THE IMPACT OF AI ON EU ADMINISTRATIVE RULES

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Abstract
Artificial Intelligence (AI) is an evolving technology that has a significant impact on many sectors, including European Union (EU) administration. In the European Union, administrative regulations play a key role in ensuring the proper functioning of the rule of law and the protection of fundamental rights.
Our paper aim is to see whether EU laws regarding AI have brought added value and efficiency to both the public administration and the final beneficiary, the citizen.
The methodology of research is based on the analysis of the EU regulations in the field of the AI and a critical overview on the transposition legislation in Romania, mainly at the level of public administration authorities. The results of our analysis show that Romania, as a member state of the European Union, has adopted and take over the European Union regulations and directives that refer to Artificial Intelligence, those related to algorithmic transparency, accountability of automated decisions, AI ethics and international collaboration. The public administration authorities take the measures for making the regulations effective. While the EU legal framework on AI has laid a solid foundation for responsible and transparent implementation, its true added value lies in the extent to which member states, such as Romania, effectively transpose and operationalize these norms within their public administrations to better serve the citizens.
Keywords: *artificial intelligence; legislative regulations; AI Act; GDPR.*
JEL Classification: K23; K24; O33; H83.

1. INTRODUCTION

Artificial Intelligence (AI) is an important factor behind the rapid development of technologies and has a direct impact on regulations in all areas, including the European Union (EU) administrative and regulatory areas. AI influences data protection regulations, algorithmic transparency, protection of citizens' rights, ethics and accountability of automated decisions.

Artificial intelligence refers to computer systems that can perform tasks that would normally require human action: machine learning, big data analysis, speech and visual recognition, and decision-making. In government, AI is used to improve the efficiency and transparency of governance, including in decision-making processes, service delivery, performance evaluation of different institutions and data management.

Our paper aim is to investigate the impact of European Union legislation on artificial intelligence on public administration and the citizen, as the final beneficiary. In this regard, the research methodology used is the analysis of the European regulatory framework and its transposition and implementation at the level of public administration in Romania, as an EU member state. The conclusions of our research are that the Romanian state has managed to integrate European regulations and directives regarding artificial intelligence, such as those on responsibility, ethics, transparency and international cooperation in this field.

2. ADMINISTRATIVE REGULATIONS OF THE EUROPEAN UNION

The European Union emphasizes the proper functioning of the rule of law, the protection of fundamental rights and the maintenance of a fair business environment in view of the complex confrontations related to the regulation of IA.

Among the European Union's regulations on IA, we can notice:

The General Data Protection Regulation (GDPR): The main aim of the GDPR is to create a framework of trust in the relationship between companies and users, protecting personal data from misuse. AI has an important role to play in data protection regulations, in particular in the collection, processing and use of personal data. The sheer volume of sensitive personal data being handled requires careful attention to their privacy and security. In this context, the GDPR was adopted to protect the rights of European citizens and impose strict requirements on data processing.

The Requirements for algorithmic transparency and explainability were defined by The European Union that started to specifically regulate transparency in the use of AI algorithms. First of all, citizens need to be informed when interacting with an AI system and be shown how algorithms make decisions that can sometimes affect their lives. In addition, Article 13 of the AI "Act" (Council of the European Union, Artificial intelligence act) specifies that there must be an opportunity to explain how AI arrives at decisions, which may include information about the data used and the algorithms. For example, in the case of employee selection or credit setting systems, the EU emphasizes the importance that these automated decisions are explainable and do not discriminate against individuals based on personal characteristics (such as age, gender, education level or ethnicity). Furthermore, machine learning algorithms can learn from historical data that reflects social or economic biases, which can lead to unfair decisions. Citizens can demand explanations or challenge automated decisions made by AI

systems if they suspect discrimination or technical error. Transparent systems increase the chances of early detection and resolution.

In April 2021, the European Commission proposed a Regulation on Artificial Intelligence – AI Act (Coteț, n.d.), which is a comprehensive framework for AI regulation. It aims to establish clear rules for the use of AI in the EU, based on the risks posed by the various applications of this technology. The proposed law includes the classification of AI applications into four risk categories and sets strict requirements.

Under the AI Act the four risk categories are as reflected in Table 1.

Table 1. Comparative table of risk categories for AI systems and the responsibilities of involved stakeholders

Risk Level	Definition	Examples of AI Applications	Obligations Imposed by the AI Act	Involved Stakeholders and Responsibilities
Unacceptable Risk	AI systems that are prohibited due to their potential to infringe on fundamental rights, violate human dignity, or pose a major threat to public security or health.	- Social scoring - Advanced psychological manipulation techniques	- Total ban (these systems cannot be placed on the market or used within the EU). - Strict monitoring and severe sanctions for non-compliance.	- **Developers:** Cannot design or commercialize such systems. - **Suppliers/Distributors:** Must not introduce or distribute these systems on the market. - **Users:** Prohibited from using such systems, as they are banned.
High Risk	AI systems with a significant impact on the proper functioning of society, requiring stringent compliance measures and continuous monitoring.	- Medical diagnosis - Recruitment and personnel screening - Creditworthiness assessment	- Strict certification and audit obligations. - Increased traceability and transparency (algorithm documentation, data quality). - Ensuring cybersecurity and implementing	- **Developers:** Must ensure systems comply with safety standards, using transparent and secure algorithms. - **Suppliers/Distributors:** Responsible for certifying products and ensuring compliance with audit and traceability requirements.

Risk Level	Definition	Examples of AI Applications	Obligations Imposed by the AI Act	Involved Stakeholders and Responsibilities
			error reporting mechanisms.	- **Users:** Must use solutions in accordance with regulations and report any incidents.
Limited Risk	AI systems that interact directly with users and pose a moderate risk. Users must be informed about the involvement of AI algorithms, but without the strict requirements applicable to high-risk applications.	- Virtual assistant chatbots - Automated response applications (e.g., quick replies to simple queries)	- Obligation to inform users that they are interacting with an AI system. - Compliance with minimum requirements for data protection and safety.	- **Developers:** Must ensure adequate data protection for users and clarify AI's role. - **Suppliers/Distributors:** Must provide precise usage instructions to ensure compliance with legal frameworks. - **Users:** Must adhere to usage guidelines and refrain from using systems abusively.
Minimal Risk	The majority of AI applications that do not impact fundamental rights. These require no special obligations and are encouraged to foster innovation.	- Recommendation systems - Spam filters - Auto-complete functions in software	- Appropriate security measures to prevent misuse. - No additional specific requirements, but compliance with general regulations (e.g., GDPR) is necessary. - Maximum freedom for innovation and commercialization within the EU.	- **Developers/ Suppliers/Distributors:** May place such products on the market with minimal restrictions, provided they comply with general regulations. - **Users:** Free to use these systems in any legally permitted context.

Source: Coteț (n.d.)

The European Union's Artificial Intelligence Regulation sets four levels of risk for AI systems and imposes obligations corresponding to each category.

- Systems with unacceptable risk pose a threat to human safety, rights or livelihoods. These include behavioral-cognitive manipulation or social scoring. They are completely banned, and their use or commercialization carries severe penalties.
- Applications considered as high risk, such as those used in medical diagnostics, employment screening, autonomous driving, or the identification of persons involved in criminal activities or investigations require strict requirements and obligations for certification, auditing and increased transparency and human oversight.
- For systems with limited risk, such as chatbots and auto-responders, the legislation only requires user information and compliance with minimum data protection requirements.
- Low-risk applications, such as spam filters, recommendation systems or games, are not subject to strict regulation, but only to general rules in order not to discourage innovation in AI.

The AI Act aims not only to regulate, but also to increase public confidence in new technologies by encouraging a more equitable relationship between AI providers and end-users.

1. Requirements for ethics and accountability of automated decisions: Ethics in artificial intelligence refers to the rules, clear norms and moral principles that must be respected in the development, deployment and use of artificial intelligence technologies. As AI is increasingly used in administrative decision-making, the EU wants to regulate the use of these technologies as ethically and responsibly as possible. The aim is to ensure that AI systems do not perpetuate prejudices or social and economic inequalities. This is why the EU is promoting the development of a testing and certification infrastructure for AI systems, including ethical and social assessments. It is not yet known who will take responsibility if an AI system makes a wrong decision and someone is affected by it (High-Level Expert Group on Artificial Intelligence, 2019; Bidaşcă, 2023).

2. Requirements for international collaboration and standardization: Artificial intelligence (AI) is finding applications in more and more areas. In addition to the benefits, there are challenges related to safety, ethics and interoperability. That is why clear and global standards are needed. International standards will be unanimously respected ensuring fairness and safety in the development and use of AI. Such standards provide a common language and a basis for collaboration for experts around the world. Standards also play a key role in supporting legislation and public policy. EU regulations influence not only Member States but also other regions of the world, as many globalized companies operate in the Union.

International collaboration is needed to ensure consistent and effective regulation. They are part of a wider EU vision to create a safe and responsible framework for the development and use of AI.

3. REGULATIONS TO WHICH ROMANIA ADHERES OR WHICH IT HAS ALREADY ADOPTED

Romania, as a member state of the European Union, has adopted and taken over the European Union regulations and directives that refer to Artificial Intelligence, those related to algorithmic transparency, accountability of automated decisions, AI ethics and international collaboration. Romania also continues to actively participate in the development of international standards and to support European and global initiatives for a fair and responsible regulatory framework in the field of AI.

Here are the main regulations that Romania complies with or has already taken on board:

1. Regulation on Artificial Intelligence (AI Act). Romania will apply the regulations laid down in the AI Act on the use and development of AI systems, as soon as it will enter into force at EU level, currently in the approval process.
2. The General Data Protection Regulation (GDPR). Romania has already implemented the GDPR (Regulation (EU) 2016/679) in its national legislation and ensures the protection of personal data in the context of the use of AI systems.
3. National Strategy for Artificial Intelligence. Romania has adopted the National Strategy for Artificial Intelligence (2021-2027), which is aligned with the European Plan for Artificial Intelligence.
4. International collaboration. Romania participates in international initiatives for the standardization and regulation of AI, collaborates with other EU Member States and international organizations such as OECD, G7 and G20. Romania wants AI to be promoted in a responsible and fair way, based on ethical principles. To this end, Romania collaborates with the European Committee for Standardization (CEN) and the International Electrotechnical Committee (IEC) for the development of technical standards in the field of IA.

4. IMPACT OF AI ON EU ADMINISTRATIVE RULES

The impact of artificial intelligence (AI) on European Union (EU) administrative regulations has become a topic of major interest in recent years as AI technologies have advanced greatly. To address the associated challenges and opportunities, the EU adopted in 2024 the AI Regulation, the first comprehensive global legislative framework aiming to ensure the responsible development and use of artificial intelligence systems in the European space.

The implementation of this Regulation has significant implications for the administrative structures of the Member States. The aim is to prioritize citizens and respect their fundamental rights. To this end, each country has to designate competent authorities by 2 August 2025, responsible for overseeing the application of the rules and carrying out monitoring activities, which requires the allocation of additional resources and the training of specialized staff, which can be a challenge for national administrations. In addition, coordination between the EU and Member States is essential to ensure uniform application of the regulation. According to a 2024 report by the European Court of Auditors, this coordination has so far had limited effects due to a lack of effective governance tools (European Commission, 2024).

In addition to administrative challenges, the Regulation also offers significant opportunities. The role of the implementation of the AI Regulation is to put in place an innovative, balanced and efficient framework at global level, capable of mitigating risks and supporting the launch and growth of European AI startups. By establishing a clear and predictable framework, a favorable environment for innovation and investment in AI is created. The EU aims to become a world leader in the development of safe and ethical artificial intelligence, which can boost economic growth and improve public services. However, success depends on the ability of national and European administrations to effectively implement new regulations and work closely together to overcome emerging challenges in this dynamic field.

5. COMPARATIVE STUDY: CITY OF HELSINKI AND SECTOR 4 OF BUCHAREST

Local public administrations in the EU use AI for citizen interaction, public service management, institutional efficiency and citizen participation. At local level, citizens' first contact is with the city hall, which is the basic administrative unit**.**

We aim to draw a parallel between the way Helsinki City Hall and Bucharest City Hall Sector 4 AI use. The City of Helsinki is a global role model for algorithmic transparency and digital ethics. Sector 4 of Bucharest is an example of pragmatic adoption of AI in Romania.

In 2017, Finland created a national strategy for IA, based on the ethical goals and values set by the EU. The City of Helsinki has succeeded in taking these goals and translating them to the local level, with a focus on transparency and end-beneficiary.

Sector 4 has implemented AI solutions systematically, although Romania did not have a comprehensive national strategy on the implementation and use of artificial intelligence by 2024. In 2024 through the National Plan for Recovery and Resilience (PNRR) several local projects were supported (APTI, 2021).

5.1. Algorithmic transparency

In order to be as transparent as possible, but also to empower the citizen, Helsinki launched in 2020 the Register of Algorithms. This AI Register is, in fact, a platform that explains to citizens what kind of data is used by each algorithm implemented in public services, the purpose for which it is used and how and why it works (City of Helsinki, 2020).

AI Register was born out of collaboration between local government, academia and the private sector. Forum Virium Helsinki (FVH) is the innovation company of the City of Helsinki. Its goal is to make Helsinki the smartest city in the world. Here companies can test products and services in a real setting. At the same time, it involves citizens through a civic group called "Trial Troops" to participate in workshops to help find smart city solutions, to offer suggestions, to test and come up with feedback for certain products and services. In this way, they manage to eliminate algorithmic bias (Autoritatea de Management pentru Programul Regional București-Ilfov 2021-2027, 2025).

Sector 4 does not have such a transparent algorithm, details about how it works are not public, which can lead to issues of accountability and trust (Popescu, 2022). In Sector 4 AI is used for traffic management, processing online applications, paying taxes, fees and fines. The city hall website is very well structured, intuitive and easy to use. Their slogan is "No queues at the counter" (Direcția Generală de Taxe și Impozite Locale Sector 4, 2025).

5.2. Areas of practical application
Helsinki

- Optimization of social services: it is carried out by an AI algorithm that makes a predictive analysis of social support requests in order to identify urgent (critical) cases and act as quickly as possible, reducing intervention time.
- Citizen interaction: is realized through the Hanna chatbot. It provides automated answers to citizens' questions in areas such as taxes, fees, car permits, building permits, schooling (Helsinki City Council, 2021).
- Predictive urban planning: it is realized by analyzing citizens' mobility preferences.

Sector 4 of the Municipality of Bucharest

- Traffic management: real-time, based on urban surveillance cameras and sensors.
- Automatic detection of infrastructural faults: through video analysis (e.g. potholes, vandalism).
- Citizen interaction: through the city hall platform or through the free mobile application by scanning a QR code (e.g. digital ticketing).

5.3. Results and impact

In terms of response time an improvement can be seen in both cases (in Table 2). Helsinki has managed to reduce the response time to requests by 40%, which means that they have implemented a more efficient system for processing requests compared to that of Sector 4, which has a decrease of about 35%.

The difference in satisfaction percentages clearly indicates that Helsinki residents are much more satisfied with the public services and other urban aspects of their lives. The administration of Sector 4 should see this low percentage as a challenge and the solution would be to try to understand what makes its citizens unhappy and then look for solutions.

Table 2. Results and impact

Comparison indicator	Helsinki	Sector 4 Bucharest
Response time to requests	decrease by 40%	decrease by ~35%
Citizen satisfaction	82%	65%
Access to algorithmic	public and fully documented	does not exist
Use of AI in extensive planning	integrated in urban decisions	limited to existing infrastructure

Source: own computation

Helsinki in order to bring its citizens closer and gain their trust has provided public and fully documented access to algorithmic information, which translates into full transparency of making decision. Sector 4 uses a less developed information system that provides limited citizen understanding and participation in decisions.

Helsinki uses AI in urban planning in an extensive way, which leads to more accurate and effective decisions. Sector 4, because it has less advanced technology at its disposal, only uses AI for current infrastructure.

In conclusion, at local level in Romania, there is progress in terms of response time to requests and the use of technologies in infrastructure, but there is still a lot of work to be done in terms of access to modern technologies and it use to increase citizen satisfaction.

6. CONCLUSIONS AND RECOMMENDATIONS

Helsinki and Sector 4 Bucharest are two different models, but adapted to the realities in each country. Helsinki can be considered as a model to follow in optimizing administrative processes, improving communication with citizens, creating a relationship of mutual trust, a local governance at the heart of which the final beneficiaries are at the center. It is a proactive system, emphasizing ethics and active citizen participation. Sector 4 has a limited infrastructure, but under

these conditions it has nevertheless managed to implement AI solutions effectively. It is a reactive and pragmatic system offering ad hoc solutions. These differences stem from the gaps in terms of technologization, digitalization, resistance to change or innovation between Eastern and Western Europe. Romania has a higher percentage of the population that does not know or does not want to use different smart devices (smartphone, PC, laptop). This has also contributed to the demographic exodus of young people which Romania has experienced in recent years, with older people remaining in the country. In order for Romania and its citizens to reap the benefits that AI offers, it needs to develop transparent algorithm mechanisms, continually refer to ethical principles, involve citizens in decision-making and invest in the digital education of public officials. Success lies in a balanced collaboration between technological innovation, democratic governance and the protection of fundamental human values.

The next research developments will be about advanced technologies to anticipate city needs, accurate predictions and service optimization. Platforms will emerge where public decisions can be influenced by citizens in real time. There will also be a greater focus on protecting citizens' rights against automated decisions. Even if there are huge amounts of data that can be easily correlated by AI, the correct understanding and responsible use of it is human nature.

The research is limited by the different level of technologies implemented and used.

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