



Prospects for the use of artificial intelligence in the legislative process of Ukraine

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■ **Abstract.** The purpose of this study was to identify the prospects for the use of artificial intelligence (AI) in the rule-making activities of Ukraine. The methodology included several key stages: theoretical aspects of the use of AI in the law-making sphere, assessment of the current state and comparative analysis of the use of AI in the legislative process in the UK, USA, and Ukraine. The study presented the interpretation of the concept of “artificial intelligence”, its features and ways of implementation in the legislative process of Ukraine. An important aspect is that AI increases the level of legal analysis of draft laws, simplifies monitoring of changes in legislation, and improves the accuracy of forecasts regarding legal consequences. In particular, AI can help to automate the development of laws, increase the transparency and quality of legislative initiatives, and improve the effectiveness of analysing large volumes of legal texts. The results of the study highlighted the importance of proper regulation and ethical control of the implementation of such systems, since there are risks of loss of responsibility in decision-making and possible dependence on algorithm errors. The use of AI in the legislative process of Ukraine is at an early stage, but in the future, it will help to simplify the codification of legislation, provide legal clarity, and increase the availability of legal norms for society. In addition, automating some aspects of legislative work using AI will help to reduce the human factor in data processing, which can reduce the risk of errors and increase the objectivity of assessing legal initiatives. The use of such technologies may also facilitate the creation of integrated information systems capable of uniting various levels of legislative activity. This opens up new opportunities for implementing innovative solutions in the field of digital justice

■ **Keywords:** AI; law-making process; innovative technologies; automation; legal regulation

■ Introduction

In Ukraine, the introduction of artificial intelligence (AI) in the legislative process began in the 2020s, when state representatives began to explore more opportunities for automation and optimisation of legislative procedures. In particular, AI has been used to analyse large amounts of legal data, monitor legislative changes, and generate draft laws based on existing norms. This technology provides an opportunity to increase the speed and efficiency of developing new laws and reduces the likelihood of errors in the process. The use of AI has begun to gain momentum as part of the digitalisation of public administration. These

technologies are being actively implemented in various areas, including the analysis of legal information, automation of routine legal processes, and improvement of interaction between government agencies and citizens. AI can provide a fast process for analysing legislative acts, which, in turn, increases the efficiency of drafting new laws. These technologies can be used to automate document compliance checks, analyse legal precedents, and predict the impact of new legislative initiatives. For example, AI-based systems can process important data to identify trends or identify potential impacts of new regulations. This allows lawmakers

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to make informed decisions based on analytical data. In modern conditions, the issue of introducing AI in the legislative process of Ukraine is new and requires relevant research on the effective and safe use of AI in public administration, which will contribute to the development of the legislative process in Ukraine. Many countries are already successfully applying innovative technologies in their legislative processes. At the same time, the legal and ethical aspects of AI use require in-depth analysis, as it is important to guarantee citizens' rights and justice in law enforcement. The study of the problem of assessing the effectiveness of AI implementation in the legislative process will contribute not only to improving the quality of legislative proposals, but also to ensuring transparency and openness of the system.

A number of researchers have considered various features of the introduction of innovative technologies in relevant fields of activity, in particular, the study by M.C. Gamito (2024) focused on the rapid development of AI technologies that bring important public implications related to privacy, transparency, and fairness. The researcher found that it is necessary to provide legislative solutions and a regulatory framework that will ensure the safe and successful integration of AI systems into society.

L. Carrasquilla-Díaz *et al.* (2024) examined the introduction of AI in legal contexts, its capabilities, and the challenges faced by representatives of Colombia for the successful integration of AI into the judicial system. Analysing examples from other countries and current legislative initiatives in Colombia, these researchers highlighted the possible benefits of AI, in particular, optimisation of case management and improvement of decision-making, which can significantly increase the efficiency and effectiveness of the country's legal system. A. Alcoforado *et al.* (2024) researched and developed AI techniques for separating, studying, extracting, and synthesising information contained in the minutes of parliamentary sessions to make the information obtained more accessible to citizens and specific professional groups.

T. Bui & V. Nguyen (2023) suggested that it is necessary to update laws to ensure the same control over the development of digital technologies, in particular the use of AI, in different countries. These rules should help streamline the digital transformation process, but not hinder the development of new technologies. T. Gudima & V. Kamishanskyi (2023) determined that the use of AI should be based on ethical principles to avoid discrimination and bias. The researchers stressed the importance of developing ethical standards for regulating AI in the legal sphere. K. Yilma (2023) investigated new technologies and human rights at the United Nations and international experience in the use of AI in legislative activities. According to the researcher, international cooperation in this area remains an important aspect, and each state should take these practices into account to improve its own legislative system.

The issue of EU regulation of the use of AI was investigated by F. Massadeh *et al.* (2024), highlighting that

existing copyright legislation does not meet the challenges in many countries that arise in connection with the creation of AI texts. This creates legal gaps, as the conventional concepts of authorship and rights to a work cannot be adequately applied to the results created by AI. Therefore, it is necessary to introduce specialised legislation that would not only regulate copyright issues for works created by AI, but also identify prohibited actions that may pose risks to various industries. The legislative process in this context includes an analysis of existing norms, identification of shortcomings, consultation with experts in the field of law, technology, ethics, and the development of new norms that could protect the interests of all participants – from AI developers and users to society as a whole. This will provide a fairer and safer legal framework for the use of AI technologies. S. Mecaj (2022) noted that there is currently no full legal framework for regulating AI, but some countries and international organisations are already taking certain steps in this area. For example, the EU is actively working on creating a regulation on AI, which provides for the introduction of a risk-based approach to regulating AI. This means that AI technologies will be classified according to the level of risk from minimal to critical, and each category will have appropriate requirements for security, transparency, and accountability.

The purpose of the study was to identify the opportunities and challenges of using AI in the procedure for adopting laws in Ukraine based on the experience of other states.

■ Materials and Methods

This study included several key milestones that were based on a comprehensive approach to achieving the goal. At the first stage, theoretical aspects of the development of AI technology and its application in various spheres of public life were investigated. Based on the analysis of scientific sources, the main approaches and concepts developed in modern world science were identified, and gaps in knowledge that require additional attention were determined.

The second stage of the study was a comparative analysis of the use of AI in the legislative process in the UK, USA, and Ukraine. This analysis examined the approaches of each country to integrating AI into the process of formulating and improving legislation, and evaluated the effectiveness of these approaches in solving modern challenges related to the protection of intellectual property rights.

The third stage of the study was an analysis of various aspects of AI implementation in the legal system of Ukraine, and a forecast of expected results. The SWOT analysis method was used at this stage. The weaknesses and strengths, opportunities and threats of implementing AI in the legislative process were investigated. Next, several possible scenarios for the introduction of AI in the Ukrainian legislative process were modelled: full automation of individual stages of law development; the use of AI as an auxiliary tool for legal analysts; partial implementation at the level of automation of routine tasks (for example, analysis of existing laws, creation of new draft laws).

The last stage was to determine the prospects for the use of AI in the legislative process using predictive research methods. The expected results were evaluated, such as improvement of the quality of legislative acts, reduction of corruption risks, acceleration of the development of laws, and increase in public confidence in the legislative process. The analysis of causal relationships allowed considering potential problems that may arise in connection with the introduction of the latest technologies, in particular, related to insufficient control over AI, the possibility of loss of privacy and human rights violations. The use of these methods provided a comprehensive approach to the development of recommendations on ways to adapt the legal system to new conditions.

■ Results

Theoretical aspects of AI implementation in the legal sphere

AI can be described as a technology capable of performing actions that normally require human mental skills, such as mastering new knowledge, understanding speech, identifying images, and making decisions. This helps to create algorithms and applications that can process information, learn from experience, and adapt to changes in the environment. A distinctive feature of AI is its ability to analyse large amounts of data and identify patterns, which allows getting useful insights and making predictions. This opens up new opportunities for various areas, including the legislative process. One of the main features of AI is its adaptability. AI algorithms can learn from new data, which makes them efficient. For example, in legislative activity, this can manifest itself in automated analysis of draft laws and identification of potential legal conflicts. This greatly facilitates the work of lawyers and legislators, reducing their workload and increasing productivity. In addition, AI can help to improve the quality of decision-making. With powerful analytical tools, it can analyse and process information from a variety of sources, giving lawmakers the opportunity to see the full picture of the consequences of their decisions. This is especially important in conditions when society requires efficiency and transparency in solving pressing issues. An important aspect is the introduction of a system that monitors public opinion, which allows legislators to respond in a timely manner to the needs of the population and consider their interests when developing new legislative initiatives. Collecting and analysing data on public attitudes to certain draft laws can significantly improve the quality of legislative proposals.

However, the introduction of AI in the legislative process requires solving a number of issues. Among them are ethical issues related to the transparency of algorithms and the protection of personal data. It is necessary to create clear regulations that ensure the ethical use of technology, avoiding possible abuse. AI has significant potential to improve the legislative process in Ukraine. It can be used to improve the efficiency of government agencies, ensure better interaction with the public, and promote better

informed decision-making. The use of AI may include the development of tools for automated bill creation, which will help optimise work processes in parliament. This opens up opportunities for a more flexible response to public requests, because systems can quickly analyse trends and needs of citizens. An important aspect of implementation is the training of specialists who will be able to work with new technologies, ensuring the integration of AI into legislative practice. In particular, ethical and legal issues remain critical for the development of a legal framework governing the use of technologies in the field of law to avoid possible negative consequences.

There are several main types of AI that can be applied in legislative activities. The first of them is analytical AI, which is used to analyse large amounts of legal data and predict the consequences of legislative decisions. It can help in evaluating draft laws and their impact on the economy, society, and the environment. The second type includes chatbots that can provide legal advice, reducing the burden on lawyers. The third is the automation of routine processes, which reduces the likelihood of errors in document management. For example, an AI system can automatically generate legal documents, reports, and analyses, which improves operational efficiency. The fourth type is decision support systems that help legislators to evaluate different options and make informed decisions based on data. The introduction of these technologies can be useful for legislative initiatives such as health, education, and economic reforms, ensuring transparency and accountability in the legislative process. For effective implementation, Ukraine can borrow the experience of other countries.

The US House of Representatives has implemented an AI-based tool to automate the process of comparing bills, amendments, and current laws. This helps legislators to better understand how bill amendment provisions affect legislation going through the legislative process. Using natural language processing technology, the tool can analyse references to legislative provisions specified in draft laws, receive them, interpret them, and follow instructions for changes. The tool, which is already available to the legislative advisory department, is currently working successfully, and user feedback is gradually improving its accuracy over time (Agostini *et al.*, 2024; Goldmann, 2024). These promising generative AI initiatives, based on modernisation efforts over the past five years, suggest that the House of Representatives will be able to adapt to the challenges of our time. An important example is the recently launched Comparative Print Suite (CPS). CPS uses natural language processing to compare bills, because it can visually show changes made through edits or amendments, and show how the bill will change current legislation. The CPS exit demonstrates that Congress can go beyond standard cloud services and develop unique solutions that clearly meet the needs of the legislative process. This shows that even if generative AI is still in the early stages of development, legislatures are already using automated technologies to improve work processes and administrative functions, while



also implementing measures to protect the interests of society (Bharti, 2022; Kornberg *et al.*, 2024). Comparative Prints Suite automates most of the reporting process for any bill, using a dedicated XML database with version control for storing laws and a natural language processing tool for implementing amendments. This software is available as a browser-based programme for staff and members of the U.S. House of Representatives, as well as, if necessary, for other congressional offices where it is used as part of the federal legislative process (Boone, 2023; Hershowitz & Mador-Haim, 2023).

Parliaments and governments of the United Kingdom and Scotland are discussing the introduction of AI in legislative processes, especially focusing on a tool called “Lawmaker”. This innovative tool was designed to facilitate the preparation of amendments, allowing lawmakers to directly edit a digital copy of bills. This method aims to optimise the legislative process, make it more efficient and less time-consuming. In addition to editing capabilities, the Lawmaker tool contains features that help ensure compliance with legal standards and consistency of legislative texts. The automated checks provided by the tool help lawmakers create accurate amendments, which ultimately improves the quality of legislation. Lawmaker has a single common system for different users, allowing multiple users to participate simultaneously in the development process, which is especially useful during important legislative sessions (Rangone, 2023).

In Ukraine, AI technologies are still at the initial stage of development and implementation in the legislative process, where their status, legal regulation, and capabilities are just beginning to be determined. To date, there is no information about the practical use of AI for automating legislative functions or processing regulations. Ukrainian legislatures have not yet implemented AI-based systems similar to the Comparative Prints Suite in the United States, which automates the comparison of bills. However, in recent years, Ukraine has been discussing ideas for the potential regulation of AI and the creation of a regulatory framework for its application in state structures. In December 2020, the Cabinet of Ministers of Ukraine adopted the concept of AI development in Ukraine, which emphasises the need to finalise issues related to the regulation of public relations in the field of AI. At the moment, the most discussed issues are related to copyright in the texts of draft laws created by AI, and the protection of personal data (Petriv, 2023; Trincado Cast, 2024).

Unlike in the United States and Great Britain, AI technologies are at the initial stage of development in Ukraine. There are no systems in the country that would automate the legislative process, such as CPS or Lawmaker. Although Ukraine discusses the possibilities of regulating AI and creating a regulatory framework, the practical use of these technologies in legislation remains limited. The main focus is currently on copyright and personal data protection issues, which indicates that the regulatory framework in this area still needs to be developed. The United States and

the United Kingdom are actively implementing AI in the legislative process, while in Ukraine this technology is just beginning its integration into government structures, focusing on creating a regulatory framework for future use.

State and prospects of AI introduction in legislative activity in Ukraine

Since 2020, when the Ministry of Digital Transformation of Ukraine first included the development of AI in its strategy for digitalisation of the country, lawmakers and experts have been actively discussing the need to regulate AI at various levels. One of the areas of work is the adaptation of EU legal norms, which have already begun to be implemented in Ukraine within the framework of integration processes and the Association Agreement, and the development of draft laws on AI considering EU standards. In Europe, since 2021, the Law on AI, which defines legal boundaries for developers and users of AI, has been actively discussed (Misechko, 2024). Ukraine is actively implementing such initiatives. Ukrainian experts and lawyers also investigate these issues, in particular, the National University of Kyiv-Mohyla Academy conducts research in the field of digital rights and regulation of new technologies, in particular, the educational programme “Computer Science” aims to train specialists in the field of information technology. Specialists of the Faculty of Computer Science are recognised leaders in the fields of AI, data analysis, software development, BigData, machine learning, information and search engines. Academic institutions such as the Institute of Law and Technology and think tanks are actively discussing how AI standards should be integrated into Ukrainian legislation. In addition, the Verkhovna Rada is working on the preparation of draft laws related to various aspects of these technologies. Soon, a number of convenient and useful online tools for people’s deputies, journalists, and citizens will be launched on the website of the Verkhovna Rada. Among the new web services developed by the Office of the Verkhovna Rada of Ukraine will be a visualisation of the process of consideration of draft laws, a timeline of plenary sessions and a page dedicated to adapting Ukrainian legislation to EU norms (Salizhenko & Oliynyk, 2024). One of the most important is the protection of personal data, especially in the context of AI working with large amounts of information. Given that AI technologies are used in various fields, such as public administration, finance, healthcare, and transportation, questions arise about who will be responsible for mistakes or unethical decisions made by AI. This issue is particularly relevant for legislators, as it requires clear legal regulation. Ensuring transparency and ethics in the use of AI will also be an important element of future legislation. In this context, the issues of the need to explain to citizens the principles of AI functioning, ensuring transparent decision-making processes and preventing possible abuse of technology are considered. It can be used to automate data analysis, identify contradictions in draft laws, or even predict the consequences of certain legislative initiatives. However, the introduction of such

technologies requires detailed regulation to avoid risks associated with data privacy and citizens' rights.

Ways to introduce AI into legislative activity are currently limited, but there are already several important areas that are actively developing both in Ukraine and in the world. In Ukraine, AI is being implemented in government agencies to automate analytical work and analyse legislative initiatives, for example, through visualisation of the passage of draft laws and processing large amounts of data. In the world, AI technologies are used to predict court decisions, automate legal documentation, and create systems to support lawmakers in decision-making, as is observed in the United States and the EU. One of the first stages is automation of data and document analysis. AI can analyse large volumes of text, helping legislators quickly obtain the necessary information, make a comparative analysis of the laws of other countries, predict the possible consequences of new laws based on historical data, and help in assessing their impact on society. Another important step in the introduction of AI is the creation of intelligent analytics platforms. AI can help develop recommendations for changes to existing laws based on an analysis of socio-economic factors and statistics. For example, such platforms can predict the consequences for the economy, environment, or social sphere as a result of the implementation of certain legal norms. This allows lawmakers to make more informed decisions, reducing the likelihood of negative side effects. It is assumed that in the future AI can be entrusted not only with analysis and automation, but also with the development of new forms of communication between the state and citizens (Ortega Esquembre, 2023; Spesivtseva, 2023). For example, AI tools are possible to collect feedback data from citizens about draft laws, which will allow governments to better understand society's expectations. Such systems may include intelligent assistants that help to better understand complex legal acts. They can also provide legal advice on

everyday issues. Another promising area is the introduction of algorithms that will help to model possible scenarios for the development of situations in the event of the adoption of new laws. This will allow lawmakers to model different variants of economic, political, and social changes and predict their impact on different population groups. This will significantly facilitate the decision-making process and reduce the level of risks associated with incorrectly assessed consequences of implementing new standards.

A separate aspect of the future implementation of AI in legislative activities includes its participation in the processes of monitoring and implementing laws. Due to the development of technologies, it becomes possible to automatically monitor compliance with legal norms and identify violations. Such a system can help government agencies to respond to violations in a timely manner and ensure more accurate compliance with laws. The introduction of AI in legislative activities requires close cooperation between technical experts, lawyers, and government agencies. Only in this way can ensure the development of effective tools that will meet not only modern challenges, but also adapt to the rapidly changing legal environment. In the future, this can significantly improve the quality of the legislative process in Ukraine, making it more transparent, efficient and modern.

Advantages and risks of using AI in the legislative process

The introduction of AI in the Ukrainian legislative process is designed to qualitatively improve the work of the entire system of analysis and preparation of laws and regulations in Ukraine. However, it is necessary to investigate and consider all the advantages and disadvantages of such a step. In the current study, both the strengths and risks of using these technologies in the state's legal system were analysed using the SWOT analysis method (Table 1).

Table 1. SWOT analysis on the implementation of AI in the legislative processes of Ukraine

Strengths	Weaknesses
<ul style="list-style-type: none"> ■ AI allows automating routine tasks, such as analysis of bills, which reduces the burden on people; ■ AI reduces the likelihood of subjective decisions or mistakes due to the human factor; ■ ability to quickly process large amounts of data. 	<ul style="list-style-type: none"> ■ AI has not yet reached the level of perfection that can solve all complex legal issues. There is a risk of misinterpretation or inaccurate decisions; ■ legislative framework does not yet consider the full use of AI in law-making, which requires adaptation of laws and regulations; ■ there is a risk of bias in AI algorithms or lack of transparency in decision-making, which raises concerns about fairness.
Opportunities	Threats
<ul style="list-style-type: none"> ■ AI can analyse huge amounts of legal data and provide a deeper analysis of draft laws, which improves the quality of decisions made; ■ automating routine tasks and reducing analysis time can significantly speed up the legislative process; ■ the use of AI will increase the transparency of the legal process, make it more open to the public and provide better access to legal information. 	<ul style="list-style-type: none"> ■ AI can be used for manipulation or unethical actions that can lead to biased or illegal decisions; ■ Ukraine lacks a proper technical base and a sufficient number of qualified specialists to implement AI projects in law-making; ■ the introduction of AI may meet with resistance from government officials who are not ready for rapid changes or see risks in losing control over processes.

Source: compiled by the author

One of the key results of AI implementation should be to improve the quality of legislative acts, namely, the

use of algorithms can help to identify shortcomings, contradictions, inconsistencies, and gaps in legal norms that



previously could have gone unnoticed by analysts. AI has the potential to reduce corruption risks by creating more transparent procedures based on data rather than individual subjective decisions (Qian *et al.*, 2023). Speeding up the process of developing laws is another important aspect of implementing AI. Digital systems are able to automate various stages of the rule-making process, which reduces the duration of preparation of draft laws, speeding up the adoption of necessary legal norms. This is especially important for adapting legislation to the conditions of the modern world, where technology and the economy are rapidly developing. One of the positive consequences is an increase in public confidence in the legislative process. With the help of AI, it is possible to create an open and accountable system that would allow tracking all stages of law preparation, where the opinions of experts and the public will be taken into account through digital platforms. Citizens will have the opportunity to better understand how laws are created, which will increase their confidence in the process.

Despite the benefits, there are a number of risks. One of the biggest ones is the lack of control over AI. On the one hand, complex algorithms can be opaque to the public and even to lawmakers themselves, which raises concerns about how and for what purpose the data is used. It is necessary to ensure appropriate mechanisms for monitoring AI activities and create tools for verifying the solutions that the system offers to avoid abuse. There are risks associated with data privacy. The use of AI to analyse large amounts of information can lead to the fact that personal data of citizens can be collected, stored, or used without their consent. This creates a risk of violation of privacy rights, and possible legal disputes. It is necessary to develop special laws and procedures that will regulate data protection when using AI. Adapting the legal system to new conditions remains an important problem. The introduction of AI requires profound changes not only in the legislative procedure, but also in the legislation itself. Current regulations do not always provide for the possibility of integrating the latest technologies, which complicates the digitalisation process. To solve this problem, it is necessary to reform laws, develop new regulations that would meet modern challenges, and create new standards and ethical standards for the use of AI in the legal sphere. To minimise risks, it is important to develop comprehensive recommendations for implementing AI. One of the steps is to establish clear regulations regarding the use of AI in the legal field, in particular, regarding data analysis, surveillance procedures, and liability for incorrect use of algorithms. It is also necessary to implement the principles of ethical use of AI, considering human rights and confidentiality. The introduction of AI requires new knowledge and skills in the field of data analytics, understanding technologies and opportunities for their use in legal practice. This will allow for more efficient use of digital tools and make the law-making process more flexible. However, to achieve this, it is necessary to solve a number of key challenges, in particular, to

ensure proper control over technology, protect the rights of citizens, and adapt the legal system to new conditions.

■ Discussion

The results of the study showed that the introduction of AI in the legislative process is becoming an increasingly relevant topic in modern society. In light of the global trend towards digitalisation and innovation, there is a growing interest in using AI to optimise legislative processes, in particular in Ukraine. Various researchers emphasise the significant benefits of using AI, which can significantly increase the effectiveness and transparency of public policy. In particular, AI can help to analyse large amounts of data, automate routine tasks, improve communication between lawmakers and citizens, and predict the consequences of decisions made. This opens up new opportunities for improving the quality of legislation and improving state governance. The study by A. Agostini *et al.* (2024) analysed the impact of generative AI on the legislative process. The researchers investigated how automated systems can improve decision-making by lawmakers, reducing the likelihood of negative consequences. The researchers also discussed how these technologies can help identify gaps in legislation, automate document creation, and improve the effectiveness of legal regulations. In general, the study focused on the opportunities that AI opens up for improving legislative activity and improving the quality of legal decisions.

Other researchers, such as G. Hill *et al.* (2024), confirmed this opinion and added that AI can transform legislative processes, making them more efficient and accurate. They stressed that AI can analyse large amounts of legal documents and data, helping policy makers predict the consequences of legislative changes based on socio-economic indicators. In this study, it was revealed that AI has a significant potential for optimising the analysis of legislative initiatives, namely, drafting laws, analysing existing legislation and identifying inconsistencies. Comparing the results with these studies confirms that the introduction of AI can be an important step towards improving Ukrainian legislative work.

The study by L. Lucke *et al.* (2022) defined the use of AI to track changes in legislative processes. They focused on the AI's ability to analyse legal documents, track amendments, and predict the possible consequences of legislative updates. The study also included the use of machine learning algorithms to automate the processes of comparing laws and identifying patterns of changes in legal acts over time. These findings are consistent with this study, which highlighted the importance of transparency in legislative activities. Using AI to automate the processes of monitoring and tracking changes in legislation can be an important step to prevent corruption and ensure accountability of public authorities.

Due to the openness and accessibility of information, trust in the authorities can significantly increase, because citizens will be able to see how and why certain decisions are made, and this will contribute to the development of a

positive image of state institutions. The use of AI systems can also encourage active public participation in the legislative process, because involving people in the discussion of draft laws and the ability to express their opinions and suggestions makes the process more democratic and open. This study showed that the introduction of AI in legislative activities can significantly improve interaction between the government and citizens, which can increase the involvement of the population in the decision-making process and increase the level of trust in government structures.

In the field of law, the use of AI was investigated in various aspects, including automation of legal processes, processing large amounts of legal information, and decision support. This approach not only improves the accuracy and speed of data processing, but can also help to identify legal conflicts or duplicate regulations. N. Rangone (2024) clarified the impact of AI on the processes of formulating legal and regulatory rules, in particular, on legislative activities and procedures that ensure compliance with laws. The researcher focused on how AI can change conventional approaches to legislation, increasing the efficiency and speed of developing new regulations. The results showed that AI technologies can affect the quality of law-making, including the ability to automate certain aspects of the legislative process, and potential ethical and legal challenges associated with it. In particular, the issue of responsibility for decisions made based on algorithms was considered, and the need to create a regulatory framework that would ensure transparency and accountability in processes where AI was involved. The importance of integrating new technologies into public administration, considering the social, economic, and legal consequences that may arise from their use, was emphasised. Legislative activity is a truly complex process that requires comprehensive analysis and can significantly improve the process of AI implementation. Theoretical aspects of the use of innovative technologies in law-making discuss such issues as automating the analysis of legal texts, predicting the effectiveness of draft laws and providing legislators with reasonable recommendations based on the analysis of large amounts of data. This is especially important for parliaments and government agencies, where the analysis of a large number of legal documents and their interaction with other regulatory acts takes a long time. AI can help to reduce errors and speed up the bill preparation process.

In particular, S. Kreps & M. Jakesch (2023) analysed the process of using AI technologies in the political process, in particular, in legislative activities, to increase the responsibility of legislators. The researchers analysed how AI-based language systems can help lawmakers to process voter requests, in particular, by automating responses to frequently asked questions. The study included experiments that compare the perception of legislative correspondence written by humans and generated by AI, pointing out the potential benefits and risks of such cooperation, in particular, the impact on voter confidence. As a result, these measures will contribute to greater transparency of

legislative processes and greater participation of citizens in political life. The researchers noted that AI has the potential to speed up the processing of citizens' appeals to the authorities, improve the quality of responses, and increase the level of public involvement in political discourse. This, in turn, can increase confidence in legislative bodies and ensure a faster response to citizens' requests. The introduction of AI in the legal process of Ukraine should be considered a complex and multifaceted task that requires both theoretical knowledge and practical skills and further improvement of the Ukrainian legislative process. The conclusions of this study were confirmed by the findings of other researchers, which determine the importance of an individual approach, the application of theoretical models, investigating the possibilities of new technologies and training specialists in practice.

■ Conclusions

Thus, this study highlights the importance of implementing AI in the legal process. AI can be a powerful tool for improving efficiency, transparency, and accountability in the work of legislative bodies. Through the use of analytical systems, automation of routine processes and chatbots, legislators can respond faster and more effectively to the needs of society, simplify access to legal information, and improve the quality of legislative initiatives. The introduction of AI reduces corruption risks, as automated systems are less susceptible to manipulation and can provide clear control over the implementation of laws.

In addition to the technical and financial challenges that may arise when implementing AI in legislation, it is important to pay attention to ethics and human rights issues. For example, automating legislative processes can lead to discrimination or human rights violations if AI systems are incorrectly configured or trained on biased data. Therefore, it is necessary to develop ethical norms and rules for the use of AI to ensure that its implementation does not harm society. The study of the practices of other countries that have already implemented similar projects will help Ukraine to avoid possible mistakes and adapt the relevant solutions to Ukrainian realities.

However, there are also challenges associated with the use of AI in legislative activities, such as ethics, confidentiality, and the need to adapt the legal system to new technologies. It is also necessary to consider the technical and financial limitations that may prevent the successful implementation of such solutions. In addition, it is important to provide appropriate training for working with new technologies, since without knowledge and skills in this area, legislators will not be able to maximise the use of AI capabilities.

Successful implementation of AI in legislative activities will require integration with existing systems, training of specialists, and public involvement in the process. It is important to address potential legal consequences and create a framework to ensure responsibility for decisions made based on algorithms. A systematic approach to the



introduction of AI can help Ukraine embark on the path of more effective legislative activity.

The limitations of this study are the lack of available empirical data on the actual use of AI in Ukraine, which makes it difficult to comprehensively analyse the effectiveness of such initiatives. Prospective areas of research may include analysing the impact of AI on the quality of legislation, evaluating the implementation of technologies at the development stages, discussing and adopting laws, and

developing models that would consider the needs of different stakeholders. This will ensure a more reasonable and comprehensive use of AI in the legislative sphere.

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■ Conflict of interest

None.

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Перспективи застосування штучного інтелекту в законодавчому процесі України

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■ **Анотація.** Метою даного дослідження було виявлення перспектив застосування штучного інтелекту (ШІ) у нормотворчій діяльності України. Методологія включала кілька ключових етапів: теоретичні аспекти застосування ШІ у правотворчій сфері, оцінка поточного стану та порівняльний аналіз використання ШІ в законодавчому процесі у Великій Британії, США та Україні. У дослідженні подано трактування поняття «штучний інтелект», його особливості і шляхи впровадження у законодавчий процес України. Важливим аспектом є те, що ШІ здатен підвищувати рівень юридичного аналізу законопроектів, спрощувати моніторинг змін у законодавстві та покращувати точність прогнозів щодо правових наслідків. Зокрема, ШІ може сприяти автоматизації процесів розробки законів, підвищенню прозорості та якості законотворчих ініціатив та покращенню ефективності аналізу великих обсягів правових текстів. Результати дослідження підкреслили важливість належного регулювання та етичного контролю впровадження таких систем, оскільки існують ризики втрати відповідальності при прийнятті рішень та залежності від помилок алгоритмів. Застосування ШІ в законодавчому процесі України перебуває на початковій стадії, проте, на перспективу це допоможе спростити кодифікацію законодавства, забезпечити правову ясність та підвищити доступність правових норм для суспільства. Крім того, автоматизація деяких аспектів законодавчої роботи за допомогою ШІ сприятиме зменшенню людського фактору при обробці даних, що може знизити ризик помилок і підвищити об'єктивність оцінки правових ініціатив. Використання таких технологій також може сприяти створенню інтегрованих інформаційних систем, здатних об'єднати різні рівні законотворчої діяльності. Це відкриває нові можливості для впровадження інноваційних рішень у сфері цифрового правосуддя.

■ **Ключові слова:** ШІ; правотворчий процес; інноваційні технології; автоматизація; правове регулювання