

# LEGAL FRAMEWORKS FOR ARTIFICIAL INTELLIGENCE: A COMPARATIVE ANALYSIS OF ROMANIA, THE EUROPEAN UNION, AND INTERNATIONAL PERSPECTIVES

**Lecturer Mihaela POP, PhD.**

Titu Maiorescu University, Faculty of Law and Economic Sciences Tg-Jiu, Romania  
*mihaela.pop@prof.utm.ro*

## **Abstract:**

*Artificial intelligence (AI) is already transforming society, and has potential for even greater influence in the future. The field is multifaceted and extensive, encompassing machine learning, robotics, natural language processing, and computer vision, among other disciplines. Currently, limited artificial intelligence (AI) systems are extensively employed, whereas achieving full general intelligence still represents a challenging objective. Governments prioritize AI due to a minimum of three underlying factors. First of all, it may help government itself run better and promote economic development. Second, if not created defensively, it can provide authority and compromise national security. Third, it begs moral questions about how sentient artificial intelligence systems should be treated and how AI will affect employment. Public policies are necessary to facilitate the advancement and implementation of AI technologies that optimize their societal and economic advantages, including improving the transparency, reliability, and responsibility of AI systems. Legislation can serve as a means to support special interests that are unable to safeguard their own interests. This includes vulnerable customers or the general public that may experience job loss or reduced income as a result of AI applications. The regulatory challenge is to design rules that protect the public interest and the interests of the affected parties while at the same time permitting the process of technological innovation to flourish and not hindering the productivity growth that AI potentially brings about.*

**Keywords:** *Artificial Intelligence, Innovation, AI Regulation, Trustworthy AI, EU AI Act.*

## **Introduction**

Artificial intelligence (AI) has immense promise as the upcoming wave of technological progress. It possesses the capacity to improve several areas of the economy through the augmentation of efficiency, precision, and operational skills. Nevertheless, artificial intelligence (AI) also presents new and unique regulatory obstacles that governments must confront and address. From an economic standpoint, if there are no horizontal spillovers, industry-specific restrictions, or remedies for externalities, there is no need to create public policies to direct the overall growth of AI. However, these types of market imperfections or distorting effects characterizing the use of AI are likely to be present and call for regulatory intervention. Ex ante regulation in the field of AI is required for preventing market failures or undesirable outcomes.

“The global race to establish technological leadership in artificial intelligence (AI) is escorted by an effort to develop trustworthy AI”. [1] Different approaches exist, many researches are developed to regulate a possible AI market. The European Commission, one of the few institutions that are perceived as competent in this respect, takes different other documents on the subject, having a position of a sort of initiatives hub. However, it is the need of the internal market that drives the concern. In Romania, The Romanian Ministry of Research, Innovation and Digitalization (MCID) has published in decisional transparency the updated version of the National Strategy in the field of Artificial Intelligence (SN-IA) 2024-2027, accompanied by the draft Government decision for its adoption and the supporting note. [2] As the scientific and technological progress goes on, different innovations pop up in different areas. Research, either alone or following challenge-based or mission-oriented research approaches, produces both amazing successes and sometimes unexpected outcomes, and even failures with catastrophic effects. Legal frameworks are established in different fields, winding the possible effects of these novelties. With a juridical design, not too easy to draft, taking into account many different aspects, sometimes regulating innovations which have not yet materialized. This pattern is currently characterized in the field of artificial intelligence. In the end, it is for all of us, humans, to make the best use of the boon that technology is.

Background and significance of AI regulation have a special legal standing and have certain implications. “For all these innovations, the digital democracy literature has made limited theoretical advances in recent times.” [3] On one hand, like any other expertise, the IA should not be presented to a low-exert, application task that does not have significant deontic aspects before expertise reports that threshold of specialization. The purpose of legislation is to establish the structure of the low-level deliberative system framework in which political actions occur. Preserving the political authority to make judgments about significant adverse consequences in regulation would facilitate effective public policy implementation, establish trustworthiness, and legitimate these decisions within the larger community of those being controlled. It will also delineate political authorities in a controversial and prolonged process of problem-solving. Transforming legislation raises at least two special questions. What laws are needed in terms of substance? In what ways should this law be structured and formulated in order to shape

the environment reflecting democratic values, to be acceptable and functioning policies with increasing benefits, and to structure decisions made by the governance system?

The topic of AI has become one of the most pressing topics worldwide. Low-level tasks are already performed with the help of automation. Furthermore, Machine Learning also allows repetitive tasks to be done with less expenditure of human resources. Political choices in the past were solved within the framework of government or civic action. The more important the decisions, the higher the level of public deliberation. AI places these choices under dispute. The decisions should be taken beforehand, before technical expertise reaches a high level of specialization.

### **National Laws and Regulations**

Artificial Intelligence represents a more and more important reality whose effects must be regulated. The European Union's high regulatory standards have contributed to the necessity of keeping EU Member States and their legislative measures up to date. In this respect, the measures and instruments at Member State level must reach the set standards, having to support both the respect of various rights and ensure the appropriate reinforcement of such rights. At national level, just a few laws explicitly refer to AI and regulate matters related to AI fields. AI laws, when naming such technology, usually refer only to investment measures in University Research and Development Institutes. Legal frameworks are, however, needed to raise awareness among customers and trigger demand.

### **Romania**

"The national strategy in the field of Artificial Intelligence is based on the concrete actions proposed at the level of the European Union, but it is also anchored in the current situation and the Romanian context, both in terms of AI and the main related fields: research and development, innovation, the competitiveness of the economy, education, the digitization of the administration and society" [4], says a press release from the Ministry of Research, Innovation and Digitalization. "Furthermore, the solutions provided by the artificial intelligence tools will help in creating better communication with the public administration and finding better solutions to citizens' problems." [5]

"We made sure that Romanians' rights will be protected online. The strategy benefited from an extensive public consultation, starting from September 2023. The proposals of the Romanian Committee for Artificial Intelligence and of the other organizations were thoroughly analysed and are being integrated. AI is the future of the global digital economy, and Romania will be part of this future, capitalizing on the country's extraordinary potential in IT and emerging technologies", said Bogdan Ivan, Minister of Research, Innovation and Digitization, quoted in the press release.

Romania primarily follows the European Union's regulations regarding AI. On March 19, 2024, the legislative proposal on Artificial Intelligence was registered for debate in the Senate. The present draft law [6] aims to lay the foundations for the implementation, use, development and protection of Artificial Intelligence in Romania, in the context of the development of new technologies and the implementation of increased security measures for cyber space at the national and European level.

### ***European Union***

The European Union has been actively engaged in ongoing discussions on the regulation of artificial intelligence. These discussions began in 2020 and explored the potential and risks posed by this technology. A first set of conclusions is found in its White Paper on Artificial Intelligence, launched in February 2020. This document advances three regulatory options: maintaining the status quo, strengthening existing legal frameworks, or creating a new legal framework exclusively for artificial intelligence.

In April 2021, the European Commission proposed the first EU regulatory framework for AI. It provides that AI systems that can be used in different applications are analysed and classified according to the level of risk to users. Different levels of risk require more or less regulation. Once in force, these will be the world's first rules on AI.

On 13 March 2024, the European Parliament formally approved the Artificial Intelligence Act (the AI Act). [7] "An AI system is a machine-based system designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments". [8]

The AI Act implements a risk-oriented strategy for regulating AI, categorizing AI systems into several danger levels, each requiring a distinct degree of legal action.

Regarding generative artificial intelligence, which has the ability to generate text, sounds, or images as needed, regulations will be enforced on all users to ensure the quality of the data used in developing the algorithms and to ensure compliance with European copyright laws. Furthermore, developers must explicitly indicate that the sounds, visuals, and words generated by AI are of artificial origin. In addition, systems categorized as "high risk" in sectors such as critical infrastructures, education, human resources, and public order will be required to fulfil certain obligations. These obligations include ensuring that the machine is under human control, preparing technical documentation, and establishing a risk management system.

The provisions of the law are ambitious and are inspired by four principles: the protection of fundamental rights, the guarantee of safety and quality, enforcing non-discriminatory treatment, and fostering a fresh market dynamic. These principles are reflected in objectives comprising definitions, sustainable upgrade sectoral ambitions, risk level definitions, risk assessment at Union and national level, specific obligations, transparency, data governance, market surveillance, conformity assessment and supervision regimes, complaints and remedies, coercive measures, funding and liabilities, ensuring freedom of speech, and the impact of human capital.

### ***International Perspectives***

"Artificial intelligence (AI) has become a global policy issue that is actively governed by international actors producing governance indicators." [9] One of the most important international perspectives on the AI issue is the one developed by the OECD and its member countries, which are among the largest economies in the world. Many of the conclusions of the international projects refer to the idea that AI – especially when it comes to ethical issues – cannot be also addressed at the level of legislative actions taken by some states, drawing attention about the need of cooperation between states in this regard. In line with this rationale, the OECD has developed the AI Policy Observatory, and the AI Policy Observatory network. The network is designed to be a forum for dialogue

about AI policies and challenges and brings together researchers, practitioners, and participating countries to foster collaboration and the exchange of information.

A significant number of initiatives and projects on AI have emerged over the years, at an international level. It is important to note that the international attention on AI ethics is not new; a United Nations agency, the United Nations Educational, Scientific and Cultural Organization (UNESCO), organized its first international consultation on ethical guidelines for AI in 1978. In 2016, the EGE presented a Declaration of the International Global Bioethics Initiative (G7) that focuses on AI, robotics, infectious diseases, water scarcity, and disaster response.

The implications of AI extend beyond the realm of technology and innovation. They have deep implications for society as a whole. The questions surrounding the ethical dimensions of AI are complex and multifaceted. Issues such as data privacy, algorithmic bias, and autonomous decision-making raise concerns that require careful consideration and international collaboration.

With the exponential growth of AI applications and their increasing integration into various aspects of our lives, it is crucial to ensure that these developments align with ethical principles and respect fundamental human rights. International cooperation, dialogue, and the exchange of ideas and best practices play a vital role in shaping the trajectory of AI and its impact on society. As we continue to navigate the evolving landscape of AI, it is crucial to prioritize ethical considerations and foster international collaboration to shape an AI-powered future that benefits all of humanity.

### **Key Legal Principles in AI Regulation**

Legal theory underscores the existence of numerous legal principles which should guide the formation of legal rules with the aim of obtaining a fair balance between the benefits and the dangers of artificial intelligence. These principles, such as the precautionary principle, the principle of respect for private and family life, home, and communication, the principle of proportionality, the principle of differentiation, the principle of access to data and information, the principle of fair administration and partnership, the principle of transparency, the principle of decentralized ethics, the principle of accountability for decisions, and proper preparation for disputes, are often contested in

relation to AI regulation. Although the principles must necessarily be made specific in relation to AI, it is important to consider them as they play a role in the general framework of legal obligations. "As AI technologies progress, there will be further (and even amplified) legal issues, vulnerabilities and impacts on human rights that will need further monitoring and research." [10]

An AI framework should require monitoring and transparency obligations upon operators of AI, as well as an obligation to provide the competent authority with customary records on the measures put in place for the control, calibration, and stability of the algorithms, including in case of self-learning mechanisms. Transparency obligations go hand in hand with legal liability. Liabilities for harm caused by AI are crucial for protecting the individuals and businesses that rely on this technology. They likewise have a deterrent effect on operators conducting inadequate testing.

An extensive transparency and accountability obligation set out by the relevant authorities and targeting AI developers or operators, alongside the fact that the obtaining of information on AI's limitations reverts to the user seeking the information and not to the owner selling or leasing AI products, would ensure the right to information on the part of consumers and employees, and of generally all individuals relying on an AI technique. Such a transparency obligation will have property or copyright law implications, but it is generally a necessity. The GDPR goes in this direction, by dealing with automated individual decisions and personal data processing. The general data protection regulation set out specific rights that enable the data subject to have complete and transparent information on the logic involved, on the consequences that might arise from such processing, and particularly on the automated processing. It also allows a certain control, and in certain cases a right to question the decision.

International cooperation is critical in AI, and governments must work together to keep everyone safe and competitive. Some of the proposed principles touch on issues related to robotics, however they do not address them in a unitary manner. The development of artificial intelligence cannot yet be organized legally, but the inclusion in definitions of some principles and objectives, which can guide us toward the use of transparency-enhancing technology and help to resolve the responsibility of the various actors involved. With the advent of massive processing capabilities, parallel data

processing, and a variety of algorithms associated, we are now talking only about a tool that processes data and, in conjunction or not, can produce direct legal effects, decisions, or materials with significant legal implications. Potentially all processed data can be analysed, and behavioural predictions can be drawn from them, apparently motivated by an ethical approach, very modern, and no less interested in the risks of profiling and possible automation bias.

### **Ethical Considerations in AI Development**

The international community has started to make efforts not only in establishing minimal safety requirements for AI, but also in providing direction for higher level principles, including those referable to the field of ethics. The U.N. is looking at ethical issues of AI and the European Council set up a dedicated ethics body for AI development. Its main goal proposed principles to be uniformly applied by all actors involved. The European Union has launched an Artificial Intelligence regional development strategy which includes funding for data-driven Artificial Intelligence. The European Economic and Social Committee has published an opinion on AI, focusing on the ethical, legal, and socio-economic implications of AI. “The stated aim was to define policies and regulatory frameworks that ensure fair use of AI, with respect for human rights, built around four values to support ethical AI: respect for, protection of and promotion of human rights and fundamental freedoms and human dignity, environmental and ecosystem prosperity, ensuring diversity and inclusion, and living in peaceful, just and interconnected societies.” [11] Romania has also prepared a law on Artificial Intelligence. The paper establishes important ethics guidelines for AI development. The guidelines propose to establish hard law mechanisms including liability regimes for when things go wrong, as well as soft law mechanisms for them not to. Finally, the European Commission has already published a report with ethical guidelines for a trustworthy AI. The guidelines include product safety directives, data processing procedures, and transparency.

As it currently stands, the international and the EU legal framework do not have specific rules directed at AI ethics. However, this must be taken into consideration when discussing any new legislation, and legislative initiatives are already in place. Ethical AI development is not only the right thing to do, but its neglect could bring unwelcome legal



consequences to the parties involved. Encouraging responsible AI development should be an important concern to any national or international authority, both to protect consumer rights but also to ensure fair competition among companies.

AI applications tend to build both positive and negative dependencies of human activity and interaction. With this in mind, decision-makers, engineers, and users must collectively acknowledge and also study the limitations and negative consequences of implementing AI-based decision support and autonomous decision-making technologies. Knowing the limitations and potential weaknesses of real-time automation can generate values regarding the right to information, dialogue, and education from a technology-ethical perspective. The cost of justifying significant error rates as an unavoidable but inevitable price for an AI intervention is to create a discriminatory and unequal society, and any "only black box or only white box AI" discussions are a dangerous oversimplification of AI issues that must be addressed. Justifying significant error rates with arguments such as "humans make mistakes too" could provide a strict alibi for the source and repeat-loop of AI discrimination responsible for training foundation training data with a built-in gender, racial, or ethnic bias. The combination of technological, legal, and organizational modeling can make a difference in establishing and implementing standard tools to mitigate the bias and discrimination generated by AI.

AI systems can reflect or enhance existing biases and inequality in society. For example, machine learning models trained on historical data may incorporate biases present in the training dataset and processes. Moreover, the algorithm can "learn" from behavioural triggers, committing deviations that induce or further deepen bias. There is substantial evidence of biased automated decision-making systems being used in justice, education, employment, marketing, and banking integration. This impact can be direct, resulting in biased decisions. They can be indirect, for example, when machine learning algorithms reinforce existing biases and prohibit voice and opinions from specific groups. The development and deployment of AI systems that can continue and exacerbate biases or discrimination against individuals or groups may lead to a violation of national and international legislation as to the protection of fundamental human rights. "These harmful outcomes, even if inadvertent, create significant challenges for cultivating public trust in artificial intelligence". [12] The potential impact on the right to non-discrimination and the

respect for diversity, on the rights to social protection and exclusion, on the right to effective judicial protection, on the right to freedom of expression and participation in civic and political life, and access to public services represents justified ethical and moral implications.

### **Enforcement Mechanisms**

The truth of the matter is that enforcement stands out as a prerequisite at any level of the artificial intelligence (AI) regulatory process, and although it may solicit penal remedies, they belong to the last stage of the remedial sequence acknowledged in almost every legal system. Between warnings and sanctions, the law accommodates a variety of regulatory measures, enforced by a panoply of entities. Consequently, if the problem of prevention concerns (in the first instance) juridical actors, the problem of compliance (in the second instance) regards juridical subjects. To the first category pertains the capacity to express eradicated motives, and to the second, the actual resistance to environmental stimuli that promote aberrant behaviour. In practical effect, a new regulatory framework will not produce the respect of the rules by its mere existence, but only if (more or less effective) enforcement mechanisms are created.

The concept of enforceability is at the antipodes of international law, which lacks a central authority to subjugate compliance. The main reason is the resistance of states to international authority, as they wish to keep it within the domestic sphere. However, the domestic sphere has also made inroads in the international sphere as the philosophy of law can be converted into a coherent rationale for an original enhancement of the enforcement powers of international institutions, which can generally shed light on the problem of regulation of the global artificial intelligence networks.

The AI Act introduces a new framework to ensure the compliance of AI systems with the requirements of the proposed regulation. Importantly, the AI Act obliges economic operators to introduce an internal monitoring system in order to monitor compliance with the new framework before an AI system is put into service, while the provider is also required to appoint a member of the board to establish and maintain the internal monitoring system. The AI Act thus contains the first authorization system for AI on the market. This is a significant departure from the approach of the GDPR, which

predominantly relies on a system of notified data processing. “In GDPR language, the company would be the ‘data controller’ and the main focus of duties. In the Act, it remains the sole responsibility of company to obtain conformity assessment before the system is put on the market.” [13]

The AI Act promotes compliance by notifying and consulting the relevant supervisory authority if a provider is planning to introduce or amend an internal compliance monitoring system. The supervisory authority will then make a preliminary assessment of the notified system to ensure that it complies with the provisions of the AI Act. The supervisory authority also has the power to consult and be consulted on the principles proposed by the provider which ensure continuous operation under normal conditions. However, the AI Act only refers to "qualified people" who have been appointed by the providers to perform conformity assessments. The supervisory authority considers these principles to be adequate and directly relevant to the AI Act in order to minimize innovations and improve the legislative framework.

### **Conclusion and Future Trends**

To achieve such regulation, the first challenge to international law is to gain consensus from various international actors of different backgrounds. Although various international groups have engaged in discussions on AI issues, the speed and concreteness of progress are quite low. In the future, new technologies (brain-computer interfacing, generalized machine learning) could arise that change the estimation about what AI technology is, in comparison to already widely held conceptions. In light of these facts and considering the increasing levels of sophistication and risks of AI technologies, the idea of drafting and adopting an international legal framework on AI to govern potential harmful use or misuse of such technologies is timely, and perhaps even urgent.

Importantly, both the European Union and Romania have taken a leadership role in crafting and implementing these regulations. Specifically, Romania has encapsulated within its national legal frameworks key EU-level legislation on AI. Moreover, in the process of preparing the pre-national white paper proposals for the "Romania AI Strategy", all aspects are covered. Efforts within AI legal parameters are expected to continue and might lead, at some point, to the filling of gaps or re-evaluation, possibly at

the international level. "However, while regulators are rushing to adopt their own set of requirements for Trustworthy AI, today these are still primarily based on voluntary guidelines and hence not enforceable when actual harm ensues." [14]

However, even though AI is a thematic with international implications, there is no global approach regulating it. A major impediment in adopting such regulatory initiative is the level of available expertise and resources that states are willing to allocate. Several regions have started considering AI regulation, based on different regulatory approaches: unilateral, bilateral, and regional. These different approaches are, at the same time, limited in their regulatory reach, and they present deficiencies in addressing what are called the Black Box Problem, when AI utilization presents risks and harms that are known to occur, but human operators still are not able to regulate it properly, as well as the Human Moral Problem, when AI is used in positions or too important roles.

There have been numerous issues emerging in relation to AI and their ethical, societal, and legal implications have become a topic of interest for academic and non-academic communities. As the potential applications of AI seem boundless, it is likely that its legal regulation will also need to be complementary, while trying to resolve some of the most pressing issues. AI regulation will, therefore, shape the development of this technology in the years to come. The United Nations has also suggested that the international cooperation of states in the area of AI is essential.

#### References:

- [1] Laux, J., Wachter, S., and Mittelstadt, B. "Trustworthy artificial intelligence and the European Union AI act: On the conflation of trustworthiness and acceptability of risk." Regulation & Governance (2024). [wiley.com](https://onlinelibrary.wiley.com/doi/10.1111/rogi.12700)
- [2] <https://www.mcid.gov.ro/transparenta-decizionala-2/>
- [3] Deseriis, M., 2021. Rethinking the digital democratic affordance and its impact on political representation: Toward a new framework. New media & society. [sns.it](https://onlinelibrary.wiley.com/doi/10.1111/nms.12400)
- [4] <https://www.mcid.gov.ro/transparenta-decizionala-2/>
- [5] Vrabie, C. "E-Government 3.0: An AI model to use for enhanced local democracies." Sustainability (2023). [mdpi.com](https://www.mdpi.com/2076-3433/15/12/6000)
- [6] <https://www.senat.ro/legis/PDF/2024/24b154FG.PDF?nocache=true>
- [7] [https://www.europarl.europa.eu/doceo/document/TA-9-2024-0138\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-9-2024-0138_EN.html)
- [8] European Parliament. Artificial intelligence act: Briefing. Available at: Artificial intelligence act (europa.eu)
- [9] Erkkilä, T. "Global indicators and AI policy: Metrics, policy scripts, and narratives." Review of Policy Research (2023). [wiley.com](https://onlinelibrary.wiley.com/doi/10.1111/rogi.12700)
- [10] Carrillo, M. R. "Artificial intelligence: From ethics to law." Telecommunications policy (2020). [HTML]
- [11] Duminica, R. and Ilie, D. M. "Ethical and Legal Aspects of the Development and Use of Robotics and Artificial Intelligence. Protection of Human Rights in the Era of Globalization and Digitisation." JL & Admin. Sci. (2023). [jolas.ro](https://www.jolas.ro/)

- [12] Schwartz, Reva, Reva Schwartz, Apostol Vassilev, Kristen Greene, Lori Perine, Andrew Burt, and Patrick Hall. Towards a standard for identifying and managing bias in artificial intelligence. Vol. 3. US Department of Commerce, National Institute of Standards and Technology, 2022. [dwt.com](https://www.dwt.com)
- [13] Edwards, L. "The EU AI Act: a summary of its significance and scope." Artificial Intelligence (the EU AI Act) (2021). [adalovelaceinstitute.org](https://adalovelaceinstitute.org)
- [14] Smuha, N. A. (). From a 'race to AI' to a 'race to AI regulation': regulatory competition for artificial intelligence law. [kuleuven.be](https://www.kuleuven.be)