FOREIGN EXPERIENCE OF MANAGING THE DEVELOPMENT OF ENTREPRENEURSHIP USING ARTIFICIAL INTELLIGENCE

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Introduction. There is a process of forming a conceptual approach to understanding artificial intelligence and regulatory regulation strategies in the world. Having analyzed the theoretical approaches to the definition of the concept of artificial intelligence, we come to the conclusion that a common approach to the definition of artificial intelligence (hereinafter AI) has not been formed in scientific circles and within the framework of international organizations.

Currently, in the vast majority of cases, AI technologies are created by humans and in one way or another interact with humans, however, in the process of legal regulation of relations with AI, it should be taken into account that artificial intelligence is gaining more and more autonomy due to the improvement of technologies.

The hypothesis of the scientific research consists in the substantiation of foreign experience and the formation of proposals for managing the development of entrepreneurship using artificial intelligence.

The purpose of the study is to substantiate the peculiarities of the adaptation of foreign experience in managing the development of entrepreneurship with the use of artificial intelligence.

The methodology of scientific research is general scientific methods of research: logical and comparative analysis in revealing the principles of managing the development of entrepreneurship using artificial intelligence; the induction method for making formal and logical generalizations, the deduction method was used to obtain intermediate (partial) conclusions based on the analysis of the nature of the general process, the abstraction method for identifying and identifying significant trends in managing the development of entrepreneurship using artificial intelligence.

Conclusions and prospects for further research. Artificial intelligence has become an integral part of many spheres of social life, and law in its broadest sense has not become an exception, because artificial intelligence technologies have in one way or another touched various branches of law since the beginning of scientific research on this issue, which takes its own beginning as early as the 70s of the 20th century, until today they have transformed from the modeling of legal norms to contracts written in the form of computer programs, virtual legal consultants, predictive justice technologies and other similar technologies. However, the perception of law as a system of value orientations can become an extremely difficult task for AI, therefore, when forming the legal basis of human-AI interaction, it is worth considering the difficulty for AI systems to work with abstract categories.

The formation of the foundations of the international legal regulation of AI takes place within universal and regional organizations. For example, the Center for Artificial Intelligence and Robotics was founded within the UN, UNESCO adopted the Recommendation on the Ethics of Artificial Intelligence, the OECD – relevant principles, UNCITRAL and UNIDROIT are studying the issues of integrating AI into private-law relations. Formation of technical standards, principles of responsible handling of these technologies and ethical standards also takes place within the framework of the ITU, the EU and other international organizations.

Keywords: integration; management; development; entrepreneurship; artificial intelligence; differentiation; scaling.

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20	0	0

ЗАРУБІЖНИЙ ДОСВІД УПРАВЛІННЯ РОЗВИТКОМ ПІДПРИЄМНИЦТВА З ВИКОРИСТАННЯМ ШТУЧНОГО ІНТЕЛЕКТУ

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Вступ. У світі відбувається процес формування концептуального підходу до розуміння штучного інтелекту та стратегій нормативного врегулювання. Проаналізувавши теоретичні підходи до визначення поняття штучний інтелект, приходимо до висновку, що у наукових колах та в рамках міжнародних організацій не сформовано спільного підходу до визначення штучного інтелекту (далі ШІ).

Наразі технології ШІ в переважній більшості випадків створені людиною та так чи інакше взаємодіють з людиною, проте в процесі правової регламентації взаємовідносин зі ШІ варто врахувати, що штучний інтелект набуває все більше автономності в силу удосконалення технологій.

Гіпотеза наукового дослідження полягає у обґрунтуванні зарубіжного досвіду та формуванні пропозицій щодо управління розвитком підприємництва з використанням штучного інтелекту.

Метою дослідження є обґрунтування особливостей адаптації зарубіжного досвіду управління розвитком підприємництва з використанням штучного інтелекту.

Методологією наукового дослідження є загальнонаукові методи дослідження: логічного та порівняльного аналізу у розкритті засад управління розвитком підприємництва з використанням штучного інтелекту; метод індукції для здійснення формально-логічних узагальнень, метод дедукції використовувався для одержання проміжних (часткових) висновків на основі аналізу характеру загального процесу, метод абстрагування для виявлення та ідентифікації значимих тенденцій управління розвитком підприємництва з використанням штучного інтелекту.

Висновки та перспективи подальших досліджень. Штучний інтелект став невід'ємною частиною багатьох сфер суспільного життя, й право в найширшому його розумінні не стало винятком, адже технології штучного інтелекту так чи інакше торкнулись різних галузей права і з моменту початку наукових досліджень цієї проблематики, що беруть свій початок ще з 70-х років XX сторіччя, до сьогодні трансформувались від моделювання правових норм до договорів, написаних у вигляді комп'ютерних програм, віртуальних юридичних консультантів, технологій прогнозного правосуддя та інших схожих технологій. Проте, сприйняття права як системи ціннісних орієнтирів, може стати надскладним завданням для ШІ, тому при формуванні правового підґрунтя взаємодії людини та ШІ, варто враховувати складність для систем ШІ працювати із абстрактними категоріями.

Формування засад міжнародно-правового регулювання ШІ відбувається в межах універсальних та регіональних організацій. Так, в рамках ООН засновано Центр штучного інтелекту та робототехніки, ЮНЕСКО ухвалила Рекомендацію щодо етики штучного інтелекту, ОЕСР – відповідні принципи, ЮНСІТРАЛ та УНІДРУА вивчають проблематику інтеграції ШІ в приватно-правові відносини. Формування технічних стандартів, принципів відповідального поводження з цими технологіями та етичних стандартів відбувається також в рамках МСЕ, ЄС та інших міжнародних організацій.

Ключові слова: інтеграція; управління; розвиток; підприємництво; штучний інтелект; диференціація; масштабування.

Problem statement. Considering the scope and diversity of the fields of application of artificial intelligence, as well as the challenges and potential threats that these technologies can provoke, it is quite natural that the world community has identified the use of artificial intelligence for the purpose of creating "digital public goods" as one of its priorities. The United Nations High Level Group on Digital Cooperation will be key to achieving the Sustainable Development Goals. At the same time, under digital public goods, experts understand open AI models that will function in accordance with the norms of international treaties, national laws, standards in the field of privacy and best practices for the protection of human rights in general.

Analysis of recent research on the problem The world community has come to realize the need to form the foundations of international legal regulation of artificial intelligence at both the universal and regional levels. Currently, there are more than 160 normative documents in the world, developed within the framework of various international organizations, individual states or private companies, but all of them, in the vast majority, relate to the ethical principles of using AI. The UN Secretary General emphasized the need to create a universal platform to combine efforts in this direction, because the world community lacks joint coordination on this issue, in addition, there is an alarming trend of limited participation in the dialogue of developing states.

As for initiatives within the UN, in 2017 the Center for Artificial Intelligence and Robotics was established in The Hague, which operates within the framework of the UN Interregional Research Institute on Crime and Justice, the main areas of which are: research on ways to combat the criminal use of AI, including terrorists; application of AI in law enforcement activities; strengthening cyber security through the use of AI technologies; analysis of the advantages of using AI in administrative and criminal justice; ethical issues of using AI; human rights and artificial intelligence and a number of others (United Nations, 2022).

The purpose of the study there is research and adaptation of foreign experience in managing the development of entrepreneurship using artificial intelligence.

Presentation of the main material In November 2021, member states of the United Nations Educational, Scientific and Cultural Organization adopted the already mentioned Recommendation on the Ethics of Artificial Intelligence, which became the first universal document on the ethics of the use of AI, created with the aim of forming a universal platform of values, principles and standards , which can be used by individual states in the process of developing their own legislation on AI issues in accordance with international law8. The authors of the document include the list of such values: respect, protection and promotion of human rights, basic freedoms and human dignity; environmental

and ecosystem prosperity; ensuring diversity and inclusion; life in a society built on the principles of peace, justice and relationships. In turn, the principles included the following: proportionality and non-injury; ensuring security and protection; fairness and non-discrimination; sustainable development; ensuring the right to privacy and protection of personal data; human control, public oversight and accountability; transparency and comprehensibility; responsibility and reporting; awareness and literacy, as well as the principle of multilateral and adaptive management and cooperation.

Since artificial intelligence technologies are actively used in international trade, the UN Commission on International Trade Law (hereinafter – UNCITRAL) has not remained aloof from modern trends and has become a forum that, among other issues, actively investigates the impact of AI technologies on international trade, in particular the issue of automated conclusion of contracts .

Within the framework of UNCITRAL, a separate working group has been created to study the topics of using artificial intelligence during negotiations, conclusion and execution of contracts; analysis of the provisions of existing UNCITRAL texts applicable to the automated conclusion of contracts in the context of the possibility of their application and to contracts concluded with the participation of AI; the development of new standard provisions that would allow solving a number of legal problems related to the automated conclusion of contracts; development of principles regarding legal issues related to the automated conclusion of contracts. Within the framework of UNCITRAL, there was even a proposal to develop a legislative provision on automated contract conclusion and AI. It is quite possible that such an initiative will be implemented in the near future.

The UNCITRAL working group did not formulate its own definition of the concept of AI, but noted with reference to John McCarthy that the term "artificial intelligence" is used in two meanings – "as the ability of machines to detect or simulate human intellectual behavior and as the branch of computer science that studies this ability". Also, the UNCITRAL working group emphasized that the definition of AI systems proposed by the High-Level Expert Group on Artificial Intelligence, created within the framework of the European Commission, correlates in its content with the understanding of automated systems that appear in some texts of UNCITRAL and the International Institute for Unification of private law (hereinafter – UNIDRUA). What is interesting is UNCITRAL's approach to the impracticality of not only the formulation of the definition of artificial intelligence, which may violate the principle of technological neutrality, but also the attempt to formulate a list of used methods of programming AI systems in view of the speed of their improvement and change. Thus, UNCITRAL proposes to consider the unpredictability of such

systems as the main distinguishing feature of artificial intelligence and accordingly to form and, if possible, improve the legal framework (United Nations, 2022).

As for UNIDRUA, representatives of the institute take an active part in the study of legal issues related to the use of AI, smart contracts and other new technologies. In addition to the fact that UNIDRUA has included work on issues related to digital technologies and private law to its agenda, the institute also actively cooperates with UNCITRAL on these issues.

The International Telecommunication Union is also actively engaged in the study of artificial intelligence issues, but its activities in the vast majority of cases are aimed at developing artificial intelligence standards specifically in the field of information technologies. ICE assumes that the development of AI cannot be separated from the improvement of its three main elements, namely: data, algorithms and computing power. In addition, ICE has become a platform for stakeholders to promote a common understanding of the capabilities of AI technologies in such areas as: health care, information and communication technologies, environmental protection, autonomous control and management of devices, disaster risk management and other areas where artificial intelligence can be used for development. Thus, the work of the ITU in the field of artificial intelligence is mostly focused on the technical component of this technology and rather on ensuring fair access to its benefits than on legal regulation.

The World Trade Organization has repeatedly expressed interest in the use of the latest technologies, including artificial intelligence, with the aim of simplifying trade procedures, in particular, its use in the work of customs authorities. Thus, the World Trade Organization, together with the World Customs Organization, published a study on the role of the latest technologies in cross-border trade from the point of view of customs affairs, which analyzed how exactly the benefits of AI can be used to improve the efficiency of customs control and customs clearance processes. For example, AI can be used to interpret scanner images; chatbots working with the involvement of artificial intelligence technologies can be used to ensure fast communication on the Internet, and robots - to answer people's questions at checkpoints; also, AI can be involved in conducting market price analytics and filtering research results.

Currently, within the framework of the WTO, there is no document that would in any way regulate the use of AI in international trade, only the study of the prospects for use and the analysis of potential benefits and risks. At the same time, the advantages of the WTO include: improving the quality of data, increasing the transparency of procedures and improving risk management, and the challenges include: ensuring the confidentiality of data processed in general and the protection of personal data, ethical issues of using AI technologies,

ensuring the safety and continuity of AI work in particular in the conditions cyber attack and others.

It is important to emphasize that studies and surveys conducted within the framework of the WTO testify to the high level of interest of countries in the implementation of the latest technologies in the work of state bodies, and customs in particular. Taking into account that the conducted research will be used by the governments of various states in the future to form their own policies in this area, the WTO draws special attention to the need for proper legal regulation of the use of AI in order to minimize the risks of such use.

In 2019, the Organization for Economic Co-operation and Development approved the OECD Council Recommendation on Artificial Intelligence, in which it formulated its understanding of the AI system and the principles of responsible management of reliable AI. According to the definition of the organization itself, this document is "the first intergovernmental standard on artificial intelligence". The OECD identified the following five principles, which, according to the Recommendation, should be considered as a whole, as they are complementary: 1) promotion of inclusive growth, sustainable development and well-being, which involves the responsible use of AI technologies with the aim of expanding human capabilities, involving all population groups, reducing inequalities among people, including economic, gender and others, as well as environmental protection; 2) provision of value guidelines aimed at people and justice, including respect for the principle of the rule of law, human rights and freedoms, and democratic values; 3) compliance with transparency and comprehensibility in the use of AI systems, which should be aimed at unifying the understanding of such systems, at responsible disclosure of information about AI systems and their integration into various spheres of human life, ensuring understanding of the results of the work of these systems and the possibility of contesting the results of the work of AI systems in case of damage caused by them; 4) ensuring the reliability and safety of the use of AI systems throughout their life cycle in order to manage and eliminate risks if necessary, ensuring the process of tracking decisions, processes and data used by the systems, maintaining confidentiality and impartiality; 5) the responsibility of each participant participating during the entire life cycle of the AI system for the proper functioning of the systems and compliance with all the principles defined by the OECD in accordance with their level of involvement.

Thus, the OECD also emphasizes the need for responsible use of AI systems and promotes the idea of countries harmonizing their domestic policies regarding the development of AI. The OECD is making efforts to create a universal platform within which member states of the organization will be able to exchange information and best practices on the use of AI and establish cooperation in this area.

The European Union is trying hard to maintain its primacy in the issue of legal regulation of artificial intelligence technologies. And as of today, he succeeds. Yes, currently in the European Union, the issues of using AI technologies are regulated in almost the most detailed way.

A significant event from the point of view of international legal regulation of AI took place in April 2021, when the European Commission published the Proposal for Regulation of the European Parliament and of the Council 2021/0106 (COD), which harmonizes the rules on artificial intelligence (Artificial Intelligence Act) and amends the some legislative acts of the European Union (EU, 2021).

First of all, it is worth noting that this document proposed another definition of an AI system, which, according to its provisions, means "software developed using one or more methods and approaches (which include: machine learning, including with deep learning; logic and knowledge-based approaches, including knowledge representation, logic programming, symbolic reasoning, and expert systems; statistical approaches, Bayesian inference, and optimization methods) and which is capable of a given set of human-defined objectives, generate outputs such as content, predictions, recommendations or decisions that affect the environment they interact with". It is worth noting that, in addition to the fact that this definition is quite detailed, it also contains a list of methods and approaches that were issued by the European Commission in a separate Annex and that can be constantly supplemented with the development of technology, thus extending the legal scope of the document to new technical approaches and methods.

In the document proposed for discussion, the European Commission used a differentiated approach to AI systems, distinguishing: certain types of artificial intelligence systems that are prohibited; high-risk AI systems; and low-risk AI systems. Also, it is worth noting that this Regulation does not apply to AI systems that are developed or used exclusively for military purposes.

The category of AI systems, which are prohibited to be placed on the market, put into operation and used, include: systems capable of distorting human behavior or causing physical or psychological harm to him, using methods outside of human consciousness; or using any vulnerability of a certain group of persons due to their age, physical or mental disabilities and systems for real-time remote biometric identification in public places, provided that such identification would not be justified taking into account the specified conditions. Also, this list includes systems, accommodation. commissioning or use of which is prohibited by state authorities or persons authorized by them, capable of evaluating or classifying individuals according to reliability criteria based on social behavior or personal characteristics.

The document regulates the use of high-risk AI systems in most detail. In accordance with the provisions of the Regulation, they mean: 1) AI systems that are either used as security components of another product or are themselves products covered by the legislation of the European Union listed in the relevant annex, or 2) products whose security components are AI systems, or the artificial intelligence system itself, in accordance with the EU legislation listed in the relevant annex, must undergo a third-party conformity assessment in order to be placed on the market or put into operation. A separate annex also contains a list of high-risk AI systems, which include AI systems in the following areas: remote biometric identification, critical infrastructure management, education and training, employment, assistance through basic private and public services, law enforcement, including use by law enforcement agencies for the purpose of predicting relapses, detecting deep fakes, determining the reliability of evidence and criminal analytics, migration, asylum and border control, as well as in the field of justice, which includes AI systems used to assist judicial authorities in the investigation and interpretation of facts and rules of law, as well as in the application of rules of law to a specific set of facts. This list is by no means exhaustive, for now it only gives us an idea of the European Union's approach to understanding high-risk AI systems. The regulations describe the obligations for persons using artificial intelligence in great detail. And although the largest amount of obligations is provided for persons whom the Regulation defines as suppliers, it also imposes obligations on users, third parties and other persons who participate in any way during the life cycle of artificial intelligence.

As for low-risk AI systems, they are not singled out, the Regulation only defines them as other artificial intelligence systems, that is, those that do not fall into the categories of prohibited and high-risk systems and provides for a number of obligations regarding the transparency of the use of such systems. Such as: the obligation to inform individuals that they are interacting with artificial intelligence systems, or emotion recognition systems, or systems capable of generating images or other content that resemble existing objects, places, events, or people and may create an impression their authenticity.

So far, the European Union's Artificial Intelligence Act may be the most detailed document governing the use of artificial intelligence and the risks associated with it, in fact the first-ever AI legislative framework created within an international organization.

Other regional organizations are currently still in the process of forming a legal framework for artificial intelligence.

Ten countries from the Baltic and Scandinavian regions signed a joint Declaration on Artificial Intelligence in 2018, in which they agreed to promote the use of AI for the benefit of humanity and to cooperate in order to develop ethical standards, values and principles for the use of AI, improve the skills of

its use, and improve the technologies of its application in in the field of providing services to individuals and legal entities, ensuring trust, confidentiality, security and ease of use, and at the same time avoiding unnecessary regulation, taking into account the speed of technological development.

Within the framework of the African Union and the League of Arab States, only working groups on the formation of a common vision and the development of legal provisions in the field of the use of AI have been created, but they have not yet crystallized into separate documents that would reflect the approach or strategic vision of these regions. Most of the legislative initiatives are currently implemented at the national level. According to the OECD, at least 60 countries have adopted national strategies for the use of artificial intelligence technologies OECD (2023).

Research Findings and Prospects As we can see, there is an active process of forming the legal basis for the regulation of AI in the framework of both universal and regional international organizations. Having great potential for use in the public and private sectors, AI technologies penetrate more and more spheres of social life, undoubtedly creating a number of advantages, but the complexity of the technology itself and the speed of its development also increase the risks of its application. It was this awareness that contributed to the emergence of coordinated efforts at the international level regarding the international legal regulation of artificial intelligence.

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