



## ARTICLE



# LEGAL ASPECTS AND STATE REGULATION OF THE USE OF ARTIFICIAL INTELLIGENCE

## ASPECTOS LEGAIS E REGULAMENTAÇÃO ESTATAL DO USO DA INTELIGÊNCIA ARTIFICIAL

<sup>1</sup>Victoria Shchyrka. Odesa State University of Internal Affairs. Orcid: <https://orcid.org/0009-0005-2368-4649>

<sup>2</sup>Irina Aristova. Sumy National Agrarian University. Orcid: <https://orcid.org/0000-0002-4172-5556>

<sup>3</sup>Ruslan Ovcharenko. Interregional Academy of Personnel Management. Orcid: <https://orcid.org/0000-0002-4540-0521>

<sup>4</sup>Dymytrii Grytsyshen. Zhytomyr Polytechnic State University. Orcid: <https://orcid.org/0000-0002-1559-2403>

<sup>5</sup>Andrii Svintsytskyi. National Academy of the Security Service of Ukraine. Orcid: <https://orcid.org/0000-0002-9801-0535>

**Corresponding Author:**  
Victoria Shchyrka. E-mail: [victoria\\_shchyrka@edu-iosa.org](mailto:victoria_shchyrka@edu-iosa.org)

### Editor Executivo

Ms. Altieres de Oliveira Silva  
Alumni.In Editors - UNICURITIBA

### How to cite this article:

Shchyrka V., Aristova, I., Ovcharenko, R., Grytsyshen, D., & Svintsytskyi, A. (2025). Legal Aspects and State Regulation of the Use of Artificial Intelligence. *Journal of Sustainable Competitive Intelligence*, 15(00), e0533. <https://doi.org/10.37497/eagleSustainable.v15i.533>

### ABSTRACT

**Purpose:** This study analyses the current state of AI regulation in Ukraine, identifies systemic regulatory gaps, and proposes directions for improving legal mechanisms and liability models.

**Methodology:** The research applies a systematic legal analysis using comparative legal analysis, content analysis of regulatory acts, structural-functional analysis, normative interpretation of scientific literature.

**Originality:** The article provides an integrated view of AI regulation through the dimension of digital sovereignty, showing how Ukraine must design AI regulation at the intersection of national priorities and international convergence.

**Key findings:** Current Ukrainian AI regulation remains fragmented, primarily limited to intellectual property and general civil liability norms. Ethical aspects, transparency, accountability, and comprehensive liability allocation remain insufficiently codified. International models offer applicable templates for risk-based harmonisation and institutionalisation.

**Theoretical contributions:** The study formulates a conceptual approach for integrating classical legal liability doctrine into AI contexts and proposes methodological foundations for developing Ukrainian ethical standards, risk-based regulation and institutional mechanisms that ensure balanced interaction between innovation, human rights and state regulatory oversight.

**Keywords:** Artificial intelligence; Digitalization; Human rights; Legal liability.



DOI: <https://doi.org/10.37497/eagleSustainable.v15i.533>





## RESUMO

**Objetivo:** Este estudo analisa o estado atual da regulamentação da IA na Ucrânia, identifica lacunas regulatórias sistêmicas e propõe orientações para melhorar os mecanismos jurídicos e os modelos de responsabilidade.

**Metodologia:** A pesquisa aplica uma análise jurídica sistemática utilizando análise jurídica comparativa, análise de conteúdo de atos regulatórios, análise estrutural-funcional, interpretação normativa da literatura científica.

**Originalidade:** O artigo oferece uma visão integrada da regulamentação da IA através da dimensão da soberania digital, mostrando como a Ucrânia deve elaborar a regulamentação da IA na intersecção entre as prioridades nacionais e a convergência internacional.

**Principais conclusões:** A atual regulamentação ucraniana em matéria de IA continua fragmentada, limitando-se principalmente à propriedade intelectual e às normas gerais de responsabilidade civil. Os aspetos éticos, a transparência, a responsabilização e a atribuição abrangente de responsabilidades continuam insuficientemente codificados. Os modelos internacionais oferecem modelos aplicáveis para a harmonização e institucionalização baseadas no risco.

**Contribuições teóricas:** O estudo formula uma abordagem conceitual para integrar a doutrina clássica da responsabilidade jurídica nos contextos da IA e propõe fundamentos metodológicos para o desenvolvimento de normas éticas ucranianas, regulamentação baseada no risco e mecanismos institucionais que garantam uma interação equilibrada entre inovação, direitos humanos e supervisão regulatória estatal.

**Palavras-chave:** Inteligência artificial; Digitalização; Direitos humanos; Responsabilidade jurídica.



## 1 INTRODUCTION

In the contemporary era, integration across multiple sectors, particularly in information and communication technologies, is critical at the international level. AI represents a key driver of technological advancement, significantly influencing production processes and broader societal functions. While AI development offers substantial benefits, it also generates potential legal, ethical, and operational risks that must be addressed through robust regulatory frameworks and governance mechanisms (Rajkishore & Gour Chandra, 2025). Despite the rapid adoption of AI across diverse domains, its regulation remains underdeveloped in Ukraine and in most other jurisdictions. This regulatory gap creates uncertainty regarding the allocation of legal liability, compliance obligations, ethical accountability, and oversight mechanisms, particularly with respect to AI's impact on public life and critical sectors of the economy, including industry, transportation, healthcare, research and education, and public administration (Bielov et al., 2019; Ortina et al., 2023).

These risks highlight the need for research into the causes and effects of unregulated AI use. Key concerns include breaches of confidentiality, false or biased outputs, discrimination, unclear liability, and threats to human rights. Overreliance on AI may cause job displacement, resource concentration, and social instability (Alguliyev & Mahmudov, 2024; Shulga et al., 2024). Deliberate misuse, such as misinformation, cyberattacks, autonomous weapons, population manipulation, and threats to democracy, further underscores the need for effective regulation.

The implementation of AI intensifies ethical dilemmas and may produce unforeseen consequences, potentially leading to adverse social outcomes. Neglecting a careful and regulated approach to AI deployment threatens political and social stability, endangers individual freedoms and rights, and undermines core social values (Caron & Gupta, 2020). Legal liability is a central regulatory concern, encompassing the moral implications of unregulated AI use. At both national and international levels, the allocation of responsibility among developers, regulators, and users is increasingly relevant. Efforts to assign accountability to AI systems or algorithms have prompted governments to consider legal recognition for such entities, although approaches vary significantly across jurisdictions (Shcherbak et al., 2023).

Ukraine faces particular challenges due to the absence of clear and regulated legal mechanisms for AI governance. Legislative support is still developing, and government agencies lack a unified strategy to address security, liability, human rights, and privacy concerns arising from AI deployment. This situation is compounded by differences in international approaches. Similarly, European countries gradually update their legal frameworks to establish principles of regulation, including ethics, and data protection. However, uncertainty remains regarding AI liability, the handling of false outputs, and ethical standards, reflecting the scientific novelty of these issues in the digital environment.



Therefore, the study of AI use in public administration is timely and essential for developing an effective legal framework, which can support technological progress while protecting citizens' rights and enabling proactive responses to potential political, social, and economic challenges. The main research question is how to ensure effective ethical and legal regulation of the use of AI in Ukraine, taking into account its national legislative features and international experience. The general objective of the article is to identify the main legal aspects and peculiarities of the state regulation of AI use based on the experience of the international community and Ukraine. The specific objectives of the study are as follows:

- to analyse the key issues of legal regulation of AI application in global and national practice;
- to identify ethical and legal risks arising in the process of AI development and application.

The theoretical contribution of the study is to comprehend the concept of legal liability in the context of the use of autonomous systems and AI, as well as to develop methodological approaches to the formation of ethical standards and principles of their regulation. The practical significance of the study is to create proposals for public authorities to improve Ukrainian legislation, harmonise it with European and international standards, and ensure a balance in social relations between the introduction of innovations and the protection of human rights in the digital environment.

## 2 THEORETICAL FRAMEWORK

The concept of AI has evolved significantly since its introduction at the Dartmouth Conference in 1956, where it was broadly defined as systems that think and act rationally (Jackson, 2019). AI has since been understood as a multidisciplinary field encompassing computer science, logic, biology, psychology, and philosophy, with practical applications in speech recognition, image analysis, natural language processing, and autonomous decision-making (Ding et al., 2020; Kostenko et al., 2024).

### 2.1 Ethics and Responsibility in AI

The concept of AI has evolved significantly since its introduction at the Dartmouth Conference in 1956, where it was broadly defined as systems that think and act rationally (Jackson, 2019). AI has since been understood as a multidisciplinary field encompassing computer science, logic, biology, psychology, and philosophy, with practical applications in speech recognition, image analysis, natural language processing, and autonomous decision-making (Ding et al., 2020; Kostenko et al., 2024).

AI integrates computer science, logic, biology, psychology, philosophy, and other disciplines, achieving significant advances in speech recognition, image analysis,



natural language processing, automated theorem proving, and real-time intelligent systems (Ding et al., 2020). Some authors simplify AI as the ability of computers to perceive, process, and act on information, distinguishing it from human and animal intelligence (Zhang & Lu, 2021). However, AI involves the application of computational algorithms and big data to create machines that can emulate human behaviour, including perception, reasoning, learning, planning, and prediction (Kostenko et al., 2024). In this study, AI is defined as an interdisciplinary technological scope that enables systems to perceive information, analyse it, learn, and make decisions, thus reproducing or supplementing human cognitive processes using methods such as machine learning, computer vision, natural language processing, and robotics.

The increasing use of AI in public administration and everyday life raises critical ethical and legal questions. The replacement of human decision-making by machine intelligence highlights the need for accountability, transparency, and safeguards in automated systems. Legal liability is particularly important in this context, encompassing civil, administrative, and criminal responsibilities adapted to AI's specificities (Zhornokui, 2024). Scholars emphasise that AI governance should guarantee human rights, including dignity, privacy, and non-discrimination, particularly when automated decisions affect public life (Bakiner, 2023).

In general, legal liability is a form of state coercive influence on violators of legal norms, which consists in applying sanctions to them provided for by law, i.e., liability measures that cause additional adverse consequences for them (Zhornokui, 2024). In the context of AI application, legal liability is based on traditional institutions of civil, administrative, and criminal law but is adapted to the specifics of AI. Approaches to the formation of such mechanisms should be based on generally accepted international standards, in particular the provisions of the Universal Declaration of Human Rights of 1948, the Convention for the Protection of Human Rights and Fundamental Freedoms of 1950 and the International Covenant on Civil and Political Rights of 1966, which guarantee respect for the dignity, privacy and non-discrimination of the individual. However, legal scholars emphasise that legal support in the field of AI should be aimed at creating a system of guarantees for the observance of human rights in automated decision-making that affects public life directly (Bakiner, 2023).

Research on the legal aspects of AI in Ukraine is still at an early stage, but several studies have addressed the issue. Karpenko (2019), Tokarieva and Savliva (2021), and Muravska and Slipchenko (2024) focus on legal liability for AI use, particularly regarding consequences arising from autonomous decision-making systems and the responsibility of developers. Karpenko (2019) emphasizes the need for a clear regulatory framework to determine accountability for AI-driven actions, especially when harm occurs, and advocates the development of national standards for ethical principles in AI creation and implementation. Some scholars adopt a more optimistic view of AI in public administration. Yesennikov (2024) argues that complex algorithms and machine learning can enhance decision-making by analysing trends, predicting



outcomes, and optimising resource allocation. This enables governments to make more informed policy decisions, positively impacting human capital development and contributing to a more responsive, efficient, and citizen-focused public administration.

## 2.2 International Regulation of AI

The adoption of AI technologies requires civil servants to acquire new competencies, including data analysis, digital platform management, and consideration of ethical implications. In light of Ukraine's current complex military and political situation, some scholars highlight AI's impact on public policy and the protection of human rights in the context of state defence. However, they do not propose concrete legal mechanisms or legislative changes to mitigate these risks (Kovalenko & Voynov, 2024).

The AI regulation in Ukraine cannot be considered in isolation from global trends, particularly within the EU, given Ukraine's European integration agenda. Thus, European Commission AI documents define core regulatory principles, including ethics, data protection, and liability for AI-related actions, generally following a risk-based approach. AI systems are classified by potential risk, such as unacceptable (high), limited, or minimal, guiding users in understanding security threats and the likelihood of errors when interacting with AI technologies (Harust et al., 2021; European Parliament & Council, 2024).

At the national level, Japan, France, Germany, and the UAE incorporated ethical principles into their AI strategies. These countries are developing laws and regulations to govern AI development and deployment (Jungherr, 2023). This ongoing debate has also prompted major international organisations, such as the UN, OECD, the Council of Europe, and the European Union, to issue recommendations on fundamental AI principles. Wide-scale data analysis indicates that a central challenge in AI regulation is ensuring that AI systems are properly developed and deployed (De Almeida et al., 2021). There remains a need to regulate AI use across content creation, products, services, and broader societal applications. Moreover, the widespread integration of AI into everyday life introduced unprecedented ethical challenges within complex social systems, which require legal oversight and regulation (Ulnicane, 2021).

The regulation of innovative technologies primarily affects key economic sectors, including science, industry, agriculture, transport and communications, healthcare, public safety, and governance (Cath, 2018). This is particularly important because civil and economic activities are largely governed by civil law. However, Ukraine and most other countries still lack detailed legal frameworks that clearly define fundamental principles and regulatory mechanisms for such technologies.



## 2.3 Legal Challenges and Digital Sovereignty

In view of this, there is a need for a conceptual rethinking of AI regulation. A modern state can no longer function effectively without robust digital infrastructure, which shapes economic dynamics and state-building. National competitiveness in the global digital environment depends on a comprehensive and predictable legal framework for the development, implementation, and oversight of AI systems. In this context, digital sovereignty is essential, reflecting a state's ability to control its digital resources, data, algorithms, and technological processes.

Hence, digital sovereignty is a central element of contemporary political and legal discourse, as control over information flows determines a state's ability to exercise full sovereignty (Calderaro & Blumfelde, 2022). Developing a legal framework for AI cannot ignore this factor, since AI regulation extends beyond technical and ethical considerations to become a strategic national security issue. Accordingly, India, Canada, China, the UAE, Saudi Arabia, and Singapore establish new legal frameworks to strengthen digital sovereignty (Gorian & Osman, 2024; Mahapatra, 2025).

These developments occur amid growing geopolitical tensions, technological competition among leading powers, and fragmentation of the global digital space. States seek to establish their digital governance systems, maintain control over citizen data and critical infrastructure, and reduce dependence on foreign technology centres (Wang, 2025). While this trend fosters national innovation ecosystems, it also introduces risks of imbalance in the international legal order. In this regard, digital sovereignty reflects a state's aim to control digital infrastructure, data, algorithms, and technological chains within its jurisdiction.

This creates tension between the goal of international harmonisation of AI rules and the desire of states to maintain control through digital sovereignty (Roberts et al., 2023). On one hand, international treaties and standards, such as the Council of Europe framework and OECD principles, establish minimum rules and basic principles, facilitating cross-border business and collaboration. On the other hand, some states prioritise digital sovereignty, imposing stricter national measures such as data localisation, national IT platform requirements, and restrictions on foreign platforms, which may increase fragmentation at the international level (Zuwanda et al., 2024).

## 3 METHODOLOGY

The study is based on a systematic approach, which involves a comprehensive analysis of legal acts, concepts and existing regulatory and legal practice of using AI. The following methods were used to achieve the research objectives (Table 1).



**Table 1** – A summary of research methods

<b>Method</b>	<b>Application</b>	<b>Limitations</b>
Comparative legal analysis method	It enables to study the features of AI regulation in Ukraine and other jurisdictions.	The heterogeneity of legal systems impedes direct comparison of norms and approaches of different countries. AI legislation is at different stages of development. For example, in the EU, it has already been institutionalised (EU AI Act, 2024), while in Ukraine, it is only at the stage of conceptualisation, which may create an asymmetry in comparative material.
Content analysis method	It allows identifying semantic patterns in the legal acts under study. in the framework of AI application, where their content structure, provisions on ethical principles, legal limits of responsibility, and integration of AI into various sectors of the economy and public life were studied.	The fragmented source base may not be published or only partially available despite a large number of documents (government strategies, draft laws and regulations).
Structural and functional analysis method	It is used to determine the legal mechanisms for regulating AI and their place in the general system of law. The functioning of certain legislative acts, governmental strategies, and declarations on the use of AI is considered	It is purely theoretical, as it focuses on identifying general patterns of functioning of legal institutions rather than assessing specific legal mechanisms. It simplifies the real interrelationships between the elements of the legal system, which, after actual enforcement, are often enhanced by political, economic or ethical factors that go beyond a purely functional analysis.
Systematisation and generalisation method	It enables to review scientific research on AI regulation, analyse the opinions of legal scholars, and assess their contribution to the formation of the concept of AI regulation.	The scientific discourse is highly fragmented: legal approaches to AI differ markedly across authors and legal traditions (Anglo-Saxon, Romano-Germanic, Chinese, Islamic), making generalised conclusions difficult to formulate.
Normative interpretation method	It is used to interpret existing regulations governing the AI use and clarify their scope, hierarchy, and legal force. This method assesses whether current provisions of Ukrainian	It focuses solely on the content of legal norms but does not take into account the real socio-economic conditions of their application or technological features of AI. In addition, there is no single established terminology in AI,



	legislation align with international standards and whether they ensure legal certainty and predictability in the field of AI use.	so the interpretation of certain concepts can be ambiguous.
--	---	---

**Source:** compiled by the authors

The empirical and regulatory basis of the research consists primarily of national legal acts of Ukraine, including the Concept of AI Development (Cabinet of Ministers of Ukraine, 2020), the Law of Ukraine “On Copyright and Related Rights” (Verkhovna Rada of Ukraine, 2023), as well as governmental acts on intellectual property that contain provisions related to the use of AI. In addition to national legislation, the study draws upon a broader international regulatory framework and conceptual documents that define standards for the use of AI and outline potential legal liabilities for non-compliance. Key international sources include the International Declaration on the Safe Use of Artificial Intelligence (Government of the United Kingdom, 2023), the Artificial Intelligence Act adopted by the European Commission and the Council of the EU in 2024, Resolution 2015/2103(INL) of the European Parliament concerning civil law rules on robotics, and the Declaration on the Manipulative Powers of Algorithmic Processes issued by the Committee of Ministers of the Council of Europe on 13 February 2019.

The study established criteria for evaluating legislation on AI regulation. These criteria included understanding the concept of AI and its legal status, including key regulatory approaches and classification; assessing ethical considerations and the extent to which legislation addresses AI-related ethical issues; evaluating harmonisation with international standards, including compliance with norms developed by the UN, EU, and Council of Europe; and determining legal liability, i.e., mechanisms for holding actors accountable for AI use and its consequences. Following a systematic approach, the study focuses on legislation, concepts, and national and international legal practices, without addressing technical aspects (Zayed et al., 2022).

## 4 RESULTS AND DISCUSSION

Although certain standards have been established, the exploration of AI technologies has largely occurred in the past decade, and regulation remains incomplete. Even in the most developed countries, frameworks for governing AI use are still evolving. Nevertheless, the absence of comprehensive regulation has not hindered the development of new AI technologies, including those with potential applications in future legislation. Modern ICTs have become integral to everyday life. Therefore, it is essential to integrate AI into the legal framework while upholding ethical principles such as confidentiality, accountability, security, transparency, fairness, non-discrimination, human oversight, professional responsibility, and the



protection of human rights (Felzmann et al., 2019).

#### 4.1 International Regulatory Models and Ethical Principles

Although AI remains primarily associated with ICT disciplines, its regulatory implications are relevant across law, business management, healthcare, and philosophy (Cabinet of Ministers of Ukraine, 2020). Given the global nature of AI adoption and high-tech solutions, engagement of national legislatures is essential. However, the issue extends beyond national borders and requires international cooperation to establish effective legal frameworks for technologies. Accordingly, the UN, OECD, and the EU developed relevant regulatory initiatives for AI (Table 2).

**Table 2** – Comparative characteristics of regulation and ethical principles of AI in the UN, OECD, and EU

Aspect	UN	OECD	EU
Policy documents	- UN Convention on the Use of Electronic Communications in International Contracts of 22 November 2005; - The Pact for the Future of 22 September 2024 (Global Digital Compact as an Annex)	OECD AI Principles 2019	- European Parliament Resolution 2015/2103(INL) on civil law rules on robotics; - EU AI Act 2024
Key principles	Ethics, non-discrimination, transparency, accountability	Inclusive growth, human well-being, transparency, reliability, accountability	Equality, transparency, risk management, technology neutrality
Regulatory subjects	Member States; AI Advisory Body	Member States; Committee on the Digital Economy	National regulators (agencies/institutions) of Member States; European Commission; European AI Office
Mechanisms for liability for violations	Not clearly defined, declarative	Not clearly defined, voluntary implementation of ethical AI standards; oversight via intergovernmental cooperation	There are mandatory legal regulations; a system of sanctions for developers and operators of AI systems

Source: compiled by the authors

In recent years, being a leading international political organisation, the UN has addressed the use of automated systems in the context of contracts between



international actors. Thus, the 2005 UN Convention on the Use of Electronic Communications in International Contracts confirms the growing relevance of automated technologies, including AI, in international legal relations (Kryshtanovych et al., 2022). Ongoing UN consultations and research led to the establishment of the AI Advisory Body in 2023, which issued recommendations to address risks and gaps in AI governance. Key measures include creating a global scientific panel on AI, developing international AI standards, establishing a capacity-building network, and implementing a global AI policy framework. Subsequently, the UN adopted the Future Pact, incorporating the Global Digital Compact to regulate digital technologies in terms of ethics and human rights and to mitigate potential harms such as hate speech and discrimination from AI-generated content (United Nations, 2005).

The OECD AI Guidelines, the first intergovernmental standard on AI, influenced the UN's approach to AI regulation significantly. They are based on principles of transparency, accountability, and the protection of human rights in AI use. The guidelines served as a foundation for broader digital regulation, recognising electronic communications as equivalent to traditional written contracts and facilitating developments such as digital signatures, blockchain, and AI-driven automated contracts (Organisation for Economic Co-operation and Development, 2019).

A notable initiative highlighting the global importance of safe AI use is the International Declaration on the Safe Use of AI, adopted during the AI Safety Summit at Bletchley Park, UK, involving 28 states. The Declaration emphasises AI's potential to enhance well-being, peace, and prosperity, while underscoring the need for ethical, human-centred, and safe development. It recognises AI's role across sectors such as transport, education, healthcare, and justice, and its contribution to the UN Sustainable Development Goals. The summit also addressed risks associated with AI, including threats to human rights, transparency, fairness, security, and data privacy, as well as content manipulation and disinformation. Consequently, the summit recommended strengthening legal liability for AI companies (Government of the United Kingdom, 2023). In addition to traditional international organisations, integration associations such as the European Union play an active role in shaping AI regulation. Unlike other organisations, EU law goes beyond abstract declarations on intellectual property and privacy, providing concrete mechanisms to ensure data protection, ethical standards, and accountability for AI-related actions.

Since the adoption of the European Parliament Resolution 2015/2103(INL) on "Civil Law Rules on Robotics", EU member states have been urged to establish a legal framework for AI use and implement a unified system for smart machine recognition. The resolution applies existing product liability rules to AI-related damages, holding manufacturers accountable for technical malfunctions and users responsible for actions causing harm. It also promotes a universal, technology-neutral approach to intellectual property regulation in robotics-related applications (European Parliament, 2017). Over subsequent years, these efforts laid the groundwork for a single EU regulation aimed at ensuring safety and protecting citizens' rights in AI use.



The EU Artificial Intelligence Act, adopted in 2024, classifies AI risks as minimal (typical for most systems, e.g., spam), unacceptable, high, and specific transparency risks (common in chatbots, deepfakes, etc.). The Act established monitoring procedures and introduced rules for general-purpose AI models to ensure transparency in value creation. For high-risk AI systems with potential systemic impacts, additional mandatory requirements are imposed, including risk management, serious incident monitoring, model evaluation, and independent verification.

These obligations will be implemented through codes of practice developed collaboratively by industry, academia, civil society, and other stakeholders in coordination with the European Commission. National competent authorities will oversee implementation at the domestic level, while the newly established European AI Office will ensure coordination across the EU. The Office will monitor compliance for specialised AI models and, together with national authorities, serve as the world's first regulatory body enforcing binding AI rules (European Union, 2024). Although the European AI Office is still in the early stages of operation, it represents the first institutional step in regulating AI use at the international level. This experience can serve as a model for countries pursuing European integration, including Ukraine. Currently, AI in Ukraine lacks legal entity status, and its application primarily involves creating new products or improving existing works, which fall under intellectual property rights held by human creators or groups. Nevertheless, in line with global trends, the process of legal regulation for AI has begun.

## 4.2 National Ukrainian Legislative Development and Legal Liability

In 2020, Ukraine adopted the Concept of AI Development, which for the first time defined the concept, goals, principles, and key objectives of AI technology development at the national legislative level. The Concept highlights critical issues, including gaps and deficiencies in regulation, shortcomings in personal data protection, and limited practical application of AI in the judicial system. It also emphasises active cooperation with international organisations and the use of European experience, supported by specialised expert networks. Thus, planned measures include developing standards to protect the rights of participants in AI-related legal relations and creating an Ethical Code for AI Use (Cabinet of Ministers of Ukraine, 2020).

The Concept provides a foundation for future regulation of ICT-related activities, reflecting the growing number of companies in Ukraine involved in AI development and the widespread incorporation of AI in science and creativity (Varynskyi et al., 2023). This also intersects with the protection of intellectual property rights, leading to the enactment of the new Law of Ukraine "On Copyright and Related Rights," effective from 1 January 2023 (Verkhovna Rada of Ukraine, 2023). Under Article 33 of the Law, a *sui generis* right applies to non-original objects created by computer programs. Such objects are defined as results of software operation that differ from existing analogues and arise without direct human intervention. However, works



created by individuals using computer technology are not classified as non-original objects generated by AI (Verkhovna Rada of Ukraine, 2023). In addition, the Draft Law amending advertising laws suggests prohibiting the use of AI for generating voices or images based on personal data (Verkhovna Rada of Ukraine, 2025).

Therefore, liability for AI-related actions or omissions may be imposed on individuals or legal entities involved in creating, implementing, or operating AI systems. Article 1166 of the Civil Code of Ukraine establishes general grounds for liability for property damage, requiring the responsible party to provide compensation. In the AI context, manufacturers or operators may be held liable for harm caused by system use. However, existing legislation does not address the legal subjectivity of AI due to its novelty and limited understanding. Both in Ukraine and internationally, a key problem remains establishing ethical criteria for decisions, which should guide the further development of AI regulations across social spheres.

### **4.3 Contradictions, Risks, and Human Rights Balance**

The appropriate approach for regulating AI in Ukraine should involve systematically amending existing legislation where AI is already in use. This includes introducing requirements for labelling AI-generated content in advertising and media, defining rules for AI use in education while preventing academic dishonesty, and establishing liability for AI-assisted diagnosis and treatment in medicine. An alternative or complementary approach would be to develop a dedicated framework law on AI, analogous to the EU Artificial Intelligence Act 2024, accompanied by institutional reforms such as creating a national AI regulatory authority based on the EU AI Office model.

Considering foreign experiences and the evolving capabilities of AI algorithms, Ukraine could improve intellectual property and consumer protection legislation. Currently, both Ukrainian and European laws address the liability of AI developers under civil, administrative, and criminal law, covering cases where AI products may mislead users, provide false or inaccurate information, or be used as instruments in committing crimes.

However, when analysing potential subjects of liability, it is essential to proceed from the premise that legal responsibility depends on several factors. These include whether the user is aware of the limitations of the AI system and has been provided with all necessary information; whether the AI system should be classified as a product or a service (Kingston, 2016); and whether AI itself can be considered an object of liability; and if so, in what capacity: a neutral agent, an accomplice, or a direct perpetrator. This correlates with the theoretical basis of legal liability, according to which only a being or organisation that has the will, interest and capacity to act in the legal field can be a subject of law (Raz, 1979). In this context, AI does not have legal personality, so all legal liability should be assigned to an intermediary in the form of an individual or legal entity that applied the algorithm.



The nature of law potentially generated or influenced by AI remains unclear. In both Ukraine and European countries, discussions are ongoing regarding the use of AI in judicial proceedings. The European Commission for the Efficiency of Justice of the Council of Europe (2021) adopted a digitalisation action plan for 2022–2025 aimed at improving the quality and efficiency of justice. This document reflects the gradual transfer of decision-making elements from humans to automated systems, which in turn obliges public administration to ensure compliance with core governance principles, most notably the rule of law, transparency, accountability, and the right to a fair trial.

Ultimately, the use of AI requires the development of clear ethical standards that will ensure the fair and transparent application of technology. In Ukraine, the issue of AI ethics has not been sufficiently studied, and therefore it is important to be guided by the best international practices, including the principles of non-discrimination, transparency and accessibility for citizens. Given the theoretical basis of regulation, standardisation should adhere to the principles of the rule of law aimed at preserving human dignity and ensuring proportionality in interference with private life. At the EU level, ethical codes for AI are developed to form the basis for national legislation. For general-purpose AI models, an independent scientific expert group will play a central role in identifying systemic risks, classifying models, and supporting their testing. The work of these expert groups will rely not only on technical assessment of AI systems but also on ethical considerations, societal perceptions of high-risk technologies, and the evaluation of public opinion.

Furthermore, the Declaration of the Committee of Ministers of the Council of Europe on the Manipulative Powers of Algorithmic Processes, adopted on 13 February 2019, highlights the risks of behavioural manipulation, electoral interference, and the exploitation of individual vulnerabilities through data-driven technologies. It underscores threats to the human right to make autonomous decisions and other risks arising from automated systems. The Declaration calls on member states to address these challenges, consider additional legal mechanisms against human rights violations resulting from automated data processing, and promote digital literacy and public awareness (Committee of Ministers, 2019).

However, in Ukraine and across Europe, the concept of impartiality remains unresolved. Society, policymakers, and the expert community must determine what qualifies as an alternative opinion and establish clear criteria for permissible restrictions or prohibitions. In this context, the AI use will influence future political and media processes significantly, shaping political life and the overall state of democracy (Jungherr, 2023). From a practical point of view, it requires the implementation of algorithm audit procedures, independent ethical work at government agencies, and a public monitoring system. In the practical enforcement of Ukrainian legislation on intellectual property and human rights in the digital environment, the collision between preserving one right and restricting another remains a significant challenge. In particular, the use of AI is frequently accompanied by extensive processing of personal data, which poses risks to the confidentiality and security of personal information.



To ensure the effective implementation of the Law “On Copyright and Related Rights”, Ukraine should create appropriate institutional mechanisms to protect users’ rights and ensure information security (Verkhovna Rada of Ukraine, 2023). This could include creating a specialised body responsible for copyright and AI issues, or establishing such a unit within an existing institution, for example, the Ministry of Digital Transformation of Ukraine. Although a similar body already exists, i.e., the Expert Advisory Committee on the Development of Artificial Intelligence in Ukraine under the Ministry of Digital Transformation of Ukraine, it is more of an advisory body that accumulates expert experience and aims to increase Ukraine’s competitiveness in AI. Another solution would be to create a copyright infringement monitoring centre on the Internet, which could be empowered to track the illegal use of content, including AI-generated materials. With respect to the Draft Law amending the Law of Ukraine “On Advertising”, it is advisable to introduce obligations for online advertising platforms and media outlets to monitor and remove unlawful content, including AI-generated material. Moreover, the requirements for audio and textual warnings should be strengthened, as current provisions remain insufficiently clear (Verkhovna Rada of Ukraine, 2023).

Nevertheless, the contradiction between freedoms and state control remains. For instance, prohibiting the use of AI in advertising may raise concerns about freedom of creativity, since the developers create the product that reflect their creative input. Similarly, restrictions on AI-generated content may contradict the principles of open access and technological innovation. Regulating the use and storage of personal information is also considered. An example is the debate over the introduction of AI-based surveillance technologies, in particular face recognition systems, which raises significant privacy concerns (Nanni et al., 2024). Despite the validity of ensuring public safety and controlling public order, these systems allow for the mass collection and analysis of biometric data of individuals, which calls into question the fundamental rights to privacy and freedom of speech.

The question of state control also raises concerns about the boundary between protection and censorship. Excessive state intervention may limit innovation by imposing regulations that not aligned with contemporary human rights standards and Ukraine’s European integration trajectory. On the contrary, the lack of supervision could destabilise the market and reinforce the dominance of major technology companies within Ukraine’s digital environment. These considerations underpin the need for a balance between regulation, freedom of creativity, and the protection of human rights in the digital age.

## 5 FINAL CONSIDERATIONS

The study examined the implementation of contemporary AI technologies in the legal sphere, with the focus being on the growing necessity for AI regulation at national and international levels. The rapid development of AI offers significant opportunities



for research in scientific disciplines and for daily life, yet give rise to complex legal, ethical, and technological challenges. The scientific contribution lies in developing a holistic approach to AI regulation as an interdisciplinary phenomenon that integrates legal, technological, and ethical dimensions. The article justifies the need for normative interpretation of existing legal provisions, coupled with their adaptation to the challenges of the digital age.

This study draws attention to a series of critical practical issues, with a particular focus on the question of legal liability in the context of AI use. Within the legal framework of Ukraine, the current legislation is inadequate in clearly delineating the allocation of responsibility for errors or damages occasioned by AI technologies. This assertion is informed by European experience, including the European Commission's recommendations on AI liability. The study thus emphasises the necessity of a gradual harmonisation of Ukrainian legal norms with EU standards, whilst taking into account the broader political context of European integration.

Moreover, the effective regulation of AI in Ukraine necessitates the establishment of comprehensive legal frameworks that address various issues, including liability, data protection, ethical standards, and international cooperation in sectors such as healthcare, education, industry, media, public administration, and the judiciary. In order to achieve a balance between innovation, security, and human rights, it is essential to strengthen digital sovereignty and to participate actively in the international AI regulatory agenda.

The study acknowledges several limitations. Firstly, empirical data on the utilisation of AI in public administration remains limited. Secondly, the rapid pace of technological development and legislative change complicates the creation of stable regulatory frameworks. In this regard, future research should concentrate on the collection of empirical evidence regarding the implementation of AI across diverse sectors, the monitoring of the effectiveness of developing legal norms, and the development of regulatory strategies that are able to adapt in order to respond to technological advancements. Moreover, in order to maintain the relevance, effectiveness and alignment of AI regulation with international best practices, continuous collaboration between the scientific community, legal experts and practitioners is essential. Finally, despite geopolitical challenges, Ukraine must strengthen its digital sovereignty and participate in shaping the international AI regulatory agenda, balancing innovation, security, and human rights.

## REFERÊNCIAS

Alguliyev, R.M. & Mahmudov, R.S. (2024). About some socio-economic problems and risks of artificial intelligence. *International Journal of Science, Technology and Society*, 12(5), 140-150. <https://doi.org/10.11648/j.ijsts.20241205.11>



- Bakiner, O. (2023). The promises and challenges of addressing artificial intelligence with human rights. *Big Data & Society*, 10(2). <https://doi.org/10.1177/20539517231205476>
- Bielov, D., Aristova, I., & Hromovchuk, M. (2019). The history of the paradigm of constitutionalism at the present stage of development of the post-Soviet states (on the example of Ukraine). *Studia Universitatis Cibiniensis*, 16, 265–273.
- Cabinet of Ministers of Ukraine. (2020). Order of the Cabinet of Ministers of Ukraine No. 1556 “On approval of the concept for the development of artificial intelligence in Ukraine”. <https://zakon.rada.gov.ua/laws/show/1556-2020-%D1%80#Text>
- Calderaro, A., & Blumfelde, S. (2022). Artificial intelligence and EU security: The false promise of digital sovereignty. *European Security*, 31(3), 415-434. <https://doi.org/10.1080/09662839.2022.2101885>
- Cath, C. (2018). Governing artificial intelligence: Ethical, legal and technical opportunities and challenges. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 376(2133), article number 20180080. <https://doi.org/10.1098/rsta.2018.0080>
- Committee of Ministers. (2019). Declaration on the manipulative capabilities of algorithmic processes. <https://rm.coe.int/090000168092dd4b>
- De Almeida, P.G.R., dos Santos, C.D., & Farias, J.S. (2021). Artificial Intelligence regulation: A framework for governance. *Ethics and Information Technology*, 23, 505-525. <https://doi.org/10.1007/s10676-021-09593-z>
- Ding, R.X., Palomares, I., Wang, X., Yang, G.R., Liu, B., Dong, Y., Herrera-Viedma, E., & Herrera, F. (2020). Large-scale decision-making: Characterization, taxonomy, challenges and future directions from an artificial intelligence and applications perspective. *Information Fusion*, 59, 84-102. <https://doi.org/10.1016/j.inffus.2020.01.006>
- European Commission for the efficiency of justice. (2021). 2022 – 2025 CEPEJ Action plan: “Digitalisation for a better justice”. <https://rm.coe.int/cepej-2021-12-en-cepej-action-plan-2022-2025-digitalisation-justice/1680a4cf2c>
- European Commission. (2021). Europe fit for the digital age: Commission proposes new rules and actions for excellence and trust in artificial intelligence. [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_21\\_1682](https://ec.europa.eu/commission/presscorner/detail/en/ip_21_1682)



- European Parliament & Council. (2024). Regulation (EU) 2024/1689 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act). <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32024R1689>
- European Parliament. (2017). European Parliament resolution of 16 February 2017 with recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL)). [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=oj:JOC\\_2018\\_252\\_R\\_0026](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=oj:JOC_2018_252_R_0026)
- Felzmann, H., Villaronga, E.F., Lutz, C., & Tamò-Larrioux, A. (2019). Transparency you can trust: Transparency requirements for artificial intelligence between legal norms and contextual concerns. *Big Data & Society*, 6(1). <https://doi.org/10.1177/2053951719860542>
- Gorian, E., & Osman, N.D. (2024). Digital ethics of Artificial Intelligence (AI) in Saudi Arabia and United Arab Emirates. *Malaysian Journal of Syariah and Law*, 12(3), 583-597. <https://doi.org/10.33102/mjssl.vol12no3.798>
- Government of the United Kingdom. (2023). The Bletchley Declaration by Countries Attending the AI Safety Summit. <https://www.gov.uk/government/publications/ai-safety-summit-2023-the-bletchley-declaration/the-bletchley-declaration-by-countries-attending-the-ai-safety-summit-1-2-november-2023>
- Harust, Yu.V., Melnyk, V.I., Mirgorod-Karpova, V.V., Pavlenko, B.O., Kiyashko, Yu.M., & Maletov, D.V. (2021). Functioning of the system of evaluation of efficiency of international technical assistance: Experience of the European Union and leading countries. *Legal Horizons*, 26(39), 117-124. <http://www.doi.org/10.21272/legalhorizons.2021.i26.p>
- Huang, C., Cai, H., Xu, L., Xu, B., Gu, Y., & Jiang, L. (2019). Data-driven ontology generation and evolution towards intelligent service in manufacturing systems. *Future Generation Computer Systems*, 101, 197-207. <https://doi.org/10.1016/j.future.2019.05.075>
- Jackson, B.W. (2019). Artificial Intelligence and the fog of innovation: A deep-dive on governance and the liability of autonomous systems. *Santa Clara High Technology Law Journal*, 35(4), 30-35.
- Jungherr, A. (2023). Artificial intelligence and democracy: A conceptual framework. *Social Media + Society*, 9(3). <https://doi.org/10.1177/20563051231186353>



- Karpenko, Y.V. (2019). Ethical principles of artificial intellectual application in public administration. *National Academy for Public Administration under the President of Ukraine. Information Technology*, 4, 93-97.
- Kingston, J.K.C. (2016). Artificial Intelligence and legal liability. In M. Bramer, & M. Petridis (Eds.) *Research and Development in Intelligent Systems XXXIII* (pp. 269-279). Springer. [https://doi.org/10.1007/978-3-319-47175-4\\_20](https://doi.org/10.1007/978-3-319-47175-4_20)
- Kostenko, O.M., Bieliakov, K.I., Tykhomyrov, O.O., & Aristova, I.V. (2024). “Legal personality” of artificial intelligence: methodological problems of scientific reasoning by Ukrainian and EU experts. *AI and Society*, 39(4), 1683–1693. <https://doi.org/10.1007/s00146-023-01641-0>
- Kovalenko, Y., & Voynov, M. (2024). *Artificial intelligence and human rights: Guidelines and limitations in the context of national security and defence*. Ukrainian Helsinki Human Rights Union. [https://www.helsinki.org.ua/wp-content/uploads/2024/05/Preview\\_AI\\_human\\_right\\_A4-1.pdf](https://www.helsinki.org.ua/wp-content/uploads/2024/05/Preview_AI_human_right_A4-1.pdf)
- Kryshchanovych, M., Akimova, L., Shamrayeva, V., Karpa, M., & Akimov, O. (2022). Problems of European integration in the construction of EU security policy in the context of counter-terrorism. *International Journal of Safety and Security Engineering*, 12(4), 501-506. <https://doi.org/10.18280/ijssse.120411>
- Mahapatra, S. (2025). Ethical governance of AI and the prevention of digital authoritarianism in South and Southeast Asia. Retrieved from [https://epub.sub.uni-hamburg.de/epub/volltexte/2025/186102/pdf/DigiTraL\\_2025\\_03\\_Mahapatra.pdf](https://epub.sub.uni-hamburg.de/epub/volltexte/2025/186102/pdf/DigiTraL_2025_03_Mahapatra.pdf)
- Muravska, Y., & Slipchenko, T. (2024). Legal regulation of artificial intelligence in Ukraine and the world. *Actual Problems of Jurisprudence*, 1, 188-195.
- Nanni, R., Bizzaro, P. G., & Napolitano, M. (2024). The false promise of individual digital sovereignty in Europe: Comparing artificial intelligence and data regulations in China and the European Union. *Policy & Internet*, 16(4), 711-726.
- Organisation for Economic Co-operation and Development. (2019). AI principles. <https://www.oecd.org/en/topics/ai-principles.html#:~:text=The%20OECD%20AI%20Principles%20promote,stand%20the%20test%20of%20time>
- Ortina, G., Zayats, D., Akimova, L., Akimov, O., & Karpa, M. (2023). Economic efficiency of public administration in the field of digital development. *Economic Affairs (New Delhi)*, 68(3), 1543-1553. <https://doi.org/10.46852/0424-2513.3.2023.21>



- Rajkishore, M., & Gour Chandra, M. (2025). Implementations of AI technology and profit-sharing contract for sustainability development and customer experience improvement: A differential game approach. *Expert Systems with Applications*, 275. <https://doi.org/10.1016/j.eswa.2025.126920>
- Raz, J. (1979). *The authority of law: Essays on law and morality*. Oxford: Oxford Academic. <https://doi.org/10.1093/acprof:oso/9780198253457.001.0001>
- Roberts, H., Hine, E., & Floridi, L. (2023). Digital sovereignty, digital expansionism, and the prospects for global AI Governance. In M. Timoteo, B. Verri, & R. Nanni (Eds.), *Quo Vadis, Sovereignty? New Conceptual and Regulatory Boundaries in the Age of Digital China* (pp. 51-75). Cham: Springer Nature Switzerland.
- Schmidt, P., Biessmann, F., & Teubner, T. (2020). Transparency and trust in artificial intelligence systems. *Journal of Decision Systems*, 29(4), 260-278. <https://doi.org/10.1080/12460125.2020.1819094>
- Shcherbak, S.V., Ivanii, O.M., & Sibilyov, D.M. (2023). Recoverer-oriented enforcement process: Using technology to its fullest potential. *Journal of International Legal Communication*, 11(4), 44-54. <https://doi.org/10.32612/uw.27201643.2023.11.4.pp.44-54>
- Shulga, V., Korchenko, O., & Mostenska, T. (2024). Political challenges of science today. *Abstracts of XX International conference of higher education students and young scientists* (pp. 2024–286). National Aviation University.
- Tokarieva, K. & Savliva, N. (2021). Peculiarities of legal regulation of artificial intelligence in Ukraine. *Scientific Works of Kyiv Aviation Institute*, 3(60), 148–153.
- Ulnicane, I. (2021). Artificial intelligence in the European Union: Policy, ethics and regulation. In Th. Hoerber, G. Weber, & I. Cabras (Eds.), *The Routledge handbook of European integrations* (pp. 254- 269). Taylor & Francis.
- United Nations. (2005). United Nations Convention on the use of electronic communications in International Contracts. [https://uncitral.un.org/en/texts/ecommerce/conventions/electronic\\_communications](https://uncitral.un.org/en/texts/ecommerce/conventions/electronic_communications)
- United Nations. (2024). *Covering AI for humanity*. AI Advisor Body.
- Varynskyi, V., Donnikova, I., & Savinova, N. (2023). Artificial intelligence in education: Tool, object, ‘subject’ of learning. *Journal of International Legal Communication*, 10(3), 46-55. <https://doi.org/10.32612/uw.27201643.2023.10.3.pp.46-55>



- Verkhovna Rada of Ukraine. (2023). Law of Ukraine No. 2811-IX “On copyright and related rights”. <https://zakon.rada.gov.ua/laws/show/2811-20#Text>
- Verkhovna Rada of Ukraine. (2025). Draft Law “On Amendments to the Law of Ukraine “On Advertising” and Other Laws of Ukraine”. <https://itd.rada.gov.ua/billinfo/Bills/Card/45290>
- Wang, Z. (2025). Generative AI-making and state-making: Sovereign AI race and the future of digital geopolitics. *Politics and Governance*, 13, 1-28. <https://doi.org/10.17645/pag.10222>
- Yesennikov, K. (2024). Implementation of artificial intelligence in public administration: A comparative analysis of EU and US' experience. *Investments: Practice and Experience*, 19, 194-199.
- Zayed, N.M., Edeh, F.O., Darwish, S., Islam, K.M.A., Kryshstal, H., Nitsenko, V., & Stanislavkyk, O. (2022). Human resource skill adjustment in service sector: Predicting dynamic capability in post COVID-19 work environment. *Journal of Risk and Financial Management*, 15(9), article number 402. <https://doi.org/10.3390/jrfm15090402>
- Zhang, C., & Lu, Y. (2021). Study on artificial intelligence: The state of the art and future prospects. *Journal of Industrial Information Integration*, 23, article number 100224. <https://doi.org/10.1016/j.jii.2021.100224>
- Zhornokui, V.H. (2024). Legal liability: seven doctrinal approaches to understanding its essence. *Law and Safety*, 92(1), 90-100. <https://doi.org/10.32631/pb.2024.1.08>
- Zuwanda, Z.S., Lubis, A.F., Solapari, N., Sakmaf, M.S., & Triyantoro, A. (2024). Ethical and legal analysis of artificial intelligence systems in law enforcement with a study of potential human rights violations in Indonesia. *The Easta Journal Law and Human Rights*, 2(03), 176–185. <https://doi.org/10.58812/eslhr.v2i03.283>