

КРИМІНАЛЬНЕ ПРАВО; КРИМІНАЛЬНИЙ ПРОЦЕС

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UTILIZING ARTIFICIAL INTELLIGENCE TO SAFEGUARD AGAINST CORRUPTION IN UKRAINE

Introduction. Digital technologies, particularly those that integrate elements of artificial intelligence (AI), represent a significant and innovative resource for the effective management of information and the optimization of processes in a wide range of sectors. The application of AI in the context of criminal justice and anti-corruption efforts in Ukraine – especially under the legal regime of martial law and within the framework of its aspirations for European Union candidacy necessitates the adoption of modern technological solutions aimed at strengthening the mechanisms for detection and prevention of criminal conduct, including corruption-related offenses. However, the current absence of a comprehensive research foundation and the lack of a systematic approach impede the full realization of AI's potential in fulfilling this critical societal function. This deficiency is particularly evident in the domain of anti-corruption efforts, which remains an urgent challenge for modern societies worldwide.

Notably, artificial intelligence (AI) is a fast evolving family of technologies that contributes to a wide array of economic, environmental and societal benefits across the entire spectrum of industries and social activities. [1]. Studying the possibilities of AI as an anticorruption tool should encompass the specifics and address the challenges to Ukraine under martial law regime.

This article aims to develop recommendations for integrating AI into Ukraine's anti-corruption

framework and to propose a systematic approach that aligns digital technologies with globally recognized anti-corruption tools.

Presenting main material. The Corruption Perceptions Index 2024 for Eastern Europe and Central Asia, published by Transparency International [2], a globally recognized anti-corruption organization, indicates that despite the Russian invasion, Ukraine (35) is making strides in the judicial independence and high-level corruption prosecution. As of January 1, 2024, the Law No. 3509-IX "On Amendments to the Criminal Procedure Code of Ukraine and Other Legislative Acts of Ukraine to Strengthen the Independence of the Specialized Anti-Corruption Prosecutor's Office" entered into force [3]. It is of particular significance to highlight that the operation of the legal framework of martial law necessitates the adoption of specific legislative and administrative measures designed to mitigate the detrimental consequences of military actions and to address external threats effectively. This law provides for the establishment of a separate legal entity for the Specialized Anti-Corruption Prosecutor's Office (SAP), thereby enhancing the institutional independence of this body, which until recently functioned as a subdivision of the Prosecutor General's Office. The law also amends the procedure for the competitive selection of candidates for the positions of SAP leadership, their deputies, as well as heads of departments and prosecutors. In order to ensure transparency in the selection

process and to mitigate political influence, the law proposes the involvement of experts nominated by international partners in the composition of selection commissions.

The Anti-Corruption Strategy for 2021–2025 is directed toward achieving significant advancements in the prevention and suppression of corruption. Its principal aim is to establish a coherent and systematic framework for anti-corruption efforts, encompassing all state authorities and local self-government bodies in Ukraine [4]. However, it is contended that the successful realization of this strategy is realistically attainable only upon the termination of the legal regime of martial law, given the anticipated transformations in societal dynamics that are likely to occur at that juncture. The subsequent adoption of the State Anti-Corruption Program for 2023–2025 aligns with one of the fundamental principles of digital transformation in the exercise of public authority by both governmental and local self-government entities [5]. Implementation of this Program is expected to facilitate further steps towards Ukraine's accession to the European Union.

As recommendations for Ukraine prior to the commencement of negotiations on accession to the European Union, the European Commission identified *two key areas for strengthening the anti-corruption legislative framework*. First, it is recommended to grant the National Agency on Corruption Prevention (NACP) the authority to re-examine asset declarations of officials that have already undergone an initial review. Second, it is proposed to enable the NACP to verify assets and property of declarants and their family members acquired prior to the obligation to submit such declarations.

Nonetheless, the disruptions and uncertainties caused by wartime conditions significantly increase the likelihood of an environment that facilitates and perpetuates corrupt practices. Despite these problems, Ukraine's anti-corruption institutions have demonstrated a degree of effectiveness in holding public officials accountable, even in such adverse circumstances. In this context, investigating the potential application of artificial intelligence (AI) for corruption prevention in Ukraine emerges as a timely and critically important initiative.

The introduction of AI-based mechanisms within Ukraine's anti-corruption framework could substantially enhance the efficiency, transparency, and overall effectiveness of preventive measures. AI technologies present an innovative and promising complement to traditional approaches,

offering the potential to improve outcomes in a rapidly evolving technological landscape. While established legal frameworks, regulatory measures, and law enforcement efforts remain indispensable components of any anti-corruption strategy, AI tools offer a powerful and dynamic supplement, potentially surpassing traditional methods in certain applications. In light of the pervasive corruption within Ukraine and the demonstrable ineffectiveness of recently enacted anti-corruption laws and measures, there is an evident need to adopt a fundamentally new and alternative strategy. Notably, some steps towards integrating AI into anti-corruption efforts are already underway. The National Agency for the Prevention of Corruption (NACP) has revised its approach to verifying asset declarations by civil servants, incorporating AI into the process. Initial emphasis has been placed on the declarations of the President, ministers, members of parliament, and judges of the Constitutional and Supreme Courts [6]. Due to the amendments to the Law "On the Prevention of Corruption," the National Agency on Corruption Prevention (NACP) is no longer required to manually review all asset declarations of high-ranking officials on an annual basis; instead, these will now be verified by artificial intelligence. *Initially, the AI system will conduct a risk assessment, which involves comparing declaration data with other registries and applying specific "formulas" to identify indicators of illicit enrichment and the presence of unjustified assets.*

Ukraine can derive critical lessons in the fight against corruption by drawing on the practices and experiences of other legal systems, with emphasis on those of the European Union (EU). Corruption, as a cross-border phenomenon, adversely affects societies and economies globally. Notably, the EU has developed and successfully implemented anti-corruption strategies and institutional frameworks that have contributed to a marked reduction in corruption levels across its member states. Adopting and adapting these proven strategies presents Ukraine with an opportunity to enhance the effectiveness of its own anti-corruption initiatives. By aligning with European standards and integrating EU anti-corruption practices, Ukraine not only fosters legal and institutional compatibility with the EU but also reinforces its broader commitment to upholding international best practices. Such alignment enhances Ukraine's credibility and standing on the global stage. In support of this perspective, T. Becker and B. Eichengreen [7] argue that the strategic use of international aid, combined with the momentum of potential EU accession,

can position Ukraine as an attractive environment for foreign direct investment, thereby accelerating the country's economic recovery and facilitating deeper integration into the global economy. They emphasize that EU membership is crucial for the implementation of institutional reforms that target chronic issues such as entrenched corruption, weak governance structures, and the concentration of economic power.

Ukraine's need for international support extends beyond the immediate cessation of hostilities and the prosecution of wartime offenses; it encompasses the broader imperative *of post-war reconstruction and the establishment of a resilient and transparent governance framework. This includes the fundamental overhaul of Ukraine's anti-corruption policy, with a particular focus on ensuring the practical and effective enforcement of legal norms.* Corruption remains a significant threat to Ukraine's national interests and sustainable development.

However, it is imperative that Ukraine's integration of foreign experience in its anti-corruption framework extends beyond the paradigms established by EU member states alone. In this context, Switzerland emerges as a particularly noteworthy example, having earned recognition for the durability and efficacy of its anti-corruption measures. The Swiss model provides a valuable reservoir of best practices and institutional approaches that could serve as an instructive benchmark for Ukraine in its efforts to address entrenched corruption. As such, the comparative analysis of Switzerland's anti-corruption strategies, alongside those of EU jurisdictions, offers a broader and more nuanced perspective that may prove instrumental in shaping Ukraine's national response to corruption-related challenges.

The Corruption Perceptions Index of 2024 ranks Switzerland 5th, signifying a notably more effective anti-corruption model compared to Ukraine, positioned at 105th among 180 countries [8]. A comprehensive examination of Switzerland's anti-corruption mechanisms has the potential to significantly support and enhance the existing anti-corruption measures in Ukraine. Despite positive trends in Ukraine's indicators over the past decade, there has been a noticeable stagnation in the fight against corruption in the last 3 years, largely attributed to the declarative nature of many unimplemented anti-corruption tasks.

In 2020, the Swiss government endorsed its inaugural anti-corruption strategy spanning 2021–2024. This strategy encompasses preventive actions,

the prosecution of corruption cases, and active participation in international cooperation. Switzerland, like other nations, adheres to anti-corruption commitments on the global stage, undergoing periodic assessments by entities such as the United Nations (UN), Organization for Economic Cooperation and Development (OECD) and Council of Europe [9]. Undoubtedly, an in-depth analysis of Switzerland's anti-corruption strategy for the 2021–2024 period holds paramount importance in shaping an effective anti-corruption strategy for Ukraine. Exploring the Swiss model can offer valuable lessons for Ukraine in developing AI-driven approaches to tackle corruption. International collaborations, exchange of expertise, and learning from successful anti-corruption initiatives globally contribute to the collective knowledge base and enhance the effectiveness of anti-corruption measures. The relevance of utilizing AI to combat corruption in Ukraine stems from the pressing need for innovative solutions to address a long-standing challenge.

On 17 June 2022, the European Commission recommended that Ukraine be granted candidate status for accession to the European Union. Subsequently, on 23 June 2022, the European Parliament adopted a resolution supporting the immediate conferral of this status upon Ukraine [10]. These decisions articulated specific prerequisites defined within the framework of the Copenhagen criteria for Ukraine's future accession. Notably, the second criterion, the economic criterion, stipulates the establishment of an effective market economy and the capacity to withstand competitive pressures and market forces [11]. This alignment is essential to fulfilling Ukraine's obligations under international treaties, as set forth in the Association Agreement between Ukraine and the EU.

Further progress was evidenced on 23 February 2023, when Ukraine ratified draft law No. 0187 “On the Ratification of the Agreement between Ukraine and the European Union on the Participation of Ukraine in the European Union Program ‘Digital Europe’ (2021–2027)” [12]. This agreement encompasses the development of projects in strategically significant areas, including supercomputing, artificial intelligence, cybersecurity, digital competencies, and the broad integration of digital technologies within the economy and society. Ukraine's participation in the “Digital Europe” Program will facilitate the implementation of these initiatives domestically and foster collaboration with international partners in accordance with the EU's digital legislative framework.

Ukraine has also demonstrated a longstanding commitment to the integration of AI within its governance structures, exemplified by its membership in the Council of Europe's Special Committee on Artificial Intelligence. Moreover, in October 2019, Ukraine adopted the OECD's recommendations on artificial intelligence [13]. In this vein, the recovery plan devised by the National Council for Ukraine's post-war restoration, specifically within the "Digitalization" working group, identifies critical objectives to be addressed in the reconstruction phase [14]. The "Structural Modernization and Full Integration into the EU" stage, envisaged for 2026–2032, anticipates the incorporation of AI technologies into public service provision, under the purview of the Ministry of Digital Transformation of Ukraine. Additionally, the Program outlines mechanisms for securing access to European grant funding instruments, thus promoting international cooperation in digital initiatives. In the broader context of transparency and accountability, the task "Ukraine as an International Leader in Combating Corruption, Developing Civil Society Institutions, and Ensuring Openness of Public Information" prioritizes full adoption of European legislation on the free movement of non-personal data and enhancing open data literacy through educational initiatives and the "Diia" Open Data portal. Restoration of Ukraine's damaged digital infrastructure remains a foundational priority within the digital services sector.

Amid ongoing military operations, corruption in Ukraine has evolved, giving rise to new forms of illicit activities that demand prompt investigation and legal response. Such offenses include corruption associated with unlawful border crossings by draft-age men, procurement of essential documentation for goods import, and misappropriation of humanitarian assistance in areas affected by hostilities. For instance, in 2021, Switzerland alone delivered over 2,000 tons of humanitarian aid to the Donetsk and Luhansk regions [15]. Following the full-scale Russian invasion in August 2022, Switzerland provided an additional 100 tons of aid [16]. The importance of combating corruption, upholding justice and the rule of law, and prioritizing anti-corruption measures was underscored during the Ukraine Recovery Conference (URC2022) held in Lugano (Switzerland) in July 2022 [17]. The conference was jointly convened by Ukraine and Switzerland, with Switzerland, through the URC2022, demonstrating its unwavering commitment to the sole nation in Europe presently engaged in an armed conflict. Ukraine stands as one of the limited number

of states where the Swiss international cooperation strategy is comprehensively implemented, encompassing development cooperation, humanitarian assistance, and peacebuilding initiatives.

Finally, recognizing the key role of education and scientific advancement in Ukraine's societal recovery, a critical priority has emerged: accelerated integration of Ukraine into European and global research and education systems. A well-educated populace forms the backbone of national development, fostering innovation, economic growth, social cohesion, and the realization of Ukraine's aspirations for sustainable prosperity. To fully leverage AI's potential in anti-corruption policy, Ukraine should: develop a dedicated legal framework regulating AI in governance, ensuring compliance with EU and international standards; expand AI applications beyond asset verification to cover all corruption-prone sectors; foster international partnerships for technical assistance and capacity-building; ensure transparency and public oversight to mitigate risks of AI misuse.

Conclusions. In conclusion, the persistent challenge of corruption in Ukraine particularly evident in the sphere of aid distribution underscores systemic issues of transparency and an entrenched "corrupt culture" within public administration. Effectively overcoming this problem necessitates not only the adaptation of successful foreign anti-corruption models to the unique national context but also the incorporation of advanced technological approaches, including the application of the AI in corruption prevention. The development and implementation of a comprehensive anti-corruption strategy that integrates AI technologies can substantially contribute to reducing corruption, strengthening preventive measures, and promoting anti-corruption education during the critical period of post-war rehabilitation in Ukraine. It is essential to recognize that Ukraine's post-hostilities reconstruction requires a targeted, systematic, and proactive approach to anti-corruption efforts. In contrast to external threats, internal corruption presents a particularly insidious risk that must be addressed through robust legal and institutional mechanisms to prevent its escalation and to protect the integrity of state-building processes. In this regard, the recovery and sustainable development of Ukraine's economy in the post-war period will rely heavily on substantial investments in financial technologies and AI. Such progress is contingent upon the adoption and enforcement of an appropriate legal framework governing AI, ensuring that these technologies operate within the boundaries

of the rule of law and in compliance with internationally recognized standards. Ultimately, the effective implementation of anti-corruption policies requires more than declaratory commitments; it demands the creation of practical, enforceable, and transparent legal norms as well as the criminal

legal norms and administrative procedures. This integrated and technologically advanced approach will contribute to safeguarding the principles of justice, legality and good governance as Ukraine rebuilds and aspires toward deeper integration within the European legal and institutional framework.

BIBLIOGRAPHY

1. An official website of the European Union: Document 32024R1689. Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 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) (Text with EEA relevance). URL: <https://surl.li/hwvzmo> (accessed: 24 April 2025).
2. Transparency International / CPI 2024 for Eastern Europe and Central Asia: Vicious Cycle of Weak Democracy and Flourishing Corruption, 2024. URL: <https://www.transparency.org/en/> (accessed: 15 May 2025).
3. On Amendments to the Criminal Procedure Code of Ukraine and Other Legislative Acts of Ukraine to Strengthen the Independence of the Specialized Anti-Corruption Prosecutor's Office: Law of Ukraine on December 8, 2023 № 3509-IX / Verkhovna Rada of Ukraine. URL: <https://surli.cc/pxbyrn> (accessed: 24 May 2025).
4. About the foundations of the state anti-corruption policy for 2021–2025: Law of Ukraine; Strategy on June 20, 2022 № 2322-IX / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/2322-20?lang=en#Text> (accessed: 24 May 2025).
5. On the approval of the State anti-corruption program for 2023–2025: Resolution of the Cabinet of Ministers of Ukraine; Program, Events on March 4, 2023. № 220 / Verkhovna Rada of Ukraine. URL: <https://surl.li/swvomr> (accessed: 22 May 2025).
6. An official website of the National Agency on Corruption Prevention: All submitted declarations will be reviewed by the NACP through the new automated verification tool, stated Artem Sytnyk. 2023. URL: <https://surl.li/tdpzpk> (accessed: 19 April 2025).
7. Becker, T., B. Eichengreen, Y. Gorodnichenko, S. Guriev, S. Johnson, T. Mylovanov, K. Rogoff and B. Weder di Mauro (2022), A Blueprint for the Reconstruction of Ukraine, Centre for Economic Policy Research. CEPR Press, Paris & London. URL: <https://surl.li/gdsjdr> (accessed: 5 April 2025).
8. Transparency International. Corruption Perception index 2024. URL: <https://surl.li/dvqebz> (accessed: 21 April 2025).
9. Federal Department of Foreign Affairs FDFA. Federal Council adopts anti-corruption strategy 2021–2024. URL: <https://surl.li/jwqudb> (accessed: 23 April 2025).
10. Official website of the European Union. Enlargement and Eastern Neighbourhood. Ukraine Membership status: candidate country. 2022. URL: <https://surl.li/hynsvo> (accessed: 23 April 2025).
11. Treaty on European Union (TEU) / Maastricht Treaty. Signed in: Maastricht (the Netherlands) 7 February 1992. Entry into force: 1 November 1993 (Accession criteria (Copenhagen criteria). Art. 2, 49. URL: <https://surl.li/fvuwin> (accessed: 23 April 2025).
12. On the Ratification of the Agreement between Ukraine and the European Union on the Participation of Ukraine in the European Union Programme “Digital Europe” (2021–2027). Law of Ukraine on February 23, 2023 № 2926-IX / Verkhovna Rada of Ukraine. URL: <https://ips.ligazakon.net/document/T232926> (accessed: 23 April 2025).
13. The Organisation for Economic Co-operation and Development (OECD) Ukraine Country Programme Recommendation of the Council on Artificial Intelligence/OECD, *Recommendation of the Council on Artificial Intelligence*, OECD/LEGAL/0449. 2019. URL: <https://oecd.ai/en/assets/files/OECD-LEGAL-0449-en.pdf> (accessed: 23 April 2025).
14. Draft Project of the Recovery Plan of Ukraine. Materials of the working group “Digitalization” / *National Council for the Recovery of Ukraine from the Consequences of the War*. 2022. URL: <https://surl.li/eczjqj> (accessed: 23 April 2025).
15. The official website of the Ministry of Reintegration of the Temporarily Occupied Territories of Ukraine. Switzerland delivered more than 2,000 tons of humanitarian aid to Donetsk and Luhansk regions. 2021. URL: <https://surl.li/wgpjdw> (accessed: 23 April 2025).
16. Federal Department of Foreign Affairs. War in Ukraine – Switzerland delivers an additional 100 tons of humanitarian supplies. 2022. URL: <https://surl.li/prcmgh> (accessed: 20 May 2025).
17. Ukraine Recovery Conference (URC2022) in Lugano. 4–5 July 2022. Lugano. Switzerland. URL: <https://surli.cc/npkatr> (accessed: 15 May 2025).

Aristiova I.V., Kotviakovskiy Yu.O., Klochko A.M. UTILIZING ARTIFICIAL INTELLIGENCE TO SAFEGUARD AGAINST CORRUPTION IN UKRAINE

This article explores the promising role of digital technologies, particularly artificial intelligence (AI), in combating corruption in Ukraine, especially in the context of martial law and the country's aspirations for EU membership. It argues that AI has the potential to significantly improve the detection and prevention of corruption, offering innovative solutions beyond traditional legal and institutional measures. However, there is currently a gap in

research and strategy development, which limits the full realization of AI's capabilities in Ukraine's anti-corruption system. The study highlights that while Ukraine has made some progress in anti-corruption reforms, as recognized by the Corruption Perceptions Index and the adoption of the National Anti-Corruption Strategy (2021–2025), these efforts face challenges during martial law. Wartime conditions have created new forms of corruption, such as abuses linked to illegal border crossings and the misuse of humanitarian aid. These challenges require the adoption of new legislative and practical measures, including the creation of specific criminal law provisions targeting corruption in wartime contexts and implementing accelerated procedures for handling corruption-related offenses. Furthermore, the article underscores the importance of integrating Ukraine's anti-corruption efforts with successful practices from other jurisdictions, including the EU and Switzerland. The adoption of foreign best practices and the alignment with EU standards not only enhance Ukraine's international credibility but also help create a coherent, systematic approach to fighting corruption. This approach is vital for safeguarding the principles of rule of law and good governance, which are crucial for Ukraine's post-war recovery and integration into the European legal and institutional space. The authors emphasize that Ukraine's post-war reconstruction requires a robust and proactive anti-corruption policy that includes the use of AI technologies. These tools can improve the efficiency and transparency of anti-corruption measures, complementing traditional methods and strengthening Ukraine's capacity to respond to emerging threats. In this context, the article proposes recommendations for legislative improvements, including clarifying criminal law provisions, strengthening oversight of high-ranking officials' declarations, and ensuring the systematic application of AI in anti-corruption practices. In conclusion, the article argues that overcoming the entrenched "corrupt culture" in Ukraine requires a comprehensive, technologically driven anti-corruption strategy that fully utilizes AI technologies. This approach must be rooted in international best practices, adapted to Ukraine's unique legal and socio-political context, and implemented through practical, enforceable legal frameworks. Such integration of digital technologies and AI elements is crucial for Ukraine's sustainable development, resilience against corruption, and further integration into the European community.

Key words: corruption, corruption-related criminal offenses, unlawful benefit, criminal law protection, European integration, EU candidacy, artificial intelligence.

Арістова І.В., Котвяковський Ю.О., Клочко А.М. ЗАСТОСУВАННЯ ШТУЧНОГО ІНТЕЛЕКТУ ЯК ІНСТРУМЕНТУ ПРОТИДІЇ КОРУПЦІЇ В УКРАЇНІ

У статті розглядається перспективна роль цифрових технологій, зокрема штучного інтелекту (ШІ), у протидії корупції в Україні в умовах воєнного стану та активізації процесів євроінтеграції. Автори додержуються думки, що ШІ має потенціал значно покращити виявлення та запобігання корупційним проявам, пропонуючи інноваційні рішення, що доповнюють традиційні правові та інституційні механізми. Проте наразі існує прогалина у дослідженнях і стратегіях, що обмежує повне використання можливостей ШІ у національній антикорупційній системі. У статті відзначено, що не зважаючи на певні досягнення у впровадженні антикорупційних реформ, передбачених у Стратегії на 2021–2025 роки, під час дії воєнного стану ці зусилля нівелюються новими викликами. Зокрема, поширюються нові форми корупції, пов'язані з незаконним перетином кордону та зловживаннями у сфері гуманітарної допомоги. Для їх подолання необхідно удосконалювати законодавство, запроваджувати нові склади кримінальних правопорушень та прискорені процедури кримінального переслідування за вчинення відповідних діянь. Автори підкреслюють важливість інтеграції антикорупційної політики України з успішними практиками інших держав, зокрема ЄС і Швейцарії. Запозичення найкращих міжнародних стандартів та їхнє впровадження сприятимуть створенню системного підходу до боротьби з корупцією та забезпеченню верховенства права й доброчесного врядування – ключових чинників післявоєнного відновлення України та її європейської інтеграції. У статті також окреслено рекомендації щодо вдосконалення законодавства: уточнення окремих положень кримінального права України, посилення контролю декларацій високопосадовців, системне впровадження ШІ у протидію корупції. Автори підсумовують, що подолання «корупційної культури» в Україні потребує комплексної стратегії, заснованої на міжнародних стандартах, із впровадженням ШІ як інструменту підвищення ефективності антикорупційних заходів і сталого розвитку держави.

Ключові слова: корупція, корупційні кримінальні правопорушення, неправомірна вигода, кримінально-правова охорони, євроінтеграція, кандидатство на вступ до ЄС, штучний інтелект.