

The European Union's AI Act: Guarding against or Employing Artificial Intelligence

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Abstract

Machines can think, be creative, and interact with humans! The present paper investigates this famous statement of Turing and illustrates the advancement of artificial intelligence and its interaction with the law as viewed through the lens of the European AI Act and regulatory framework. The present study will provide a comprehensive evidence-based analysis of the EU AI Act and its estimated legal consequences on the application of AI in European law by reviewing practices, rules, directives, and scientific approaches.

Keywords: *Artificial Intelligence, AI Act, legal framework, constitutional law, evidence-based regulations, European law.*

INTRODUCTION

Artificial intelligence (AI) is certainly one of our time's most important technological innovations, capable of influencing and being influenced by many disciplines, including philosophy, mathematics, economics, law, neuroscience, psychology, cybernetics, cognitive sciences, and linguistics . The term "artificial intelligence" was coined in the 1950s . The terminology therefore is certainly not new but has had an increasingly greater diffusion over time, spreading both in common language and among the various scientific, social, and moral disciplines due to the exponential development that digital technologies have had in recent years. Both definitions refer to AI's ability to create machines capable of replicating human mental processes, and the connection between AI and the human mind appears to be constant even in other definitions that describe artificial intelligence . In the Annex to the European Parliament Resolution of 20 October 2020 containing recommendations to the Commission on a civil liability regime for artificial intelligence in Art. 3 it is established that for this regulation, an Artificial Intelligence (AI) system shall imply: " a system based on software or integrated into hardware devices that exhibits behavior that simulates intelligence, inter alia by collecting and processing data, analyzing and interpreting its environment and taking actions, with a certain degree of autonomy, to achieve specific objectives" .In the recent law of the European Union (EU) (2023), Article 3, Paragraph 1 includes a two-part definition of artificial intelligence. The first section is rather inclusive and includes software that " can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions that influence the environments with which they interact ". The second section contains a complete list of techniques and methods that clearly define the scope of applicability for the AI systems listed in Annex I. These sections are organized into three basic models: machine learning (supervised and unsupervised

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learning, as well as reinforcement learning), logic-based approaches and explicit knowledge models (such as expert systems), and statistical approaches (such as search and efficiency of methods). Both parts of the definition serve separate purposes. The overall definition, which is in line with the risk-based approach employed in the Proposal, is technology-neutral and focuses on the system's ability to influence the environment. The list of methods in Annex I appears nevertheless to limit the field of application to certain technologies, presumably to provide greater clarity to producers and users of artificial intelligence systems. The search for a univocal and all-encompassing definition of all aspects and peculiarities of AI is rather complex, as striving to harness something so sophisticated and changeable in just a few words is not only challenging but can also be detrimental to the future development of the technology itself . This difficulty in finding a clear and precise definition of AI and its field of application raised concerns and reflected at the same time the wish to create a Regulation that can adapt to the constant technological evolution taking place in our world. In this respect, the Law is an outgrowth of the challenges and concerns conveyed by authorities over the ethical and legitimate use of this tremendous resource known as artificial intelligence . The current work is going to highlight the requirement for consistent laws when deploying AI from a legal standpoint. The newest European AI Act (2023) and its legal repercussions will be highlighted as a philosophical and practical approach.

METHODOLOGY

In the present paper, the qualitative approach focusing on evidence-based, analytical, literature review and desk research will be used. The analytical method will use a scientific approach to explain the phenomenon by analyzing the sections, patterns, and functions of the European Artificial Intelligence Act considering the juridical framework compared to international law. The desk research will give a scientific view of regulations, guidelines, and legislation that stipulate the insurance of the EU AI Act as the first legislative framework in the World that explicitly refers to AI and its theoretical and practical implications.

AI viewed through the lens of the law.

When a new technology or a new application of an already existing technology lands on the markets and in society, there are always legal issues related to it . Law is implicated with AI in two key ways. The first concerns how law regulates or does not regulate, the various applications of artificial intelligence. The second concerns how the right is subject to transformations due to its existence in a largely technologized social reality, and in the process of further technologization, like the AI . The increasingly widespread use of AI in legally relevant contexts, both public and private, is not simply due to the wave of enthusiasm surrounding this technology in recent times. The main reason that is pushing toward greater adoption of artificial systems lies in the promise of facilitating and incentivizing the implementation of action and the adoption of decisions aimed at promoting the well-being and interests of people . This technology shows that it can have a positive impact on particularly complex choices, improving quality and efficiency, and the advantageous results and important benefits in terms of well-being and productivity. These aspects become even more important considering the potential legal consequences, because an application of AI whose hazards are not adequately controlled may result in an erroneous compression of the principles and guarantees established to protect interests, freedoms, and rights . The emergence of the negative impact of AI, commonly referred to as the black box problem, has a major adverse effect on the functioning of an AI system, undermining what has been gained via the deployment of this technology.

Artificial intelligence in the framework of constitutional law.

The increasing inclination to rely on systems with disadvantages highlighted risks contributing to the affirmation of an algorithmic society in which the safeguards, including legal ones, should protect and safeguard people from the undue interference of this new power. In this scenario, in which the disruptive effects of AI are realized in a legally defined context that must consider the consequences of the risks envisioned, it is necessary to determine which categories and legal instruments can provide valid solutions to the new challenges posed by this technology and the distinctive features that distinguish it. The answer to these questions can undoubtedly come from the categories, principles, tools, and guarantees belonging to contemporary constitutional law for three reasons. First, the modifications generated by the introduction of AI have a direct impact on some constitutional concepts and ideals that reflect the basis and structure of constitutional governments ruled by law. Second, the concerns associated with the development and distribution of AI systems draw attention back to constitutional law's fundamental vocation and function to ensure effective guarantee and protection of rights. Third, the categories of contemporary constitutionalism can provide national and supranational legislators and regulatory bodies with guidance in developing an AI discipline capable of increasing the centrality and respect of human beings as core objectives and values in the use of this technology. In this context, some of the constitutional principles acknowledged and protected by contemporary legal systems take precedence over the regulatory perspective. It seems significant here to delve deeper into the specific role that three specific constitutional principles are playing in directing the interventions and regulatory proposals that are being adopted at the European and national levels in the field of AI. Although the AI EU Act, which will be discussed in depth below, has not been adopted in either unified legislation or individual states, the growth of AI and its impact on fundamental principles and rights has always been shown by scholars. These involve the principles of transparency, equality, and self-determination. The first constitutional notion that becomes significant in guiding AI legislation and, most importantly, reducing the hazards posed by the black box phenomena is the principle of transparency. This principle plays a critical role, both in terms of public decision-making and administration, as well as in the context of personal data processing, but its practical effectiveness is severely tested by some technical and legal issues surrounding its application. The inexplicability of AI-supported decisions and intellectual property rights protection mechanisms risk hurting the actual implementation of the principle of transparency voiding the guarantees traditionally related to the application of this principle. Second, the principle of transparency appears from the requirement of explainability of the decision. The requirement involves explaining and motivating technical procedures for AI functioning, automated decisions, and those supported by this technology. Finally, the principle of transparency finds actual implementation in the AI dimension by ensuring that an acceptable degree of information is provided on the application of this technology in the development of a decision. This distinctive profile translates into the requirement for AI actions and judgments to be recognized and to protect people's right to be informed and aware of their interactions with artificial systems. The second constitutional component that must be considered as establishing a legal framework for AI is the concept of equality. This principle is crucial in addressing potential partiality and discriminatory practices in AI, ensuring equality, and protecting people's rights. This basic tenet appears in the necessity to avoid the presence of prejudices in AI technologies, trying to prevent biases and errors that could have discriminatory effects on users of artificial systems. The principle of self-determination is the last that is important in the construction of a trustworthy AI, capable of placing the human factor at the core of the regulatory framework. This constitutional principle emerges in the necessity to avoid the presence of prejudices inside AI technologies, working to ensure that biases and errors do not emerge, which could have discriminatory impacts on users of artificial systems. The challenging profiles, which risk becoming

vectors of new forms of being, highlight the need to consider how to ensure effective implementation of the principle of self-determination in the face of the risks posed by the spread and application of AI.

The regulation of Artificial Intelligence and the European Union's approach

Developing a legislative framework to protect individuals interacting with intelligent systems is crucial in today's fast-growing digital era. Although AI exists in the global market, it is split into three regulatory areas: European, American, and Chinese. The European Union established a regulatory model to oversee and control the new phenomena, technologies, and goods. The goal is for the European model to become a global reference and be relevant in other geopolitical zones. The EU acknowledges the significant human and ethical implications of the digital era, emphasizing the profound influence of new technology on social and economic life. Multiple attempts have been made to provide the most explicit and complete legislation feasible to address the emerging social and legal challenges. The specific European law focuses on issues that originated from science fiction and are becoming increasingly important in contemporary life.

This Resolution opens with basic observations on robotics and new technologies in general, before addressing the European Parliament's views on ethical, legal, economic, safety, work, and sustainability issues. In this part, the Parliament emphasizes that:

- Robots, bots, androids, and other forms of AI are set to usher in a new industrial revolution. This new revolution (the so-called fourth revolution) may affect all social strata, making it essential that legislation examines its legal and ethical implications and repercussions whilst supporting innovation.
- Develop a flexible and innovative approach to robotics and AI.
- The advantageous effect that innovations in technology have had over the past 200 years on the employment rate, especially because the growth of AI can change ways of working by increasing productivity, reducing costs, improving safety, and elevating service quality.
- A requirement to examine not only the advantages provided by new technology but also the direct and indirect adverse aspects of society.
- Economic advancements driven by new technologies must be supported by careful assessments of employment, education, and social policy.
- The way machine and artificial intelligence growth ought to be structured about people's dignity, autonomy, and self-determination.

It is worth noting that the Resolution afterward entrusts the Union with a primary role on a worldwide basis in expressing the basic ethical standards to be followed for managing artificial intelligence. The Union legislation is in this line a point of reference to which other countries can refer. Other fundamental considerations obtained by the European Parliament in this Resolution concern the issue of responsibility. The Parliament here emphasizes how robots are increasingly equipped with autonomous and cognitive characteristics that allow them to interact with and modify their surroundings. When an AI operation makes autonomous judgments, conventional methods are insufficient to establish accountability for robot-caused damage because they fail to account for an explanation of who is liable to be compensated or the necessity that the person. The Resolution proposes common European definitions for cyber-physical systems, autonomous systems, intelligent autonomous robots, and their subcategories in the development of robotics and artificial intelligence.

The following characteristics of an intelligent robot should be considered:

- a) the concept of autonomy is achieved through sensors and interconnectivity, which allows for the exchange of data with the environment and the analysis of this data.
- b) the capacity to acquire knowledge through experience and interaction.
- c) the design of the robot's physical support.
- d) the ability to modify the behavior and actions to his surroundings.

The European Parliament then felt it needed to implement a record system for robots on the EU market, delegating this job if necessary to an EU-designated body to better monitor the presence of AI on Union territory. It then emphasized that only an EU-based regulatory framework can prevent AI fragmentation, which is detrimental to all market agents and technology research and development.

In the final section of the Resolution, the Parliament establishes a Code of Conduct for some of the market subjects. Researchers and developers must uphold human dignity, privacy, and security while conducting robotics research in the European Union in a safe, ethical, and effective way.

AI robotics usage should next commit to maintaining the most rigorous ethical and deontological behavior achievable while adhering to the following principles:

- (a) Charity: Robots should be built for the good of people.
- (b) not-harming: the philosophy of "primum, non nocere" which requires robots not to harm humans.
- (c) autonomy is the capacity to make informed and non-imposed judgments about surroundings when dealing with robots.
- (d) justice: involves a fair distribution of the benefits of robotics, and the economic accessibility of robots responsible for personal care and, in especially, healthcare.

2) Research Ethics Committees (REC). A REC staff is responsible for examining all research activities involving (human) subjects conducted by staff employed within or by the organization concerned for several tasks:

- a. to ensure the independence, professionalism, and timeliness of the ethical examination.
- b. to protect the dignity, rights, and well-being of the subjects participating in the research.
- c. to consider the safety of the researcher or researchers.
- d. Research organizations should develop systems for evaluating ethically approved research operations and frequently checking whether the project expects alterations over time. The evaluation should be commensurate with the kind and level of risk associated with the research.

3) Users can utilize a machine if it does not endanger their physical health. or psychological well-being and follows ethical or legal standards.

Following this Resolution, several additional efforts subsequently took place at a European level that has been striving to establish reference standards and principles for new technologies. In this sense the European Commission explicitly favored and encouraged any regulatory proposal necessary to address emerging issues related to AI. In June 2018, the European Alliance for Artificial Intelligence was established, consisting of a platform intended to allow thousands of stakeholders to discuss the technological and social implications of artificial intelligence.

In September 2019, the European Commission approved the fundamental standards set in the ethical guidelines of an expert panel on artificial intelligence for reliable AI including:

- a. human intervention and surveillance
- b. technical reliability and safety
- c. data privacy and governance
- d. transparency, diversity, non-discrimination, and equity.
- f. social and environmental well-being.
- g. accountability.

Subsequently, on February 19, 2020, the Commission published a White Paper on AI introduces the adoption of the technology, emphasizing its potential and the reasons behind its adoption . It thus highlights how AI will change our lives by improving health care (allowing for more precise diagnoses and disease prevention), boosting production system efficiency, increasing citizen safety, and having a positive impact in numerous other scenarios that we can only imagine . The paper also addresses other features that can represent several risks to individuals, such as unclear decision-making systems, gender-based discrimination, intrusions into our private lives, or use for criminal purposes. AI's dependability is crucial for its widespread use and its significant role in human life. It is required that such an innovative technology and intelligence ecosystem be developed under European values and fundamental rights such as human dignity and privacy . Another reflection taken by the European Commission is an assessment of the sustainability of the current legal framework considering new developing technology. For example, the Law on personal data protection and non-discrimination, as well as the Law on consumer protection, are discussed in detail . In the conclusions of 21 October 2020 , the Council of the European Union urged to address the opacity, complexity, unpredictability, and autonomy of certain AI systems, to ensure their compatibility with EU fundamental rights. In the same year, the European Parliament enacted several resolutions on artificial intelligence and robots, focusing on ethical issues, civil liability, and copyright . On March 9, 2021, the Commission announced the vision and possibilities for Europe's digital transformation by 2030 to secure the development of AI in ways that respect people's rights and make Europe equipped to function in the digital world . On April 21, 2021, the European Parliament and Council proposed legislation setting harmonized norms for artificial intelligence . The so-called AI ACT, which this article will address, has become known as the European law on artificial intelligence. It subsequently assumes relevance since the regulation is a legislative act of universal scope that is mandatory in all its aspects and applicable in each of the member states .

The AI ACT of the European Union

On 14 June 2023, the European Parliament approved the legislation known as the Artificial Intelligence Act , introducing the legislative process to a close that began on 21 April 2021 with the European Commission's proposal of a regulation establishing uniform regulations on artificial intelligence. The final approval of this AI regulation and entry into force is expected between 2024 and 2025 as members of the European Parliament will need to discuss the details with the Council of the European Union and the European Commission before the draft rules become legislation. The legislation's final version is expected to be an agreement between the Council, Parliament, and Union, resulting in a two-year timeframe for its adoption. As a result, while there is not yet formal legislation, the degree of maturity achieved by the approval process of the European regulation on AI will enable researchers to conduct comprehensive reflections on the influence of the AI Act on the European landscape . Overall, the proposal seeks to create a standardized framework for the development, marketing, and use of AI systems under the Union's fundamental values, rights, and principles . Consequently, the AI Act was proposed with the objective of not restricting research or limiting entrepreneurship, but rather of providing a European identity course on the application of technology and scientific and innovation recommendations. These aims are consistent with the Charter

and the overall policies of the EU, in which the value of human dignity is protected and prioritized.

The Artificial Intelligence Act's specific aims include:

- ensuring that AI systems placed on the Union market and employed are safe and adhere to all current legislation concerning fundamental rights and the values outlined by the Union.
- ensure legal certainty to innovation investment in AI.
- improve governance and effective enforcement of existing legislation on fundamental rights and safety requirements for AI systems.
- encourage a single market for lawful, safe, and trustworthy AI applications, preventing market division.

A closer examination of the ACT reveals the structure and operation of each of its sections. A summary of these exams is shown below.

The sources of the Regulation. The proposal's legal underpinning is provided by Article 114 of the Treaty on the Functioning of the European Union, which provides for the adoption of measures to safeguard the establishment and operation of the internal market. This provision allows for the establishment of uniform and directly applicable constraints throughout the Union's land, a uniform and generally rigid regulatory framework for the Member States, except certain margins of maneuver (as outlined by the regulation) for the organization's internal state and the sanctions regime. The EU must establish a reliable legal framework and establish mechanisms for regular regulation updates. The need is argued for two reasons: because AI is difficult to regulate, both as it is defined by fast and ongoing technological developments that make any discipline aimed at regulating it obsolete, and because in its more advanced systems (machine learning, deep learning), it is marked by a strong dose of self-reliance that cannot be calculated *ex-ante*. Considering all of this to heart, the Commission provided adaptations in the regulatory framework to make it resilient to change, as detailed in the documents supporting the proposal:

- First, the AI Act draft includes several critical annexes, such as identifying the category of devices with elevated risks whereby a specific compliance testing approach is proposed. The Commission should be competent to modify these annexes , with the assistance of the Comitology Committees . If challenges develop with recognizing vulnerable system categories or compliance procedures, changes to the regulations will be possible even outside of the normal legislative procedure required for the formal revision of the regulation.
- Second, according to the provisions of Article 84 of the Proposal, the Commission will provide a report to the European Parliament and the Council on assessing and revisiting this regulation within three years following its adoption, as referred to in Article 85, paragraph 2. The reports are made public considering that the proposal includes specific rules on the protection of human persons and the processing of personal data, in addition to limitations on the use of AI systems for remote biometric identification in real time in public spaces for law enforcement purposes, it is appropriate to establish the regulation as outlined in Article 16 of the TFEU. The adoption of regulation as a legal act and the direct applicability of regulation will eliminate legal uncertainty and allow the development of a unified market for AI systems.

Structure and key parts of the Regulation.

Building a regulatory mechanism aimed at properly regulating the dangers associated with the use of AI devices in safeguarding fundamental rights and preserving the democratic process. This approach has been characteristic of the European strategy since the first documents drafted by the European Parliament and the Commission, all of which

converge on giving concrete implementation to the political law line and fundamental rights (and the set of European values reflected in them) must guide market development. The European legislature uses a horizontal strategy to govern artificial intelligence. However, this approach has an inherent restriction. Since the rules are not focused on solving issues or filling specific gaps in the legal system but must apply to all sectors, they cannot allow the addressing of concerns or the removal of specific legal obstacles. The regulation has the task of outlining an overall framework and a reference context in which artificial intelligence systems can operate, including those developed in the years to come. From a structural standpoint, the AI Act is divided into 12 Titles, each with 85 Articles preceded by 89 Recitals. The text is complemented by nine technical Annexes. Section one of the Proposal, including Title I, explains the purpose and scope of the Regulation itself. The new rules are aimed at a) suppliers who place Artificial intelligence devices on the market or in service throughout the Union; b) users of AI systems located in the Union; and c) Users and suppliers of systems based in a third nation, where “the output produced by the system is used in the Union” (see Article 2 of the Proposal) for a Regulation of the European Parliament and of the Council establishing uniform standards on Artificial Intelligence. Article 3 contains the definitions used throughout the document, such as “artificial intelligence system,” which will be discussed in greater detail later in this paper, or “user,” which means “any natural or legal person who uses an AI system under his authority” so it has a different meaning than the common one of “end user”. The following sections of the Proposal (Sections II-IV) address the regulation of the different kinds of artificial intelligence systems specified by the European legislature. The subdivision employs a “risk-based” approach, which relies on the level of risk connected with the characteristics or usage of these technologies. Systems that involve an unacceptable risk and high danger should be identified. Title II, which corresponds to only Article 5, controls “practices”, i.e. the uses or impacts of AI, that are illegal in Community law because they contradict the Union's principles or fundamental rights. The ban applies to three categories: 1) the so-called practices that include manipulative, subliminal techniques or otherwise exploiting the susceptibility of groups of individuals to distort their behavior in a potentially detrimental way. 2) the so-called activities that employ social scoring. The AI here assesses or classifies the reliability of people in specific social circumstances only by public authorities. 3) The designated distant utilities use remote biometric identification technologies (facial and voice recognition) in real-time in freely accessible locations. Title III comprises provisions governing AI systems that endanger human health, safety, or basic rights. These systems have been authorized for use in the European Union provided they meet requirements and go through a preliminary conformity assessment before being placed on the market or employed. Chapter 1 of Title III defines the requirements for an AI system to be judged as high-risk. The system is intended for safety in a product or covered by Union harmonization legislation mentioned in Annex II. The second is that the product and the artificial intelligence system itself as a product are subject to a third-party conformity evaluation provided of that product by the Union harmonization legislation listed in Annex II. Chapter 2 establishes mandatory requirements for these systems, emphasizing data management, transparency obligations, clearness, safety, technical robustness, and human supervision. In Chapter 3, a set of responsibilities is imposed on suppliers, users, and other parties involved in the life cycle of such systems. However, Chapters 4 and 5 govern the bodies and procedures associated with the advanced conformity assessment to which these systems are subject. This assessment is based on an internal control model within the organization and is complemented by external verification techniques, as described in Titles VI and beyond. Section 5 provides a full explanation of the rules governing these control mechanisms. Title IV of the Proposal establishes some transparency obligations regarding specific AI systems that pose hazards to human beings, which differ from the ones proposed for high-risk systems. These are systems that interact with humans, identify emotions, determine affiliation with (social) categories using biometric data, or generate or manipulate audiovisual content (“deep fakes”). In

these cases, it is assumed that users understand that they are communicating with an AI. Mentioned systems generally relate to a category of AI known as "intermediate risk". The third section of the Proposal (Titles V-XII) comprises the legislation on AI system governance and control, along with the Regulation's implementation guidelines. Title V's main objective is to provide a regulatory structure that encourages technological and social innovation. To this end, technology should be employed to ease the establishment of "controlled regulatory environments" (regulation sandboxes) for testing, thereby providing a crucial regulatory framework. Title VI oversees the institutions that regulate the AI market system at both the EU and member state levels. The European lawmaker calls for the founding of a European Committee for Artificial Intelligence, tasked with coordinating and supervising the system. Furthermore, the responsibilities of the national authorities with jurisdiction in this matter are stated. It is important to highlight that each state member can provide additional measures despite the Union's legal framework. However, it is still unclear by the European lawmaker, how the Act will be applied to the Union's neighboring countries or those that are in the accession enlargement point as Albania and the Western Balkans, Ukraine and Turkey. Title VII seeks to improve governance by establishing a European data repository dedicated to high-risk AI systems. Title VIII regulates surveillance following the entry of AI systems into the market. This title also guides information duties and allows for market surveillance. Title IX includes provisions for developing rules of conduct for providers of non-high-risk AI systems. These guidelines are intended to encourage voluntary adoption and bind requirements for high-risk systems. The last Titles of the ACT provide general rules that will guide the Regulation's future implementation: the demand for confidentiality in the management of information by public authorities (Title X); the provisions relating to the power to adopt delegated acts (Title XI); and the European Commission's commitment to regularly analyze the need for modifications and provide periodic reports on the evaluation and review of the Regulation (Title XII).

Prohibited AI practices

Title II of the Proposal comprises only Article 5, which addresses specific practices implemented using artificial intelligence systems that produce or may produce unacceptable results because they are incompatible with the Union's values and basic rights. With a few exceptions, the Proposal imposes an all-embracing ban. What follows is an analysis of these illegal practices.

- Handling the provisions of Article 5 (1) letter a). According to the law, "the placing on the market, service or use of an AI system that uses subliminal techniques that act without a person's awareness to materially distort his behavior in a way that causes or may cause that person or another person physical or psychological harm", is prohibited. It should be necessary to examine specific terminology in this clause to comprehend the meaning that the AI Act assigns to certain terms, particularly the ideas of "placing on the market" and "putting into service". In terms of "placing on the market" of an AI system, the proposal intends "the first making available of an AI system on the Union market", and "made available on the market" is defined as "any supply of an AI system for distribution or use on the Union market in the course of a commercial activity, whether in return for payment or free of charge". The "putting into service" of an AI system is defined as "the provision of an AI system directly to the user for first use or for own use on the Union market for the intended purpose". "The "intended purpose" means the intended application of an AI system envisaged by the supplier, including the specific context and conditions of use, as detailed in the information communicated by the supplier in the instructions for use, promotional or marketing material, sales and declarations, and technical documents. Here Manipulation is no longer characterized in terms of design or computer interface, but rather as a distinct action: the deployment of subliminal tactics outside of a person's consciousness. Despite the amended stage of the ban being more detailed, it still leaves some critical questions unresolved. The meaning

of “subliminal techniques” is not clear and subsequently, the interpretation of “awareness” about the practices that take place outside of it is not entirely understandable. The types of harm mentioned in the ban are also unclear. While physical harm is theoretically easier to detect, identifying psychological harm is complex due to its inherent subjectivity and lack of clear indicators and measurement. The unclear phrasing may lead to targeted marketing on digital platforms being deemed psychologically harmful whenever a person experiences displeasure or discomfort because of the intrusion into their private domain. The issue is that the restriction on manipulation, although more explicit than the initial draft, is still concretely difficult to evidence due to a certain indeterminacy regarding the practices or procedures that are truly considered harmful enough to damage individuals .

- Handling the provisions of Article 5 (1) letter b). The exploitation of vulnerable groups. The second prohibited activity is listed in Article 5 (1) letter b: “the placing on the market, putting into service or use of an AI system that exploits the vulnerabilities of a specific group of people, due to age or physical or mental disability, to materially distort the behavior of a person belonging to that group in a way that causes or may cause physical or psychological harm to that person or another person” Attention to the most vulnerable people is unquestionably a vital ethical value; yet, this provision presents some concerns. For instance, it is unclear what is meant by “exploitation” although, in this context, it may be argued that exploitation differs from manipulation and that the usage of information may render some individuals vulnerable. A system that uses demographic information to promote the purchase of children's items is also covered by this provision. Furthermore, the conceptual approach to vulnerability refers to groups that are historically viewed as more vulnerable due to specific traits such as maturity and physical or mental impairment. It is unclear why just these types of vulnerabilities are considered, rather than others, such as those in the financial or marketing fields, which are becoming increasingly common and pressing in society . It might be argued that vulnerability is inherent in artificial intelligence systems and can impact everyone. This form of vulnerability is inherent in the artificial intelligence system with which individuals interact, rather than being triggered by personal attributes or specific circumstances .

- Handling the provisions of Article 5 (1) letter c). Public Social Scoring The third ban applies to artificial intelligence systems designed for so-called “social scoring,” which entails assessing and categorizing people's reliability based on their behavior in specific social settings or other personal traits. The law prohibits public agencies or third parties working on their behalf from selling and using such systems if social scoring results in harmful or disadvantageous treatment of individuals or groups of people. This ban applies in two situations: 1) when the detrimental effect occurs in social contexts other than those in which the system's data was originally generated or gathered; and 2) where the harm is unwarranted or disproportionate to the social norms or gravity . The restriction appears to be heavily influenced by the goal of combating social scoring systems, which have been adopted to different extents in high-tech Asian countries . However, the European legislators have disregarded the use of scoring by private sectors, which are more common in Europe. This discrepancy is especially concerning because private social scoring can have a substantial impact on fundamental rights and democratic values as access to critical utilities such as gas and water, financial or insurance services, and the ability to access online leisure services .

- Handling the provisions of Article 5 (1) letter d). Remote and real-time biometric identification. The most recent forbidden activities are “the use of remote biometric identification systems “in real time” in spaces accessible to the public for law enforcement purposes” . Remote real-time biometric identification technologies such as facial and voice recognition are disallowed. However, there are several exceptions, some of which are particularly applicable to the use of artificial intelligence in the criminal

proceedings setting, with a focus on 1) the targeted search for specific victims of crimes, such as missing children, 2) preventing a specific, significant, and urgent threat to life or limb, or a prospective terrorist attack, 3) detecting, locating, identifying, or prosecuting offenders or suspects of a specific sequence of crimes. The use of remote real-time biometric identification systems here is contingent on specific procedural requirements. These assurances include an examination of the conditions that allow the use of such technology and an examination of the evidence that may be imposed on the timing, geography, and stakeholders involved in the usage of these systems. In all cases, prior authorization from the respective Member State's judicial or independent administrative body is required and is granted only upon a reasonable request. However, in inadequately justified emergency cases, authorization may be obtained during or after using the system. The competent authority may provide this authorization only if it is proved, based on objective evidence or clear indications offered, that using the system is allowed by the Proposal. Given the significant level of danger involved with these systems, it is encouraging that precise regulations for biometric identity systems are being developed. However, it should be highlighted that the provisions' scope might be limited and confusing. The use of biometric technology is confined to the "identification" of natural persons. Many biometric data systems, such as those that monitor eye and lip movements, heart rate, or skin conductance, are not designed to identify a specific individual. Instead, they are utilized for the "recognition" of a specific evaluation of behavior or metric that if not properly ruled, might cause doubts and interpretative gaps.

High-risk AI systems. Consistent with the chosen risk management approach, the use, and development of "high-risk AI systems" is allowed on the European market if certain mandatory standards are met and an acceptable advance compliance assessment is completed. The classification of a machine learning system as high risk depends not only on its function but also on its unique purpose and application . According to the concept of AI, the assessment of high risk is divided into two parts. First, both individual AI devices that may have an impact on fundamental rights and systems that constitute a product (or part of it) are subject to regulation within the framework of the New Legislative Framework (NFL) . The second component of the high-risk definition also includes a list. Annexes III are an in-depth description of eight macro domains where AI systems have the potential to be at high risk. These macro-areas include biometric identification, public and private service access, law enforcement, and justice administration . Systems in these categories must follow an exhaustive set of regulations that apply to developers, providers, and consumers. These criteria include the establishment of a training and validation system , the need for data quality and accuracy , and the responsibility to provide technical documentation and ensure transparency requirements to the user . Many of the tasks lie on the supplier, when, the person or company that creates a high-risk AI system and delivers it to the market . In broad terms, vendors of high-risk AI systems must adopt a quality management system that ensures adherence to a variety of requirements. These standards include proper data governance, transparent information for users, and human monitoring.

CONCLUSIVE REMARKS

The issue that the law must confront regarding new and unforeseen realities created by the advancement of Artificial Intelligence techniques and systems is genuinely revolutionary. This context poses basic concerns about humanity's future and the kind of world we want to create and inhabit. We must be aware that the issue has a dimension that extends beyond the present time. Artificial Intelligence is not an intermediate stage in technological evolution, but rather an irreversible change in the forms of our existence. The decisions we make or accept today will have ramifications for future generations, both now and hereafter . The argument of AI is certainly a worldwide factor, with dimensions that cannot be contained geographically, and perhaps additionally legally.

This is what we must strive for; over time, the EU has highlighted through its work the value of standardizing regulations in this area to promote unified and safe development. As it has been shown, through comprehensive research, in the present work, AI and law interact with one another and the novel form “of human copied brain system” approach has become a priority within constitutionalism and the law. The European Union, as has emerged from this work, seeks to place itself at the head of this revolution, not only technological but also legislative at this point, proposing a revolutionary AI ACT. However, the path is still long. If the European Union aspires to consolidate its worldwide leadership, it must solve the challenges of cooperation between these two disciplines, which are at the core of the European legislation on AI. Of great importance is also the balance that single states within and outside the EU Union. Technological evolution is rapid and increasingly impacts our lives; it creates new opportunities and raises social and moral issues that pose dilemmas for human beings and the entire society. The law must find the right balance between progress and the protection of individuals and societies, it is a difficult task, but it is necessary to make thoughtful decisions because today's choices build tomorrow.

Study limitations and practical implications for further research

Although the most significant outcomes were recently shared, this research also reveals several limitations that must be considered:

First, the current study is mostly concerned with literature and analysis, and it lacks a comprehensive picture of the practical application of AI law and regulation. This constraint is primarily due to the inability to measure and monitor progress.

Second, since the ACT has not been fully implemented, it is difficult to propose empirical or cross-sectional approaches to the effect of the proposed Act in the key fields of AI applications such as security, business and management, social sciences, and, of course, cybersecurity.

Third, the paper emphasizes the broad view of the relationship between law and AI, especially the constitutional one, and fails to address other dimensions such as civil law, criminal processes, and/or entrepreneurship.

Fourth, this paper does not examine specific ACT advances or their implications for EU and non-EU membership countries.

Fifth, further significant domains, including the mediatic, social, financial, and psychological impacts of the AI ACT on European society, were not investigated in this study.

All the limitations discussed in this work, along with those beyond it, could act as an invaluable asset for future research.

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Abbreviations

Artificial Intelligence (AI)

European Union (EU)

European Union Artificial Intelligence Act (EU AI ACT)

New Legislative Framework (NFL)

Research Ethics Committee (REC)

Treaty on the Functioning of the European Union (TFEU)

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