ARTIFICIAL INTELLIGENCE GOVERNANCE REGULATION IN PUBLIC ADMINISTRATION

Abstract. The formulation of the problem outlined in this article centers on the governance and regulation of artificial intelligence (AI) in public administration. It stresses the importance of establishing frameworks and guidelines to ensure the ethical and responsible use of AI systems within government agencies and organizations as AI becomes increasingly prevalent. Key challenges identified include the need for accountability, transparency, and protection of human rights and privacy in AI governance. Accountability and transparency are highlighted as critical aspects of AI governance, with a focus on defining clear lines of responsibility within government organizations for the implementation and operation of AI systems. This involves identifying key decision-makers and establishing proper oversight and monitoring mechanisms for AI algorithms and models used in public management processes. Transparency is emphasized as essential for fostering trust and confidence in AI systems used in public administration. Public sector agencies are urged to document the design, development, and training processes of AI systems, making decision-making criteria and data sources accessible to the public. Additionally, the protection of human rights and privacy is identified as a significant concern, given the large amounts of personal data often processed by AI systems. To address these challenges, the article proposes the implementation of robust data protection measures, anonymization of personal data whenever possible, and obtaining informed consent for the collection and use of personal information within the context of AI applications. The overarching goal of the research is to navigate the complexities and challenges associated with integrating AI technologies in a manner that upholds privacy rights and ethical standards within government agencies.

This article delves into the intricate landscape of AI governance in the public sector, emphasizing the need for comprehensive regulatory frameworks to address the inherent complexity of AI systems. It highlights fundamental challenges such as fairness, accountability, and transparency, which are paramount considerations in the development and deployment of AI technologies within government agencies.
The article underscores the importance of tailoring regulatory frameworks to the specific elements of public administration, recognizing its unique challenges and nuances. It advocates for regulations that tackle issues like algorithmic bias, the explainability of AI decision-making processes. Furthermore, the article emphasizes the necessity for clearly defining the roles and responsibilities of government organizations in the context of AI governance. It calls for robust procedures for auditing and evaluating AI systems, alongside guidelines for managing the risks associated with their implementation.

Overall, the article underscores the complexity of AI governance in the public sector and advocates for a proactive approach in establishing regulatory frameworks that promote fairness, accountability, and transparency in AI-driven decision-making processes within government agencies.

**Keywords:** Artificial Intelligence, Governance, Regulation, Public Administration, Transparency, Data Protection, Regulatory Frameworks, Decision-making Process.

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**РЕГУЛЮВАННЯ ШТУЧНОГО ІНТЕЛЕКТУ В ПУБЛІЧНОМУ УПРАВЛІННІ**

**Анотація.** Формулювання проблеми, описаної в цій статті, зосереджено на управлінні та регулюванні штучного інтелекту (ШІ) у публічному управлінні. У статті наголошується на важливості створення рамок і вказівок для забезпечення етичного та відповідального використання систем штучного інтелекту в урядових установах і організаціях, оскільки штучний інтелект стає все більш поширенним. Основні виявлені проблеми включають обов'язковість, прозорість та захист прав людини та конфіденційності в управлінні ШІ. Підзвітність і прозорість виявляються як критичні аспекти управління штучним інтелектом, зосереджені на визначені чітких ліній відповідальності урядових організаціях за існування та роботу систем штучного інтелекту. Це передбачає визначення ключових осіб, які приймають рішення, і встановлення належних механізмів нагляду та моніторингу алгоритмів і моделей штучного інтелекту, які використовуються в процесах державного управління. Наголошується, що прозорість має важливе значення для зміцнення довіри до систем ШІ, які використовуються в державному управлінні. Установи державного сектору повинні документувати процеси
проектування, розробки та навчання систем ШІ, роблячи критерії прийняття рішень і джерела даних доступними для громадськості. Крім того, захист прав людини та конфіденційності визначено як серйозну проблему, враховуючи велику кількість персональних даних, які часто обробляються системами ШІ. Щоб вирішити ці проблеми, у статті пропонується впровадити надійні заходи захисту даних, анонімізувати персональні дані, коли це можливо, і отримати інформовану згоду на збір і використання особистої інформації в контексті додатків ШІ. Основна мета дослідження полягає в тому, щоб подолати складність та проблеми, пов’язані з інтеграцією технологій штучного інтелекту таким чином, щоб підтримувати права на конфіденційність і етичні стандарти в державних установах.

У статті приділено увагу складному ландшафту управління штучним інтелектом у державному секторі, наголошуючи на необхідності комплексної нормативно-правової бази для вирішення проблеми внутрішньої складності систем штучного інтелекту. Також висвітлюються фундаментальні виклики, такі як справедливість, підзвітність і прозорість, які є найважливішими міркуваннями при розробці та розгорнанні технологій ШІ в державних установах.

У статті підкреслюється важливість адаптації нормативної бази до конкретних елементів публічного управління, визначаючи його унікальні виклики та аспекти. ШІ виступає за правила, які вирішують такі проблеми, як упередженість алгоритмів, зрозумілість процесів прийняття рішень. Крім того, у статті наголошується на необхідності чіткого визначення ролей і обов’язків урядових організацій у контексті управління ШІ. Такий процес вимагає надійних процедур аудиту та оцінки систем штучного інтелекту, а також рекомендацій щодо управління ризиками, пов’язаними з їх впровадженням.

Загалом стаття підкреслює складність управління ШІ в державному секторі та виступає за проактивний підхід до створення нормативних рамок, які сприяють справедливості, підзвітності та прозорості в керованих ШІ процесах прийняття рішень в державних установах.

Ключові слова: штучний інтелект, управління, регулювання, публічне управління, прозорість, захист даних, нормативно-правова база, процес прийняття рішень.

Formulation of the problem. Artificial intelligence (AI) governance and regulations play a crucial role in the successful implementation of artificial intelligence in the public administration sector. As the use of AI becomes more prevalent, it is essential to establish frameworks and guidelines to ensure ethical and responsible use of AI systems within government agencies and organizations. One of the main challenges in AI governance is establishing accountability and transparency. Government organizations must define clear lines of responsibility for the implementation and operation of AI systems. This includes identifying key
decision-makers and ensuring that there is proper oversight and monitoring of AI algorithms and models used in public management processes. To achieve transparency, public sector agencies need to document the design, development, and training processes of AI systems. This includes making the decision-making criteria and data sources used in AI models accessible to the public to foster trust and confidence. When using AI in public administration, it is crucial to prioritize and protect human rights and privacy. Many AI systems deal with large amounts of data, including personal information. Therefore, it is essential to have a robust legal framework in place to govern the collection, storage, and use of personal data in accordance with regulations such as the General Data Protection Regulation (GDPR) in the United States. Government agencies must ensure that AI systems are designed and implemented in a manner that respects individuals' privacy rights. This involves implementing data protection measures, anonymizing data whenever possible, and obtaining informed consent for the collection and use of personal information. The problem of the research is the ethical and legal implications of implementing AI systems within government agencies. Specifically, it concerns ensuring that these AI systems are designed and implemented in a way that respects individuals' privacy rights. This involves the implementation of robust data protection measures, anonymization of personal data whenever possible, and the requirement to obtain informed consent for the collection and use of personal information within the context of AI applications. The research aims to address the complexities and challenges associated with integrating AI technologies in a manner that upholds privacy rights and ethical standards.

Analysis of recent research and publications. Such researchers as K. Lavertu [1] concentrate their attention on the problems of state regulation of artificial intelligence in the system of public administration. Mr. Angeletti, V. Verikios, F. Grillo, P. Misier; G. Lalk; T. Lorusso [2]; A. Townsend [180]; H. Azzone [190]; M. Matsievskyi [196]; K. Desouza, B. Jacob [197]. In their scientific works, scientists emphasize the benefits of data quality, on the basis of which management decisions are made; problems of data quality, which are key both for their processing by machine methods and for the interpretation of the obtained results.

The purpose of the article likely focuses on exploring the need for governance and regulation surrounding the use of artificial intelligence in public administration. It delves into the challenges and opportunities that arise from the integration of AI technologies within government agencies and the critical importance of establishing clear guidelines and regulations to govern AI implementation. The article also aim to address the ethical and legal implications of AI usage in public administration, including considerations related to privacy, transparency, and accountability. Furthermore, it aims to provide insights and recommendations for policymakers and public sector leaders on crafting effective governance and regulation strategies to ensure the responsible adoption of AI in public administration.
Presenting main material. The complexity of AI systems requires the establishment of comprehensive regulatory frameworks. These frameworks should address the fundamental challenges associated with AI's use in the public sector, including fairness, accountability, and transparency. They should also consider the specific elements of public administration and the unique challenges it presents. Regulations should address issues such as bias in AI algorithms, the explainability of AI decision-making processes, and the potential impact on marginalized or disadvantaged communities. Additionally, regulatory frameworks should outline the roles and responsibilities of government organizations, outline procedures for auditing and evaluating AI systems, and provide guidelines for managing risks associated with AI implementation. Achieving effective AI governance in public management requires close collaboration between government agencies, the private sector, and other relevant stakeholders. Collaboration ensures that AI systems are developed and implemented in a manner that addresses the needs.

As artificial intelligence (AI) becomes increasingly integrated into public management processes, addressing privacy and ethical concerns becomes paramount. The use of AI systems in the public sector, particularly in government agencies, raises questions about data privacy, transparency, fairness, and accountability. It is essential to establish a comprehensive framework that safeguards individual rights and ensures responsible and ethical AI implementation. One of the major challenges when utilizing AI in the public sector is striking a balance between data collection and privacy rights. While AI algorithms require large amounts of data to train and improve their performance, it is crucial to protect personal information and comply with legal frameworks, such as the General Data Protection Regulation (GDPR). Government organizations must define clear guidelines for the collection, storage, and usage of personal data to safeguard privacy and build trust with the public.

AI algorithms are designed to make decisions based on patterns and historical data. However, these algorithms can inadvertently perpetuate biases present in the data, leading to discriminatory outcomes. It is essential to address this concern by regularly auditing and monitoring AI models to identify any biases and take corrective actions. Government agencies should also prioritize diversity and inclusion in AI research and development to mitigate bias and ensure fairness in decision-making processes. Transparency is a fundamental aspect of responsible AI implementation. Government agencies should provide clear explanations of how AI models are used in decision-making processes. By making the decision-making process transparent, the public can better understand and trust the system's outputs. Additionally, publishing information about the AI models, including the data used, algorithms employed, and performance metrics, fosters accountability and enables independent audits, ensuring ethically sound use of AI technologies. To address privacy and ethical concerns, it is essential for the public sector to develop robust AI governance frameworks. These frameworks should define principles for ethical AI
use, outline clear guidelines for AI development and deployment, and establish oversight mechanisms for accountability. Including interdisciplinary experts in AI governance committees can help ensure comprehensive evaluations of the ethical implications of AI applications within public administration. The responsible deployment of AI in the public sector necessitates collaborative efforts between government agencies, private organizations, and academic institutions also.

To understand the importance of high-quality state regulation and the use of artificial intelligence in public administration, it is appropriate to analyze how artificial intelligence technologies improve government organizations and revolutionize the way public services are provided. Government organizations have long been at the forefront of utilizing technology to improve efficiency and effectiveness in delivering public services. In recent years, the advent of artificial intelligence (AI) has brought about a new wave of innovation and potential for the public sector. AI technology has the potential to streamline administrative processes within government organizations. Through the use of machine learning algorithms, AI systems can automate routine tasks, such as data entry and processing, allowing public employees to focus on higher-value activities. This not only increases productivity but also reduces the likelihood of errors, resulting in more accurate and efficient operations. AI models can analyze large amounts of data and identify patterns and trends that humans might overlook. This capability allows government organizations to make data-driven decisions and formulate evidence-based policies. By harnessing the power of AI, public policymakers can access insights and intelligence that can inform and enhance their decision-making processes. The use of AI in the public sector has the potential to significantly improve service delivery. Government agencies can leverage AI algorithms to develop predictive models that anticipate citizen needs and preferences. This proactive approach enables agencies to address issues before they escalate while providing tailored and personalized services to citizens. Moreover, AI-powered virtual assistants can provide instant support, answering queries and guiding citizens through various processes, saving time and resources for both citizens and government organizations. AI technology can play a crucial role in ensuring compliance and accountability within government organizations. Through the implementation of AI algorithms, agencies can detect and prevent fraud, identify potential corruption, and enhance cybersecurity measures. By using AI to monitor and analyze vast amounts of data, government organizations can better identify anomalies, mitigate risks, and maintain the trust of citizens. As a result, artificial intelligence technology is transforming government organizations by streamlining administrative processes, improving decision-making, enhancing service delivery, and ensuring compliance and accountability.

Also, it is necessary to explore the growing trend of AI expenditures in the public sector and its implications. Artificial Intelligence has been making significant strides in revolutionizing various sectors, and the public sector is no exception. As governments around the world recognize the potential benefits of AI in improving
efficiency, reducing costs, and enhancing decision-making processes, they are increasingly allocating budgets for AI initiatives. AI has the potential to transform public service delivery, enabling governments to provide more personalized, efficient, and effective services to citizens. AI technology requires substantial investments in infrastructure, data collection, software development, and talent acquisition. Therefore, allocating budgets for AI expenditures is crucial to ensure successful implementation and maximize the potential benefits. Government agencies and research institutions are investing heavily in AI research and development initiatives. Funding is being directed towards exploring new AI algorithms, developing AI models specific to public sector needs, and addressing challenges such as data collection, privacy, and bias. Governments are partnering with the private sector to leverage their expertise, resources, and advanced AI technologies. Collaborations with tech companies, startups, and research organizations allow governments to access cutting-edge AI tools, data analytics frameworks, and machine learning algorithms for improved decision-making and service delivery. Introducing AI in the public sector requires comprehensive legal frameworks to regulate its use and address concerns surrounding data protection, privacy, and transparency. Governments are actively working on establishing AI governance frameworks to ensure accountability, fairness, and the protection of human rights.

Despite the significant advantages, there are challenges and risks associated with AI expenditures in the public sector. Ensuring data availability, interoperability, and accessibility across government organizations is a major challenge. The proliferation of AI use cases requires clear prioritization, as resources may be limited. Adequate training and capacity building for public sector employees to understand and effectively utilize AI technologies is essential. To ensure the effective utilization of AI expenditures, monitoring and evaluation mechanisms should be put in place. Governments should track the impact of AI initiatives, measure cost savings, efficiency gains, and improvements in service delivery to continuously optimize their AI strategies.

Conclusions. In conclusion, as technology continues to advance, artificial intelligence (AI) is playing an increasingly crucial role in various sectors, including public administration. In the context of restoration and development of territories, AI offers a wide array of tools and solutions that can significantly impact decision-making processes, resource allocation, and overall efficiency. It was explored the specific ways in which AI is revolutionizing the restoration and development of territories, and the potential benefits it brings to the public sector. AI systems equipped with machine learning algorithms can analyze large amounts of data, extract valuable insights, and provide evidence-based recommendations. This capability makes AI a valuable asset for government agencies and organizations involved in restoring and developing territories. By harnessing the power of AI, decision-makers can access robust data sets, identify patterns, and make well-
informed decisions. These decisions can range from the optimal distribution of resources to implementing strategic interventions for sustainable and balanced development. AI can contribute immensely to this process by analyzing vast amounts of data and generating predictive models. By using AI algorithms, government agencies can simulate different scenarios, project future outcomes, and optimize resource allocation accordingly. AI can play a crucial role in monitoring and evaluating the progress of restoration and development projects. Through the adoption of AI-based monitoring systems, government organizations can collect real-time data, track key performance indicators, and evaluate the success of various interventions. This enables agencies to identify bottlenecks, adjust strategies if necessary, and ensure that projects are implemented efficiently. AI-powered monitoring systems offer a level of precision and accuracy that is often challenging to achieve through traditional monitoring methods. AI technologies are instrumental in facilitating smart and sustainable urban planning within territories. By integrating AI algorithms, governments can analyze data related to population density, transportation systems, energy consumption, and environmental factors. Artificial Intelligence has been making significant strides in various industries, and the public sector is no exception. As government agencies and organizations embrace AI systems to enhance efficiency and decision-making processes, it is crucial to establish effective AI governance to ensure transparency, accountability, and ethical use of these technologies.

References:

Література: