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EU's AI Regulation Approaches and Their Implication for Human Rights

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Abstract
The rapid development of Artificial Intelligence (AI) technologies presents significant opportunities, but also introduces critical challenges, particularly concerning the protection of human rights. In response, the European Union (EU) has developed comprehensive AI regulations, most notably the AI Act, positioning itself as a leader in global AI governance. However, questions remain regarding the effectiveness of these laws in safeguarding key human rights such as privacy, equality, autonomy, and freedom. This study aims to assess the sufficiency of the EU's current AI regulations in protecting human rights, analyze the specific impacts of AI technologies on privacy and equality, and explore emerging legal trends in AI regulation within the EU and their broader global implications. Utilizing a mixed-method approach, this research integrates legislative analysis, comparative research, scientific forecasting, and interdisciplinary inquiry. The study critically examines the provisions of the AI Act and other relevant EU regulations, comparing them with international legal frameworks to identify gaps and future challenges. The findings reveal that, while the EU's AI regulations offer foundational protections, there are significant deficiencies in addressing complex issues such as privacy, algorithmic bias, and transparency, particularly in high-risk areas like healthcare, law enforcement, and autonomous systems. The study also highlights that existing regulations are inadequate in managing the rapid integration of AI technologies across sectors and that marginalized groups are especially vulnerable to the risks posed by algorithmic decision-making systems. Furthermore, the EU's AI regulatory framework is poised to become a global benchmark, but there is an urgent need for more adaptive and flexible legal mechanisms to keep pace with the dynamic nature of AI advancements. In conclusion, the study emphasizes the need for legal reforms to bridge the current gaps in privacy protection and address algorithmic bias, ensuring the robust protection of human rights in the age of AI.

Introduction

Artificial Intelligence (further — AI) is a transformative force in the ever-evolving technological innovation landscape, promising unprecedented advancements across various sectors. As AI increasingly permeates critical aspects of society, concerns surrounding its ethical implications, potential risks, and regulatory oversight have garnered global attention. In response to these challenges, the European Union (EU) has embarked on a groundbreaking journey toward creating comprehensive AI regulation to foster innovation and trust and safeguard human rights.

Central to the EU's vision for AI regulation is prioritizing innovation, trust, and human rights. The EU aims to create an environment conducive to fostering AI-driven innovation while instilling confidence among stakeholders and ensuring the protection of fundamental rights and freedoms. This entails the development of regulatory frameworks that promote transparency, accountability, and ethical compliance, laying the groundwork for responsible AI development and deployment. In this case, The EU's emphasis on consolidating legal regulation reflects a concerted effort to navigate the complex interplay between innovation and regulation in the AI domain.

The EU's approach to AI regulation is characterized by a meticulous and collaborative process underpinned by a commitment to striking a delicate balance between promoting technological progress and upholding fundamental values. From its inception, the EU has adopted a forward-thinking strategy, recognizing the transformative potential of AI while acknowledging the need for robust regulatory frameworks to mitigate risks and ensure ethical use. This approach reflects the EU's proactive stance in addressing the complex interplay between technological innovation, societal impact, and regulatory oversight.

As the European Union (EU) grapples with the intricate realm of AI governance, it confronts many challenges spanning technological advancements, ethical dilemmas, and legal intricacies. Achieving a delicate balance between regulatory oversight and fostering innovation presents a formidable task, demanding meticulous deliberation and stakeholder engagement. Furthermore, addressing emergent issues like AI bias, privacy concerns, and algorithmic transparency calls for multifaceted strategies and collaborative endeavors. Amid these complexities, the EU faces dual pressures — the imperative of regulatory mandates and the need to maintain competitiveness globally in the AI landscape. Highlighting this tension, Hovsepyan (2020) underscores the nuanced approach EU policymakers require to promote innovation while safeguarding fundamental rights.[1]

In this context, the proposed AI Act is a pivotal subject of scrutiny and discourse. Laufer (2022) raises pertinent questions regarding its efficacy and alignment with existing

[1] Eduard Hovsepyan, Regulating AI: A Success Story for the European Union. (Academia, 2020). <https://www.academia.edu/91342161/Regulating_AI_A_Success_Story_for_the_European_Union>.

legal structures, reflecting broader uncertainties surrounding the adequacy of the EU's regulatory response to AI complexities.[2] Similarly, Špadina (2023) emphasizes the limitations of the current legal framework in addressing the dynamic and multifaceted nature of AI.[3] Indeed, the evolving landscape of AI necessitates an adaptable and nuanced regulatory approach capable of navigating its intricacies while upholding fundamental rights and values.

This study addresses several gaps that have not been fully explored in previous research on AI regulation within the European Union (EU). While prior studies, such as those by Laufer (2022) and Špadina (2023), have examined the EU's regulatory strategy with a focus on balancing innovation and oversight, these works do not delve deeply into the effectiveness of AI laws in safeguarding fundamental human rights, including privacy, equality, autonomy, and freedom. This research seeks to fill that gap by providing a comprehensive evaluation of the protection of human rights within the framework of AI regulation in the EU.

Moreover, previous studies tend to discuss the impact of AI in general terms without offering a detailed analysis of how AI technologies specifically affect core human rights. This study makes a novel contribution by exploring the specific impacts of AI on human rights domains and assessing the adequacy of existing regulations in addressing these issues. Thus, it offers a more focused and detailed perspective that has not been fully addressed in the current literature.

Additionally, while earlier research acknowledges the challenges of aligning existing laws with the rapidly evolving nature of AI, it has not extensively examined the emerging legal trends and their potential implications for future regulatory frameworks. In this regard, this study addresses the gap by analyzing these new legal trends in AI regulation and projecting their future impact on policymaking, providing a forward-looking contribution to the academic discourse.

[2] Oskar J Gstrein, Noman Haleem and Andrej Zwitter, 'General-Purpose AI Regulation and the European Union AI Act' (2024) 13 Internet Policy Review <https://policyreview.info/articles/analysis/general-purpose-ai-regulation-and-ai-act>.

[3] Helga Špadina, 'Legal Aspects of Artificial Intelligence in the Employment Process' (2023) 61 Stanovnistvo 167 <https://idn.org.rs/ojs3/stanovnistvo/index.php/STNV/article/view/546>.

Thus, this research adds a global dimension that has been largely overlooked in prior studies. Although the focus has been on the EU's AI regulation, the broader implications for international standards and global law have not been thoroughly examined comparatively. Therefore, this study enriches the academic discussion by analyzing the wider implications of EU AI regulation on global standards, offering a more holistic and interdisciplinary perspective.

Based on the background above, this study determines three research questions: 1) How effective are current AI laws in the EU in safeguarding human rights? 2) What are the specific impacts of AI technologies on human rights? 3) What are the existing legal trends in regulating AI, and how will these affect future regulatory frameworks?

This research critically assesses the effectiveness of existing AI laws in the EU in safeguarding fundamental human rights, particularly amidst emerging challenges posed by AI technologies such as privacy breaches, algorithmic biases affecting equality, and implications for societal freedoms and justice. The study aims to inform policymakers and stakeholders about areas requiring enhancement or revision to better align with ethical norms and societal expectations. Additionally, it investigates the multifaceted impacts of AI on human rights across diverse domains, providing empirical insights into how AI applications, including surveillance systems and algorithmic decision-making, influence individual privacy rights, contribute to or alleviate societal inequalities, shape digital freedoms, and impact fairness and justice in legal and social contexts.

By examining current AI legislation on a global scale, the research identifies trends in regulatory strategies and explores diverse approaches taken by jurisdictions worldwide in governing AI technologies. It emphasizes ethical considerations, transparency requirements, and the necessity of human oversight. Ultimately, the findings contribute to anticipating future regulatory trajectories and promoting international collaboration in establishing unified standards for AI governance. This research is essential for guiding policymakers and stakeholders navigating the intricate landscape of AI regulation, aiming to foster innovation while addressing ethical and societal imperatives effectively.

Research Method

This study adopts a mixed-method approach, combining various analytical techniques to understand the subject matter comprehensively. Firstly, the article utilizes a legislative analysis approach to examine the intricacies of the EU's AI regulation. It involves a systematic review and interpretation of the relevant legislative documents, policies, and directives enacted by the EU about AI. By dissecting the legal frameworks, the researchers aim to elucidate the specific provisions, objectives, and mechanisms embedded within the regulatory framework.

Additionally, the research incorporates a comparative analysis of the EU's AI acts with those of international law. This comparative approach allows for a broader contextualization of the EU's regulatory efforts within the global landscape of AI governance. By juxtaposing the EU's initiatives with international standards and practices, the researchers can identify similarities, differences, and areas of convergence or divergence, thereby enriching the analysis.

Furthermore, the article employs the method of scientific forecasting based on current trends to anticipate future developments and implications of the EU's AI regulation. Drawing upon empirical data, trends, and expert insights, the researchers forecast potential challenges, opportunities, and impacts of implementing the regulatory framework. This forward-looking approach enhances the relevance and practical applicability of the research findings, enabling policymakers and stakeholders to anticipate and respond proactively to emerging trends and dynamics in AI regulation.

Finally, the research adopts a critical and interdisciplinary lens to evaluate the EU's AI legislation and its implications for human rights. By integrating perspectives from diverse disciplines such as law, ethics, political science, and technology, the researchers aim to uncover underlying assumptions, power dynamics, and normative considerations embedded within the regulatory framework. This interdisciplinary approach fosters a nuanced understanding of the complex interplay between AI regulation, human rights, and broader socio-political dynamics, enriching the analysis and informing policy discourse.

The Reasons and Stages of the Establishment of AI Legislation, the Role of the EU in Its Formation

Artificial intelligence (AI) opens up enormous opportunities for humanity and brings many new challenges and threats to human rights, freedoms, interests and humanity. AI is beginning to penetrate more and more actively into all spheres, including medicine, energy, communications, urban economy, transport and others, rapidly becoming an integral part of our lives. It is also used in sensitive areas such as healthcare, social security, justice, and policing. AI is becoming a key, if not the most important, technology for developing the digital economy. Now, technological progress determines economic success, which ensures enormous investments in the research and development of AI.

At the same time, AI has several specific features, such as autonomy, the ability to self-organize and self-teaching. Therefore, it is essential to understand all the risks of their implementation, stop them in time, and ensure that AI will be used for the benefit of humanity and not for harm.

With the widespread use of AI, the issue of legal regulation in this area has remained only a matter of time since its uncontrolled development carries too many potential risks. Recently, such concerns have been increasingly expressed worldwide,[4] including by AI system developers. Timely legal regulation of the development and use of AI was practically absent and overlooked for many years. However, the basic principles of neural networks were developed decades ago when states needed to see the prerequisites for the rapid development of AI. Only legislative regulation of AI can protect the public from potential threats associated with its use.

In addition, AI regulation should be systematic and comprehensive and cover related areas such as data, robotics and others, which is confirmed by a number of EU documents controlling AI systems and establishing liability for their improper use. Attempts to form a regulatory framework in the field of AI were being made at individual

[4] Rasim Alguliyev and Rasim Mahmudov, 'About Some Socio-Economic Problems and Risks of Artificial Intelligence' (2024) 12 International Journal of Science, Technology and Society 140 <https://www.sciencepublishinggroup.com/article/10.11648/j.ijsts.20241205.11>.

states and regional and international levels. The European Union (EU) activities are particularly highlighted, where much attention is paid to the topic of regulating AI systems. Researchers can talk about the EU's leadership in this area since exactly here legal regulation has been worked out most fully, and its approach is advanced.

The authors and research institutes of the EU have actively studied the issues of creating and using AI. One can note the large-scale study The Era of Artificial Intelligence: towards a European strategy for human-centric machines. Among the European authors,[5][6][7][8] there are scientific works of the authors of the European Institute of Science, Media and Democracy,[9] reports of the Center for European Policy Studies (CEPS), including the report by Renda,[10] and the work of researchers in the framework of the Blog on European Law. These mentioned that AI has been declared a strategically important area and a critical economic development engine in the European Union. Therefore, all EU documents emphasize the possibility for the Union to achieve global leadership in AI and pay significant attention to developing a unified approach to regulation, the practical usage of big data, ethics, reliability and security of AI systems.

Having identified AI as the newest area that needs an urgent response and initiated many studies, the EU moved on to documents on cooperation between member states and forming ethical principles to eventually create the first large-scale legislative proposal on AI.

The rapid development of areas such as AI and robotics, as well as the ethical and legal risks arising in this regard, served as an impetus for the adoption by the European

[5] Thomas Burri and Fredrik von Bothmer, 'The New EU Legislation on Artificial Intelligence: A Primer' [2021] SSRN Electronic Journal <https://www.ssrn.com/abstract=3831424>.

[6] Vera Opoku, 'Regulation of Artificial Intelligence in the EU' (*EMLE*, 2019) <https://emle.org/wpcontent/uploads/2019/11/EMLE-Thesis-Vera-Opoku.pdf>.

[7] Nicolas Petit and Jan Cooman, 'Models of Law and Regulation for AI' (RSCAS 2020/63, SSRN 2020) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3706771>.

[8] Anastasia Siapka, 'The Ethical and Legal Challenges of Artificial Intelligence: The EU Response to Biased and Discriminatory AI' [2018] SSRN Electronic Journal <https://www.ssrn.com/abstract=3408773> accessed 15 October 2024.

[9] Andrea Renda, *Artificial Intelligence: Ethics, Governance and Policy Challenges: Report of a CEPS Task Force* (Centre for European Policy Studies 2019). <https://www.ceps.eu/wp-content/uploads/2019/02/AI_TFR.pdf>.

[10] Ugo Pagallo and others, , 'On Good AI Governance' (*European Institute for Science, Media and Democracy*, 2019) <https://www.eismd.eu/wp-content/uploads/2019/11/AI4Peoples-Reporton-Good-AI-Governance_compressed.pdf>.

Parliament of Resolution 2015/2103 on the norms of civil law on robotics.

The next important step was the Declaration of Cooperation on Artificial Intelligence,[11] signed on April 10, 2018, by 25 European countries (including Norway), according to which the states agreed to cooperate to develop a unified European approach to the development of AI. Later that year, four more EU countries joined the Declaration. In April of the same year, the Communication on Artificial Intelligence for Europe was presented, in which the European Commission outlined a European approach to AI issues, including three pillars: advancing technological developments and encouraging the use of the public and private sectors, readiness for social and economic changes, and the formation of an ethical and legal framework. The document also outlines the need to create a single digital market.

A little later, the European AI Alliance was created, a multilateral forum for open consideration of all components of AI development. The next step of the EU is the Message of the European Commission, Artificial Intelligence for Europe, dated April 25, 2018, which contains a strategy for the development of AI in the EU and defines the concept of artificial intelligence.

The EU General Data Protection Regulation (EU Regulation 2016/679) (hereinafter referred to as GDPR), which entered into force in May 2018, was aimed at strengthening the protection of personal data, as well as unifying its regulation within the Union.

On December 7, 2018, in continuation of the April document, the European Commission presented the Coordinated Plan on Artificial Intelligence. In 2019, the HLEG AI expert group created by the European Commission presented the results of its work, which resulted in the development of two important documents: "Ethics Guidelines for Trustworthy AI"[12] and "Policy and Investment Recommendations for Trustworthy Artificial Intelligence".[13]

[11] Declaration of Cooperation on Artificial Intelligence of 2018 (European Commission official website 2018) <https://ec.europa.eu/jrc/communities/sites/jrccties/files/2018aideclarationatdigitaldaydocxpdf.pdf>.

[12] Ethics Guidelines for Trustworthy AI of 2019 (European Commission official website 2019) <https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai>.

[13] Policy and Investment Recommendations for Trustworthy Artificial Intelligence of 2019 (European Commission official website 2019) <https://digital-strategy.ec.europa.eu/en/library/policy-and-investment-recommendations-trustworthy-artificial-intelligence>.

At the beginning of 2020, the European Commission presented a policy document, White Paper on Artificial Intelligence: a European Approach to Excellence and Trust,[14] which establishes two main areas of activity: building an ecosystem of excellence and forming an ecosystem of trust, as well as the Report on safety and liability implications of AI, the Internet of Things and Robotics[15] together with the EU Data Strategy,[16] which covers not only issues of data collection and exchange between companies, businesses, and governments, but it also concerns the issue of ensuring their safety and concentration on the territory of the EU. The White Paper on Artificial Intelligence reinforces the need to balance AI with human rights and maintain human control over AI systems. Here, for the first time, a risk-based approach to AI regulation is proposed and high-risk AI systems are highlighted. The document aims to create an ecosystem of trust, within which the safe development of AI will be ensured while respecting the values of The Union and the rights of EU citizens.

In October 2020, the European Parliament adopted three more documents:

1) Resolution No. 2020/2012 on a framework of ethical aspects of artificial intelligence, robotics and related technologies;[17]
2) Resolution No. 2020/2014 on the civil liability regime for artificial intelligence;[18]
3) Resolution No. 2020/2015 on intellectual property rights for the development of artificial intelligence technologies.[19]

[14] White Paper on Artificial Intelligence: A European Approach to Excellence and Trust of 2020 (European Commission official website 2020) <https://commission.europa.eu/publications/white-paper-artificial-intelligence-european-approach-excellence-and-trust_en>.

[15] Report on safety and liability implications of Artificial Intelligence, the Internet of Things and Robotics of 2020 (European Commission official website 2020) <https://eur-lex.europa.eu/legal-content/en/TXT/?qid=1593079180383&uri=CELEX%3A52020DC0064>.

[16] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions "A European Strategy for Data" of 2020 (European Commission official website 2020) <https://eurlex.europa.eu/legal-content/EN/TXT/?qid=1593073685620&uri=CELEX:52020DC0066>.

[17] Resolution 2020/2012(INL) of 20 October 2020 with Recommendations to the Commission on a Framework of Ethical Aspects of Artificial Intelligence, Robotics and Related Technologies (European Parliament official website 2020) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020IP0275>.

[18] Resolution 2020/2014(INL) of 20 October 2020 with Recommendations to the Commission on a Civil Liability Regime for Artificial Intelligence (European Parliament official website 2020) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020IP0276>.

[19] Resolution 2020/2015(INI) of 20 October 2020 on Intellectual Property Rights for the Development of Artificial Intelligence Technologies (European Parliament official website 2020) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020IP0277>.

We would also like to mention another European Parliament Resolution adopted in October 2021, which is the Resolution No. 2020/2016 on Artificial Intelligence in Criminal Law and Its Use by the Police and Judicial Authorities in Criminal Matters.[20]

The quintessence of the European approach to AI regulation was the long-awaited draft of the European Union Artificial Intelligence Act, which establishes harmonized rules regarding artificial intelligence (the EU Artificial Intelligence Act - The EU AI Act),[21] which appeared on April 21, 2021, and demonstrates the seriousness of intentions The EU regarding AI regulation. The draft of this regulatory legal act was the result of many years of hard work by the EU,[22] which became a pioneer in the sphere of AI governance.

The Main Provisions of the EU AI Act, Its Ethical and Legal Principles, a Risk-Based Approach

While AI is changing our world, Europe is adapting to new conditions and implementing a large-scale digital strategy of the European Union (EU), the main goal of which is to create favorable conditions for developing innovative technologies.

As part of implementing this strategy, on March 13, 2024, the European Parliament adopted the European Union Artificial Intelligence Act (further — the EU AI Act or the Act), approved by the Council of the EU on May 21, 2024. The Act comes into force 20 days after publication, but it will begin to operate in parts, and organizations will have 6 to 36 months to prepare for its application.[23]

In this case the purpose of legislative regulation is to protect fundamental rights, democracy, the rule of law and environmental sustainability from high-risk AI, as well

[20] Resolution 2020/2016(INI) of 6 October 2021 on Artificial Intelligence in Criminal Law and Its Use by the Police and Judicial Authorities in Criminal Matters (European Parliament official website 2021) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021IP0405>.

[21] The EU Artificial Intelligence Act of 2024 (European Parliament official website 2024) <https://www.europarl.europa.eu/doceo/document/TA-9-2024-0138_EN.pdf>.

[22] Anna Marchenko, , 'Legal Analysis of the Latest EU Legislation on the Use of Artificial Intelligence Technologies' (*MGIMO Open Repository*, 2022) https://open.mgimo.ru/handle/123456789/131?utm_source=google.com&utm_medium=organic&utm_campaign=google.com&utm_referrer=google.com.

[23] Elena Smirnova and Anna Yugunan, 'The Act on Artificial Intelligence Adopted in Europe' (*Forbes*, 2024) <https://www.forbes.ru/tekhnologii/508210-doveli-do-uma-kakoj-zakon-ob-iskusstvennom-intellekte-prinali-v-evrope>.

as to stimulate innovation and establish Europe as a leader in this field.[24]

The President of the European Parliament, Roberta Metsola, said that the Act would promote innovation and at the same time protect the fundamental rights of EU citizens. "Artificial intelligence is already very much part of our daily lives. Now, it will be part of our legislation too", she said.[25] The EU AI Act aims to create a common regulatory framework for using AI. Its scope covers all industries (except the military) and all types of AI.

The adopted Act is viewed as an unconditional breakthrough in regulating innovations and new technologies related to AI. As the world's first special law, it is of great importance not only for the EU but also for the entire global community, since it will be applied not only by European companies developing and implementing AI but also to companies from non-EU countries if their AI systems are used in Europe. By forming its advanced approach to AI regulation, the EU translates its rules externally, which determines its impact on international law and the law of third countries.

The EU AI Act is aimed not only at protecting citizens and ensuring security but also at stimulating the development of technology, which is ensured through a risk-based approach. The allocation of prohibited AI systems makes it possible to guarantee the exclusion from circulation of certain systems that are incompatible with EU values on the territory of the EU and about EU citizens.

According to the Act, AI systems is understood as "a system that accepts data of machine and (or) human origin and input signals, makes logical conclusions about how to achieve a set of human-defined goals using learning, reasoning or modelling, which are implemented through the methods and approaches enshrined in Appendix I, and generates results in the form of content (generative systems AI), forecasts, recommendations or decisions that affect the environment with which the system interacts".

[24] Kristina Zagvozdkina, 'The European Parliament Has Adopted the Act on Artificial Intelligence' (*Forbes*, 2024) <https://www.forbes.ru/tekhnologii/508044-evroparlament-prinal-zakon-ob-iskusstvennom-intellekte>.

[25] Roberta Metsola, 'Promised. Negotiated. Approved' (x, 2024) <https://x.com/EP_President/status/1767872037970677956>.

The EU AI Act regulates the development and use of AI, provides mandatory requirements for organizations involved in the development and implementation of AI, contains the basic requirements that all AI systems must meet if they want to gain access to the EU internal market, and establishes significant liability measures. These basic requirements will later form the basis of technical standards developed by European organizations for standardization, specifying the basic requirements.

The European Union's AI Act adopts a systematic approach to categories AI systems based on the level of risk they pose to European citizens and consumers, with each category subject to specific restrictions and controls.

Firstly, it is an unacceptable risk. This category encompasses those specifically designed to exert subconscious influence over individuals, implement social rating systems based on personal characteristics and behavior, and facilitate real-time recognition capabilities.

All of them are prohibited for use in Europe, with an exception made for recognition systems by law enforcement agencies after the fact and with the permission of the court. Thus, prohibited AI systems include those that manipulate human behavior or exploit human vulnerabilities, which can lead to physical or psychological harm or systems that are indiscriminate in real-time remote biometric identification in public places to ensure law and order or unfair in infringing on the rights of individuals or groups. For example, the recognition of human emotions in the workplace and schools, the social scoring system, and so on.

Secondly, high-risk systems. Such AI systems significantly threaten health, safety or fundamental human rights. They must comply with a set of specific requirements and rules (conformity assessment, risk management system, post-marketing monitoring system, data management, accounting, and transparency requirements) to increase citizens' confidence in AI and ensure the safe implementation of AI systems in all spheres of public life. Particularly important applications, for example, for medical devices, require that the supplier's assessment following the requirements of the Act be reviewed by a notified body conducting an assessment following existing EU standards, for example, the Regulation on Medical Devices. This group includes:

1) systems used in goods and services that are licensed in the EU as part of consumer protection. These are, for example, toys, cars, aviation, medical equipment;
2) management systems for critical infrastructure, such as transport, if such use could endanger the lives and health of citizens;
3) systems used in educational institutions, if they can affect access to education, for example, through the assessment of exams, or systems used in working with the staff of firms and institutions. AI used to evaluate resumes when selecting job candidates also falls into the category of high-risk systems, as does AI used in robotic surgery;
4) systems used in law enforcement agencies, work with migrants and refugees, and border protection.

Most of the Act is devoted to regulating this particular category of AI systems. All of them will be evaluated before their implementation and registered in a special EU database during application.

Thirdly, limited risk systems. The use of AI is considered to be of limited risk if transparency requirements are not met. The Act introduces special requirements to ensure it, the essence of which is to inform people about their interaction with AI and increase the level of openness and trust. For example, when using chatbots, it will be necessary to report that a person is communicating with a machine so that the user knows that he is dealing with AI and has enough information to make an informed decision to continue using AI. In this case, the content created by the AI should be appropriately labelled as artificially generated. The same requirement applies to audio and video content created using deepfake.

Lastly, systems with minimal (or no) risk. This system is used unrestricted by law, reflecting the lowest level of regulatory scrutiny. This category encompasses various applications, including AI-enabled video games and spam filters, which are prevalent across multiple sectors. Most AI systems currently deployed within the EU fall within this low-risk classification, highlighting their widespread adoption and acceptance. By allowing the unrestricted use of such AI systems, the Act acknowledges their minimal societal impact and negligible potential for harm, thus facilitating innovation and promoting the continued advancement of AI technologies within the EU. Thus, The EU AI Act, when implementing a risk-based approach:

1) Prohibits AI systems that pose unacceptable risks, allowing their use only in exceptional cases for law enforcement purposes by court order. For example, real-time facial recognition can be used to search for a missing child;

2) Defines a list of high-risk AI systems and sets specific requirements for such systems and the companies that develop and implement them aimed at reducing risks. Such requirements include a mandatory risk assessment and compliance system (comprehensive supervision of compliance of AI systems, the process of their development, implementation and use with legal requirements, as well as ethical standards), high-quality data sets on which AI is trained, logging of use and reasonable human supervision of the activities of such systems;
3) Requires a compliance assessment before a high-risk AI system is put into operation or put on the market;
4) Defines transparency requirements for AI systems with limited risk;
5) Completely removes AI with minimal risk from regulation.

Concerning providers of general-purpose AI systems (GPPS) capable of competently performing a wide range of tasks, the Act defines that:

1) All providers of GPA models must post content created by them and provide technical documentation and instructions for using models, comply with copyright laws and publicly describe the content that was used to train AI;
2) All suppliers of GPAI models that pose a systemic risk should evaluate the models, program them so that they do not create illegal content, monitor and report severe incidents in the operation of AI models, and ensure cybersecurity protection.

Significant fines of up to €35 million or 7% of global turnover are imposed for non-compliance with the norms prescribed by the Act. It prohibits companies like Open Air, Amazon, Google and IBM from providing API access to generative AI models. Attention is also drawn to the provision that any model available in the EU without first undergoing extensive and expensive licensing will entail heavy fines of more than €20 million, or 4% of global revenue. Open-source developers and hosting services (such as GitHub) will be responsible for providing unlicensed models.

The EU's chosen risk-based approach to AI legal regulation AI systems according to consumer risk. It introduces special regulations for each group — from the strictest rules for high-risk systems to complete freedom for AI systems that do not pose a threat. The expert community recognizes such an approach to regulation as optimal for a rapidly developing industry since it allows the uncontrolled and dangerous use of AI to be excluded and preserves initiatives in AI development.

Global and Local Implications of the Adoption of the EU AI Act

There is a reason to assume that the adopted Act will become a gold standard for most states, as the European Data Protection Regulation (GDPR) once became such a standard. Already at the stage of preparation and adoption, it began to influence the legislation of countries outside Europe and contributed to the fact that in September 2021, the Brazilian Congress passed a bill creating a legal framework for AI. At the end of April 2023, the Japanese edition of Kyodo reported that the countries of the G7 — the United States, Great Britain, Germany, Japan, Canada, Italy, and France — are working on international standards for the use of AI.

Implementing the EU AI Act is poised to set a groundbreaking precedent, reshaping the operational landscape for numerous global AI enterprises and exerting a profound influence on the broader international market. Nevertheless, there remains a pressing need to ascertain the responses and strategies of other major players in the AI arena, notably China and Russia, to gauge the Act's global impact fully.

Legislators would like to ensure that AI systems are safe, transparent, traceable and controlled by humans, which will eliminate discrimination against users and contribute to environmental protection. States need clear conditions to protect people's rights and freedoms, their privacy, and a framework that cannot be exceeded when creating and using AI systems. Protecting a person from AI interference in private life remains one of the most difficult for legislators. They will have to solve the issue of non-proliferation of AI technologies to the detriment, as was done with nuclear weapons.

From the moment the Act comes into force, information about the incorrect operation of AI will become a legal problem. Special regulation will be directed at companies that develop and implement high-risk AI systems. However, regardless of the risk category, it is advisable for all companies working with AI to implement AI compliance, which implies:

1) Assessment of regulatory compliance and guarantees of compliance with laws in developing, implementing and using AI systems. In this case, we are talking not only about compliance with the EU AI Act but also about the one with the GDPR (General Data Protection Regulation of the EU) and copyright rules;

2) Compliance with ethical standards is essential since many AI application issues remain outside the scope of legislative norms. AI systems must comply with the law and moral principles of fairness, transparency, responsibility, and respect for users' privacy. Ethical compliance includes identifying the bias of AI systems, eliminating privacy violations, and minimizing other ethical risks.

Legislative regulation of AI can also have negative consequences. For example, accessing the latest technologies in this area is complex, and their development is slowing down. At the same time, stringent restrictions for AI in one part of the world may force developers to improve these technologies where restrictions are minimal and choose countries where freedom of research and development is not limited by legislation, leading to a staff drain. There are still concerns that even the minimal use of AI facial recognition systems can lead to the arbitrariness of special services and violation of citizens' rights since these systems are often mistaken, leading to the detention of innocent people. However, demanding a complete ban on recognition systems is impractical since they help find terrorists or people.

It should not be forgotten that any regulation can be devalued if there are no tools to monitor the situation in the presence of the illusion of control over AI technologies. Therefore, instead of limiting AI, the legislator needs to focus his efforts on creating mechanisms to ensure the safe use of these technologies and consumer protection, for example, on creating a regulator responsible for the use of AI and developing standards and norms that ensure the safety and ethics of its use.

In this regard, the EU AI Act creates a unique body — the European AI Council- which will promote national cooperation and ensure compliance with the rules for creating and using AI systems.

The Act also requires Member States to establish their notification bodies to ensure that AI systems comply with the standards set out in the Act. This assessment is carried out either by self-assessment by suppliers of the AI system or by conformity assessment by a third party — the notifying authority, which, in the first case, has the opportunity to conduct audits to verify the correctness of the conformity assessment.

According to the current proposal, many high-risk AI systems do not require a third-party compliance assessment, which faces criticism based on the fact that high-risk AI systems must be evaluated by an independent third party to ensure their safety.

In the coming years, it will be possible to analyse how modern regulation meets the requests of the society. But today we can confidently say that given the speed of technology development more than legislative regulation is needed to ensure the safe use of AI systems. Therefore, humanity will have to realize the importance of ethical self-restraint and the conscious use of AI systems.

Conclusion

Based on the above discussion, the authors conclude that the appearance of AI portends tremendous opportunities and serious challenges for humanity, with significant impacts on various areas of life, including medicine, transportation, and security. As AI becomes increasingly integrated into critical industries, concerns about the ethical and legal implications of its use are attracting worldwide attention.

In response to the rapid proliferation of AI, the EU has embarked on a transformative journey. Recognizing the need for regulatory oversight, the EU created AI governance by developing a comprehensive framework to ensure the responsible development and deployment of AI technologies. From initial non-binding recommendations to binding legislation, the EU's journey to AI regulation has been characterized by a systematic and collaborative approach, culminating in the landmark adoption of the EU AI Act in 2024. This Act marks a new era of AI regulation and lays the foundation for a holistic, moral and technologically advanced digital landscape in the EU and beyond. It reflects years of dedicated work focused on harmonizing the governance of AI across EU Member States and setting clear standards for the ethical use, reliability and safety of AI.

The EU's emphasis on a risk-based regulatory approach is a global precedent that underscores the EU's commitment to balancing the promotion of technological innovation while protecting fundamental human rights, democracy and environmental sustainability. The adoption of the EU AI Act allows the EU to take a leading position in shaping the ethical and legal framework for the gold standard of AI development

and deployment. These efforts to strengthen the ecosystem of best practices and trust in AI development will play a key role in protecting the interests of EU citizens and maintaining European leadership on this cutting-edge technological frontier.

By prioritizing transparency, accountability and compliance with ethical norms, the EU AI Act aims to mitigate the potential harm inflicted by using AI by promoting the responsible development and deployment of AI. In addition, the Act introduces strong liability measures, imposing significant fines for non-compliance, underscoring the EU's unwavering commitment to regulatory standards. However, the implementation of the Act is also challenging, particularly in balancing regulatory oversight and fostering innovation. Thus, the effectiveness of the Act depends on the establishment of effective control and the development of ethical AI practices.

While the impact of the EU AI Act on the global market remains fully realized, initiatives by major world powers such as the G7 countries to develop international AI standards highlight the growing recognition of the need for a harmonized regulatory framework in this area. Lawmakers face the challenge of balancing the potential of using AI for the benefit of society with the protection of individual rights and freedoms.

As the regulatory framework continues to evolve, the sufficiency of these measures remains a matter of debate, given the rapidly evolving nature of AI technologies and the necessity of their correspondence with the public interest. The only criterion for sufficiency, in our view, can only be the achievement of the desired result. Therefore, it should be kept in mind that the sufficiency of regulation lies not only in the existence of laws, but also in their ability to cope with the complexities associated with the development and use of AI. Some scholars argue that despite the EU's leadership, its legal framework may not be flexible enough to address in real time the emerging risks associated with AI. The distinction in the EU AI Act between low-risk and high-risk AI systems is an important step forward in tailoring regulation to specific realms of AI application. Nevertheless, critics argue that the risk assessment parameters need further clarification and that uncertainty remains about how effectively the EU will enforce these regulations, especially given the borderless nature of AI and the sophistication of international compliance.

In this regard, it is becoming more and more obvious that in order to solve the multifaceted problems associated with AI, not only legislative measures are needed, but also the development of ethical standards for the creators and integrators of AI systems. An excellent incentive for complying with such standards and developing AI systems for civilized intellectual and technological progress could be a respective international prize for outstanding achievements in the field of artificial intelligence, established by a competent international organization by analogy with the existing awards for outstanding achievements in other fields.

Accentuating the importance of ethical self-restraint and fair use of AI becomes a critical requirement to ensure the safe and responsible integration of AI technologies into society. As we navigate the intricacies of an AI-driven future, a holistic approach that combines legislative regulation with ethical awareness and accountable AI governance is necessary to develop digital inclusiveness and an intellectually and technologically civilized ethical society.

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References

Alguliyev R and Mahmudov R, 'About Some Socio-Economic Problems and Risks of Artificial Intelligence' (2024) 12 International Journal of Science, Technology and Society 140 <https://www.sciencepublishinggroup.com/article/10.11648/j.ijsts.20241205.11>.

Burri T and von Bothmer F, 'The New EU Legislation on Artificial Intelligence: A Primer' [2021] SSRN Electronic Journal <https://www.ssrn.com/abstract=3831424>.

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions "A European Strategy for Data" of 2020. (European Commission, 2020). https://eurlex.europa.eu/legal-content/EN/TXT/?qid=1593073685620&uri=CELEX:52020DC0066.

Declaration of Cooperation on Artificial Intelligence of 2018. (European Commission, 2018). https://ec.europa.eu/jrc/communities/sites/jrccties/files/2018aideclarationatdigitaldaydocxpdf.pdf.

Ethics Guidelines for Trustworthy AI of 2019 (European Commission, 2019). https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai.

Gstrein OJ, Haleem N and Zwitter A, 'General-Purpose AI Regulation and the European Union AI Act' (2024) 13 Internet Policy Review <https://policyreview.info/articles/analysis/general-purpose-ai-regulation-and-ai-act>.

Hovsepyan E, Regulating AI: A Success Story for the European Union. (Academia, 2020). https://www.academia.edu/91342161/Regulating_AI_A_Success_Story_for_the_European_Union.

Marchenko A, 'Legal Analysis of the Latest EU Legislation on the Use of Artificial Intelligence Technologies' (*MGIMO Open Repository*, 2022) https://open.mgimo.ru/handle/123456789/131?utm_source=google.com&utm_medium=organic&utm_campaign=google.com&utm_referrer=google.com.

Metsola R, 'Promised. Negotiated. Approved' (x, 2024) <https://x.com/EP_President/status/1767872037970677956>.

Opoku V, 'Regulation of Artificial Intelligence in the EU' (*EMLE*, 2019) <https://emle.org/wpcontent/uploads/2019/11/EMLE-Thesis-Vera-Opoku.pdf>.

Pagallo U and others, 'On Good AI Governance' (*European Institute for Science, Media and Democracy,* 2019) <https://www.eismd.eu/wp-content/uploads/2019/11/AI4Peoples-Reporton-Good-AI-Governance_compressed.pdf>.

Petit N and Cooman J, 'Models of Law and Regulation for AI' (RSCAS 2020/63, SSRN 2020) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3706771>.

Policy and Investment Recommendations for Trustworthy Artificial Intelligence of 2019. (European Commission official website 2019). https://digital-strategy.ec.europa.eu/en/library/policy-and-investment-recommendations-trustworthy-artificial-intelligence.

Renda A, *Artificial Intelligence: Ethics, Governance and Policy Challenges: Report of a CEPS*

Task Force (Centre for European Policy Studies 2019) < https://www.ceps.eu/wp-content/uploads/2019/02/AI_TFR.pdf>.

Report on safety and liability implications of Artificial Intelligence, the Internet of Things and Robotics of 2020. (European Commission, 2020). https://eur-lex.europa.eu/legal-content/en/TXT/?qid=1593079180383&uri=CELEX%3A52020DC0064.

Resolution 2020/2012(INL) of 20 October 2020 with Recommendations to the Commission on a Framework of Ethical Aspects of Artificial Intelligence, Robotics and Related Technologies. (European Parliament, 2020). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020IP0275.

Resolution 2020/2014(INL) of 20 October 2020 with Recommendations to the Commission on a Civil Liability Regime for Artificial Intelligence. (European Parliament, 2020). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020IP0276.

Resolution 2020/2015(INI) of 20 October 2020 on Intellectual Property Rights for the Development of Artificial Intelligence Technologies (European Parliament, 2020). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020IP0277.

Resolution 2020/2016(INI) of 6 October 2021 on Artificial Intelligence in Criminal Law and Its Use by the Police and Judicial Authorities in Criminal Matters. (European Parliament, 2021). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021IP0405.

Siapka A, 'The Ethical and Legal Challenges of Artificial Intelligence: The EU Response to Biased and Discriminatory AI' [2018] SSRN Electronic Journal <https://www.ssrn.com/abstract=3408773>.

Smirnova E and Yugunan A, 'The Act on Artificial Intelligence Adopted in Europe' (Forbes, 2024) <https://www.forbes.ru/tekhnologii/508210-doveli-do-uma-kakoj-zakon-ob-iskusstvennom-intellekte-prinali-v-evrope>.

Špadina H, 'Legal Aspects of Artificial Intelligence in the Employment Process' (2023) 61 Stanovnistvo 167 <https://idn.org.rs/ojs3/stanovnistvo/index.php/STNV/article/view/546>.

The EU Artificial Intelligence Act of 2024. (European Parliament, 2024) .https://www.europarl.europa.eu/doceo/document/TA-9-2024-0138_EN.pdf.

White Paper on Artificial Intelligence: A European Approach to Excellence and Trust of 2020. (European Commission, 2020). https://commission.europa.eu/publications/white-paper-artificial-intelligence-european-approach-excellence-

and-trust_en.

Zagvozdkina K, 'The European Parliament Has Adopted the Act on Artificial Intelligence' (Forbes, 2024) <https://www.forbes.ru/tekhnologii/508044-evroparlament-prinal-zakon-ob-iskusstvennom-intellekte>.