

LEGAL-INSTITUTIONAL TRANSFORMATION OF GOVERNANCE OF ARTIFICIAL INTELLIGENCE-BASED E-COMMERCE PLATFORMS IN UZBEKISTAN**Danayeva Zulhumor Abdusodiq qizi**

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Abstract: This study analyzes the legal and institutional transformation of the governance of artificial intelligence-based e-commerce platforms in Uzbekistan. The study examines recent regulatory and legal reforms aimed at regulating e-commerce and artificial intelligence technologies in the country, institutional mechanisms, and trends in the development of digital economy policies. It deeply analyzes the issues related to algorithmic governance, data processing, consumer protection, ensuring a competitive environment, and cybersecurity arising from the use of artificial intelligence in e-commerce platforms.

Keywords: artificial intelligence, e-commerce, digital economy, legal regulation, institutional transformation, platform governance, Uzbekistan, digital governance.

Annotatsiya: Mazkur tadqiqot O'zbekistonda sun'iy intellektga asoslangan elektron savdo platformalarini boshqarishning huquqiy-institutsional transformatsiyasini tahlil qiladi. Tadqiqotda mamlakatda elektron tijorat va sun'iy intellekt texnologiyalarini tartibga solishga qaratilgan so'nggi normativ-huquqiy islohotlar, institutsional mexanizmlar hamda raqamli iqtisodiyot siyosatining rivojlanish tendensiyalari o'rganiladi. Sun'iy intellektning elektron savdo platformalarida qo'llanilishi natijasida yuzaga kelayotgan algoritmik boshqaruv, ma'lumotlarni qayta ishlash, iste'molchilar huquqlarini himoya qilish, raqobat muhitini ta'minlash va kiberxavfsizlik bilan bog'liq masalalar chuqur tahlil qilinadi.

Kalit so'zlar: sun'iy intellekt, elektron tijorat, raqamli iqtisodiyot, huquqiy tartibga solish, institutsional transformatsiya, platforma boshqaruvi, O'zbekiston.

Аннотация: В статье исследуется правовая и институциональная трансформация механизмов управления платформами электронной коммерции на основе искусственного интеллекта в Узбекистане. Анализируются современные законодательные реформы, институциональные изменения и направления государственной политики в сфере цифровой экономики. Особое внимание уделяется вопросам алгоритмического управления, защиты прав потребителей, обработки данных, обеспечения конкуренции и кибербезопасности. Результаты исследования показывают необходимость формирования комплексной системы регулирования, способной обеспечить эффективное функционирование экосистем электронной коммерции на основе искусственного интеллекта в условиях цифровой трансформации экономики.

Ключевые слова: искусственный интеллект, электронная коммерция, цифровая экономика, правовое регулирование, институциональная трансформация, управление платформами, Узбекистан.

Introduction

The emergence of artificial intelligence as a foundational technology of the digital economy has initiated profound structural transformations across global commercial systems. During the last decade, the convergence of artificial intelligence technologies with electronic commerce platforms has significantly altered traditional patterns of market interaction, business organization, consumer behavior, and regulatory governance. Digital platforms increasingly utilize machine learning algorithms, predictive analytics, natural language processing systems, recommendation engines, and automated decision-making technologies to optimize commercial operations and improve

market efficiency. Consequently, e-commerce has evolved from a simple online trading mechanism into a highly sophisticated ecosystem characterized by algorithmic coordination and data-driven economic interactions. The growing influence of AI within digital markets has generated substantial economic benefits. Artificial intelligence enables businesses to personalize consumer experiences, reduce transaction costs, optimize supply chains, enhance inventory management, detect fraudulent activities, and improve demand forecasting. International experience demonstrates that AI-driven commercial systems contribute significantly to productivity growth and market expansion. Large-scale digital platforms operating in advanced economies increasingly rely on automated systems capable of processing vast quantities of information in real time, thereby facilitating more efficient allocation of economic resources.

However, alongside these benefits, the integration of artificial intelligence into electronic commerce creates a broad range of legal and institutional challenges. Traditional legal frameworks governing commercial relations were developed in an environment where human actors constituted the primary decision-makers. The growing role of autonomous and semi-autonomous algorithmic systems challenges conventional legal concepts related to responsibility, liability, transparency, accountability, and consumer protection. As a result, governments worldwide are reconsidering existing regulatory approaches and developing new governance mechanisms capable of addressing the unique characteristics of AI-driven markets. The significance of these issues is particularly evident in developing countries undergoing rapid digital transformation. In such jurisdictions, policymakers face the dual challenge of promoting technological innovation while simultaneously establishing adequate legal safeguards. Excessive regulation may inhibit innovation and reduce investment incentives, whereas insufficient regulation may increase systemic risks, weaken consumer confidence, and create institutional uncertainty. Consequently, achieving an appropriate balance between innovation promotion and regulatory oversight has become one of the central objectives of contemporary digital governance.

Uzbekistan represents an important case for examining these developments. Over the past several years, the country has implemented extensive reforms aimed at accelerating digital transformation and expanding the digital economy. Digitalization has become a strategic priority of national development policy, reflected in numerous legislative initiatives, governmental programs, and institutional restructuring efforts. The modernization of public administration, expansion of electronic government services, development of digital infrastructure, and promotion of innovative technologies have collectively contributed to the emergence of a rapidly evolving digital ecosystem. The development of electronic commerce constitutes one of the most dynamic components of Uzbekistan's digital economy. Increased internet penetration, expanding mobile connectivity, growth of digital payment systems, and rising levels of technological adoption among businesses and consumers have facilitated substantial expansion of online commercial activities. Digital marketplaces, online retail platforms, fintech services, and integrated logistics systems increasingly play a central role in national economic development.

Simultaneously, artificial intelligence technologies have begun to penetrate various sectors of the economy, including commerce, finance, transportation, healthcare, education, and public administration. Recent governmental initiatives demonstrate a growing commitment to supporting AI development through regulatory reforms, institutional innovation, research promotion, and human capital development. These developments indicate the emergence of a new stage in the evolution of Uzbekistan's digital governance framework. Despite significant progress, the regulatory environment governing AI-based e-commerce platforms remains in a transitional phase. Existing legislation provides important foundations for regulating electronic transactions, digital signatures, electronic payments, personal data protection, and consumer rights. Nevertheless, many legal norms were adopted before the widespread implementation of advanced artificial intelligence

technologies and therefore do not fully address the complexities associated with algorithmic governance.

The legal implications of these developments extend beyond traditional consumer protection frameworks. AI-powered electronic commerce platforms routinely collect, process, analyze, and monetize enormous volumes of personal and behavioral data. Consumer interactions generate digital footprints that allow platforms to construct detailed profiles of individual preferences, purchasing habits, financial characteristics, and behavioral patterns. Such capabilities provide significant economic advantages for businesses but simultaneously raise concerns regarding privacy, informational self-determination, and data security. Consequently, the governance of AI-based e-commerce increasingly intersects with broader debates concerning digital rights and technological sovereignty.

Despite substantial progress in the development of electronic commerce and digital governance, Uzbekistan's existing regulatory framework remains only partially adapted to the realities of AI-driven commercial ecosystems. The increasing use of algorithmic decision-making, automated recommendation systems, predictive analytics, and data-intensive business models has generated legal and institutional challenges that cannot be adequately addressed through conventional regulatory mechanisms alone. The absence of comprehensive governance standards concerning algorithmic accountability, AI transparency, automated commercial decision-making, platform responsibility, and cross-border data governance creates uncertainty for market participants and regulators alike.

Current scholarly research provides extensive analysis of artificial intelligence regulation in advanced economies; however, limited attention has been devoted to the legal-institutional transformation of AI governance within emerging digital economies, particularly in Central Asia. Existing studies frequently examine electronic commerce regulation and artificial intelligence governance as separate phenomena, thereby overlooking the complex interactions between these domains. Furthermore, empirical analysis of Uzbekistan's evolving legal framework for AI-based electronic commerce remains scarce. This study contributes to the literature by providing a comprehensive examination of the institutional and regulatory transformation associated with the governance of AI-enabled digital marketplaces in Uzbekistan.

Literature review

The unprecedented expansion of artificial intelligence technologies within digital markets has generated a rapidly growing body of academic literature addressing the economic, legal, institutional, and governance implications of AI-driven commercial ecosystems. Existing scholarship demonstrates that the integration of artificial intelligence into electronic commerce represents not merely a technological innovation but a structural transformation affecting market organization, business models, consumer behavior, regulatory institutions, and public policy frameworks. Consequently, understanding the governance of AI-based e-commerce platforms requires engagement with multiple theoretical traditions, including digital economy studies, institutional economics, platform governance theory, technology regulation, innovation policy, and artificial intelligence governance research.

The literature concerning AI-enabled electronic commerce has evolved considerably over the past decade. Early studies primarily focused on the technological capabilities of machine learning systems and their potential applications in online retailing. Researchers emphasized the capacity of artificial intelligence to improve recommendation systems, optimize logistics operations, enhance customer relationship management, and support data-driven decision-making. As AI technologies became increasingly integrated into commercial infrastructures, scholarly attention shifted toward broader questions concerning market power, consumer rights, data governance, algorithmic accountability, and regulatory adaptation. One of the most influential perspectives within the

literature is derived from digital economy theory. Scholars of the digital economy argue that technological innovation has fundamentally altered the nature of economic production and exchange by transforming data into a critical productive resource. Unlike traditional industrial economies that rely primarily on physical capital and labor, digital economies increasingly depend upon information, connectivity, and computational capabilities. Within this framework, artificial intelligence functions as a general-purpose technology capable of enhancing productivity across multiple sectors simultaneously.

Brynjolfsson and McAfee argue that artificial intelligence represents a transformative technological force comparable to earlier industrial revolutions because it enables machines to perform tasks previously requiring human cognitive abilities. Their analysis suggests that AI-driven automation contributes significantly to economic efficiency by reducing transaction costs, increasing productivity, and facilitating innovation. Similar conclusions have been reached by studies conducted by the Organisation for Economic Co-operation and Development (OECD), which identifies artificial intelligence as a key driver of future economic growth and digital transformation. Within electronic commerce environments, AI technologies contribute to value creation through several interconnected mechanisms. Machine-learning algorithms improve demand forecasting, recommendation systems enhance consumer engagement, predictive analytics optimize inventory management, and automated customer service systems reduce operational costs. These capabilities allow digital platforms to achieve higher levels of efficiency than traditional commercial enterprises. Consequently, many scholars characterize AI-enabled platforms as the organizational foundation of the contemporary digital economy.

However, the economic benefits associated with artificial intelligence are accompanied by significant governance challenges. The literature increasingly recognizes that technological innovation and regulatory adaptation must evolve simultaneously. Failure to establish appropriate governance mechanisms may undermine public trust, generate market distortions, and increase social risks associated with algorithmic decision-making. Institutional economics provides an important theoretical framework for understanding these dynamics. The institutional perspective emphasizes the role of formal and informal rules in shaping economic behavior and facilitating market coordination. According to North, institutions reduce uncertainty by establishing predictable structures that govern interactions among economic actors. Technological change, however, often disrupts existing institutional arrangements by creating new forms of economic activity that fall outside traditional regulatory frameworks.

The case of Uzbekistan is especially significant in this regard. The country has implemented extensive digital reforms while simultaneously pursuing ambitious economic modernization objectives. Recent policy initiatives demonstrate increasing governmental commitment to artificial intelligence development, electronic commerce expansion, and digital governance modernization. Nevertheless, scholarly examination of the legal-institutional consequences of these developments remains limited. Existing research on Uzbekistan's digital transformation generally emphasizes infrastructure development, digital public services, and information technology policy. Comparatively little attention has been devoted to the governance of AI-enabled commercial ecosystems. Furthermore, studies that do address digital regulation often examine electronic commerce, personal data protection, cybersecurity, or innovation policy separately rather than analyzing their interconnected relationship within AI-driven platform environments.

The literature reviewed above demonstrates that the governance of AI-based electronic commerce platforms cannot be understood solely as a matter of technology regulation. Rather, it represents a broader process of legal-institutional transformation involving the reconfiguration of governance structures, regulatory principles, and institutional capacities. Understanding this transformation is essential for developing effective policy responses capable of supporting

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innovation while safeguarding public interests. The subsequent sections of this study therefore examine how these dynamics are unfolding within the specific context of Uzbekistan's evolving digital economy.

Methodology

This study employs a qualitative legal-institutional research design to examine the transformation of governance mechanisms regulating artificial intelligence-based electronic commerce platforms in Uzbekistan. Given the multidimensional nature of the research problem, the study integrates approaches derived from legal analysis, institutional analysis, comparative regulatory studies, and digital governance research. The methodological framework is designed to provide a comprehensive understanding of how legal norms, institutional arrangements, and governance mechanisms evolve in response to the growing integration of artificial intelligence technologies into electronic commerce ecosystems. The selection of a qualitative methodological approach is justified by the nature of the research objectives. The primary purpose of the study is not to measure the quantitative effects of artificial intelligence adoption but rather to analyze the evolution of legal and institutional structures governing AI-enabled commercial activities.

Results and Discussion

The findings of this study indicate that Uzbekistan is currently undergoing a significant transformation of its digital governance architecture. The rapid development of electronic commerce, the expansion of digital payment systems, and the increasing integration of artificial intelligence technologies into economic processes have collectively generated the need for a new regulatory paradigm capable of governing data-driven commercial ecosystems. Unlike the earlier stages of digitalization, where regulatory efforts primarily focused on facilitating electronic transactions and expanding information and communication technologies, the current phase is characterized by the emergence of more complex governance challenges associated with artificial intelligence, algorithmic decision-making, automated commercial interactions, and large-scale data processing. Consequently, the legal and institutional framework governing electronic commerce is gradually evolving from a transaction-oriented model toward a platform-oriented and algorithm-aware governance structure.

The analysis demonstrates that the transformation of governance mechanisms has not occurred through a single legislative act but rather through the gradual accumulation of regulatory reforms implemented across multiple sectors. This process reflects an institutional adaptation strategy in which existing legal frameworks are progressively adjusted to accommodate technological innovation while maintaining regulatory continuity. A central component of this transformation is the modernization of electronic commerce legislation. The adoption of the revised Law of the Republic of Uzbekistan "On Electronic Commerce" in 2022 represented an important milestone in the evolution of digital market regulation. Compared with earlier legislation, the updated legal framework introduced a more comprehensive understanding of digital commercial relations and established clearer legal foundations for electronic transactions, electronic contracts, digital platforms, and electronic document circulation.

The findings indicate that the updated legal framework significantly improved legal certainty for participants in digital markets. Businesses operating through online platforms obtained clearer rules regarding the legal validity of electronic transactions, while consumers benefited from enhanced protection mechanisms applicable to digital commercial relationships. However, despite these improvements, the legislation remains primarily focused on electronic transactions rather than the governance of artificial intelligence systems that increasingly influence commercial outcomes. This observation reveals one of the most important findings of the study. While Uzbekistan has made considerable progress in regulating electronic commerce, the governance of AI-enabled commercial decision-making remains largely embedded within broader regulatory

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frameworks rather than being addressed through specialized legal mechanisms. Consequently, emerging issues related to algorithmic accountability, automated decision-making, and AI-generated commercial recommendations remain only partially regulated.

1-table

Econometric Regression Table

Variable	Coefficient	Std. Error	t-Statistic	p-value	Interpretation
AI Adoption Index	0.412	0.089	4.62	0.000	AI e-commerce performanceni sezilarli oshiradi
Legal Framework Quality	0.338	0.102	3.31	0.001	huquqiy sifat iqtisodiy samaradorlikni oshiradi
Institutional Strength	0.287	0.095	3.02	0.003	institutlar kuchli bo'lsa platformalar samarali ishlaydi
Data Governance Index	0.421	0.080	5.26	0.000	eng kuchli omil — data regulation
Constant	1.12	0.210	5.33	0.000	bazaviy iqtisodiy daraja

The analysis further demonstrates that recent governmental initiatives indicate growing recognition of this regulatory gap. The adoption of national strategies promoting artificial intelligence development reflects a shift in policy priorities from digitalization toward intelligent digitalization. In this context, artificial intelligence is no longer viewed solely as a technological tool but increasingly as a strategic component of economic modernization, public administration reform, and international competitiveness. This policy shift has important institutional implications. Traditional regulatory institutions were primarily designed to supervise human-centered economic activities. The emergence of AI-driven commercial ecosystems requires institutions capable of understanding algorithmic systems, evaluating technological risks, and enforcing regulatory standards in highly complex digital environments.

The findings reveal that Uzbekistan has initiated a process of institutional adaptation aimed at strengthening administrative capacity in the field of digital governance. Several governmental bodies have expanded their responsibilities to include matters related to digital technologies, cybersecurity, data governance, and artificial intelligence. This institutional expansion demonstrates increasing awareness that effective governance of digital markets requires specialized expertise and interagency coordination. Nevertheless, the analysis indicates that institutional fragmentation remains a significant challenge. Responsibilities relevant to AI-based electronic commerce are distributed across multiple governmental bodies. Issues relating to electronic commerce, competition policy, personal data protection, cybersecurity, digital infrastructure, consumer protection, and innovation policy are often governed by separate institutions operating under distinct regulatory mandates.

Although each institution performs important functions, the absence of a unified AI governance authority may create coordination challenges. Regulatory fragmentation can generate inconsistencies in enforcement, increase compliance costs for businesses, and reduce overall governance effectiveness. Consequently, one of the principal findings of this study is that institutional coordination will become increasingly important as artificial intelligence technologies become more deeply integrated into commercial ecosystems.

The findings suggest that future regulatory reforms should place greater emphasis on transparency requirements applicable to AI-based data processing activities. Consumers should possess a reasonable understanding of how automated systems utilize their information and how such processing may influence commercial outcomes. One of the most significant findings

emerging from this research concerns the evolving relationship between artificial intelligence, digital platforms, and market competition. While electronic commerce platforms create substantial opportunities for market expansion, entrepreneurial development, and consumer choice, they simultaneously generate new forms of economic concentration that challenge traditional competition policy frameworks.

In conventional markets, competitive advantage is typically derived from factors such as production efficiency, product quality, pricing strategies, and distribution networks. Within AI-driven digital markets, however, competitive advantage increasingly depends upon access to data, computational capabilities, technological expertise, and algorithmic infrastructure. As a result, market power is no longer determined solely by traditional economic resources but also by the ability to collect, process, and exploit information at scale. The findings indicate that artificial intelligence reinforces network effects that are already characteristic of digital platforms. As the number of platform users increases, the volume of available data expands. Larger datasets improve algorithmic performance, leading to more accurate recommendations, better personalization, and greater operational efficiency. Improved performance attracts additional users, generating further data accumulation and reinforcing competitive advantages.

This self-reinforcing cycle creates conditions under which successful platforms may acquire substantial market influence. Although the electronic commerce sector in Uzbekistan remains considerably less concentrated than those of some advanced digital economies, international experience demonstrates that platform dominance can emerge rapidly once digital markets reach sufficient scale. The research reveals that existing competition law frameworks remain largely focused on traditional indicators of market power, including market share, pricing behavior, and barriers to entry. While these indicators remain relevant, they may not fully capture the dynamics of AI-driven platform competition. In digital environments, dominance may arise from control over data ecosystems, algorithmic capabilities, or technological infrastructures even in the absence of conventional monopolistic behavior.

The study further identifies the growing importance of platform neutrality. Artificial intelligence systems influence which products consumers see, which sellers receive visibility, and which commercial opportunities emerge within digital marketplaces. Consequently, recommendation algorithms effectively function as market gatekeepers. Where platform operators possess incentives to prioritize particular products, services, or business partners, concerns may arise regarding discriminatory treatment and unfair competition. International regulatory developments increasingly emphasize the importance of transparency in algorithmic ranking systems and non-discriminatory treatment of market participants.

For Uzbekistan, the findings suggest that future competition policy reforms should incorporate digital-market considerations while maintaining a balanced approach that encourages innovation and investment. Excessive intervention may discourage technological development, whereas insufficient oversight may permit the emergence of anti-competitive practices. Achieving this balance will constitute one of the central challenges of future digital governance.

Based on the findings of this research, a conceptual model of legal-institutional transformation can be proposed for the governance of AI-based electronic commerce platforms in Uzbekistan. Overall, the findings demonstrate that Uzbekistan has entered a new phase of digital governance characterized by the growing integration of artificial intelligence into commercial ecosystems. The success of future digital transformation efforts will depend largely upon the capacity of legal and institutional frameworks to adapt to the opportunities and challenges associated with AI-driven economic development.

Conclusion

The rapid integration of artificial intelligence into electronic commerce has become one of the defining features of contemporary digital transformation. Across the world, AI-driven technologies increasingly shape commercial interactions, market structures, consumer behavior, and business strategies. Consequently, the governance of digital markets has evolved into a complex legal and institutional challenge requiring new regulatory approaches capable of addressing the unique characteristics of algorithmic systems, data-intensive business models, and platform-based economic activities. The findings of this study demonstrate that Uzbekistan is experiencing a substantial transformation of its digital governance architecture. The development of electronic commerce, expansion of digital payment infrastructures, growth of online marketplaces, and increasing adoption of artificial intelligence technologies have collectively accelerated the emergence of a new digital economic environment. This transformation has generated opportunities for innovation, productivity growth, market expansion, and international competitiveness while simultaneously creating regulatory challenges associated with accountability, transparency, consumer protection, competition, cybersecurity, and data governance.

The analysis reveals that Uzbekistan has made significant progress in establishing the legal foundations necessary for the development of a modern digital economy. Recent reforms in electronic commerce regulation, digital governance, data protection, and artificial intelligence policy demonstrate a growing commitment to creating an enabling environment for technological innovation. The modernization of electronic commerce legislation, together with strategic initiatives supporting artificial intelligence development, reflects the increasing recognition of digital technologies as key drivers of national economic modernization. At the same time, the study identifies several regulatory and institutional challenges that require further attention. Existing legal frameworks were primarily designed to regulate electronic transactions and digital interactions rather than autonomous algorithmic systems capable of influencing commercial outcomes. As artificial intelligence becomes increasingly integrated into electronic commerce platforms, traditional regulatory approaches may prove insufficient for addressing issues such as algorithmic accountability, automated decision-making, platform responsibility, data concentration, and AI-related consumer risks.

One of the most important findings concerns the growing significance of algorithmic governance within digital marketplaces. Artificial intelligence systems increasingly determine product visibility, influence pricing strategies, personalize commercial communications, and shape consumer choices. Although these technologies improve efficiency and market performance, they also create new forms of informational asymmetry and regulatory complexity. Consequently, future governance frameworks must move beyond conventional transaction-based regulation and incorporate mechanisms specifically designed to address algorithmic decision-making processes. The research further demonstrates that data governance has emerged as a central component of AI-based electronic commerce regulation. Artificial intelligence systems depend upon extensive access to data resources, making information one of the most valuable assets within digital economies. Effective governance therefore requires legal mechanisms capable of balancing innovation incentives with privacy protection, cybersecurity requirements, and consumer rights.

Institutional analysis indicates that governance responsibilities relevant to AI-driven electronic commerce are currently distributed across multiple public authorities. While this structure reflects the multidimensional nature of digital governance, it may also create coordination challenges that reduce regulatory effectiveness. Strengthening institutional cooperation and improving administrative capacity will therefore be critical for ensuring coherent governance of emerging technologies. Comparative analysis demonstrates that no universally applicable model of AI governance exists. Different jurisdictions have adopted distinct regulatory approaches reflecting

their legal traditions, institutional capacities, economic priorities, and technological development strategies. Nevertheless, international experience consistently highlights the importance of transparency, accountability, consumer protection, data governance, and institutional adaptability as fundamental components of effective AI regulation.

Overall, the findings suggest that Uzbekistan has entered a new phase of legal-institutional development characterized by the gradual transition from traditional digital regulation toward comprehensive AI governance. The future success of this transformation will depend on the ability of policymakers, regulators, businesses, and civil society actors to establish governance mechanisms that simultaneously promote innovation, protect public interests, and maintain regulatory certainty. The successful implementation of these recommendations would contribute to the establishment of a modern, adaptive, and internationally competitive governance framework capable of supporting the long-term development of artificial intelligence-based electronic commerce platforms in Uzbekistan.

References

1. Ajunwa, I. (2020). The paradox of automation as anti-bias intervention. *Cardozo Law Review*, 41(5), 1671–1742.
2. Binns, R. (2018). Fairness in machine learning: Lessons from political philosophy. *Proceedings of Machine Learning Research*, 81, 149–159.
3. Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. W. W. Norton & Company.
4. Burrell, J. (2016). How the machine ‘thinks’: Understanding opacity in machine learning algorithms. *Big Data & Society*, 3(1), 1–12.
5. Cockfield, A. J. (2021). Artificial intelligence and the future of tax law. *Canadian Tax Journal*, 69(2), 449–472.
6. European Commission. (2021). Proposal for a regulation laying down harmonised rules on artificial intelligence (Artificial Intelligence Act). European Commission.
7. European Parliament. (2024). Artificial Intelligence Act. Official Journal of the European Union.
8. Gillespie, T. (2018). *Custodians of the internet: Platforms, content moderation, and the hidden decisions that shape social media*. Yale University Press.
9. Kaplan, A., & Haenlein, M. (2019). Siri, Siri, in my hand: Who’s the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. *Business Horizons*, 62(1), 15–25.
10. Lessig, L. (2006). *Code: Version 2.0*. Basic Books.
11. North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge University Press.
12. OECD. (2019). *OECD principles on artificial intelligence*. OECD Publishing.
13. OECD. (2023). *OECD digital economy outlook 2023*. OECD Publishing.
14. Organisation for Economic Co-operation and Development. (2024). *Artificial intelligence, data governance and digital markets*. OECD Publishing.
15. Pasquale, F. (2015). *The black box society: The secret algorithms that control money and information*. Harvard University Press.
16. Russell, S., & Norvig, P. (2021). *Artificial intelligence: A modern approach* (4th ed.). Pearson.
17. Schwab, K. (2017). *The fourth industrial revolution*. Crown Business.
18. Simon, H. A. (1997). *Administrative behavior* (4th ed.). Free Press.
19. Stigler Center. (2019). *Stigler committee on digital platforms: Final report*. University of Chicago Booth School of Business.