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Regulating the unregulatable: EU law and Artificial Intelligence

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Abstract: The article reflects on the possibility of and need for regulating artificial intelligence. First, the author presents the genesis of artificial intelligence regulations, indicating their rootedness in science-fiction literature. She also presents types of artificial intelligence in the context of possible threats. In the next part, she analyzes the existing activities within the European Union, which define the directions to unify the European market, creating a legal framework that defines the ethical principles and legal obligations that should be observed during developing, implementing, and using artificial intelligence, robotics, and related technologies. The above activities have been compared with the current state of legal regulations in China and the USA. On this basis, the author indicates the desired legal actions in the field of artificial intelligence.

Uregulować nieregulowalne. Sztuczna inteligencja w prawie Unii Europejskiej

Abstrakt: Niniejszy artykuł zawiera rozważania dotyczące możliwości i potrzeby uregulowania sztucznej inteligencji (SI). Na początku autorka przedstawia genezę regulacji dotyczących SI, wskazując na ich zakorzenienie w literaturze fantastycznonaukowej. Przedstawia także typy sztucznej inteligencji w kontekście ewentualnych zagrożeń. W kolejnej części analizuje dotychczasowe działania w ramach Unii Europejskiej określające kierunki mające doprowadzić do ujednolicenia rynku europejskiego, stworzenia ram prawnych co do zasad etycznych i zobowiązań prawnych, których należy przestrzegać przy opracowywaniu, wdrażaniu oraz wykorzystywaniu sztucznej inteligencji, robotyki i powiązanych technologii. Działania te zostały zestawione z aktualnym stanem

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regulacji prawnych obowiązujących w Chinach i USA. Na tej podstawie autorka wskazuje pożądane działania prawne w zakresie sztucznej inteligencji.

Introduction

The beginning of research into artificial intelligence (hereinafter: AI) dates back to the mid-20th century. Nowadays, AI is one of the focal points of the public debate on socio-economic issues. It is widely considered to be one of the most important factors influencing social change and economic growth.[1] The use of AI leads to improvements in sectors such as healthcare, ecology or security, but its development and popularization within the current legal framework may entail significant risks of violation of fundamental rights,[2] such asthe right to freedom of expression, freedom of assembly, the prohibition of discrimination on grounds of sex, race, ethnic origin, religion, disability, age or sexual orientation. That is why it is important to examine whether the strengthening of the protection of fundamental human rights by regulating issues critical to AI expansion will ensure the goal of ethical artificial intelligence and consequently improve the security of the individual in contact with advanced algorithms.

The development of AI is also a challenge in terms of ensuring an adequate level of protection of personal data and private life, as well as providing a clear framework for security and accountability.[3] However, it is difficult to identify

[1] *Prawo sztucznej inteligencji*, eds. L. Lai, M. Świerczyński, Warszawa 2020.

[2] Committee of Experts on Internet Intermediaries, *Study On The Human Rights Dimensions Of Automated Data Processing Techniques (In Particular Algorithms) And Possible Regulatory Implications*, https://rm.coe.int/algorithms-and-human-rights-en-rev/16807956b5 (accessed: 1.11.2020).

[3] There is a comprehensive set of existing EU product safety and liability legislation (the EU product safety legislative framework includes the Directive 2001/95/EC of The European Parliament and of the Council and several sectoral legislation covering different categories of products, from machines, aircraft and cars to toys and medical devices, which aim to ensure a high level of health and safety; the product liability legislation is complemented by different systems of civil liability for damage caused by products or services), including sectoral legislation, supplemented by national legislation. This collection is important and can be used for several new applications in the field of artificial intelligence. As regards the protection of fundamental and consumer rights, the EU legal framework includes provisions such as the Race Equality Directive (Council Directive 2000/43/EC), Council Directive 2000/78/EC establishing a general framework for equal treatment in employment and occupation, directive on equal treatment between men and women concerning employment and access to goods and services (Council Directive 2004/113/EC; Council Directive 2006/54/EC), several consumer protections provisions (e.g. Unfair Commercial Practices Council Directive 2005/29/EC and Consumer Rights Council Directive 2011/83/EC), as well as the provisions on the protection of personal data and privacy, in particular, the General Data Protection Regulation and other sector-specific legislation on the protection of personal data, such as the Data Protection Directive in criminal matters (as well as provisions on the protection of personal data and privacy, in particular, the General Data Protection Regulation and other sectoral legislation on the protection of personal data, such as the Directive on the protection of data in criminal matters (Directive (EU) 2016/680 of the European Parliament and of the Council

threats and react against them because the final shape and functioning of AI systems are not entirely clear. Therefore, it is important to note that a change in the legal environment will not directly translate into an asymmetrical relationship between humans and AI. However, the path that regulators will take should start with a revision of the methods of protecting the individual, as well as the instruments of enforcing responsibility from the AI administrators. When undertaking this challenge, it is particularly necessary to determine the direction of change for the whole system so that the legal standards serve to proactively shape the industry.

This article will analyze the rationale for a legislative initiative, as well as present the activities that aim at setting out the directions to unify the European market and creating a legal framework that defines the ethical principles and legal obligations to be respected in the development, implementation, and use of AI, robotics, and related technologies, which are being undertaken within the European Union. The above actions will be compared with the current state of regulations in China and the U.S.

Science-fictional beginnings of law

For a long time, AI was the domain of science-fiction literature. The reflection in this field went beyond what was known to explore possible future challenges, creating an opportunity to present the risks related to the uncontrolled development of robotics.

At the same time, writers fueled the Frankenstein complex,[4] i.e., the fear of the negative effects of losing control over AI. Against this background, the first literary work that presented the principles of robotics was created. Three of Asimov's Laws, presented in the short story "Runaround", and later included in the *I, Robot* anthology,[5] were an answer to the possible threats. Asimov decided that: (1) a robot must not injure a human being, nor by failing to act, allow a human being to be harmed; (2) a robot must obey human orders unless they conflict with the First Law; (3) a robot must protect itself unless it conflicts with the First or Second Law. This list is completed by another, more fundamental right, which is called

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of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA). From 2025 onwards, the provisions on accessibility requirements for goods and services set out in the European Accessibility Act will apply (Directive (UE) 2019/882 on the accessibility requirements for products and services).

[4] The fear of artificial human creations, as the result of developing technology, is present both in individuals and social groups — P. Księżak, S. Wojtczak, "Prawa Asimova, czyli science fiction jako fundament nowego prawa cywilnego", *Forum Prawnicze* 60, 2020, no. 4.

[5] I. Asimov, "Runaround", [in:] idem, *I, Robot*, New York 2004 (1950), p. 25.

the "Zero Law".[6] This law states that a robot must not cause harm to mankind or allow mankind to be harmed by the robot's failure to act.

The shape of current AI systems and the directions of their further development, imprecise concepts used in Asimov's principles (i.e. harm, humanity), the dependence of the content of the regulation on the material norms of national law (e.g. principles of tort liability), as well as incomplete regulation (lack of protection of legal persons or failure to assign the leading role to a particular administrator of AI) make them the subject of criticism in the scientific world.[7] Asimov's four Laws of Robotics, therefore, have no normative value. However, given that they have been repeatedly used as inspiration for legislative initiatives, they have been accepted as a kind of popular theory of robotics and imagined future.[8]

Due to the weaknesses of literary Robotics Laws and the lack of other regulations comprehensively covering AI issues, it is necessary to consider two issues, the first that the development of artificial intelligence should be regulated and the second that the existing legal environment is sufficient or that its change will not have a significant impact on the creation of a trustworthy AI.[9] In the detailed legal dogma of artificial intelligence, it is argued that it is now necessary to (a) adapt legal standards to the wide use of machine learning algorithms; (b) introduce new regulations for the exploitation of weak AI systems; (c) propose directions for regulation to ensure ethical and lawful research on strong AI systems.[10] The idea of the need to develop legislation to regulate AI is not common and not so long ago clear differences in the approach to this subject could be observed in Europe, Asia, or the U.S.

In Western European legal culture, it is formulated a hypothesis that for AI to develop self-awareness, users should be provided with predictable and understandable rules that protect fundamental freedoms and rights. The legal framework should be effective but not overly prescriptive. However, the proper design of methods of protecting an individual is difficult not only because of the incompleteness of data on the functioning of the AI itself (black box problem) as well as

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[6] I. Asimov, *Robots and Empire*, London 1985.

[7] L. McCauley, "AI Armageddon and the Three Laws of Robotics", *Ethics and Information Technology* 9, 2007, no. 2, p. 153.

[8] P. Księżak, S. Wojtczak, op. cit.

[9] Features necessary to achieve trustworthy artificial intelligence include AI's ethics and accountability. The term ethical AI is used to describe the development, implementation, and use of AI that ensures compliance with ethical standards, including fundamental rights, as specific moral entitlements, as well as ethical principles and related fundamental values. Accountability is understood as the ability to put the AI system under control in terms of algorithms, data, and design processes. Providing mechanisms of traceability and registration already at the initial stage of AI system design can increase the possibility of its control.

[10] *Sztuczna inteligencja, blockchain, cyberbezpieczeństwo oraz dane osobowe. Zagadnienia wybrane*, eds. K. Flaga-Gieruszyńska, J. Gołaczyński, D. Szostek, Warszawa 2019.

the complexity of its consequences, but above all because of the need to find the right balance between the pursuit of economic growth and the risks of violation of fundamental rights. The EU's legal policy should not be limited to reacting to threats but should also provide a framework for the development of AI by the shared values in the community. A possible European Union legal initiative cannot weaken the competitive position of Member States or lead to an outflow of specialists and companies from the AI sector. It is important to be aware that the benefits creating a strong AI will not be limited to global economic dominance, but will be extended to political and social leadership.

A way to setting values and priorities concerning AI

The document which opened a discussion on the shape and scope of regulation of AI under European law — Resolution of the European Parliament to the Commission with recommendations to develop solutions (regulations) in the field of civil law concerning robotics[11] — was adopted on 16 February 2017. The adoption of this document was preceded by a series of measures to enable the development of a data-based economy.[12] The EU rightly recognizes that improving access to data and its management is essential. The development of AI depends on data. The Resolution indicates that the increased development of AI justifies this work. The European Union recognizes that AI systems will have an impact on all social groups and key economic sectors. At the same time, the European Union notices that the dispersion of national centers of competence makes it impossible to compete with the giants in the field of AI systems, such as the countries of

[11] European Parliament resolution of 16 February 2017 with recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL)), P8TA(2017)0051.

[12] From 2014 The Commission has already taken several actions. With the entry into force of the General Data Protection Regulation (Regulation (EU) 2016/679), the EU has created a solid framework for building digital trust. The upcoming GDPR review may bring additional useful solutions in this respect. Other initiatives that have contributed to the development of a data-based economy are the: Regulation on a framework for the free flow of non-personal data in the European Union (Regulation (EU) 2018/1807), the Cyber Security Act (Regulation (EU) 2019/881), and Directive on open data and the re-use of public sector Information (Directive (EU) 2019/1024). The Commission has also engaged in digital diplomacy, recognizing 13 countries as providing an adequate level of personal data protection. To eliminate market inefficiencies, in some areas — such as the automotive industry (Regulation 715/2007 changed by Regulation 595/2009), payment service providers (Payment Services Directive 2015/2366), information from smart metering systems (Directive 2019/944 — for electricity, Directive 2009/73/EC — for gas meters), electricity grid data (Commission Regulation (EU) 2017/1485, Commission Regulation (EU) 2015/703) or intelligent transport systems (Directive 2010/40/EU). Sectoral legislation on access to data was also adopted. The Digital Content Directive (Directive (EU) 2019/770) has contributed to empowering individuals by introducing contractual rights when digital services are provided to consumers who provide access to their data.

North America or Asia. Therefore, it is necessary to coordinate actions at the EU level to enhance the competitiveness of the Member States.

In its recitals, the resolution refers to Asimov's Laws of Robotics Laws, which, for the reasons described above, should be assessed critically. For specialists in the field of AI and robotics in the broadest sense of the word, this may be surprising, and it may put into question the expectations of the European Parliament toward future legislation.[13] This circumstance is not altered by the fact that the Resolution is addressed to people who have control over AI. It seems, however, that at the current stage of work on the shape of future regulations, the understanding of AI issues is dominated by sci-fi imagination and not by reliable research.

Additionally, this act contains several important assumptions and new concepts that create further directions for the development of legislation. The main goal is to strive for controlled autonomy of robots. The Resolution presents the assumptions concerning the responsibility for AI, as well as the mandatory regulation for the complimentary use of AI, the orientation of AI towards humans, and the protection of their welfare. The document sets out the main principles for the development of AI, including the need to strive for an ethical and accountable AI, ensuring the protection of the fundamental rights of users of AI systems, including non-discrimination, informed consent, protection of human dignity, protection of privacy and legitimate data processing. In this area, the European Union recognizes the need to promote innovation and even considers creating an international European Agency, which will coordinate the cooperation to improve the changes of European Union countries to confront the US or China in the race for strong AI.

The Resolution is the first European document to use the concept of electronic person. Such a status would belong to the most developed autonomous robots. The creation of a new type of legal entity may point to two problems that the European Union is beginning to see in the context of the development of AI, namely, the control and risk associated with the development of strong AI. The proposal to give AI a new form of legal entity is not uniformly assessed in legal literature and national opinions.[14] In the long term, this involves attributing to AI an independent liability for compensation for any damage it might cause.

However, the special features of artificial intelligence (e.g. non-transparency) may make it difficult to apply and enforce the liability provisions. This, in turn, may lead to a weakening of the position of an individual (in particular, a consum-

[13] P. Książak, S. Wojczak, op. cit., p. 58.

[14] According to Polish assumptions to the AI strategy included in the Action Plan of the Ministry of Digitization of 9 November 2018, the authors, unlike the European legislator, draw attention to the need to oppose actions aimed at giving legal personality to artificial intelligence. As these theses have not been further developed by them, it is impossible to point out the arguments that were behind its formulation.

er[15]) concerning highly developed AI systems. Because of this, it seems necessary to introduce a more elaborate model of representation of such entities, taking into account the fact that they may express their needs and expectations to some (limited) extent.[16] Until this level of AI development is reached, the responsibility should rest with the individual. As AI develops, it should be proportionally distributed according to the level of instructions given to the robot and the extent of its autonomy. The solution to these concerns about liability was the register of robots proposed by Parliament, supplemented by obligatory insurance for manufacturers for damages that may arise from the use of AI.

The Resolution recognizes the need to amend and adapt many other regulations, such as those related to copyright or property rights. From the perspective of the current work on the legislation, it should be pointed out that the most important thing at the moment is to define precisely when and under what conditions the action causes legal effects and to whom (from the existing legal persons, natural persons, and independent organizational units without legal personality) this action causing legal effects is attributed.[17] The Resolution should be considered the beginning of work on how to think about AI regulation.

In October 2017 the European Council highlighted the need for urgent regulations of AI so that new trends in its development can be reconciled with ensuring a high level of data protection, digital rights and ethical standards. The Council invited the Commission to present a European approach to the issue of AI.[18]

In its Communication of 25.04.2018 to the European Parliament, the European Council, the European Economic and Social Committee and the Committee of the Regions, the Commission[19] indicated that the European Union has high standards of safety and product liability, as well as an appropriate ethical and legal framework arising, among others, from the Charter of Fundamental Rights. At the same time, the Commission indicated that the increase in computing power, data availability and progress in algorithms transformed AI into one of the most strategic technologies of the 21st century. The way we approach AI problems will determine the image of the world we live in. Hence the need for a European initiative. In the

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[15] Among other things, the consumer should know what data is processed, by whom and how it is processed; how it affects the content of the potential legal relationship; whether the knowledge of both parties to the contract about the counterparty is equivalent. There is a need to create legal mechanisms that guarantee the consumer full and true information about the scope, mechanisms, or entities using consumer data — and their impact on the content of the legal relationship (cf. Assumptions to the AI strategy in Poland Action Plan of the Ministry of Digitization, Warsaw, 9 November 2018).

[16] *Sztuczna inteligencja…*

[17] A. Chłopecki, *Sztuczna inteligencja — szkice prawnicze i futorologiczne*, Warszawa 2018, p. 14.

[18] European Council meeting (19 October 2017) — Conclusions (CO EUR 17, CONCL 5).

[19] COM(2018)237.

Communication, the Commission called on the European Union to adopt a coordinated approach according to which: (1) Europe will be competitive in the field of AI; (2) no one will be left behind in the digital transition; (3) new technologies will be value-based. Strengthening cooperation and coordination at the European level aims at maximizing the impact of investments at EU and national level, promote support and cooperation across the European Union, exchange best practices and jointly identify further actions to ensure EU competitiveness globally.[20]

What is especially important in this Communication is the first attempt to define AI. Until now, this concept did not belong to legal language, but to the language of philosophy, psychology, and, of course, it existed within the literary language. Thanks to sci-fi literature, artificial intelligence became part of the "social imaginary". The Commission states that the term artificial intelligence refers to systems that exhibit intelligent behavior by analyzing their environment and taking action — to some extent autonomously — to achieve specific goals. The Commission distinguishes that AI systems can be software-based, operating in a virtual world (e.g. voice assistants, image analysis software, search engines, speech and face recognition systems), or can be embedded in devices (e.g. advanced robots, autonomous cars, drones, or Internet of Things applications).[21]

As a result, the need to promote innovation and support the AI sector, both financially and in terms of research, was recognised. The objectives are to be implemented by action such as: increasing investment, strengthening research and innovation from the laboratory to market, supporting AI centers of scientific excellence across Europe, ensuring access to AI for all small businesses and potential users, supporting research and experimentation, attracting private investment, and making more data available.[22] The document conveys an encouragement to actively cooperate in the development and implementation of AI systems. Member States should therefore move forward and join forces at the European level for all Europeans to participate in the digital transition, so that the development of AI is adequately resourced, and the EU's values and fundamental rights are put at the forefront of the AI agenda.

In order to implement the assumptions expressed in the above-mentioned Communication, on 7.12.2018, the Communication entitled "A coordinated plan for

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[20] Ibidem.

[21] This definition has been clarified by the High Level Expert Group, p. 8: "Artificial intelligence (AI) systems are software (and possibly also hardware) systems designed by humans that, given a complex goal, act in the physical or digital dimension by perceiving their environment through data acquisition, interpreting the collected structured or unstructured data, reasoning on the knowledge, or processing the information, derived from this data and deciding the best action(s) to take to achieve the given goal. AI systems can either use symbolic rules or learn a numeric model, and they can also adapt their behaviour by analysing how the environment is affected by their previous actions".

[22] COM(2018)237.

artificial intelligence" was sent from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions.[23] The proposal for a coordinated plan is based on the declaration on the cooperation in the field of AI adopted in April 2018 at the Digital Technology Day and signed by all Member States and Norway.[24] The European Council approved it in June 2018.[25]

The aim of the coordinated AI plan is, as the document states, to maximize the impact of investments at the EU and national level, promote synergies and cooperation across the EU, exchange best practices, and jointly identify further actions. The EU shall focus on supporting key areas such as research, investment, market introduction, skills and talent, data, and international cooperation. The European Union implemented the use of common indicators to monitor the implementation and development of AI in the EU and the level of effectiveness of existing strategies, using the "AI-Watch" developed by the Commission's Joint Research Centre.[26] The plan also takes into account the priority of social welfare and concern for the environment.

The document reiterates the position of the European Union, according to which the Member States can only face global competition together. The plan creates a strategic framework for national AI strategies.[27] This document instructed all other Member States to develop their national AI strategies by mid-2019, building on the work done at the European level. These strategies should set out levels of investment and implementation measures, as they aim to build closer AI cooperation and create synergies to maximize investment in the AI value chain. The main areas of AI development should be healthcare, advanced manufacturing systems, autonomous vehicles (electric vehicle batteries) and ecology.

In December 2018, in connection with the adopted coordinated plan on AI, a group of independent experts at the European Commission published a preliminary list of guidelines for the development of AI (e.g. prohibition of identification of the user without his or her consent, transparency in the use of AI, preservation of human control over technological products). Therefore, the European Commission formally established a High-Level Expert Group, which in April 2019 pub-

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[23] COM(2018)795.

[24] European Commission, *EU Member States sign up to cooperate on Artificial Intelligence*, https://ec.europa.eu/digital-single-market/en/news/eu-member-states-sign-cooperate-artificial-intelligence (accessed: 1.11.2020).

[25] European Council, *European Council meeting (28 June 2018) — Conclusions*, https://www.consilium.europa.eu/media/35936/28-euco-final-conclusions-en.pdf (accessed: 1.11.2020).

[26] European Commission, *Knowledge for policy: AI Watch*, https://ec.europa.eu/knowledge-4policy/ai-watch_en (accessed: 1.11.2020).

[27] The plan concerns activities to be launched in 2019–2027 and is to be updated on an ongoing basis.

lished guidelines on trustworthy AI.[28] According to experts, a trustworthy AI has three characteristics: (1) it should be lawful, i.e. it should respect all applicable laws and regulations; (2) it should be ethical, ensuring respect for and compliance with ethical principles and values; and (3) it should be technically and socially sound since AI systems can cause unintended damage even when used in good faith. Trustworthy AI means that not only the AI system itself, but also all the processes and entities that are involved in its life cycle, can be trusted.

The Commission published a Communication,[29] in which it welcomed the key requirements set out in the guidelines of the High-Level Expert Group: (1) leadership and oversight role of the human being, (2) technical robustness and security, (3) privacy and data management, (4) transparency, (5) diversity, non-discrimination and fairness, (6) social and environmental well-being and (7) accountability. The human-centered approach is one of the most important guidelines and it should remain the main focus. This means that in the development of AI, human values must be guaranteed in the way AI systems are developed, implemented, used, and monitored by ensuring respect for fundamental rights, including those enshrined in the Treaties and in the Charter of Fundamental Rights of the European Union, which combines a reference to a common basis founded on respect for human dignity, in which the human being has a unique and inalienable moral status.[30] It also involves the need to take into account the environment and other living beings that are part of the human ecosystem, as well as a sustainable approach for the development of future generations.

Summary of preparations for the legislative initiative

The Commission adopted the White Paper on Artificial Intelligence on 19th February 2020, inviting the Member States, other European institutions, and all stakeholders, including industry, social partners, civil society organizations, researchers and the general public, to express their views on AI policy options.[31] The White Paper analyzes the impact of AI, the Internet of Things, and other digital technologies on security and liability regulations. The European Union puts special emphasis on the development of skills and qualifications, in particular on increasing the number of women trained in the field of AI and employed in the industry. Another aspect — besides the necessary investment and skills — that hinders the popularization of AI to which the European Union attaches great import-

[28] European Commission, *Building Trust in Human-Centric AI*, https://ec.europa.eu/futurium/en/ai-alliance-consultation/guidelines#Top (accessed: 1.11.2020).

[29] COM(2019)168.

[30] European Commission, *Shaping Europe's digital future: High-Level Expert Group on Artificial Intelligence*, https://ec.europa.eu/digital-single-market/en/high-level-expert-group-artificial-intelligence (accessed: 1.11.2020).

[31] COM(2020)65.

ance, is the lack of trust of system users. As a result of the research carried out (in particular on basis of the information obtained from surveys responded to by more than 350 organizations in the framework of the implementation of the guidelines of the High-Level Expert Group), it was stated that the provisions on transparency, traceability, and human oversight are not contemplated in the current legislation in relation to many economic sectors. Users of AI systems, in particular the consumers, should receive the same level of effective protection when choosing to use AI solutions.

The observed risks related to fundamental rights may result from the flawed development of AI systems (including human supervision) or the use of data without correcting possible prejudices (e.g. the system is trained using exclusively or mainly data obtained from the male population, which may lead to sub-optimal results for women). Possible discrimination may affect important groups of society. Also, the EU recognizes that special attention should be paid to the risks of unauthorized expansion of the powers of public authorities to perform surveillance of citizens on a massive scale. Moreover, a significant risk may also be related to the use of AI to find sources of data and de-anonymize data on individuals, as it creates a new threat to so-called non-personal data sets.

The EU also points out that users can be confronted with new risks (e.g. a malfunctioning autonomous car or a medical device) as a result of using AI. Although this type of damage caused by dangerous products can already be observed today, the development of AI can intensify this issue. Moreover, due to the specificity of AI, it may not be possible to find the reason behind wrong decisions due to the lack of technical capabilities to check the systems. This problem is also directly linked to the development of appropriate liability rules. In this respect, it was decided to seek appropriate methods of protecting the individual by (1) ensuring enforcement (establishing rules for attributing and proving responsibility for AI activities); (2) extending the provisions on the implementation of the AI legislation to the Member States; (3) clarifying the rules for taking responsibility for AI systems not only at the stage of their introduction to the market but also in the course of updating or improving them as a result of machine learning; (4) clarifying the obligations of individual operators, including in particular the rules for taking responsibility in the supply chain, where AI systems will be provided by non-manufactured operators; (5) building the evidence base on potential risks related to AI, in particular in the context of cyber security and personal safety.[32]

The new regulatory framework shall be based on risk analysis in order to make the identification of high risks clear and easy to understand and to apply by trading participants.[33] At the same time, the European Union proposes that there should be a high risk if two cumulative conditions are met, namely, that AI is used in

[32] Ibidem.

[33] It is worth highlighting the German approach, which called for the preparation of a multi-stage regulation system based on risk assessment — from the lack of harmless AI regulation to a complete ban on dangerous algorithms.

a sector that can generate significant risk and in a way that increases the probability of a risk occurring.[34] As a rule, the regulations would only be applied using high-risk AI. Exceptions to the above principles would be the use of AI systems for recruitment and in a way that could affect workers' rights (protection of employment equality) and the use of AI for remote biometric identification or other invasive surveillance technologies. An additional exemption, related to consumer protection, was considered.

The European Union also put forward mandatory legal requirements divided into the following groups, in accordance with the Guidelines of the High Level Expert Group (HLG): (1) training data; (2) data storage and record-keeping; required information; (3) robustness and accuracy; (4) human oversight; (5) specific requirements for specific AI applications, e.g. for remote biometric identification. Without discussing these groups in detail, it is worth noticing that the European Union recognizes the need to prevent discrimination and not to undermine human autonomy and the protection of privacy and personal data.[35]

On the basis of the assumptions set out in the White Paper, the European Parliament called on the European Commission to present a new legal framework setting out the ethical principles and legal obligations to be respected in the development, implementation and use of AI, robotics and related technologies in the EU, including software, algorithms and data.[36] The document summarizes the assumptions and analyses contained so far in the White Paper and the preceding communications and opinions on AI. The Parliament adopted that the legal and ethical dimension should be enshrined in an effective, forward-looking and comprehensive regulatory framework at European level, supported by the competent national authorities, coordinated and supported by the Commission or any competent Union institutions, bodies, offices and agencies that may be designated in this context, regularly supported by the said center of expertise, and duly respected and certified within the internal market. A legislative proposal from the Commission is to be presented early next year.

On 21st October 2020 a draft position paper on AI was presented.[37] The assumptions were to be included in the Charter of Fundamental Rights, which con-

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[34] The White Paper gives as an example of the use of AI in the medical sector where, for example, the appointment system will not in itself be a potential source of risk justifying legislative intervention.

[35] Together with the White Paper, was published a European Strategy for Data — Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions — COM(2020)66.

[36] European Parliament resolution of 20 October 2020 with recommendations to the Commission on a framework of ethical aspects of artificial intelligence, robotics and related technologies (2020/2012(INL)).

[37] EU Position in the Case of Artificial Intelligence (without Poland) — Presidency conclusions — The Charter of Fundamental Rights in the context of Artificial Intelligence and Digital Change.

tains the fundamental rights of the citizens of the European Union in order to update the content of the Charter and clarify, among other things, the ethical aspects of AI. The position was not accepted[38] due to Poland's opposition, which should be assessed critically. Poland's rejection of a common way to unify the digital market and intensify research and scientific work in the field of AI will have a negative impact primarily on Poland's national economy. It is obvious — regardless of the assessment of the possibility of implementing the assumptions currently presented in the projects by the European Union — that no EU country on its own can really compete with the giants operating on the market of AI systems.

Lack of regulation of Artificial Intelligence

The U.S. and China, as leaders in AI research, opt for financial support for the industry,[39] while declaring little interference in legal regulations. Although restrictions dictated by the protection of privacy and human rights appear within the framework of industry guidelines, they are not subordinated to the development of AI. It is openly admitted that essential prescriptive regulations would hamper technological expansion. This approach seems to be becoming outdated. New initiatives leading to the adoption of legal acts can be observed. In addition, work on artificial intelligence is also underway on international grounds in order to build alliances based on common values.[40]

Research and development of AI in the U.S. is a top national priority and it enjoys broad support, primarily financial. The American AI Initiative, a regulation issued by Donald Trump in 2019, is a key document in the context of AI. It primarily provides the federal government with an important role in facilitating AI research and development.[41]

American leadership in the field of new technologies and the need to cooperate with foreign partners and allies are also emphasized. The document introduces five basic principles: (1) to pursue technological breakthroughs; (2) to develop appropriate technical standards; (3) to train employees with the skills to develop and use AI technology; (4) to protect U.S. values, including civil liberties and

[38] Poland opposed the term "gender equality", probably because of the word "gender" instead of "sex". It could be caused because right-wing circles in Poland think that word "gender" is ideologically saturated, and it can be used to attack traditional gender roles and the traditional models of family.

[39] Private investment in AI in Europe in 2016 amounted to €2.4–3.2 billion, compared to €6.5–9.7 billion in Asia and €12.1–18.6 billion in North America; data in favor: Communication from the Commission, p. 4.

[40] Work is in progress in the Council of Europe, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Organization for Economic Cooperation and Development (OECD), the World Trade Organization and the International Telecommunications Union (ITU).

[41] Future of Life Institute, *AI Policy — United States*, https://futureoflife.org/ai-policy-united-states/?cn-reloaded=1&cn-reloaded=1 (accessed: 1.11.2020).

privacy, and to increase public confidence in AI technology; (5) to protect U.S. technological leadership in AI, while promoting an international environment that supports innovation. In turn, the executive departments and agencies that deal with AI must adhere to six strategic objectives: (1) promoting sustainable investment in AI research and development; (2) increasing access to federal data, models, and computing resources; (3) reducing barriers to the use of AI technology; (4) ensuring that technical standards minimize vulnerability to malicious attack; (5) training U.S. Artificial Intelligence researchers; (6) implementing an action plan to protect U.S. economic interests and national security.[42]

Looking at these objectives, we can conclude that the companies developing AI enjoy not only a lot of freedom, but also benefit from organizational support through the training of professionals and the financial assistance provided. Additional legislative initiatives are also taken, and local laws are passed.[43] China, although it is considered a pioneer of unregulated development of AI systems, also adopted a document on AI. China's "New Generation Artificial Intelligence Development Plan",[44] published by the Chinese State Council in 2017, states that China is going to monetize its artificial intelligence into an industry worth more than 150 billion yuan (approx. 21 billion dollars) by 2020 and establish preliminary standards and ethical policies.

By 2025, China is expected to become a leader in some AI applications, increase the value of its products and extend the standards and ethical norms for AI. Moreover, China's goal is to become a world leader in AI by 2030. In addition, AI should modernize the industry and contribute to China's economic transformation. Therefore, it is clear that the Chinese strategy is only just indicating its intention to define ethical standards, while at the same time implementing previously developed AI systems. The doctrine also indicates that under the current state of law, government and businesses are not guided by privacy when designing solutions. This is compounded by an uncritical belief, unknown to Western legal systems, in the power of state authorities to use systems of mass surveillance and monitoring of the population.[45] It should be assumed, therefore, that the example of China points to the commonness of the search for a legal framework and directions for AI. Nevertheless, the position must be taken that the rights of the individual in China are indeed still not adequately protected, and the ruthless pursuit of the development of a strong AI can further influence the scale of violations.

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[42] Ibidem.

[43] Y. Chae, *U.S. AI Regulation Guide: Legislative Overview and Practical Considerations*, https://www.bakermckenzie.com/-/media/files/people/chae-yoon/rail-us-ai-regulation-guide.pdf (accessed: 1.11.2020).

[44] H. Roberts et al., *The Chinese approach to artificial intelligence: an analysis of policy, ethics, and regulation*, https://link.springer.com/article/10.1007/s00146-020-00992-2 (accessed: 1.11.2020).

[45] Ibidem.

Summary

Due to decades of shaping the notion of artificial intelligence by science-fiction, the initial idea of the shape of regulation in Europe is reactionary, incompatible with the results of current scientific research on AI. The European Union, by invoking Asimov's laws, has tamed our fears about the risks associated with the use of artificial intelligence systems. Only the White Paper presents a different, active, and scientific approach to the regulation of advanced algorithms. The presented perspective and look at AI, however, must be constantly verified, which certainly makes the legislative work on this issue difficult.

When answering the question regarding the need to work on legal regulations, two perspectives can be observed that argue for such a necessity. On the one hand, citizens are afraid that they will not be able to defend their rights and security when faced with information asymmetries related to the algorithmic decision-making process, and companies are afraid of legal uncertainty. On the other hand, without a unified legal approach to AI systems it will not be possible to coordinate work at the European Union level. The lack of cooperation in this sector will lead to a loss of ability to compete with systems developed in the U.S. and Asia. While the proper choice of legal instruments is difficult not only because of the complexity of AI itself, but above all because of the need to find the right balance between the pursuit of economic growth and the value of individual freedom, there is no other way for European countries and societies.

However, it should be noted that the regulations may be not sufficient, depending on the final shape of strong AI and its autonomy. It is impossible to predict whether it will be possible to control and settle AI for the compliance of the systems with the rules that will be imposed on it. Therefore, perhaps in hindsight, the current directions of action will be evaluated as the validity of Asimov's laws. The lack of initiative in this sector will lead us, as a society and as users, to depend on AI. We should not assume that the lack of regulation or strict law will affect the pursuit of a strong AI. AI will arise, and it is in our interests to have a say in what values it will be based on.

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