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*Digital Challenges in the Adaptation of the Legal System of Ukraine:  
Assessing the Challenges, Threats and the Way Forward*

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## Secção

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## Digital Challenges in the Adaptation of the Legal System of Ukraine: Assessing the Challenges, Threats and the Way Forward

### Adaptação do sistema jurídico da Ucrânia na era da digitalização: desafios, ameaças e possíveis formas de os ultrapassar

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**ABSTRACT:** This article in all its ramifications is out in exploring the adaptation of Ukraine's legal system to the challenges affect the digitalization era. Truly in a nutshell the paper is highly aimed at studying the key transformation areas influenced by the rapid integration of digital technologies and services into society. Using documentary analysis, comparative legal approaches, and forecasting methods, the research identifies cybersecurity threats, regulatory fragmentation, and unequal access to digital services as core issues. The findings highlight the five adaptation vectors: reforming digital business regulation, introducing new technologies in public services, updating social security standards, advancing electronic justice, and applying digital anti-corruption tools. The study proposes a strategic framework to guide Ukraine's digital legal reform in line with international and European legal norms.

**KEYWORDS:** adaptation; legal system of Ukraine; era of digitalization; digital platforms; e-justice; digital tools; public services; technologies.

**RESUMO:** Este artigo explora a adaptação do sistema jurídico da Ucrânia aos desafios da digitalização. O estudo tem como objetivo identificar as principais áreas de transformação influenciadas pela rápida integração das tecnologias e serviços digitais na sociedade. Utilizando análise documental, métodos jurídicos comparativos e técnicas de previsão, a pesquisa identifica como principais questões as ameaças à cibersegurança, a fragmentação

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regulatória e o acesso desigual aos serviços digitais. Os resultados destacam cinco vetores de adaptação: reforma da regulamentação dos negócios digitais, introdução de novas tecnologias nos serviços públicos, atualização dos padrões de seguridade social, avanço da justiça eletrônica e aplicação de ferramentas digitais anticorrupção. O estudo propõe um quadro estratégico para orientar a reforma jurídica digital da Ucrânia em conformidade com as normas jurídicas internacionais e europeias.

**PALAVRAS-CHAVE:** adaptação; sistema jurídico da Ucrânia; era da digitalização; plataformas digitais; e-justiça; ferramentas digitais; serviços públicos; tecnologias.

## 1. Introduction

The rapid advancement of digital technologies such as blockchain, cyber-physical computing, and big data has become a transformative force in shaping the global economy and society. These technologies are not only redefining traditional processes but also creating significant disparities in economic progress between developed and developing nations.<sup>6</sup> This "digital divide" poses critical challenges, particularly in terms of equitable access, transparency, and security. In this context, blockchain technology offers significant potential to revolutionize the storage and protection of sensitive data, such as records maintained by the Ministry of Internal Affairs and the National Police. By ensuring transparency in law enforcement processes and safeguarding the integrity of electronic evidence and official documents, blockchain can be a pivotal tool for enhancing public trust and operational efficiency.

The transition to a knowledge-based economy and an information-driven society is further accelerating through the pervasive wave of digital transformation. The generation born between the mid-1990s and mid-2000s has grown up immersed in the virtual world, making digital proficiency a norm rather than an exception. This generational shift, coupled with rapid digitalization, is reshaping national economies and socio-economic landscapes. However, this transformation brings inherent risks, such as cybercrime, data breaches, and unequal access to digital resources, all of which pose significant challenges for governments, businesses, and civil societies.<sup>7</sup>

Digitalization is not merely transforming individual lives; it is reshaping the collective fabric of civil society. It has given rise to a new cluster of digital rights, including the right to Internet access and protection from unwanted information. However, these rights remain underdeveloped, necessitating legal systems to adapt to

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<sup>6</sup> MATVIEIEV, Petro, et al. *Investment activity in the era of digitalization: economic-legal support and perspectives of procedural protection*. *Cuestiones Políticas*. 2022, vol. 40, n.º 73, pp. 754–767. DOI: 10.46398/cuestpol.4073.43.

<sup>7</sup> KUZMENKO, O., et al. *Digitalization in an innovative society and public administrative: prospects for implementation and development in Ukraine*. *Journal of Law and Political Sciences* [em linha]. 2021, vol. 29, n.º 4, pp. 122–138.

the evolving digital environment. This adaptation requires a strategic and scientific understanding of the interaction between digitalization and legal frameworks to ensure the protection of fundamental rights while fostering innovation.

Ukraine faces unique challenges in this digital era, exacerbated by the ongoing armed aggression of the Russian Federation. Cyberattacks targeting Ukraine's information infrastructure have escalated, with Russian special services frequently attempting to infiltrate state and local government systems. The cyber police have become a frontline defense, critical to countering these threats to national security. In 2023 alone, the cyber police reported significant achievements: over 3,600 cybercrimes were detected, and more than 1,700 suspects were identified for over 3,700 offenses—an increase of 59% compared to 2022. Furthermore, cases against 42 organized criminal groups, including seven criminal organizations, were referred to court, marking an 83% increase from the previous year. These statistics underscore the urgent need for robust digital security measures and a legal framework capable of addressing the rapidly evolving nature of cyber threats.

In light of these developments, this study explores the critical role of blockchain and other digital technologies in enhancing transparency, security, and efficiency within law enforcement. It also examines the broader implications of digitalization for legal systems, focusing on the necessity of adapting to the unique challenges posed by an increasingly digital society. By addressing these issues, the research aims to contribute to the development of a resilient legal framework that aligns with the demands of a rapidly changing digital landscape.

## 2. Purpose and objectives of the research

The purpose of the article is to examine the processes of adaptation of Ukraine's legal system to the digitization era with due regard for modern scientific developments. To achieve this goal, it is necessary to solve the following tasks:

*to identify the main features of adaptation of the legal system of Ukraine in the digital era;*

*to analyze the characteristic areas of adaptation of the legal system of Ukraine in the digital era.*

This is not sufficient in its application even though the State of Ukraine has established possible adaptation features in ensuring an effective digital legal system, but the problem is in examining and to know the reason why this

adaptation policies continue to be a great challenge to the digitalization arena today. Sometimes we are being force in posing some concrete questions about the rationale behind this digitalization era that continues to be a threat to the Ukrainian Legal system. Establishing policies and adaptation networks is only the initial step; ensuring that these adaptations are effectively implemented within the realm of digitalization remains a significant challenge. This process is often marked by uncertainty, speculative projections, and critical questioning regarding its practical feasibility

### **3. Methodology**

To address the research objectives, the study employed a combination of general and specific methods of legal and scientific inquiry, which, when integrated, facilitated a comprehensive examination of the challenges posed by digitalization to Ukraine's legal system. The documentary analysis and formal legal method were used to examine primary legal sources, including Ukrainian legislation, government resolutions, and strategic policy documents related to digital content, public services, and electronic governance. Selection of legal materials was based on their relevance to the regulation of digital technologies and their enactment or amendment within the last five years, ensuring contemporary relevance.

The comparative legal method was employed to assess how different jurisdictions have responded to the challenges of digital entrepreneurship and the provision of public digital services through legal reforms. The analysis draws on examples from the United States, China, Japan, Taiwan, and selected European Union member states—chosen for their advanced digital legal frameworks and their relevance to Ukraine's strategic objective of EU integration. Modeling and forecasting methods were used to project potential directions for future legal development in Ukraine, based on current trends in digitalization and institutional readiness. The logical-semantic method was applied to clarify and contextualize the concept of the “Fourth Industrial Revolution,” particularly as it relates to legal adaptation. Finally, the analytical method was employed to synthesize the legal, technological, and institutional data into a coherent framework outlining the key dimensions of legal adaptation in the digital era. What is certain, however, is that the issue lies not only in the methodological approach, but also in ensuring that Ukraine's legal system aligns with the current legal and technological context, as well as with its evolving manifestations. The rule and the underlying statement are clear: significant efforts are still required to establish an



effective legal framework capable of supporting the digital transformation process.

#### 4. Discussion and results

Legal adaptation in the digital era refers to the process by which legal systems evolve to address the challenges and opportunities presented by rapid technological advancements. This involves amending existing laws, creating new regulations, and sometimes abolishing outdated legal norms to ensure the protection of rights, enhancement of governance, and facilitation of innovation within society. As noted by Arzumanova and Amvrosova, the adaptability and flexibility of law are crucial in the context of digitalization, requiring a comprehensive transformation to accommodate new digital realities.<sup>8</sup>

The "pacing problem" describes the phenomenon where technological innovation advances more rapidly than the development of laws and regulations, creating a gap between new technologies and the legal frameworks governing them. This issue is extensively discussed in the book *The Growing Gap Between Emerging Technologies and Legal-Ethical Oversight: The Pacing Problem*, edited by Gary E. Marchant, Braden R. Allenby, and Joseph R. Herkert. The authors highlight the increasing disparity between the swift progression of science and technology and the slower pace of legal and ethical oversight, emphasizing the need for adaptive legal mechanisms to address this challenge.<sup>9</sup> Additionally, Lyria Bennett Moses, examines the difficulties that legal systems face in responding to rapid technological advances. the challenges inherent in adapting existing legal frameworks to new technologies and suggests that a more dynamic approach to lawmaking is needed to bridge this gap.<sup>10</sup>

For more than two years now, Ukrainian citizens have been resisting Russia's open armed aggression, which has been accompanied by thousands of criminal offences, including cybercrime and human trafficking. It is worth recalling the documented crimes against children by the Russian leadership - Maria Lvova-Bielova,

<sup>8</sup> SIDORENKO, E. L., ARZUMANOVA, L. L., dan AMVROSOVA, O. N. Adaptability and flexibility of law in the context of digitalization. In: ASHMARINA, Svetlana Igorevna, MANTULENKO, Valentina Vyacheslavovna, dan VOCHOZKA, Marek (eds.). *Engineering economics: decisions and solutions from Eurasian perspective*. Cham: Springer International Publishing, 2021, vol. 139, Lecture Notes in Networks and Systems, pp. 523–532. DOI: 10.1007/978-3-030-53277-2\_62.

<sup>9</sup> MARCHANT, Gary E., ALLENBY, Braden R., dan HERKERT, Joseph R., eds. *The growing gap between emerging technologies and legal-ethical oversight: the pacing problem*. Dordrecht: Springer Netherlands, 2011, vol. 7, *The International Library of Ethics, Law and Technology*. DOI: 10.1007/978-94-007-1356-7.

<sup>10</sup> MOSES, Lyria Bennett. Recurring dilemmas: the law's race to keep up with technological change. *SSRN Electronic Journal* [em linha]. 2007 [consult. 22 abr. 2025]. DOI: 10.2139/ssrn.979861..



Serhii Mironov, Vladimir Putin and others. The International Criminal Court in The Hague has already issued an arrest warrant for part of the Russian leadership. In view of the new challenges, Ukrainian law enforcement agencies have changed their priorities to pay special attention to the detection and investigation of war crimes. New challenges require quick, non-standard actions. In these conditions, scientific solutions that can influence the situation, change negative trends in public life, and create conditions for the normal development of society become extremely important. Moreover, the relevance of the research topic is in the need for legal regulation of the criteria for assessing substantial violation of human rights and freedoms during, guaranteed by the Constitution of Ukraine, laws of Ukraine and international treaties to which the Verkhovna Rada of Ukraine consented to be bound.<sup>11</sup>

In the context of adapting legal systems to digitalization, it is important to recognize that the rapid expansion of information, the creation of large-scale data sets and databases, and the accelerated development and dissemination of digital technologies across various domains of public life and state activity have become critical drivers in the formation of civil society. These dynamics contribute to the emergence of a new 'digital reality', increasingly mediating social interactions and institutional functions. In this new reality, law is not only a means and instrument for enabling the digitalization of the economy, governance, and other sectors of public life, but also a subject of digital transformation itself. It is increasingly shaped by digitalization, undergoing changes in its form, content, structure, systemic arrangement, and mechanisms of operation—revealing a growing tendency toward the intensification of such transformations..<sup>12</sup>

Among other considerations, attention should be directed to the extent of technological reliance, as evidenced by the shelling of Ukraine during the Russian aggressor. The events revealed that police operations may be heavily reliant on digital systems, which can become inoperative in the event of power outages or other technical disruptions. The protection of personal data within police units—particularly with respect to ensuring its integrity, confidentiality, and, where appropriate,

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<sup>11</sup> ABLAMSKYI, Serhii Yevhenovych, et al. Substantial violation of human rights and freedoms as a prerequisite for inadmissibility of evidence. *Justicia* [em linha]. 2021, vol. 26, n.º 39, pp. 47–56 [consult. 22 abr. 2025]. DOI: 10.17081/just.26.39.4819.

<sup>12</sup> ZHEXEMBAYEVA, Narkes, et al. Human rights information in the context of digitalisation. *International Journal of Electronic Security and Digital Forensics* [em linha]. 2023, vol. 15, n.º 6, pp. 555–566 [consult. 22 abr. 2025]. DOI: 10.1504/IJESDF.2023.133963.

accessibility—has become a matter of critical importance. It is essential to address the challenges associated with identifying individuals suspected of criminal offences through images (surveillance footage, photographic and video evidences used in criminal proceedings and operational investigations, etc.). This issue encompasses both technical considerations and the protection of human rights and freedoms when employing face recognition systems (biased algorithms, interference with privacy, etc.). Traditionally, the issues of processing large amounts of data, integration of information systems, technology for de-anonymizing persons of operational interest, and automation of law enforcement units remain relevant. The problem of insufficient funding for the introduction of information technology in law enforcement agencies should be highlighted separately.

Among other things, it is necessary to focus on the issues of using high-definition video cameras, with night vision and license plate recognition functions, to create a unified video surveillance system for cities and other territories, using specialized software to analyze video data by detecting suspicious objects, recognizing faces, license plates, identifying events, etc.

**Table 1 Comparative Overview of Digital Legal Frameworks**

Aspect	Ukraine	Germany (EU)	United States	China	Japan
Regulatory Model	Reformative and fragmented	Precautionary, rights-based, EU-integrated	Market-driven, sectoral	State-centric, security-driven	Facilitating, ethical-guideline-based
Main Legal Instruments	Law on Digital Content and Services, e-Justice, sectoral laws	GDPR, DSA, NetzDG	CCPA (California), HIPAA, FISMA	Cybersecurity Law (2017), Data Security Law (2021), PIPL (2021)	Basic Act on IT Society, Guidelines on AI and Data Governance
Data Protection Approach	Developing, partially aligned with GDPR	Comprehensive and strongly enforced	Fragmented, no unified federal standard	Strict state control, data localization	Moderate, consent-based with ethical oversight
Cybersecurity Regulation	Reactive, evolving through conflict-driven needs	Structured, proactive, harmonized with EU	National security-focused, agency-led	Integral to national security strategy	Voluntary compliance with governmental coordination
Public-Private Collaboration	Limited and in development	Institutionalized collaboration and co-regulation	Strong emphasis on innovation-driven partnership	Controlled partnerships with state dominance	Encouraged through incentives and soft law mechanisms
Institutional Coordination	Weak inter-agency coordination, needs capacity building	Strong multi-level coordination (EU–federal–local)	Decentralized, sector-specific agencies	Centralized and vertically integrated governance	Coordinated through digital strategy bodies

Legal System Type	Civil law (under reform)	Civil law (EU harmonized)	Common Law	Socialist legal system with administrative dominance	Civil law
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Source: Developed by the Author based on Comparative Overview of Digital Legal Frameworks

The comparative table clearly illustrates the variation in digital regulatory approaches across countries, shaped by each nation's legal system, political structure, and strategic priorities. Ukraine, currently undergoing legal transition and facing significant geopolitical pressures, exhibits a reactive and fragmented regulatory framework. Despite significant efforts in establishing the legal foundations of digital governance such as enacting the Law on Digital Content and Digital Services and developing e-justice infrastructure interagency coordination and cross-sectoral integration remain weak. Compared to Germany, Ukraine faces substantial challenges in embedding human rights-based digital governance principles in a consistent and enforceable manner. Germany, through harmonization with the European Union's legal framework namely the GDPR and DSA has built a more prescriptive and coherent system, with data protection and transparency as its foundational pillars.

In contrast, countries like the United States and China represent two extremes: market liberalism and state centralism. The U.S. relies on market mechanisms and private-sector innovation but suffers from the absence of a comprehensive national regulatory framework resulting in fragmentation and uneven data protection. China, in contrast, adopts an authoritative regulatory approach supported by a robust legal framework that prioritizes state control over data and digital infrastructure, often justified on the grounds of national security..<sup>13</sup> In this context, Japan occupies a middle ground, emphasizing ethical-based facilitative regulation and voluntary collaboration, although it tends to respond slowly to urgent legal reform needs. Overall, this comparison reveals that the success of digital legal adaptation depends not merely on the existence of regulation, but also on institutional design, implementation capacity, and the ability to balance innovation, security, and individual rights.

A very important issue is the use of virtual reality and other technologies for training law enforcement officers and improving their professional skills. Virtual reality allows you to create simulations of various situations that law enforcement officers

<sup>13</sup> AGGARWAL, Vinod K., dan REDDIE, Andrew W. Comparative industrial policy and cybersecurity: a framework for analysis. *Journal of Cyber Policy* [em linha]. 2018, vol. 3, n.º 3, pp. 291–305 [consult. 22 abr. 2025]. DOI: 10.1080/23738871.2018.1553989.

encounter to practice response skills. These technologies contribute to the preparation of law enforcement officers for operations under extreme conditions. Through virtual reality (VR) and augmented reality (AR), it is possible to design immersive simulations in which officers can develop and refine tactical skills—such as executing special operations, apprehending suspects, and practicing self-defence protocols. VR/AR environments enable interactive training scenarios that integrate legal knowledge and operational standards, fostering both technical proficiency and adherence to legal frameworks. Virtual reality can be used to train communication skills and negotiation skills. Employees can be put in situations where they need to communicate with aggressive individuals, resolve conflicts, or negotiate with hostages. Since the critical infrastructure facilities of the law enforcement system of Ukraine have complex information systems, it is necessary to ensure reliable cyber protection - protection against cyberattacks, interference in the operation of systems, data leakage, etc. Critical infrastructure facilities must be equipped with reliable backup power systems to ensure uninterrupted operation. In addition, it is important to have reliable communications systems that ensure communication between facilities and with the central office even in extreme conditions of armed aggression.

It is essential to acknowledge that the digital economy is a key driver of the ongoing transformation of legal systems worldwide. Digitalization began to be discussed in a qualitatively new way at the state level in 2019 after the election of the new President of Ukraine and the renewal of the parliament following the elections. The digital economy requires proper legal regulation, which should be ensured by the adoption of a relevant unified law and, on its basis, a set of flexible regulatory acts aimed at regulating individual legal relations related to the use of artificial intelligence, liability for offenses in the information field, the use of robots in work and issues of liability for harm caused by them, etc.<sup>14</sup> The development of digitalization has led to the use of digital technologies in various spheres of state life.<sup>15</sup>

The adaptation of Ukraine's legal system to the digitalization process is

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<sup>14</sup> ANISHCHUK, V. V., LENHER, Ya. I., dan TERESHCHUK, G. A. Modern challenges in the field of legal regulation of the digital economy. In: *Proceedings of the 2nd International Scientific and Practical Conference "Modern Management Trends and the Digital Economy: From Regional Development to Global Economic Growth" (MTDE 2020)* [em linha]. Yekaterinburg, Russia: Atlantis Press, 2020 [consult. 22 abr. 2025]. DOI: 10.2991/aebmr.k.200502.121.

<sup>15</sup> DULIBA, Yevheniia, dan TEREMETSKYI, Vladyslav. Advantages and risks of implementing electronic voting: experience for Ukraine. *Aktual'ni Problemi Pravoznavstva* [em linha]. 2024, vol. 1, n.º 1, pp. 78–85 [consult. 22 abr. 2025]. DOI: 10.35774/app2024.01.078.

fundamentally grounded in the creation of a unified information space. This space is important for addressing key aspects of interaction—not only within the state administration, governmental departments, and local self-government—but also between public authorities and citizens. The processes of digitalization and informatization affect areas of personal data protection, industrial and foreign economic activity, tax, customs and social and labor spheres.<sup>16</sup> Digitalization plays an important role in the process of risk management in order to ensure the rights of employees guaranteed by current legislation, namely the creation of proper, safe and healthy working conditions.<sup>17</sup> Therefore, it is worth being aware that the digital adaptation of the legal system of Ukraine has a clearly expressed regional specificity. Therefore, the challenges of digitalization of the economy of regions include: the need for consistency of the dynamics of digitalization with economic and legal principles and institutional transformations; development of digital infrastructure; intellectualization and digital literacy of the population; access to information and communication innovations. The guidelines for the digitalization of the regional economy allow for the following results: acceleration of economic business processes and innovative development; increasing the openness and accessibility of knowledge, information, and communications; reducing time and costs in production processes, sales, and product promotion; forming information databases to manage large data sets and accelerating information exchange; transforming economic relations and adapting to the demands of society.<sup>18</sup> At the same time, it is important to recognize that the pace of digital tool implementation within Ukraine's legal system is hindered by several factors: low levels of public trust, a rise in digital fraud, and persistent challenges related to ensuring the confidentiality of transactions..<sup>19</sup>

The legal, economic, and financial systems are deeply interconnected and

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<sup>16</sup> SRAPILOV, Sultanmurat M., et al. Problems of improving public administration in the context of digitalisation and informatisation. *Electronic Government, an International Journal* [em linha]. 2023, vol. 19, n.º 5, pp. 586–606 [consult. 22 abr. 2025]. DOI: 10.1504/EG.2023.133167.

<sup>17</sup> KRUSHILKO, O., et al. Improvement of the approach to hazard identification and industrial risk management, taking into account the requirements of current legal and regulatory acts. *Archives of Materials Science and Engineering* [em linha]. 2020, vol. 2, n.º 105, pp. 65–79 [consult. 22 abr. 2025]. DOI: 10.5604/01.3001.0014.5763.

<sup>18</sup> KHADZHYNNOV, Ilyya, et al. Determining impact of digitalization on the potential-forming space of regions in the context of sustainable development. *Revista Amazonia Investiga* [em linha]. 2022, vol. 11, n.º 50, pp. 272–281 [consult. 22 abr. 2025]. DOI: 10.34069/AI/2022.50.02.25.

<sup>19</sup> TYKHONOVA, Olena, et al. Electronic banking as a prospective directive for the financial services market development. *Journal of Legal, Ethical and Regulatory Issues* [em linha]. 2019, vol. 22, p. 1 [consult. 22 abr. 2025].

profoundly impacted by digitalization. In this regard, A. Vozniuk and A. Tytko note that due to digitalization processes in the economic, public and social spheres, we are witnessing the acceleration of certain processes, in particular the saturation of the financial market with modern digital means, such as cryptocurrencies. Electronic currency as a means of value has certain advantages over fiat currency, but the lack of a proper legal mechanism leads to a failure of its functioning in the financial market. Also, cryptocurrencies are highly volatile, which leads to restrictions on their functioning in certain countries (Ecuador, Iceland, India, China, etc.)<sup>20</sup> It should be understood that a fiat currency is a means of payment whose value is artificially set by the highest governing bodies, and the value of this currency is not ensured by its linkage to specific assets. Whereas in the past the value of a country's currency was typically backed by gold reserves, under contemporary fiat currency systems, its value is guaranteed solely by the authority and credibility of the issuing government." In this aspect, we believe that the more comprehensive adaptation of the legal system of Ukraine in the context of digitalization can be understood by identifying its specific directions.

The first direction of such adaptation involves rethinking the legal regulation of business and digital entrepreneurship. The results of many studies using thematic analysis<sup>21</sup> have revealed four dimensions of internal forces that drive the digital adaptation of small and medium-sized businesses:<sup>22</sup>

- 1) *business strategy*,
- 2) *value creation*,
- 3) *digital leadership*,
- 4) *digital talent*.

In the era of rapid digitalization and economic challenges caused by armed conflict, the transformation of trade relations in the digital space and the modernization

<sup>20</sup> VOZNIUK, Andrii, dan TYTKO, Anna. Cryptocurrency: present-day challenges and prospects of development. *Economic Annals-XXI* [em linha]. 2019, vol. 176, n.os 3–4, pp. 49–55 [consult. 22 abr. 2025].

<sup>21</sup> CEBOLA, Cátia Marques. Revisit the consumer conflict arbitration centres in Portugal: recent developments and digitalization trends. *Revista Jurídica Portucalense* [em linha]. 2022, 26 maio, pp. 23–48 [consult. 22 abr. 2025]. DOI: 10.34625/issn.2183-2705(ne2v3)2022.ic-02.PICA, Luís Manuel. The impact of digital transformation on the sustainability of the social security system. *Revista Jurídica Portucalense* [em linha]. 2024, 22 jun., pp. 566–583 [consult. 22 abr. 2025]. DOI: 10.34625/issn.2183-2705(35)2024.ic-26.

<sup>22</sup> RUSLY, Fariza Hanim, et al. Modelling the internal forces of SMEs digital adaptation strategy towards industry revolution 4.0. *Polish Journal of Management Studies* [em linha]. 2021, vol. 24, n.º 1, pp. 306–321 [consult. 22 abr. 2025]. DOI: 10.17512/pjms.2021.24.1.18.



of the institution of trade mediation are becoming priority areas for Ukraine. These sectors not only foster economic growth and international cooperation but also serve as strategic levers in the process of post-war reconstruction of the state. Of particular importance is the study of the legal aspects of the functioning of online trade and the activities of trade agents in the context of adapting the Ukrainian digital environment to the norms of the European Union.<sup>23</sup>

A representative of the scientific community of Saudi Arabia, M. Alsolamy, concluded that digital entrepreneurs can adapt to digital technologies by correctly targeting and engaging customers to establish interaction with them, which is one of the most important foundations of digital business. Digital adaptation in the context of digital entrepreneurship may include several strategic measures, such as search engine optimization (SEO), mobile-friendly platform design—particularly for smartphones, which are central to user engagement—and the shift from traditional supply chains to integrated digital value chains..<sup>24</sup> Given the current challenges facing domestic business, adaptation of the legal system may include the development of a separate regulatory act that would define the main principles of the functioning of digital entrepreneurship in Ukraine, regulate the use of digital entrepreneurship platforms, etc.

Another direction of adaptation of the legal system is the emergence of the latest technologies and their widespread introduction into everyday human activity, as well as the practice of providing public services. In this context, some scholars point out that digitalization of the economy is a necessary step for the development of any state in modern conditions. In Ukraine, the process of digitalization is still under development, although the introduction of digital technologies into the economy is provided for by regulations, in particular:

*the Law of Ukraine «On Digital Content and Digital Services», which «regulates the relationship between the contractor and the consumer regarding the provision of digital content and/or digital services»<sup>25</sup>;*  
*the Law of Ukraine «On Electronic Documents and Electronic Documents Circulation», which ‘establishes the basic organizational and legal principles*

<sup>23</sup> USTYMENKO, Volodymyr, et al. Legal regulation and the role of cross-border electronic commerce in the process of post-war reconstruction of Ukraine. *Journal of Ecohumanism* [em linha]. 2024, vol. 3, n.º 4, pp. 3515–3530 [consult. 22 abr. 2025]. DOI: 10.62754/joe.v3i4.3869.

<sup>24</sup> ALSOLAMY, Majed. Enhancing adaptation of digital entrepreneurship to consumers' online purchasing in the COVID-19 pandemic era. *Technology Analysis & Strategic Management* [em linha]. 2024, vol. 36, n.º 8, pp. 1749–1762 [consult. 22 abr. 2025]. DOI: 10.1080/09537325.2022.2110057.

<sup>25</sup> Law of Ukraine No. 3321-IX. About digital content and digital services [em linha]. Kyiv: Verkhovna Rada of Ukraine, 10 ago. 2023 [consult. 22 abr. 2025]. Disponível em: <https://zakon.rada.gov.ua/laws/show/3321-20#Text>.



*of electronic document management and the use of electronic documents*<sup>26</sup>».

At the same time, the introduction of digital technologies in other areas is regulated at the level of by-laws, such as the Resolution of the Cabinet of Ministers of Ukraine «Some Issues of the Electronic Healthcare System», which approves the «Procedure for the Functioning of the Electronic Healthcare System; Procedure for the Publication of Information from the Electronic Healthcare System by the National Health Service»<sup>27</sup> and the Resolution of the Cabinet of Ministers of Ukraine «Some Issues of Functioning of the Unified State Electronic Notary System».<sup>28</sup>

Martial law and irregular electricity supply slowed down the spread and use of electronic accounting at enterprises. Thus, the latest technologies can ensure data integrity, round-the-clock access to data, accuracy of information transfer during operations, remote access to data, convenient and efficient record keeping, etc. The researchers emphasize that in Ukraine, attention should be paid to the imperfection of the relevant digital infrastructure for accounting systems, insufficient investment, low level of professional qualifications, and the inconsistency of legislative norms with global trends in the digitalization of accounting.<sup>29</sup>

Moving on, it is worth paying attention to the term «Industry 4.0», which is also called the «fourth industrial revolution» of our era and was first used in 2011 at the Hannover Fair in Germany. This revolution involves the use of systems that have moved from managing employees to managing machines. One of the important areas of transformation caused by digitalization is platforms that provide (offer) services and connect users, called the Gig-Economy. The two ways that led to the birth of the digital economy are ‘crowdsourcing’ through digital platforms and on-demand work through the platforms «Amazon Mechanical Turk», «Clickworker», «Taskrabit», «Uber» and

<sup>26</sup> Ibid.

<sup>27</sup> Resolution of the Cabinet of Ministers of Ukraine. About providing the organization of the direction of persons from the structure of forces of defense and security forces which were injured in connection with military aggression of the Russian Federation [em linha]. [s.l.]: Cabinet of Ministers of Ukraine, [sem data] [consult. 31 mar. 2025]. Disponível em: <https://cis-legislation.com/document.fwx?rgn=139669>.

<sup>28</sup> CABINET OF MINISTERS OF UKRAINE. Resolution of the Cabinet of Ministers of Ukraine “Some questions of functioning of single state electronic system of e-Notariate” [em linha]. 2024 [consult. 22 abr. 2025]. Disponível em: <https://cis-legislation.com/document.fwx?rgn=156511>.

<sup>29</sup> PETCHENKO, Maryna, FOMINA, Tetiana, BALAZIUK, Oksana, SMIRNOVA, Nadiya, dan LUHOVA, Olha. Analysis of trends in the implementation of digitalization in accounting (Ukrainian case). *Financial and Credit Activity Problems of Theory and Practice* [em linha]. 2023, vol. 1, n.º 48, pp. 105–113 [consult. 22 abr. 2025]. DOI: 10.55643/fcaptp.1.48.2023.3951.

«Helping».<sup>30</sup> Accordingly, the legal system should adapt to the emergence of the latest technologies, including by improving domestic labour legislation in the context of legal regulation of crowdsourcing, and by consolidating the forms and directions of application of artificial intelligence technologies in various spheres of public relations.

The need to use artificial intelligence systems in law enforcement is becoming increasingly apparent. Machine learning technologies can analyze data on past crimes and other factors to predict the location and time of potential future offences. This will allow for more efficient allocation of police resources. Artificial intelligence can help identify people with a high propensity to commit criminal offences and people who are inclined to execute criminal orders. This will allow for targeted preventive measures. Artificial intelligence technologies, such as computer image analysis and natural language processing, can help investigate crimes, analyse evidence, and identify links between events and individuals.

Another direction of adaptation of the legal system in the digital era is the rethinking of social welfare standards. S. Petkun et al. point out that such a transformation is driven by the development of the information society and the gradual transition to a knowledge society, the impact of digitalization on all spheres of life. The issue of social security transformation in the context of digitalization of all spheres of state and society has recently become more relevant. Comprehensive digitalization seeks to fundamentally transform existing analog economic and social systems into structures of higher value and quality, with the aim of enhancing the social security of the state, society, and individual citizens.<sup>31</sup>

In our time, it is impossible to ignore such a direction of adaptation of the legal system as the development of e-justice. Thus, the main elements of e-justice being implemented in Ukraine under the influence of European standards are:<sup>32</sup>

- 1) *electronic record keeping, centralized storage of cases and other procedural documents in a single database;*
- 2) *exchange of documents and information;*

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<sup>30</sup> YANGIN, Dilek Duyay. Industry 4.0, digitalization and future of labor law – evaluation in the framework of legal relations revealed by digital platforms. *Istanbul Law Review* [em linha]. 2020, vol. 78, n.º 3, pp. 1209–1237 [consult. 22 abr. 2025]. DOI: 10.26650/mecmua.2020.78.3.0003.

<sup>31</sup> PETKUN, Svetlana, et al. Legal principles of ensuring social security in the conditions of digitalization of Ukraine. *Revista Amazonia Investiga* [em linha]. 2023, vol. 12, n.º 65, pp. 106–115 [consult. 22 abr. 2025]. DOI: 10.34069/AI/2023.65.05.11.

<sup>32</sup> NAJAFI, Emin, et al. European legal standards of digitalization of the judiciary. *Amazonia Investiga* [em linha]. 2024, vol. 13, n.º 76, pp. 113–127 [consult. 22 abr. 2025].

- 3) *electronic method of determining a judge (judge-rapporteur) to consider a particular case;*
- 4) *use of information and communication technologies for the study of electronic evidence;*
- 5) *participation in a court hearing via video conference;*
- 6) *adoption and publication of judicial acts in electronic form.*

V. Teremetskyi et al. note that existing trial automation systems require significant modernization to integrate with European judicial systems and improve analytical capabilities for processing large volumes of court data. It is noted that the legal framework for the functioning of court information systems should be adapted to European legislation. The organization of data warehouses and information flows that support the operation of courts must comply with European standards.<sup>33</sup>

The adaptation of the legal system in the digital age is also affected by the introduction of digital tools aimed at preventing corruption, which is a separate area. Domestic scholars point out that political corruption at the highest level and corruption in the business environment of Ukraine are urgent problems. The ability of society to overcome the phenomenon of corruption in the public sector is largely related to the readiness for transparency and openness of all information, and the anti-corruption maturity of both civil society and the government. The fight against criminal corruption offences based on the tools and means of digitalization of public services contributes to increasing public trust in the authorities and becomes the basis for the formation of an anti-corruption culture.<sup>34</sup>

O. Garafonova et al. emphasize that developing a model of information support for the state mechanism of anti-corruption regulation requires careful considerations of the structural characteristics and operational features of these mechanisms, which determines the feasibility of using such a model both in the scientific and practical spheres. In order to achieve the strategic goals of the anti-corruption mechanism in Ukraine in the context of digitalization of the national economy, it is necessary to follow an appropriate algorithm of actions. In order to effectively reduce the level of the

<sup>33</sup> TEREMETSKYI, Vladyslav, et al. Improving the information and legal support of the judicial system of Ukraine: experience of the European Court of Human Rights. *Journal of Ecohumanism* [em linha]. 2024, vol. 3, n.º 3, pp. 61–74 [consult. 22 abr. 2025]. DOI: 10.62754/joe.v3i3.3349.

<sup>34</sup> STEFANCHUK, Mykola, et al. Digitalization of public services in countering criminal corruption offenses. *Studies of Applied Economics* [em linha]. 2021, vol. 39, n.º 7 [consult. 22 abr. 2025]. DOI: 10.25115/eea.v39i7.5012.

shadow economy, it is desirable to make fundamental changes in macroeconomic policy, focused on the transition not to gross growth of indicators, but to a qualitative increase in economic efficiency, which contributes to the formation of the necessary conditions for the development of the legal sector and the transition to an innovative and investment path of development.<sup>35</sup>

Although Ukraine's legal adaptation framework to the digital era has been designed with a progressive and multifaceted approach, the practical reality reveals a substantial gap between normative formulation and implementation. Regulatory fragmentation remains a fundamental issue as many legal provisions are still sectoral, overlapping, or even contradictory when dealing with complex digital technologies such as artificial intelligence, blockchain, and cryptographic systems. The absence of precise legal definitions and operational guidelines generates legal uncertainty for both digital service providers and users. Administratively, the state's institutional response to digital transformation remains sluggish, driven by entrenched bureaucratic practices that resist innovation. Meanwhile, the judicial system continues to face challenges in adopting reliable e-justice infrastructure, both in terms of technology and human resources.

Furthermore, technical and sociological challenges severely undermine the effectiveness of legal adaptation. The digital divide between urban and rural areas, especially in regions affected by conflict, results in unequal access to digital public services which should be the backbone of a digital legal transformation. Among law enforcement personnel, low digital literacy and insufficient training in data-driven technologies hinder the optimal use of legal information systems. The prevalence of cybercrime and the weakness of personal data protection mechanisms exacerbate public skepticism toward the digital legal system, lowering trust and citizen participation. Addressing these issues requires more than regulatory reform; it demands strategic investments in digital infrastructure, capacity-building for human resources, and comprehensive public digital literacy initiatives. Without such measures, the adaptation of Ukraine's legal system risks remaining symbolic, falling short of establishing a truly responsive, adaptive, and just legal order in the digital age.

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<sup>35</sup> GARAFONOVA, O., SHESTAKOVSKA, T., SYTNYK, N., et al. Financial mechanism for public administration of anti-corruption processes in the context of digitalization of the national [em linha]. 2021 [consult. 22 abr. 2025]. Disponível em: <https://ir.kneu.edu.ua/handle/2010/49742>.

## 5. Conclusions

Summarizing the above, we can conclude that the adaptation of the legal system of Ukraine in the era of digitalization is a multifaceted phenomenon generated by changes in the life of society due to the rapid introduction of new technologies, digital platforms, mobile applications, social networks, etc. into everyday human activities. Equally important is the development of a dedicated information and communication space, involvement in which is one of the basic requirements for a person to be recognized as a full-fledged member of society. This, in turn, requires the implementation of a set of reforms in legal and regulatory frameworks, public administration, and state policy—all of which must be aligned to ensure the timely integration of the latest digital advancements into both society and state institutions.

The authors propose to understand the directions of adaptation of the legal system of Ukraine in the era of digitalization as the vectors defined at the level of trends in the digitalization of social relations. These directions include: rethinking the legal regulation of business and digital entrepreneurship; emergence of new technologies and their widespread implementation in everyday human activity, as well as the practice of providing public services; rethinking the standards of social security of citizens; development of e-justice; introduction of digital tools for preventing corruption.

## REFERENCES

- Ablamskyi, Serhii, Havryliuk, Liudmyla, Drozd, Valentyna, and Nenia, Olena. "Substantial Violation of Human Rights and Freedoms as a Prerequisite for Inadmissibility of Evidence." *Justicia* 26, no. 39 (February 24, 2021): 47–56. doi: <https://doi.org/10.17081/just.26.39.4819>.
- Aggarwal, Vinod K., and Andrew W. Reddie. "Comparative Industrial Policy and Cybersecurity: A Framework for Analysis." *Journal of Cyber Policy* 3, no. 3 (September 2, 2018): 291–305. doi: <https://doi.org/10.1080/23738871.2018.1553989>.
- Alsolamy, Majed. "Enhancing Adaptation of Digital Entrepreneurship to Consumers' Online Purchasing in the COVID-19 Pandemic Era." *Technology Analysis & Strategic Management* 36, no. 8 (August 2, 2024): 1749–62. doi: <https://doi.org/10.1080/09537325.2022.2110057>.
- Anishchuk, V.V., Ya. I. Lenher, and G.A. Tereshchuk. "Modern Challenges in the Field of Legal Regulation of the Digital Economy." In *Proceedings of the 2nd International Scientific and Practical Conference "Modern Management Trends and the Digital Economy: From Regional Development to Global Economic Growth" (MTDE 2020)*. Yekaterinburg, Russia: Atlantis Press, 2020. doi: <https://doi.org/10.2991/aebmr.k.200502.121>.
- Bennett Moses, Lyria. "Recurring Dilemmas: The Law's Race to Keep up with Technological Change." *SSRN Electronic Journal*, 2007. doi: 10.2139/ssrn.979861.



- Cabinet of Ministers of Ukraine. "Resolution of the Cabinet of Ministers of Ukraine 'Some Questions of Functioning of Single State Electronic System of e-Notariate,'" 2024. <https://cis-legislation.com/document.fwx?rgn=156511>.
- Vozniuk, **Andrii**, and Tytko, **Anna**. "Cryptocurrency: Present-Day Challenges and Prospects of Development," *Economic Annals-XXI* Volume 176 Issues 3-4 (2019): 49–55. doi: <https://doi.org/10.21003/ea.V176-05>
- Dulay Yangın, Dilek. "Industry 4.0, Digitalization and Future of Labor Law-Evaluation in the Framework of Legal Relations Revealed by Digital Platforms." *Istanbul Law Review* 78, no. 3 (2020): 1209–37. doi: 10.26650/mecmua.2020.78.3.0003.
- Duliba, Yevheniia, and Vladyslav Teremetskyi. "Advantages and Risks of Implementing Electronic Voting: Experience for Ukraine." *Aktual'ni Problemi Pravozaavstva* 1, no. 1 (2024): 78–85. doi: <https://doi.org/10.35774/app2024.01.078>.
- Garafonova O., Shestakovska T., Sytnyk N. et al. "Financial Mechanism for Public Administration of Anti-Corruption Processes in the Context of Digitalization of the National," 2021. <https://ir.kneu.edu.ua/handle/2010/49742>.
- Cebola, Cátia Marques. "Revisit the Consumer Conflict Arbitration Centres in Portugal: Recent Developments and Digitalization Trends". *Revista Jurídica Portucalense* (May 26, 2022): 23–48. doi: [https://doi.org/10.34625/issn.2183-2705\(ne2v3\)2022.ic-02](https://doi.org/10.34625/issn.2183-2705(ne2v3)2022.ic-02) PICA
- Khadzhynov, Illya, Kovalska, Lesia, Taranych, Andrii, Boyko, Antonina and Samiilenko, Halyna. "Determining Impact of Digitalization on the Potential-Forming Space of Regions in the Context of Sustainable Development." *Revista Amazonia Investiga* 11, no. 50 (March 10, 2022): 272–81. doi: <https://doi.org/10.34069/AI/2022.50.02.25>.
- Kruzhilko, O., Maystrenko, V., Polukarov, O., Kalinchyk, V., Shulha, A., Vasyliiev, A. and Kondratov, D. "Improvement of the Approach to Hazard Identification and Industrial Risk Management, Taking into Account the Requirements of Current Legal and regulatory Acts." *Archives of Materials Science and Engineering* 2, no. 105 (October 1, 2020): 65–79. doi: <https://doi.org/10.5604/01.3001.0014.5763>.
- Kuzmenko, O, Pyvovar, Y., Lyskov, M., Kropyvna, K., and Taldonova, K. "Digitalization in an Innovative Society and Public Administrative: Prospects for Implementation and Development in Ukraine." *Journal of Law and Political Sciences* 29, no. 4 (2021): 122–38.
- Law of Ukraine No. 3321-IX. "About Digital Content and Digital... | Dated 10.08.2023 No. 3321-IX," 2023. <https://zakon.rada.gov.ua/laws/show/3321-20#Text>.
- Luís Manuel. "The Impact of Digital Transformation on the Sustainability of the Social Security System". *Revista Jurídica Portucalense* (June 22, 2024): 566–583. doi: [https://doi.org/10.34625/issn.2183-2705\(35\)2024.ic-26](https://doi.org/10.34625/issn.2183-2705(35)2024.ic-26)
- Marchant, Gary E., Braden R. Allenby, and Joseph R. Herkert, eds. *The Growing Gap Between Emerging Technologies and Legal-Ethical Oversight: The Pacing Problem*. Vol. 7. The International Library of Ethics, Law and Technology. Dordrecht: Springer Netherlands, 2011. doi: <https://doi.org/10.1007/978-94-007-1356-7>.
- Matvieiev, Petro, Boris Schuba, Viktor Shvec, Volodymyr Dryshliuk, and Serhii Demchenko. "Investment Activity in the Era of Digitalization: Economic-Legal Support and Perspectives of Procedural Protection." *Cuestiones Políticas* 40, no. 73 (July 29, 2022): 754–67. doi: <https://doi.org/10.46398/cuestpol.4073.43>.
- Najafli, Emin, Ponomarov, Sergiy, Koverznev, Vadym and Ivanov, Andrii. "European Legal Standards of Digitalization of the Judiciary." *Amazonia Investiga* 13, no. 76 (2024): 113–27.
- Petkun, Svetlana, Kalinicheva, Halyna, Chernyak, Daryna, Khlevytska, Tetiana and Khorvatova, Oksana. "Legal Principles of Ensuring Social Security in the Conditions of

- Digitalization of Ukraine.” *Revista Amazonia Investiga* 12, no. 65 (June 30, 2023): 106–15. doi: <https://doi.org/10.34069/AI/2023.65.05.11>.
- “Resolution of the Cabinet of Ministers of Ukraine "About Providing the Organization of the Direction of Persons from the Structure of Forces of Defense and Security Forces Which Were Injured in Connection with Military Aggression of the Russian Fede.” Accessed March 31, 2025. <https://cis-legislation.com/document.fwx?rgn=139669>.
- Rusly, Fariza Hanim, Yurita Yakimin Abdul Talib, Muhammad Rosni Amir Hussin, and Hafizah Abd Mutalib. “Modelling the internal forces of SMEs digital adaptation strategy towards industry revolution 4.0.” *Polish Journal of Management Studies* 24, no. 1 (December 2021): 306–21. doi: <https://doi.org/10.17512/pjms.2021.24.1.18>.
- Sidorenko, E. L., L. L. Arzumanova, and O. N. Amvrosova. “Adaptability and Flexibility of Law in the Context of Digitalization.” In *Engineering Economics: Decisions and Solutions from Eurasian Perspective*, edited by Svetlana Igorevna Ashmarina, Valentina Vyacheslavovna Mantulenko, and Marek Vochozka, 139:523–32. Lecture Notes in Networks and Systems. Cham: Springer International Publishing, 2021. doi: [https://doi.org/10.1007/978-3-030-53277-2\\_62](https://doi.org/10.1007/978-3-030-53277-2_62).
- Srapilov, Sultanmurat M., Gulnar A. Alibayeva, Aizhan Ye. Zhatkanbayeva, Dina M. Baimakhanova, and Nazilya R. Razzak. “Problems of Improving Public Administration in the Context of Digitalisation and Informatisation.” *Electronic Government, an International Journal* 19, no. 5 (2023): 586–606. doi: <https://doi.org/10.1504/EG.2023.133167>.
- Stefanchuk, Mykola, Polyvoda, Vadym, Kikalishvili, Mariia, Bodunova, Olesia and Yermolenko-Kniazieva, Liliia. “Digitalization of Public Services in Countering Criminal Corruption Offenses.” *Studies of Applied Economics* 39, no. 7 (August 16, 2021). doi: <https://doi.org/10.25115/eea.v39i7.5012>.
- Teremetskyi, Vladyslav, Kovalchuk, Olha, Kolesnikov, Andrii, Bogdanov, Roman, Korniienko, Maksym and Dir, Ihor. “Improving the Information and Legal Support of the Judicial System of Ukraine: Experience of the European Court of Human Rights.” *Journal of Ecohumanism* 3, no. 3 (June 21, 2024): 61–74. doi: <https://doi.org/10.62754/joe.v3i3.3349>.
- Tykhonova, Olena, Lytvyn, Nataliia, Ivantsov, Volodymyr, Chyshko, Kateryna and Yarosh, Anna. “Electronic Banking as a Prospective Directive for the Financial Services Market Development.” *Journal of Legal, Ethical and Regulatory Issues* 22 (2019): 1.
- Ustymenko, Volodymyr, Teremetskyi, Vladyslav, Kurepina, Olena, Nemyrovska, Oksana, Poltavskyy, Oleg and Dovhan, Viktor. “Legal Regulation and the Role of Cross-Border Electronic Commerce in the Process of Post-War Reconstruction of Ukraine.” *Journal of Ecohumanism* 3, no. 4 (August 30, 2024): 3515–30. doi: <https://doi.org/10.62754/joe.v3i4.3869>.
- Zhexembayeva, Narkes, Arailym K. Jangabulova, Guldana A. Kuanalieva, Makhabbat K. Nakisheva, and Bahytkul M. Konysbai. “Human Rights Information in the Context of Digitalisation.” *International Journal of Electronic Security and Digital Forensics* 15, no. 6 (2023): 555–66. doi: <https://doi.org/10.1504/IJESDF.2023.133963>.
- Petchenko, Maryna, Fomina, Tetiana, Balaziuk, Oksana, Smirnova, Nadiya and Luhova, Olha. “Analysis of trends in the implementation of digitalization in accounting (Ukrainian case).” *Financial and Credit Activity Problems of Theory and Practice* 1, no. 48 (February 28, 2023): 105–13. doi: <https://doi.org/10.55643/fcaptp.1.48.2023.3951>.



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