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ARTIFICIAL INTELLIGENCE IN THE EUROPEAN UNION. LEGISLATIVE BENEFITS AND CHALLENGES OF NON-COMPLIANCE

Abstract:	*The legislative benefits of artificial intelligence (AI) are multifaceted, driving innovation and economic growth while safeguarding citizens' rights. Clear regulations foster a trustworthy environment for investments, facilitating job creation and enhanced efficiency across various sectors, such as healthcare and education. For instance, AI can improve medical diagnostics through advanced data analysis, leading to the discovery of new treatments. The General Data Protection Regulation (GDPR) exemplifies the EU's commitment to protecting personal data, thereby boosting public trust in technology. Furthermore, legislation promotes ethical AI solutions, addressing social and moral implications to prevent abuses. Standardization and interoperability enhance international collaboration and efficiency among AI systems. However, non-compliance with these regulations poses significant risks, including security breaches, discrimination, and severe legal consequences. Organizations face substantial fines for violating laws like GDPR, which can reach up to 4% of global annual revenue. This uncertainty may hinder innovation and complicate international partnerships. Ultimately, while the European AI regulatory framework presents substantial opportunities for economic and social advancement, it is crucial that stakeholders adhere to these standards to ensure ethical and responsible use of AI, safeguarding fundamental rights and fostering sustainable development in society.*
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Introduction

Artificial Intelligence (AI) is transforming different sectors across the globe, including the European Union (EU) as the forefront of this technological revolution, recognizing the potential of AI to drive economic growth, improve public services, and to enhance the quality of life. In this context, the biggest challenge is to provide a legislative frame, concerning compliance and the risk associated with no-compliance. The EU aims to create a framework and to take a proactive approach of AI regulation that ensures the safe and ethical use of AI technologies. AI act represents one of the cornerstone legislative measures, representing the world's first comprehensive law on AI[1]. One of the main purposes is to promote innovation and trust, by establishing rules and standards, I a clear manner, expecting to boost public and business confidence in AI technologies,

[1] European Commission, *Artificial Intelligence in the European Commission,* Brussels, 2024, https://commission.europa.eu/system/files/2024-01/EN%20Artificial%20Intelligence%20in%20the%20European%20Commission.PDF (19.11.2024)

accelerating the integration and adoption into various sectors[1]. Non-compliance can also lead to significant reputational damage. In an era where consumers and stakeholders are increasingly concerned about ethical practices, being found in violation of AI regulations can harm an organization's public image and erode trust[2]. Ensuring compliance with the AI Act requires organizations to implement robust governance frameworks, conduct regular audits, and maintain detailed documentation of their AI systems. This can be resource-intensive and may require significant changes to existing processes and systems[3].

AI theoretical and historical frame

Artificial intelligence is defined as a subfield of computer science dedicated to the exploration of computer capabilities that exhibit behaviors analogous to those of humans. The inception of AI signifies a pivotal advancement in the technological evolution of humanity. Initial concepts of AI emerged in the 1950s, with subsequent technological progress accelerating developments in this domain. The origins of artificial intelligence can be traced back to Alan Turing[4], a prominent logician and computing pioneer. In 1935, Turing published a foundational paper detailing the design of a computational machine characterized by unlimited memory and a memory-guided scanning mechanism capable of generating symbols. This scanner was intended to be directed by a set of symbolic instructions. Turing's contribution is encapsulated in what is now known as the Turing machine, and contemporary computers are widely recognized as universal Turing machines. During the Second World War, Turing was engaged in the clandestine code-breaking efforts at Bletchley Park, under the auspices of the UK government. In 1947, Turing delivered a notable public lecture in London, wherein he posited that computerized intelligence possesses the capacity to learn from experience and adapt its own operational instructions. In 1948, he further elaborated on several AI concepts in a report titled “Intelligent Machines,”making references to chess as a critical domain of application. Starting in 1950, Turing established foundational frameworks for the consideration of machines capable of simulating human intelligence, culminating in the formulation of the Turing test.

The Turing test involves a computational entity and two human participants: an interrogator and a respondent. The interrogator poses questions to both entities, striving to discern which responses originate from the computer. Interaction is facilitated through keyboard and screen, with the interrogator issuing detailed inquiries, while the computer may provide misleading responses. The objective of the Turing test is to evaluate whether a computer can emulate human-like cognitive processes. When the interrogator is unable to differentiate between the computer and the human respondent, the computer is deemed intelligent, thereby successfully passing the test. In contemporary contexts, the Turing test serves as a criterion for assessing AI applications, particularly in domains such as voice recognition and image analysis.

The term “artificial intelligence” was formally introduced in 1956 during the Dartmouth Summer Conference[5], where scientist John McCarthy from the Massachusetts Institute of Technology articulated the concept, marking the commencement of a new technological epoch. AI endeavors to replicate human[6] cognitive abilities in reasoning, context comprehension, generalization, and experiential learning. AI systems can simulate specific human-like behaviors, encompassing planning, problem-solving, perception, manipulation, social intelligence, and creativity.

Initial developments in AI were characterized by the creation of programs aimed at simulating logical processes and problem-solving capabilities. Over time, the advent of machine learning algorithms and neural networks has enabled computers to assimilate information and enhance their performance through experiential

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[1] European Commission, *Artificial Intelligece – Questions and Answers*, Bruselles, https://ec.europa.eu/commission/presscorner/api/files/document/print/en/qanda_21_1683/QANDA_21_1683_EN.pdf (19.11.2024)

[2] *Idem*

[3] European Commission, *Artificial Intelligence in the European Commission,* Brussels, 2024, https://commission.europa.eu/system/files/2024-01/EN%20Artificial%20Intelligence%20in%20the%20European%20Commission.PDF (19.11.2024)

[4] https://www.britannica.com/biography/Alan-Turing (20.10.2024)

[5] J. McCarthy, M.L. Minsky, N. Rochester, C.E. Shannon, *A proposal fot the Dartmouth Summer Research Project on Artificial Itelligence*, https://home.dartmouth.edu/about/artificial-intelligence-ai-coined-dartmouth (21.10.2024)

[6] Elena Lazar, *The Law of Artificial Intelligence: A Brief Introduction*, Hamangiu Publishing House, Bucharest, 2024, pp. 22-28

learning. Pioneers such as Alan Turing and John McCarthy have significantly contributed to the establishment of fundamental AI concepts. Early AI programs sought to emulate human cognitive processes, exemplified by the "Logic Theorist" program developed by Allen Newell and Herbert A. Simon, which was capable of resolving mathematical problems. The subsequent evolution of AI saw the emergence of rule-based systems (expert systems) designed to replicate human expertise within specific domains. These systems found utility in various applications, including medical diagnosis and decision support mechanisms. Post-1990, advancements in machine learning techniques introduced new paradigms within AI, with support vector machines (SVM) and decision trees gaining prominence.

Since the year 2000, AI applications have increasingly permeated everyday life, with search engines, online product recommendations, and virtual assistants becoming integral components of user experiences. The rise of deep learning and advanced algorithms following 2010 has yielded successful applications in voice recognition, computer vision, and machine translation. At present, AI is pervasive across numerous fields, encompassing healthcare, autonomous vehicles, cybersecurity, intelligence analysis, and beyond. The continuous refinement of algorithms and technologies is propelling AI towards novel challenges and opportunities. AI encompasses a diverse array of components, including expert systems, natural language processing, neural networks, fuzzy systems, genetic algorithms, and robotics. Expert systems are designed to facilitate computer responses in real-world scenarios, such as diagnosing diseases based on symptomatic inputs. Natural language processing endeavors to decode human language, while neural networks replicate cognitive functions by mirroring neural connections observed in biological systems. Fuzzy systems leverage logical frameworks, and genetic algorithms are inspired by Darwinian principles of evolution.

Traditionally, computers have not been equipped to emulate human behavior. However, with the advancements in AI, there is a concerted effort to achieve increasingly accurate simulations. A prominent example of a robot endowed with AI capabilities is Sophia, developed by a Hong Kong-based company; she is capable of mimicking human facial expressions, engaging in conversation, and responding to inquiries. Nonetheless, despite significant advancements, robots still encounter challenges in object identification through visual data and lack the tactile abilities necessary for physical interaction with objects.

The quintessential human capability is thought. Human intelligence is engaged in a competitive landscape with artificial intelligence; despite the capacity of robots to execute specific tasks swiftly and efficiently, AI does not comprehend information in the same manner as humans do. AI facilitates machine translation across diverse languages; however, these translations often lack the precision and comprehensiveness achievable by human translators. Furthermore, numerous applications convert audio to text but do not possess the ability to interpret the content, rendering them useful primarily for dictation purposes. In the realm of artificial intelligence, neural networks are extensively employed in voice recognition and natural language processing applications. In Romania, the Special Telecommunications Service is seeking to implement AI to enhance response times for emergency calls and establish a speech recognition system. AI applications predominantly utilize programming languages such as LISP and Prolog, which are recognized as foundational languages of artificial intelligence. Based on their capabilities and functionalities, artificial intelligence can be categorized into several distinct types:

Narrow AI (ANI)**:** Often referred to as narrow artificial intelligence, this type focuses on the precise execution of specific tasks. Examples include virtual assistants like Siri and Alexa, which understand and respond to vocal commands. Narrow AI is applied in e-commerce for personalized product recommendations and in healthcare for diagnostic purposes utilizing AI tools. General AI[1] (AGI)**:** Known as artificial general intelligence[2], this type represents the aspiration to develop AI systems that can emulate human learning and understanding capacities. AGI applications are not yet operational, but they hold potential for future applications in healthcare (such as drug discovery) and autonomous vehicles capable of navigating complex traffic scenarios.

Superintelligence (ASI)**:** Currently a theoretical construct, superintelligence is posited to exceed human cognitive capabilities and could be employed in advanced scientific research.

In terms of functionality, AI can be divided into several categories:

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[1]University of Illinois Chicago, *What is (AI) Artificial Intelligence,* https://meng.uic.edu/news-stories/ai-artificial-intelligence-what-is-the-definition-of-ai-and-how-does-ai-work/ (20.10.2024)

[2] Akash Takyar, *Artificial General Intelligence: Key Insights and Trends, Leeway Hertz*, 2024 https://www.leewayhertz.com/artificial-general-intelligence/ (21.10.2024)

Reactive Machines: These AI systems lack the ability to learn from experience and are designed for rapid decision-making in specific contexts, as exemplified by IBM's[1] Deep Blue chess program.

Limited Memory**:** These systems can comprehend human intentions and emotions, as demonstrated by chatbots and virtual assistants in customer service environments.

Theory of Mind**:** Advanced AI systems within this category possess a nuanced understanding of emotions, enabling applications in mental health therapy or interactions with elderly and disabled individuals.

Self-awareness**:** The most advanced theoretical AI system, characterized by self-awareness, remains largely within the domain of science fiction.

The European Council characterizes artificial intelligence as the application of digital technologies to create systems capable of performing tasks that typically necessitate human intelligence. The European Union endorses the development of AI technologies while acknowledging the associated risks and advocating for ethical, human-centered approaches. The EU intends to prohibit the use of AI in scenarios deemed to pose unacceptable risks, including behavioral manipulation, predictive policing, emotion recognition in workplace settings, educational institutions, and social behavior assessments. Furthermore, remote biometric identification systems, such as facial recognition technologies, will face prohibitions, albeit with certain exceptions. The categories of AI delineated by the European Council encompass software-based AI (represented by virtual assistants, search engines, and systems for voice and facial recognition) and embedded AI (exemplified by robots, autonomous vehicles, and drones). AI aspires to decode the intricacies of thought by constructing mathematical models and computational systems that link logical reasoning with experiential learning, thus achieving an understanding of events akin to human cognition.

In conclusion, artificial intelligence represents the evolution of algorithms and models that empower machines to perceive their surroundings and initiate appropriate actions to fulfill designated objectives. These algorithms leverage vast datasets and employ advanced techniques such as machine learning, deep learning, natural language processing, and computer vision. Andreas Kaplan and Michael Haenlein classify AI into three distinct systems: analytical AI, human-inspired AI, and humanized AI. Analytical AI possesses characteristics akin to cognitive intelligence, generating a cognitive representation of the environment and employing prior experiences to inform future decision-making. Human-inspired AI incorporates elements of both cognitive and emotional intelligence, enabling comprehension of human emotions and their incorporation into decision processes. Humanized AI encompasses all forms of competencies, including cognitive, emotional, and social intelligence, demonstrating self-awareness both and in interactions with others.

AI opens numerous avenues for intelligence analysis, enhancing the objectivity and data-driven nature of insights while mitigating cognitive biases that may arise from human analysts. By employing AI, the data collection process can be automated, allowing human analysts to redirect their focus toward more intricate and creative dimensions of intelligence analysis.

Furthermore, AI's capacity for threat detection, analyzing substantial volumes of data across extensive temporal and spatial parameters, proves invaluable in identifying potential security threats, including cyberattacks and terrorism, thereby facilitating the implementation of preventive measures.

AI systems are adept at analyzing and processing information with greater efficiency than humans, offering profound insights into emerging threats.

Moreover, AI enables the deployment of autonomous systems, such as drones, submarines, and unmanned vehicles, facilitating identification, monitoring, and action with a reduced risk to human operators. AI applications are widely utilized in various security-related domains, particularly in identity protection, cloud security, personal data safeguarding, cyber threat detection, investigative processes, and incident response formulation. Artificial Intelligence (AI) has become an essential pillar of technological innovation in the European Union, significantly impacting the economy, society, and security. In the context of the rapid advancement of AI-based technologies, the European Union has adopted a proactive approach to regulating this field, establishing legislative standards aimed at ensuring the ethical and safe use of these technologies. Artificial Intelligence (AI) refers to the capability of systems or machines to perform tasks that typically require human intelligence. These tasks include, among others, processing information, learning from past experiences, speech recognition, data analysis, decision-making, and interaction with users. AI technologies

[1] Tim Mucci, Cole Stryker, *What is Artificial Intelligence,* https://www.ibm.com/topics/artificial-superintelligence/ (22.10.2024)

can analyze large volumes of data (Big Data) in a short time, interpreting written texts through methods similar to human processes (natural language processing - NLP), identifying threats through machine learning, and deep learning.

Moreover, AI enables the automation of time-consuming repetitive tasks, can anticipate future events through predictions, and can detect anomalies in data, thereby contributing to the development of appropriate responses to threats. The European Union's approach to AI emphasizes excellence, trust, respect for fundamental rights, the promotion of research, and ensuring safety. This approach will influence the future of the world we live in. To build a resilient Europe in the digital age, it is essential that citizens, institutions, and businesses benefit from AI in a safe manner. The European strategy for AI highlights the importance of human-centricity and trust, implementing concrete norms and measures. Within the Digital Strategy[1], the European Union has sought to regulate the use of innovative AI technologies, ensuring that they are used responsibly. Starting in 2021, the European Commission[2] proposed a regulatory framework for the use of AI, aiming to assess and classify AI systems based on the level of risk they present to users. The priority of the European Parliament is to guarantee that AI systems in the European Union are safe, transparent, non-discriminatory, and environmentally friendly.

To prevent harmful effects, the use of AI must be monitored by humans, rather than through automated processes. The AI Act[3] establishes specific rules for each level of risk associated with the use of these technologies. AI systems are classified based on their risk level: unacceptable, high, and limited[4]. Systems posing unacceptable risks, which threaten human safety, will be banned. This includes behavioral manipulation of individuals or classifying them based on personal characteristics, such as social scoring.

Facial recognition[5] and biometric systems fall into the same category. There are exceptions for the use of biometric systems for legal purposes, but these require court approval.

Biometric[6] identification systems can be used in cases of serious crimes, but under strict legal conditions. High-risk AI systems affect safety and fundamental rights. They are divided into two categories: those regulated by EU product safety legislation (e.g., aviation, medical devices) and those from specific fields registered in the European Union database (e.g., critical infrastructure management, education). All high-risk systems will be assessed before being introduced to the market and throughout their entire lifecycle. Generative AI, such as ChatGPT, must comply with transparency requirements, including disclosing that content was generated by AI and avoiding the generation of illegal content.

Low-risk AI systems, such as deepfakes, must meet minimum transparency requirements to inform users. Following interactions with applications, users can decide whether to continue using them. The European Parliament recognizes AI as both a threat and a useful tool in combating cyberattacks. The European Union Agency for Cybersecurity (ENISA)[7] will develop an action plan to assess specific threats related to AI. In March 2024, the European Parliament adopted the first law regulating the use of artificial intelligence, aiming to protect fundamental rights and stimulate innovation. The law will come into effect in 24 months and bans on improper uses will be applicable within six months. The goal is to protect fundamental rights, democracy, and the environment while encouraging innovation in AI. Legislation prohibits the use of AI in ways that affect citizens' rights, such as exploiting sensitive personal characteristics. The extraction of facial images from video recordings or the online environment for the purpose of creating facial recognition

[1]European Union Agency for Cybersecurity. *Multilayer Framework for Good Cybersecurity Practices for AI*, June 2023, https://www.enisa.europa.eu/publications/multilayer-framework-for-good-cybersecurity-practices-for-ai (24.10.2024)

[2] European Commission, *Shaping Europe`s Digital Future,* https://digital-strategy.ec.europa.eu/en/policies/ai-people/ (22.10.2024)

[3]Deloitte, *Legea UE privind inteligența artificială. O analiză amănunțită*, https://www2.deloitte.com/ro/ro/pages/about-deloitte/articles/eu-artificial-intelligence-act-deep-dive.html (22.10.2024)

[4]Parlamentul European, Legea UE privind IA: prima reglementare a inteligenței artificiale, https://www.europarl.europa.eu/topics/ro/article/20230601STO93804/legea-ue-privind-ia-prima-reglementare-a-inteligentei-artificiale (23.10.2024)

[5]Eastern Romanian Business Suport Network, *Legea inteșigenței artificiale a fost adoptată de Parlamentul European,* https://een-erbsn.ro/noutati/legea-inteligentei-artificiale-a-fost-adoptata-de-parlamentul-european/ (23.10.2024)

[6] G4Media, *Legislație AI*, https://www.g4media.ro/tag/legislatie-ai (23.10.2024)

[7] Eastern Romanian Business Suport Network, *Legea inteligenței artificiale a fost adoptată de Parlamentul European,* https://www.enisa.europa.eu/publications/multilayer-framework-for-good-cybersecurity-practices-for-ai, (24.10.2024)

databases is prohibited. Judicial authorities may use biometric identification under clear and strictly regulated conditions.

Real-time biometric identification systems require approval, while post-event systems are used under judicial authorization. Citizens may file criminal complaints if high-risk AI systems violate their rights. It is essential for AI to comply with transparency norms and EU copyright legislation. Images and content generated by AI must be properly labeled, and member states must establish regulatory testing spaces. The EU AI Act aims to mitigate risks and create opportunities, ensuring the protection of citizens' rights. In cases of non-compliance with the legislation, significant fines will be imposed, reaching up to 7% of global[1] revenue. By adopting this law, the intention is to reduce risks and increase transparency in the use of artificial intelligence in the European Union. The effects of the law will apply directly in all member states, and updates will be made through amendments to the annexes of the regulation.

The establishment of the Artificial Intelligence Regulatory Authority is a direct consequence of implementing the AI Act. It is essential to create a body that facilitates the application of the specifications of this act, including participation in regulated testing spaces. The European Commission has decided to establish an Office for Artificial Intelligence[2], aimed at strengthening the European Union's leadership position in the field of artificial intelligence. The purpose of this office is to promote the development and use of AI technologies, emphasizing societal and economic benefits while mitigating associated risks. The office will ensure compliance with legislation related to artificial intelligence and stimulate research and innovation in this field, thereby contributing to increased trust in technology.

At the national level, Romania will establish a Coordination Committee for the application of European regulations in the fields of data, digital services, and artificial intelligence. The government has approved, through a memorandum, the establishment of this committee, which will be responsible for monitoring and controlling aspects related to data, digital services, and artificial intelligence.

The committee[3] will include representatives from various institutions, such as: the National Authority for Management and Regulation in Communications, which will oversee the implementation of the Digital Services Regulation (DSA) to ensure safety and fairness in the online environment; the Ministry of Research, Innovation, and Digitalization, which supports the digitalization of public institutions; the Romanian Authority for Digitalization (ADR), which facilitates the implementation of the government cloud infrastructure project through the National Recovery and Resilience Plan[4] (NRRP- PNRR in Romanian language); the National Supervisory Authority for Personal Data Processing; the National Cyber Security Directorate; the National Institute of Statistics (INS); the National Authority for Consumer Protection; the National Audiovisual Council and the Competition Council. By establishing this committee, national cooperation will be promoted to achieve the following objectives:

- Implementing and enforcing relevant legislation, clearly defining responsibilities, especially for interdependent ones;
- Harmonizing the interpretation of existing and future European norms;
- Coordinating market interventions according to specific responsibilities;
- Ensuring compliance with decisions adopted by the parties involved regarding identified issues;
- Exchanging information, advice, and recommendations regarding the implementation and compliance with European norms;
- Organizing events for the exchange of experiences, including meetings with industry representatives and service providers.

Committee members will collaborate in the fields of data management and reuse, defining standards and norms compliant with European legislation, especially in the context of artificial intelligence. Guidelines and recommendations for best practices will be developed, adopting common positions on relevant regulations

[1] *EU Artificial Intelligence Act*, https://artificialintelligenceact.eu/article/99/ (22.10.2024)

[2] Autoritatea pentru Digitalizarea României, *Strategia națională în domeniul inteligenței artificiale 2024-2027,* https://sgg.gov.ro/1/wp-content/uploads/2024/07/ANEXA-1-10.pdf (22.10.2024)

[3] *Cum se pregătește România să țină sub control inteligența artificială?,* https://legalbadger.org/stiri/social/cum-se-pregateste-romania-sa-tina-sub-control-inteligenta-artificiala/ (22.10.2024)

[4] G4Media, *România va avea un comitet de coordonare pentru date, servicii digitale și inteligență artificială,* https://www.g4media.ro/romania-va-avea-un-comitet-de-coordonare-pentru-date-servicii-digitale-si-inteligenta-artificiala.html (22.10.2024)

and promoting them in working groups at the European level. Regarding the legal framework for artificial intelligence, the European Commission aims to support the creation of a regulatory environment favorable to the development of this technology while respecting the fundamental values of the European Union.

The approach to a dedicated legislative act for artificial intelligence requires caution, which has led the European Commission[1] to form a group of experts in responsibility for new technologies and social challenges to develop principles that will guide legislative adaptations at the European and national levels.
AI engineering experts must take responsibility for the social and environmental impact of artificial intelligence systems on current and future generations. AI thus becomes an essential tool for collaboration with human action, aiming to reduce errors.

The European Parliament seeks to ensure citizens' access to knowledge, the right to challenge, and compensation for harm caused using artificial intelligence. The European Union is at the forefront of legislative initiatives regarding the use of artificial intelligence, aiming to regulate this field through an ethical, safe, and trustworthy approach. The EU AI Act represents the first legal framework designed to ensure the security of AI systems and compliance with the legislation and fundamental values of the Union. Decision-making system algorithms must not be implemented without prior impact assessment, except in cases where the impact on people's lives is negligible. The European Parliament emphasizes that the use of artificial intelligence, particularly autonomous systems capable of extracting, collecting, and sharing sensitive information, must adhere to strict principles. These systems must not retain or disclose confidential information[2] without the explicit consent of the respective source. The legislative benefits provided by artificial intelligence are numerous.

Innovation and economic growth. Clear regulations aim to stimulate innovation, thus providing a framework of trust for investments. Legally supported AI projects can lead to the creation of new jobs and streamline economic processes. AI-based technologies can foster innovation across various sectors, including health, education, and transportation. For example, AI can improve medical diagnosis through advanced data analyses, thereby contributing to the discovery of new treatments and medications.

Protection of citizens' rights. Regulations such as GDPR[3] (General Data Protection Regulation) represent the way the European Union has set out to protect citizens' personal data, promoting an environment for AI development that respects fundamental rights. This contributes to increasing citizens' trust in technology[4]. European legislation[5] emphasizes the protection of individual fundamental rights. By imposing transparency and accountability requirements, regulations ensure that the use of AI respects democratic principles and does not discriminate.

Responsibility and ethics. AI legislation encourages the development of ethical solutions that consider social and moral impact. EU initiatives to define ethical[6] principles for AI help to prevent abuses. Standardization and Interoperability. The establishment of common standards at the European level ensures that AI technologies are compatible and can be easily integrated into various sectors, leading to increased efficiency. Fostering international cooperation. Through a united legislative approach, the European Union can position itself as a leader in AI, promoting international collaboration on norms and ethical standards. The European Union's regulatory framework for artificial intelligence serves not only to protect its citizens but also to set a global benchmark for ethical AI practices. By actively engaging with international partners, the EU

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[1] European Commission, *High-level Expert Group on Artificial Intelligence,* https://digital-strategy.ec.europa.eu/en/policies/expert-group-ai/ (23.10.2024)

[2]European Parliament, *EU AI Act: First Regulation on Artificial Intelligence,* https://www.europarl.europa.eu/topics/en/article/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence/ (23.10.2024)

[3] InfoCons, *Cum funcționează inteligența artificială,* https://infocons.ro/cum-functioneaza-inteligentan-artificiala/ (23.10.2024).

[4]Comitetul European al Regiunilor, *Liderii locali se mobilizează pentru a pune inteligența artificială în slujba cetățenilor prin intermediul unor servicii îmbunătite,* https://cor.europa.eu/ro/noutati/liderii-locali-se-mobilizeaza-pentru-pune-inteligenta-artificiala-slujba-cetatenilor-prin (23.10.2024)

[5]European Council, *Artificial Intelligence (AI) Act: Council gives final green light to the first world wide rues on AI,* https://www.consilium.europa.eu/en/press/press-releases/2024/05/21/artificial-intelligence-ai-act-council-gives-final-green-light-to-the-first-worldwide-rules-on-ai/ (23.10.2024)

[6] European Law Blog, *When EU Data Protectioan Meets AI Tools – The CJEU determines responsibility,* https://www.europeanlawblog.eu/pub/hg7qrggl/release/1?readingCollection=65b658d5 (23.10.2024)

aims to promote shared values and standards in AI governance, ensuring that advancements in technology align with human rights and ethical considerations.

Challenges and future Directions. While the establishment of the EU AI Act represents a significant step forward, challenges remain in its implementation and enforcement. Ensuring compliance across diverse member states, addressing rapidly evolving technology, and maintaining a balance between innovation and regulation will be critical. Continuous dialogue between stakeholders—including governments, industry leaders, researchers, and civil society—will be essential for adapting the regulatory framework to emerging challenges. Moreover, education and awareness-raising initiatives are crucial to equip citizens with the knowledge needed to navigate an AI-driven world. This includes understanding their rights regarding AI technologies, the implications of data privacy, and how to engage with AI systems responsibly.

Conclusions

European legislation regarding artificial intelligence has the potential to radically transform the technological landscape, providing significant benefits to society. By establishing clear and comprehensive standards, the European Union aims to maximize the advantages that AI can offer, while simultaneously encouraging responsible innovation and safeguarding the fundamental rights of citizens. This legislative approach not only stimulates economic and social development but also ensures an ethical framework within which emerging technologies can be utilized beneficially.

However, non-compliance with established norms can have serious consequences, including risks to the fundamental rights of citizens. For instance, the abusive use of facial recognition technologies or predictive algorithms may lead to discrimination, invasions of privacy, and the erosion of trust in democratic institutions. Furthermore, inadequate implementation of regulations may destabilize the market, favoring uncontrolled innovation and amplifying economic inequalities.

Therefore, it is essential for stakeholders in the artificial intelligence sector to closely collaborate with authorities to ensure compliance with regulations and to maximize the benefits of this innovative technology. Such collaboration can facilitate constructive dialogue between industry and legislators, ensuring that the perspectives and needs of each party are integrated into the legislative framework. The benefits[1] of artificial intelligence often outweigh the challenges and risks associated with its use, including imposed sanctions and regulations. With a well-defined legal framework, companies can innovate with confidence, assured that they are adhering to ethical and legal standards. This not only enhances the brand reputation but also fosters healthy competition in the marketplace.

Artificial intelligence within the European Union presents considerable opportunities for economic and social development, but it is essential that these technologies be appropriately regulated. Legislative benefits, including the protection of fundamental rights and the promotion of responsible innovation, are fundamental to ensuring the ethical use of AI. At the same time, the challenges associated with non-compliance with legislative norms underscore the importance of rigorous implementation of existing regulations. Only through a coordinated and responsible approach can it be ensured that artificial intelligence will positively contribute to the future of European society, creating an environment where technology and human values coexist harmoniously.

As a conclusion, the stringent penalties for non-compliance with the European Union's regulations regarding the use of artificial intelligence should be viewed as a crucial mechanism for safeguarding public interest, promoting ethical practices, and ensuring accountability among AI developers and users.
These sanctions serve not only as a deterrent against potential misuse but also to uphold fundamental rights and prevent harm to individuals and society.

Given the rapid evolution of AI technologies and their profound implications, there is a compelling argument for considering even stricter enforcement measures. Enhanced penalties could reinforce the seriousness of compliance, ensuring that organizations prioritize ethical considerations and adhere to established norms. Such an approach would signal a robust commitment to responsible AI deployment, fostering a culture of accountability that ultimately benefits both society and the technology sector. However, any decision to further intensify sanctions must be balanced with an understanding of the potential impact on innovation.

[1] Elle Glover, *What is Artificial Intelligence (AI)?,* https://builtin.com/artificial-intelligence/ (21.10.2024)

It is essential to create a regulatory environment that encourages responsible innovation while effectively mitigating risks. Thus, ongoing dialogue among stakeholders—including policymakers, industry leaders, and civil society—is vital to refine these regulations and their enforcement mechanisms, ensuring they are both effective and conducive to a sustainable technological landscape.

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