evidence (Kryminalnyi kodeks Ukrainy, 2001; Tsyvilnyi kodeks Ukrainy, 2003; Hospodarskyi kodeks Ukrainy, 2003). There are also bylaws and program documents, in particular the Concept of E-Governance Development (Pro skhvalennia Kontseptsii rozvytku elektronnoho uriaduvannia v Ukraini, 2017), which outline the directions of digitalization of the judicial system.

For the full and comprehensive implementation of smart technologies in litigation, it is necessary to develop special legislation that would regulate the legal aspects of using AI, electronic evidence, online case consideration, etc., while adhering to the principles of the rule of law and the protection of citizens’ rights. A comprehensive study of this issue will help develop a strategy for the harmonious integration of IT solutions into the judicial system. Legal regulation of smart litigation requires amendments to procedural codes, the development of regulations on the use of IT solutions, and ensuring a balance between digitalization and guarantees of human rights in the judicial process.

4. Conclusions

The present study substantiated the feasibility and ways of implementing the smart litigation paradigm in Ukraine for the digitalization of court proceedings and modernization of the judicial system. The concept of smart litigation involves the widespread introduction of modern IT, such as electronic document flow, videoconferencing, AI, big data analytics, blockchain, electronic evidence, etc., to increase the efficiency, transparency, and accessibility of justice. The study revealed an urgent need for the active implementation of smart technologies in the litiga-

tion of Ukraine in the conditions of war with Russia. This will ensure the continuity of court operations, and citizens' access to legal protection, and increase the productivity of court proceedings. The practical experience of using advanced digital tools for documenting war crimes, which can be extrapolated to the judicial sphere, is considered. An analysis of the current legislation of Ukraine revealed the absence of special comprehensive regulation of the use of innovative technologies in court proceedings. The necessity of developing special legislation in this area, amending procedural codes regarding the use of AI, electronic evidence, online case consideration, etc., while adhering to the principles of the rule of law and protection of human rights, is substantiated. As an example of a smart tool for optimizing court processes, a model of a chatbot for automated sending of electronic court summons with capabilities for informing, reminding, and collecting feedback is proposed.

Following the set goal and objectives, the following key results were obtained in the study: I. The concept of "smart litigation" as a paradigm for modernizing the justice system through the widespread introduction of modern IT in court proceedings was investigated; II. The main goals, elements, and technologies of smart litigation were identified; III. Prospects for the implementation of smart litigation in Ukraine were considered; IV. The urgent need for digitalization of litigation in wartime conditions to ensure the continuity of justice was substantiated; V. The experience of using IT tools for documenting war crimes was analyzed; VI. Legal aspects of the implementation of smart technologies in the judicial sphere in Ukraine were studied; VII. The existing legal framework and gaps in legislation were identified; VIII. The necessity of developing special comprehensive legislation was substantiated; IX. A model of a chatbot for the automated sending of electronic court summons was developed as an example of a smart tool for optimizing court processes; X. The ways and recommendations for the harmonious integration of digital technologies into the judicial system of Ukraine were outlined, taking into account the principles of the rule of law and protection of citizens' rights. The obtained results create the basis for the harmonious integration of digital technologies into the domestic justice system, taking into account ensuring a balance between digitalization and the protection of citizens' rights in the judicial process. Further research should be aimed at developing a detailed strategy for the comprehensive digital transformation of litigation in Ukraine.

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SMART-ТЕХНОЛОГІЇ В СУДОЧИНСТВІ: ПЕРСПЕКТИВИ ДЛЯ УКРАЇНИ

Анотація. Мета. Метою статті є обґрунтування доцільності та шляхів імплементації парадигми смарт-судочинства в Україні в контексті діджиталізації судових процесів і вдосконалення функціонування судової гілки влади. У статті поставлено завдання дослідити концепцію смарт-судочинства, визначити перспективи її впровадження в Україні, розглянути правові аспекти та необхідні законодавчі зміни для повноцінної інтеграції інноваційних технологій у вітчизняну систему правосуддя.

Методи дослідження. У дослідженні було використано набір різних загальнонаукових та спеціальних методів для комплексного вивчення проблеми та обґрунтування перспектив упровадження смарт-судочинства в Україні. Метод аналізу застосовувався для вивчення наукових публікацій, нормативно-правових актів, міжнародних документів з питань цифровізації судочинства та застосування інноваційних технологій у правовій сфері. Це дозволило дослідити теоретичні засади концепції «смарт-судочинства», наявні практики та правове регулювання. Порівняльний аналіз було проведено для зіставлення поточного стану цифровізації судової системи в Україні з міжнародним досвідом впровадження смарт-технологій, щоб виявити прогалини та можливості для вдосконалення. Системний підхід реалізовано для комплексного розгляду смарт-судочинства як багатокомпонентної концепції з різними взаємопов'язаними елементами. Емпіричні методи застосовувалися для вивчення досвіду використання цифрових технологій у документуванні воєнних злочинів в Україні під час війни. Метод моделювання було залучено для розроблення запропонованої моделі чат-боту

для надсилання електронних судових повісток як приклад смарт-інструменту оптимізації процесів. Проектний метод використовувався для визначення необхідних законодавчих змін та розроблення нормативно-правової бази для повноцінної імплементації смарт-судочинства. **Результати.** Відповідно до поставленої мети та завдань у дослідженні було отримано такі ключові результати: 1) досліджено концепцію «смарт-судочинства» як парадигму модернізації системи правосуддя шляхом широкого впровадження сучасних інформаційних технологій (ІТ) у судові процеси; 2) визначено основні цілі, елементи та технології смарт-судочинства; 3) розглянуто перспективи імплементації смарт-судочинства в Україні; 4) обґрунтовано нагальну потребу в цифровізації судочинства в умовах війни для забезпечення безперервності правосуддя; 5) проаналізовано досвід застосування ІТ-інструментів для документування воєнних злочинів; 6) досліджено правові аспекти впровадження смарт-технологій у судовій сфері в Україні; 7) визначено наявну нормативно-правову базу та прогалини в законодавстві; 8) обґрунтовано необхідність розроблення спеціального комплексного законодавства; 9) розроблено модель чат-боту для автоматизованого надсилання електронних судових повісток як приклад смарт-інструменту оптимізації судових процесів; 10) окреслено шляхи та надано рекомендації щодо гармонійної інтеграції цифрових технологій у судову систему України з урахуванням принципів верховенства права та захисту прав громадян. Отримані результати створюють підґрунтя для обґрунтованої імплементації парадигми смарт-судочинства в Україні з метою діджиталізації та вдосконалення функціонування судової гілки влади. **Висновки.** Обґрунтовано доцільність і шляхи впровадження парадигми смарт-судочинства в Україні для діджиталізації судових процесів та модернізації судової системи. Концепція смарт-судочинства передбачає широку інтеграцію новітніх технологій, зокрема електронний документообіг, відеозв'язок, ШІ, блокчейн у судочинство для підвищення його ефективності, прозорості та доступності. Дослідження виявило нагальність активного впровадження цифрових рішень у вітчизняних судах в умовах війни для забезпечення безперервності правосуддя. Водночас існує потреба в розробленні спеціального законодавства для регулювання використання інноваційних технологій у судових процесах із дотриманням принципів верховенства права та захисту прав людини. Запропонована модель чат-боту для електронних судових повісток демонструє можливості смарт-інструментів для оптимізації судочинства. Результати дослідження створюють підґрунтя для обґрунтованого та збалансованого впровадження парадигми смарт-судочинства в Україні, що сприятиме діджиталізації, підвищенню ефективності й прозорості національної судової системи за одночасного дотримання принципів верховенства права та захисту прав громадян.

Ключові слова: смарт-судочинство, цифровізація правосуддя, електронний суд, штучний інтелект, електронні докази, судова реформа, правове регулювання ІТ у судочинстві, діджиталізація судової системи, кібербезпека.

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