THE IMPACT OF ARTIFICIAL INTELLIGENCE ON FUNDAMENTAL HUMAN RIGHTS IN EU COUNTRIES. EXAMINATION OF ACADEMIC STUDIES AND THE POSITIONS OF NON-GOVERNMENTAL ORGANIZATIONS REGARDING THE ETHICAL AND LEGAL RISKS OF AI

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Abstract

Artificial intelligence (AI) is rapidly changing life in Europe and profoundly transforming contemporary society, influencing multiple aspects of economic, social, and legal life. In the European Union, the development and use of AI pose significant challenges regarding the protection of fundamental human rights, such as the right to privacy, equality, and access to justice. Authorities are implementing strict regulations to ensure that innovation does not compromise essential democratic values, aiming to find a balance where new technologies and the protection of human rights merge in the best interest of humanity. My research aims to analyze the impact of artificial intelligence (AI) technologies on fundamental rights in the European Union, identify the risks to these rights, and assess legislative and ethical measures for their protection.The research methodology is based on documentary analysis, meaning the study of European laws and international documents related to AI and human rights. Another method used is comparative evaluation, identifying points of convergence and divergence between the national regulations of member states in implementing EU standards on AI. The research follows a deductive approach, starting with the existing legal framework, such as the Charter of Fundamental Rights of the EU and the General Data Protection Regulation (GDPR), while also considering new initiatives like the Artificial Intelligence Act (AI Act). Additionally, the study examines specialized literature and reports from international institutions, such as the Council of Europe and the European Union Agency for Fundamental Rights. This paper provides a comprehensive analysis of EU regulations on AI and proposes practical solutions to align technology with human rights.

Keywords: *EU, Artificial intelligence, fundamental human rights, legislative and ethical legislative and ethical measures, EU regulations on AI.*

Introduction

Fundamental human rights are those essential prerogatives recognized to every human being by virtue of their inherent dignity. They form the foundation of any democratic rule of law state and are the expression of supreme values: dignity, freedom, equality, solidarity, citizenship, and justice.

The concept of fundamental rights gradually crystallized in the evolution of political and legal thought, beginning in the 17th century, with the emergence of Enlightenment ideas about natural rights. The Declaration of the Rights of Man and of

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the Citizen of 1789, adopted during the French Revolution, is considered a turning point in the recognition of human rights as universal and inalienable rights.[1]

After the horrors of the Second World War, the necessity for firm legal protection of these rights led to their international and European enshrinement. In 1948, the UN General Assembly adopted the Universal Declaration of Human Rights, and in 1950, the Council of Europe signed the European Convention on Human Rights (ECHR), essential instruments in strengthening the standards for their protection.

In the European Union, fundamental rights have been gradually integrated into the normative architecture of the Union, culminating in the adoption of the Charter of Fundamental Rights of the European Union in 2000, which became legally binding with the entry into force of the Treaty of Lisbon in 2009.[2]

One of the most groundbreaking innovations that emerged in the 21st century is artificial intelligence (AI), which has a major impact on the social, legal, and economic life of contemporary society. According to the European Union (EU), both innovations that can be made with the help of artificial intelligence and the risks that primarily affect the fundamental human rights recognized by the Charter of Fundamental Rights of the European Union are of utmost importance. Human dignity, freedom, equality, the rule of law, and, overall, the fundamental values of democracy are in crisis in the context of accelerated digitalization, as well as the increasing use of automation in administrative, judicial, security, and economic decisions. Many of these technologies may pose the risk of social discrimination, mass surveillance, social exclusion, or euthanasia without competitive legislation[3].

This is why my paper addresses algorithms using AI and studies fundamental rights at the European level, aiming to establish the significant risks and existing legal protections or those under development.

2. Content

In the context of accelerated digitalization and the increasing use of automated systems in administrative, judicial, economic, or security decisions, a critical analysis of how these technologies can affect the fundamental values of democracy is essential: human dignity, freedom, equality, and the rule of law. AI-based technologies can bring significant advantages in streamlining public services, but in the absence of solid legal guarantees, they can become tools of discrimination, mass surveillance, or social exclusion.

It is well known that the European Union plays an important role in promoting and protecting fundamental rights, building its own specific legal system in parallel and in interaction with the mechanisms of the Council of Europe. Fundamental rights represent a constitutive element of the EU's legal order and an essential condition for the legal functioning of its institutions, as well as for the legitimacy of European policies and legislative acts. For this reason, the European Union has adopted relevant documents in the field of human rights,

[1] Ion Neagu, *Drepturile omului – Evoluție, concept, protecție juridică,* C.H. Beck Publishing House, Bucharest, 2019, p. 15.

[2] Corneliu Bîrsan, *Convenția europeană a drepturilor omului. Comentariu pe articole,* vol. I, All Beck Publishing House, Bucharest, 2005, p. 23.

[3] Corneliu Bîrsan, *op. cit.*, p. 23.

which have often had a significant impact on the protection of fundamental human values.

The Charter of Fundamental Rights of the European Union, adopted in 2000 and gaining binding legal force through the Treaty of Lisbon in 2009, summarizes in one document the civil, political, economic, and social rights recognized within the Union. The Charter is structured in six titles: Dignity, Freedoms, Equality, Solidarity, Citizens' Rights, and Justice, being inspired both by the constitutional traditions common to the Member States and by the European Convention on Human Rights (ECHR) and other international treaties. The Charter applies to EU institutions but also to Member States when implementing EU law, providing a robust framework for examining the compatibility of legal acts or administrative decisions with fundamental rights.

Although part of the Council of Europe system, the European Convention on Human Rights (ECHR) has a significant impact on EU law. The Court of Justice of the European Union (CJEU) recognizes the case law of the European Court of Human Rights as a source of inspiration in the interpretation of fundamental rights, and the Treaty of Lisbon foresees the EU's accession to the ECHR – although this process has currently been blocked by the CJEU through Opinion 2/13 of 2014. The ECHR offers reference guarantees for rights such as the right to a fair trial, freedom of expression, or the right to privacy – all of which are relevant in the context of artificial intelligence use.[4]

The Treaty on European Union (TEU) and the Treaty on the Functioning of the European Union (TFEU), Article 2 TEU explicitly provides that the Union is founded on respect for human dignity, freedom, democracy, equality, the rule of law, and human rights, including the rights of persons belonging to minorities. Article 6 TEU reaffirms the binding nature of the Charter and the relevance of the ECHR. Furthermore, the TFEU enshrines the principles of non-discrimination (Article 10), data protection (Article 16), the right to access to justice (Article 47 Charter), and other provisions that are directly affected by the implementation of AI.

Equally, the role of the case law of the Court of Justice of the European Union (CJEU) cannot be minimized, as it plays an essential role in the interpretation and application of fundamental rights in the context of EU legislation. Its decisions have strengthened the right to privacy (e.g., the Digital Rights Ireland case, 2014), personal data protection (e.g., Schrems I and II), and transparency in automated decision-making – aspects that are highly relevant in the context of artificial intelligence.[5]

Artificial intelligence (AI) has become a strategic priority for the European Union, which seeks to harness the potential of this technology in a responsible, ethical manner, and in accordance with the fundamental values of the Union. Unlike other global powers, the EU adopts a human-centric approach, where technological innovation must be compatible with the protection of fundamental rights and the state of law.[6]

The European Union recognized early the transformative potential of artificial intelligence, but also the risks it poses to democracy, security, and human rights. In

[4] Emil Bălan, *Drepturile fundamentale în Uniunea Europeană*, C.H. Beck Publishing House, Bucharest, 2015, p. 45.

[5] Koen Lenaerts, *The European Court of Justice and the Protection of Fundamental Rights in the European Union*, "Columbia Journal of European Law", vol. 20, 2014, New York, p. 185.

[6] Luciano Floridi *et alii*, *AI4People – An Ethical Framework for a Good AI Society*, Mind & Society, Springer, Vol. 28, No. 1, 2019, Milano, p. 15.

2018, the European Commission launched the 'European Strategy on AI', proposing strategic investments in research and innovation, alongside the development of a solid ethical and legal framework. This strategy was followed by the 'Coordinated Plan on AI' (revised in 2021), which foresees close cooperation between Member States to strengthen Europe's technological autonomy.[7] A key moment was the publication in 2020 of the White Paper on Artificial Intelligence, which proposes an approach based on 'excellence and trust'. This document created a regulatory model based on risk assessment, where AI systems are classified as follows: anacceptable risk – prohibited (e.g., social scoring like in China), high risk – allowed but subject to strict obligations (e.g., AI used in justice or recruitment), limited risk – subject to transparency requirements (e.g., chatbots must disclose themselves),minimal risk – no additional regulation (e.g., spam filters).[8]

As a continuation of this model, in 2021, through the proposal of the Artificial Intelligence Act (AI Act), the first comprehensive legal framework for AI was created at the global level, which regulates strict requirements for high-risk systems, such as: the use of clean and representative training datasets; ensuring human oversight; algorithmic explainability; cybersecurity measures and auditability.[9]

The EU was forced to allocate large funds for the development of AI through the Horizon Europe, Digital Europe, and NextGenerationEU programs, encouraging the formation of centers of excellence, AI Test Beds, and regulatory sandboxes, where companies can test AI technologies under regulated conditions.[10]

The European Union has expanded the use of Artificial Intelligence and implemented it in the most important fields, with significant impact on citizens and public institutions. AI applications can enhance efficiency, predictability, and responsiveness, but they can also lead to algorithmic discrimination, lack of transparency, and violation of privacy.

In healthcare, AI is used for computer-assisted medical diagnosis, radiological image analysis, personalized treatment planning, and monitoring chronic patients. In the context of the COVID-19 pandemic, AI was used for epidemiological forecasts and identifying high-risk patients. However, the lack of transparency in predictive models and the risk of errors can seriously affect the right to health and life.[11]

In justice and law enforcement, some Member States such as France, the Netherlands, and Poland have tested predictive justice systems, recidivism risk assessments, or facial recognition in public spaces.[12] Although increased efficiency has been observed, there have also been significant risks of discrimination, ethnic profiling due to the lack of real human oversight, affecting rights such as the presumption of innocence or the right to defense.

In public administration, AI is used for automating the processing of social benefits

[7] European Commission, Coordinated Plan on Artificial Intelligence 2021 Review, COM(2021) 205 final, Brussels, p. 5.

[8] European Commission, *White Paper on Artificial Intelligence*, COM(2020) 65 final, p. 9

[9] Martin Ebers (ed.), *Artificial Intelligence and Human Rights*, Springer, 2022, p. 110.

[10] Michael Veale, Frederik Zuiderveen Borgesius, *Demystifying the EU Artificial Intelligence Act*, "Computer Law Review International", 2021, p. 98.

[11] Topol, Eric, *Deep Medicine: How Artificial Intelligence Can Make Healthcare Human Again*, Basic Books, 2019, New York, p. 27.

[12] Henrik Skaug Sætra, *AI in the Courtroom: A Critical Analysis*, AI & Society, Vol. 36, 2021, London, p. 535.

applications, resource allocation, or analyzing administrative files. Problematic examples include the systems used in Austria and the Netherlands for detecting social fraud, criticized for lack of transparency and discrimination[13].

AI also plays an essential role in the development of autonomous vehicles, route optimization, traffic management, or forecasting urban congestion. In Germany and Spain, AI systems are already integrated into public transport to anticipate urban mobility needs. Additionally, intelligent educational platforms use AI to personalize the learning process, automated assessment, or vocational counseling. However, excessive data collection about students and the risk of stereotyping raise concerns about data protection and equity of access to education.[14]

The European Union has created relevant bodies for AI management, and the most important ones are:

- The European Artificial Intelligence Board (EAIB), which was proposed through the AI Act, coordinates the implementation of AI legislation at the EU level. Composed of representatives from national authorities, the EAIB has a consultative role and responsibilities for harmonizing practices, publishing technical guidelines, and monitoring cross-border risks. By analogy with the EDPB (European Data Protection Board), the EAIB is expected to become an essential center for AI oversight.[15]

- European Data Protection Board (EDPB) is an independent body that ensures the consistent application of the General Data Protection Regulation (GDPR). The EDPB frequently publishes guidelines regarding automated data processing, algorithmic decisions, and profiling. In the use of AI, the role of the EDPB is crucial for guaranteeing the right to privacy and the protection of personal data.[16]

- European Centre for Algorithmic Transparency (ECAT) was created by the European Commission in 2023. ECAT is a technical-legal body tasked with auditing the algorithms used by very large online platforms (such as Google, Meta, TikTok) under the Digital Services Act. It was created to analyze the impact of these algorithms on freedom of expression, informational pluralism, and online manipulation risks.[17]

- AI HLEG (High-Level Expert Group on AI) is a high-level group of AI experts, created by the European Commission to advise on AI policies. Its key report, 'Ethics Guidelines for Trustworthy AI', outlined the seven pillars of trustworthy AI: human agency, technical robustness, transparency, fairness, non-discrimination, accountability, and sustainability.[18] Although the AI HLEG is no longer active today, its principles form the basis of current legislation.

In some EU Member States that have implemented the use of AI, both benefits and violations of fundamental rights have been observed.

[13] Alessandro Mantelero, *AI and Social Scoring: Lessons from the Netherlands and Austria*, "European Journal of Risk Regulation", Vol. 12, 2021, Cambridge, p. 230.

[14] Wayne Holmes, "Artificial Intelligence in Education: Promise and Implications for Teaching and Learning", UNESCO, 2019, Paris, p. 15

[15] European Commission, *Proposal for an AI Act*, COM(2021) 206 final, p. 45.

[16] European Data Protection Board, Guidelines on Automated Individual Decision-Making and Profiling under GDPR, 2021, Brussels, p. 7.

[17] European Commission, ECAT: Ensuring Transparency and Accountability in Algorithmic Systems, Brussels, 2023.

[18] AI HLEG, Ethics Guidelines for Trustworthy AI, 2019, Brussels, p. 14.

In the Netherlands, the Dutch Government developed SyRI (System Risk Indication), an automated system designed to detect fraud in the granting of social benefits, which combined data from multiple sources (income, rent, education, criminal records) to assess the risk of fraud. However, in 2020, a court in The Hague declared the system illegal, as it violated the right to privacy and did not provide transparency regarding the algorithm, potentially leading to discrimination based on location or ethnicity.[19]

In France, the Ministry of Justice experimented with automated analysis systems to assist judges in predicting judicial outcomes. At the same time, the police tested algorithms to identify areas with a high risk of crime ('predictive policing').[20] However, it was found that the danger of 'automated judicialization' created the risk of AI influencing the independence of judicial decisions. Algorithms could reinforce existing biases in the database.

In Austria, an automated model was created for the allocation of unemployed individuals, used by the Public Employment Service (AMS) to classify job seekers based on their chances of employment. People with low scores had limited access to professional training or financial support[21]. Although it increased the efficiency of the service, it was criticized by civil society for indirectly favoring discrimination against women, older individuals, or those with immigrant backgrounds. The system was temporarily suspended.

In Spain, biometric surveillance has been implemented in public spaces, in cities such as Madrid and Barcelona, which tested facial recognition systems in public transport areas or crowded markets, under the pretext of public safety. [22]Although the use is limited, the lack of clear regulations and the failure to inform the public have drawn criticism, particularly due to the violation of the right to anonymity in public spaces and the right to privacy.[23] Therefore, the need for a clear legal basis is essential for the use of AI.

Estonia is a European leader in e-government. AI is used for analyzing administrative documents, automatically issuing decisions regarding permits or subsidies, and predicting social needs, leading to efficiency, transparency, and reduced bureaucracy. It has been a major challenge for the government to maintain human control and ensure that AI decisions are explainable and fair.

Artificial intelligence is becoming an essential technology in the transformation of European administration, justice, healthcare, and economy. The European Union has chosen a distinct model compared to other global powers – one focused on respecting fundamental rights, transparency, and algorithmic accountability.

Documents such as the AI Act, Digital Services Act, and the GDPR framework reflect the Union's desire to set a global standard for 'trustworthy' AI. However, concrete cases in the Netherlands, France, Austria, and Spain show that risks related to

[19] Evelien Brouwer, *Digital Borders and Real Rights: Effective Remedies for Third-Country Nationals in the Schengen Information System*, Martinus Nijhoff Publishers, 2008, Haga, p. 235.

[20] Ronald Leenes et alii, *Data Protection and Privacy: The Age of Intelligent Machines*, Hart Publishing, 2017, Oxford, p. 185.

[21] AlgorithmWatch, Automated Decision-Making Systems in the EU: Case Studies, 2020, Berlin, p. 14.

[22] Javier Sánchez, *Facial Recognition in Public Spaces in Spain: A Legal Perspective*, "Revista de Derecho Digital", No. 7, 2021, Madrid, p. 72.

[23] Tarmo Kalvet, *Digital Governance in Estonia: Foundations and Future Directions*, eGA Report, 2021, Tallinn, p. 11.

discrimination, lack of transparency, and invasion of privacy are real and current.

European bodies (such as the EDPB, ECAT, or the future EAIB) play a crucial role in the uniform implementation of these standards, but the technical capacity and political will at the level of each Member State remain decisive.

In conclusion, the development of AI in the EU is a process that must be carefully guided to avoid transforming a promising technology into an opaque surveillance tool or a means of social exclusion.

Major risks and challenges for fundamental rights have been observed in the application of AI in the context of artificial intelligence.

The most affected right is the right to privacy and the protection of personal data. The use of AI often involves accessing vast personal data sets, often without the individuals concerned being fully aware. Technologies such as facial recognition, social media behavior monitoring, or advanced biometric analysis involve intrusive processing, which can lead to continuous surveillance and a sense of digital insecurity. According to Article 8 of the Charter of Fundamental Rights of the EU, everyone has the right to the protection of their personal data. Therefore, according to the General Data Protection Regulation (GDPR), any collection and processing must be: legal, fair, and transparent; based on freely given consent; proportional to the declared purpose; subject to technical and organizational safeguards.

Without these conditions, AI technology can generate invasive profiling, with severe consequences for personal autonomy and individual freedom.

In Italy, the Garante per la Protezione dei Dati Personali temporarily banned ChatGPT in 2023 due to the lack of transparency regarding processed data and the inability to verify the age of minor users.

In France, the use of facial recognition in high schools was banned by CNIL (the data protection authority), citing disproportionality and the lack of a clear legal basis.

In France, the use of facial recognition in high schools was banned by CNIL (the data protection authority), citing disproportionality and the lack of a clear legal basis.[24]

The principle of non-discrimination and algorithmic fairness is also affected by the use of AI. Algorithmic discrimination is not just a technical possibility but a reality already documented. It occurs when AI is trained on historical data marked by inequalities or when the design of the algorithm contains unintended cultural and social biases. Clear examples include credit systems, which are granted more frequently to men, or recruitment systems that rank CVs containing ethnic names poorly; predictive policing software that more frequently targets poor neighborhoods. These practices violate Article 21 of the Charter of Fundamental Rights of the EU, which prohibits any form of discrimination. Algorithms that classify people based on 'probabilities' of behavior can lead to social profiling, affecting access to jobs, services, or social benefits.

In Austria, the AMS system, which estimated the chances of employment, was suspended after it was found to favor young men born in Austria, to the detriment of other vulnerable groups.[25]

[24] Paul De Hert, Vagelis Papakonstantinou, *The New General Data Protection Regulation: Still a Sound System for the Protection of Individuals?*, in "Computer Law & Security Review", 2016, Amsterdam, p. 185.

[25] Sandra Wachter, *Normative Challenges of Identification in the Age of AI*, in "Nature Machine Intelligence", Vol. 1, 2019, p. 173.

In Sweden, the automated system used by the Immigration Agency was criticized for rejecting asylum applications based on a statistical score without human intervention, which led to the exclusion of vulnerable cases without a real justification.

These practices violate the principles of equality of treatment, transparency, and the right to appeal, as outlined in the Charter of Fundamental Rights of the EU and anti-discrimination legislation.

The use of AI can also affect the right to a fair trial and control of automated decisions. AI is already used in justice for predictive analysis, determining sentences, or assessing the risk of reoffending. This endangers: the right to defense; the presumption of innocence; access to a reasoned and transparent decision; judicial file allocation; analysis of the likelihood of recidivism; and evaluation of financial risks in commercial disputes. In this way, Article 47 of the Charter, which guarantees the right to a fair trial, including in relation to administrative or automated decisions, is seriously violated, as well as the provisions of Article 22 of the GDPR, which stipulate that individuals have the right not to be subject to a solely automated decision with legal effects. The problem arises when the final decision is made without real human intervention or when the explanations for the automated decision are opaque or nonexistent. This affects: the right to a reasoned decision; the right to defense; and the right to effective appeal.

In Estonia, the government implemented a 'digital judge' for resolving minor commercial disputes, sparking debates about the legitimacy of automated decisions without the involvement of a human judge,[26] or in Poland, the use of AI in the random allocation of cases to judges was criticized for being susceptible to political manipulation due to a lack of transparency, undermining trust in the impartiality of the justice system.

Freedom of expression and information pluralism is another fundamental right that can be violated by AI. Algorithms that manage information flows on platforms (e.g., YouTube, Facebook, TikTok) can create informational sources, influencing: the diversity of opinions; access to relevant information; and the formation of public opinion. Social media platform algorithms decide which content is 'visible' to the user, based on: interaction history; behavioral patterns; and the platform's commercial interests. Filtering and prioritizing content based on commercial logic can affect Article 11 of the Charter, which guarantees the freedom of expression and information.

The analyses carried out by ECAT on TikTok's algorithms showed that young people were disproportionately exposed to extreme content, promoting stereotypes and risky behaviors.[27]

AI creates excessive 'personalization', which can lead to: informational bubbles and polarization; self-censorship (chilling effect), and even the exclusion of minority or non-conformist voices.

In Romania, Germany, Hungary, and other EU countries, Facebook and TikTok algorithms have been accused of amplifying extremist content during elections, affecting access to balanced information and freedom of opinion.

The automation of processes through AI risks leading to job losses in sectors such as transportation, administration, and retail. At the same time, AI creates new types of jobs – but these require higher digital skills. This rapid transition may affect the right to

[26] Martin Ebers, *op. cit.*, p. 133.

[27] European Commission, Report on Algorithmic Transparency – ECAT, Brussels, 2023.

work (Article 15) and vocational training (Article 14 of the Charter), especially among people with low digital education or from rural areas.

Robotization and AI affect the labor market by eliminating some repetitive or routine jobs; increasing demand for digital skills, and leading to the emergence of algorithmic control forms (e.g., platforms that monitor employee productivity in real-time).

Risks that have emerged and created dangerous precedents include: digital exclusion of elderly or poorly skilled people; lack of transparency in decision-making regarding work evaluations, and increased precariousness in the 'gig' economy.

In Germany, trade unions have called for the inclusion of the principle 'algorithms do not fire people' in collective agreements, demanding transparency and participation in automated decisions concerning employees[28]. In Spain, Glovo delivery drivers protested against the automated rating system that affected their income and even access to work, without the right to appeal.

Other fundamental rights are also affected: human dignity, freedom of thought and choice, children's rights.

Whenever people are reduced to 'results' or 'behavioral patterns', there is a risk that the individual will be perceived as a statistical object, not as a human being with rights and freedoms, experiences, and aspirations. AI must be designed in a way that respects the intrinsic value of each individual.

AI systems can easily be used for behavioral manipulation (e.g., hyper-personalized ads, digital nudging) and can influence decisions without the individual being aware of the influence – affecting the autonomy of thought. Children are exposed to AI without the ability to understand or challenge it. Games, social media, and digital assistants can collect data, manipulate attention, and influence emotional development. When used without parental control, this has even led to suicide. Protection of minors is essential in an automated digital environment, and legislation must create clear norms for defense and protection.

In the Netherlands, an educational chatbot for students automatically collected data about their emotions without clear parental notification, which triggered an investigation by the child protection authority.

There is a risk that AI may deepen digital inequalities – between states, regions, or social groups. Unequal access to infrastructure, digital education, or algorithmic opportunities may create a new form of exclusion.

AI is a transformative but also profoundly disruptive technology. Its impact on fundamental rights is complex, variable, and often unpredictable. From privacy and data protection to equality, justice, and dignity, AI technologies raise real risks of abuse, especially in the absence of effective control and a solid ethical framework.

Although the European Union has a strategic advantage by placing human rights at the center of its digital policy, the application of this principle requires: rigorous impact assessments on fundamental rights; transparency and explainability in AI design; digital education and active social inclusion; meaningful human oversight mechanisms and effective remedies.

In the European Union, the protection of fundamental rights is a central principle of all policies and legislation. This principle is

[28] Valerio De Stefano, Antonio Aloisi, *Your Boss Is an Algorithm: Artificial Intelligence and Platform Work*, Hart Publishing, 2022, Oxford, p. 49.

also reflected in regulations concerning emerging technologies, such as artificial intelligence (AI). However, the challenges related to AI require an adaptable and comprehensive legislative framework that addresses issues beyond traditional regulations.

The European Union was forced to create a solid normative framework regarding fundamental rights, which gradually adapts to the challenges of digital technology. [29]The main pillars are:

- The Charter of Fundamental Rights of the European Union (2000) – which enshrines rights such as privacy (Art. 7), data protection (Art. 8), non-discrimination (Art. 21), human dignity (Art. 1), and access to justice (Art. 47);
- The European Convention on Human Rights (ECHR) – interpreted by the European Court of Human Rights in cases related to digital surveillance and online freedom of expression;
- The General Data Protection Regulation (GDPR) (2016/679) – an essential act in regulating AI, especially regarding automated decisions (Art. 22) and the right to explanation.
- The Charter of Fundamental Rights is an essential document that protects the fundamental rights of all individuals within the European Union. It includes basic rights such as: Right to privacy (Art. 7); protection of personal data (Art. 8); right to non-discrimination (Art. 21); access to justice (Art. 47).

In the context of AI, the protection of privacy and personal data becomes crucial, as many AI technologies are built on the massive processing of personal data. Additionally, the right to non-discrimination is essential in preventing algorithmic discrimination that can affect vulnerable groups.

The GDPR is one of the most important instruments for protecting fundamental rights in the digital context. It regulates how personal data can be collected, processed, and stored, imposing strict restrictions on automated decisions that may affect people's lives. Article 22 of the GDPR prohibits making automated decisions, including profiling, that could have significant legal effects on individuals involved, without their explicit consent. The GDPR stipulates that data protection impact assessments (DPIAs) are mandatory when AI is used to process sensitive data, providing a framework to prevent risks to individuals' fundamental rights.

These assessments must consider: the impact on privacy, freedom of expression, dignity; the risk of indirect discrimination; remedies and meaningful human oversight. However, these assessments are not mandatory for all actors and are not standardized, which may lead to inconsistent implementation.[30]

The ECHR remains a fundamental legal framework for the protection of human rights across Europe, including in the digital age. The European Court of Human Rights has issued a series of rulings regarding fundamental rights in the context of digital technologies, including electronic surveillance and the right to privacy.

The Regulation on Artificial Intelligence, known as the AI Act, is a major legislative initiative by the European Union aimed at regulating the development, implementation, and use of artificial intelligence systems in the European space. It is the first legislative act of its kind globally, proposed by the European

[29] Hielke Hijmans, *The European Union as Guardian of Internet Privacy*, Springer, 2016, Luxemburg, p. 211.

[30] Nathalie A. Smuha, *How the EU Can Protect Fundamental Rights in the Age of AI*, in ”European Journal of Risk Regulation”, 2021, Bruxelles, p. 153.

Commission in April 2021 and adopted in its final form in March 2024, with phased implementation starting in 2025.

The AI Act marks a historic moment, being the first global legislative initiative to attempt to regulate AI comprehensively. One of its central objectives is the protection of fundamental rights, reflecting the EU's commitment to democratic values.

The Regulation seeks to avoid excessive regulation, focusing on applications with the highest potential to violate rights, and has identified a series of risks, such as: the use of AI in justice, biometric surveillance, and automated decision-making in sensitive areas. The AI Act places particular emphasis on the transparency of automated decisions. According to the regulation, individuals affected by an automated decision must be clearly informed that a decision has been made by an AI system and about the logic behind this decision. This is an important step for protecting fundamental rights, especially regarding privacy protection and the right to understand and contest such decisions.

Moreover, the AI Act requires that all high-risk AI systems be periodically audited and verified to ensure compliance with ethical standards and fundamental rights protection.

The European Union has demonstrated, through the adoption of the Artificial Intelligence Regulation (AI Act), a clear commitment to its fundamental values, seeking to balance the promotion of technological innovation with the protection of the fundamental rights of citizens. However, despite the innovative nature of the regulation, legitimate questions arise regarding the sufficiency and effectiveness of this regulatory framework in the face of the challenges posed by the rapid developments in artificial intelligence.

The AI Act is part of a broader legal ecosystem, alongside acts such as the General Data Protection Regulation (GDPR), the Digital Services Act, the Digital Markets Act, as well as the fundamental instruments enshrined in the Charter of Fundamental Rights of the European Union. Together, these regulations shape a robust, yet complex and potentially fragmented framework, which may lead to uncertainties in implementation and difficulties in delineating institutional competences.[31]

Moreover, the AI Act adopts a predominantly static approach, focusing on ex-ante risk assessment and imposing compliance requirements based on the classification of AI systems. This approach is legally justified, but it is not adapted to the accelerated dynamics of technological innovation, especially in the context of the emergence of generative artificial intelligence systems, self-learning neural networks, and autonomous applications.[32] Thus, the need arises for flexible and adaptable legal mechanisms, capable of responding promptly to technological transformations and emerging risks.

Another problematic aspect concerns the lack of solid procedural safeguards for individuals affected by decisions made by AI systems. Currently, the AI Act does not explicitly enshrine the right to information, the right to intelligible explanations, or the effective right to contest automated decisions. In the absence of these safeguards, essential rights such as human

[31] Michael Veale, Frederick Zuiderveen Borgesius, *Demystifying the Draft EU Artificial Intelligence Act*, in "Computer Law Review International", no. 22(4), 2021, p. 97–112.

[32] Nathalie A. Smuha, *From a 'Race to AI' to a 'Race to AI Regulation': Regulatory Competition for Artificial Intelligence*, in "Law, Innovation and Technology", no. 13(1), 2021, p. 57–84.

dignity, equality before the law, and access to fair justice are exposed to systemic risks[33].

Furthermore, the effective implementation of European regulations will depend crucially on the ability of member states to implement adequate institutional mechanisms. The establishment of national authorities specialized in AI oversight, equipped with sufficient resources and technical expertise, as well as the development of collaborative frameworks between public institutions, the private sector, and civil society, is necessary.[34]

Although the AI Act represents a major step toward the ethical regulation of artificial intelligence, in its current form, it is not sufficient to guarantee the full and effective protection of fundamental rights. The future of this legislative framework will depend on its ability to evolve, to be complemented by additional mechanisms for procedural protection, and to respond flexibly to the challenges posed by ongoing technological developments.

The AI Act has a number of gaps and ambiguities that may limit the effectiveness of the regulation. First, impact assessments on fundamental rights are not subject to systematic external oversight, which may reduce transparency and accountability of the actors involved. Second, the definition of risks is sometimes vague and susceptible to divergent interpretations, which could allow the misclassification of potentially dangerous AI systems into low-risk categories.

What is concerning is that the provisions regarding biometric surveillance in public spaces raise questions. Although, in principle, it is prohibited, numerous exceptions related to national security and the prevention of serious crimes are allowed. These exceptions, formulated in general terms, risk leading to wide derogations and abusive applications. The regulation does not explicitly enshrine a right to an explanation in the face of automated decisions, nor an effective mechanism for challenging them. In the absence of these procedural safeguards, the effective protection of fundamental rights is called into question[35].

The regulatory framework established by the European Union in the field of artificial intelligence reflects a real effort to align technological innovation with the ethical and legal requirements of fundamental rights protection. However, the static nature of the current regulations and the accelerated pace of technological progress raise an essential question: are the current legislative tools sufficient to ensure effective protection of fundamental rights in the long term?

Although the AI Act provides a coherent general framework adapted to a variety of AI use scenarios, the legislation as a whole is fragmented. Currently, the protection of fundamental rights depends on the conjunction of the AI Act, GDPR, the Charter of Fundamental Rights, and other sectoral instruments. This normative plurality can create confusion, overlap, and implementation difficulties.[36]

[33] AlgorithmWatch (2021). Automated Decision-Making Systems in the EU: Fundamental Rights Implications.

[34] European Union Agency for Fundamental Rights (FRA) (2020). *Getting the future right – Artificial Intelligence and fundamental rights.* Publications Office of the European Union.

[35] Martin Ebers et alii, *The European Commission's Proposal for an Artificial Intelligence Act—A Critical Assessment by Members of the Robotics and AI Law Society (RAILS).* JIPITEC, no. 12(3), 2021, p. 283–324.

[36] Giovanni Sartor, Francesca Lagioia, *The Impact of the General Data Protection Regulation (GDPR) on Artificial Intelligence*. European Parliamentary Research Service (EPRS), 2020.

Furthermore, new forms of artificial intelligence, especially generative AI and self-learning systems, surpass the classical model of identifiable risks in advance. The AI Act relies on an ex-ante risk assessment, which makes it vulnerable to emerging applications that cannot be anticipated at the time of authorization or registration.[37]

Major problems are also created by the absence of clear procedural protection mechanisms. The right to information, to explanation, and to contest automated decisions is not directly and firmly regulated. In the absence of these safeguards, citizens risk being subjected to opaque, inequitable, or arbitrary decisions, without the possibility of understanding or challenging them.

Moreover, the effectiveness of the regulations depends crucially on the institutional capacity of member states to implement and monitor their application. Specialized authorities with strong technical expertise and operational independence, as well as coordination mechanisms between the European and national levels, are needed.

Therefore, in its current form, the European legislative framework provides a solid foundation but is insufficient to adequately respond to the complexity and dynamics of the AI phenomenon. An evolutionary approach is needed, based on periodic updates, strengthening procedural safeguards, and better integrating human rights principles into the logic of technological governance.

The specialized literature and reports developed by non-governmental organizations (NGOs) have provided significant contributions to understanding the impact of artificial intelligence on fundamental rights. These external sources play an essential role in complementing the institutional and legislative vision, bringing critical, empirical, and interdisciplinary perspectives to the forefront concerning the ethical and legal risks of AI use.

An important part of the academic literature focuses on the normative and philosophical implications of AI. The work of Luciano Floridi and other researchers in the field of digital ethics explores how algorithms can affect human autonomy and the principles of social justice[38]. In the same vein, research by Sandra Wachter and Brent Mittelstadt has highlighted the lack of a coherent framework to guarantee transparency and explainability of algorithmic decisions in relation to the rights conferred by the GDPR.[39]

Another important trend in the specialized literature is comparative analysis. For example, researchers at the AI Now Institute (New York University) have pointed out significant differences between the regulations proposed in the US and those in Europe, criticizing the trends of corporate self-regulation and the lack of common standards for legal accountability.[40]

NGOs active in the field of digital rights, such as Access Now, AlgorithmWatch, or European Digital Rights (EDRi), have raised awareness about the negative effects of AI on vulnerable

[37] Sandra Wachter, Brent Mittelstadt, Chris Russell, *Counterfactual Explanations without Opening the Black Box: Automated Decisions and the GDPR*, in "Harvard Journal of Law & Technology", no. 31(2), 2017, p. 841–887.

[38] Luciano Floridi et alii, *AI4People—An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations*, in "Minds and Machines", no. 28(4), 2018, p. 689–707.

[39] Sandra Wachter, Brent Mittelstadt, *A Right to Reasonable Inferences: Re-Thinking Data Protection Law in the Age of Big Data and AI*, in "Columbia Business Law Review", 2019(2), pp. 494–620.

[40] Kate Crawford, Meredith Whittaker et alii, *AI Now Report 2019*, AI Now Institute, New York University, 2019. Available at: https://ainowinstitute.org/reports.html.

groups and the systemic risks of discrimination, exclusion, and mass surveillance.

European non-governmental organizations have advocated for the inclusion of firmer provisions in the AI Act regarding explicit prohibitions, the right to human intervention, and the independence of supervisory authorities. These positions have directly influenced European parliamentary debates, demonstrating the capacity of civil society to intervene in the legislative process with well-documented and solid arguments.

Although academic studies and NGOs operate from different epistemological frameworks, there is an increasing convergence regarding the need for ethical governance of AI. Both sides promote the idea that AI should not be seen as a mere neutral technology but as a socio-technical construct with profound implications for legal norms and democratic values.

However, tensions arise regarding the approach: academic literature tends to be more nuanced and analytical, while NGOs often adopt a more normative and advocacy-oriented discourse. This difference is not a weakness but reflects the complementarity between research and civic action, contributing to a broader and more democratic understanding of the challenges posed by artificial intelligence.[41]

Conclusions

The transformations generated by the development of artificial intelligence (AI) bring unprecedented challenges for legal systems and, in particular, for the protection of fundamental rights in the European space. This work has shown that AI is not just a matter of technological progress but primarily an issue of ethical and legal governance, where the rule of law, human dignity, and individual freedoms must remain central benchmarks.

The analysis of the risks and intrinsic potential of AI to affect rights such as privacy, freedom of expression, non-discrimination, and access to justice revealed an imbalance between the accelerated pace of innovation and the ability of the law to react in a timely and adequate manner.[42] Automated decision-making systems, generative language models, and digital surveillance tools are just a few examples where technology can undermine individuals' rights if not properly regulated.

The European Union has reacted by developing major legal instruments, headed by the Artificial Intelligence Regulation (AI Act). This offers a unified and preventive legal framework, based on risk classification and the imposition of proportional technical and ethical obligations. The AI Act represents a pioneering legislative initiative at the global level but suffers in terms of its capacity to integrate the technological dynamic in a flexible and anticipatory manner.[43]

The conclusions of this work lead to the identification of three essential directions of action for strengthening the protection of fundamental rights in the AI era:

- Rethinking regulatory principles in an adaptive key , ashift is needed from a rigid normative approach to an evolutionary

[41] European Digital Rights (EDRi). (2022). *AI and Fundamental Rights: Civil Society Recommendations for the AI Act*. Available at: https://edri.org.

[42] Sandra Wachter, Brent Mittelstadt, Luciano Floridi, *Why a Right to Explanation of Automated Decision-Making Does Not Exist in the General Data Protection Regulation*, in "International Data Privacy Law", 7(2), 2017, pp. 76–99.

[43] Michael Veale, Frederick Zuiderveen Borgesius, *op. cit.*, p. 97–112.

one, which includes mechanisms for the continuous update of legal obligations based on technological developments and empirical data from the application of AI in practice.[44]

- Institutionalizing effective procedural safeguards .Fundamental rights cannot be defended solely by general norms; they require concrete mechanisms such as the right to be informed, the right to intelligible explanations, access to an effective remedy, and real human oversight over automated decisions.

- Strengthening institutional capacity at the European and national levels. The protection of rights in the context of AI requires the existence of independent authorities, well-funded and with technological expertise, capable of monitoring, sanctioning, and advising actors involved in the development and use of AI.

The European Union is in a unique position of normative leadership, with the potential to set a global standard for ethical, safe, and human-centered artificial intelligence. However, for this vision to become a reality, it requires consistent political and institutional commitment, an open interdisciplinary dialogue, and a continuous reassessment of the relationship between technology and fundamental rights.

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[44] idem

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