Legal Arrangements of Artificial Intelligence in the European Union and the Republic of North Macedonia

Disposizioni giuridiche sull'intelligenza artificiale nell'Unione europea e nella Repubblica di Macedonia del Nord

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Abstract

The article aims to analyze the need to regulate AI, the content of the regulation that needs to be enacted, the content of the regulation adopted in the European Union as well as North Macedonia's positioning on this issue as a country eager to start the negotiations for accession in the EU. The methodology for the article is about the legal arrangements of AI that involve a multi-faceted approach, combining literature review, legal analysis, doctrinal research, empirical research, policy analysis, ethical and normative analysis, and interdisciplinary collaboration. While the rapid development of AI brings convenience to people's lives, it also poses challenges to global changes and the development of human society, social governance, and legal regulation. Many countries have adopted strategic plans and documents related to AI but there are no legal acts adopted until now. The article's discussion on the need for new or updated regulatory frameworks to govern AI is crucial. It may propose specific regulatory measures to address AI's unique challenges, such as transparency, accountability, and fairness, influencing related policy development.

Abstract

L'articolo si propone di analizzare la necessità di regolamentare l'IA, il contenuto del regolamento da emanare, il contenuto del regolamento adottato nell'Unione Europea, nonché la posizione della Macedonia del Nord su questo tema come Paese intenzionato ad avviare i negoziati per adesione all'UE. La metodologia dell'articolo riguarda gli accordi giuridici dell'IA che implicano un approccio poliedrico, che combina revisione della letteratura, analisi giuridica, ricerca dottrinale, ricerca empirica, analisi politica, analisi etica e normativa e interazione interdisciplinare. Se da un lato il rapido sviluppo dell'intelligenza artificiale apporta comodità alla vita delle persone, dall'altro pone anche sfide ai cambiamenti globali e allo sviluppo della società umana, della governance sociale e della regolamentazione giuridica. Molti paesi hanno adottato piani strategici e documenti relativi all'intelligenza artificiale, ma fino ad ora non sono stati adottati atti normativi. La discussione dell'articolo sulla necessità di un quadro giuridico nuovi o aggiornati per governare l'intelligenza artificiale è cruciale. Appare opportuno proporre misure normative specifiche per affrontare le particolari sfide dell'IA, come la trasparenza, la responsabilità e l'equità, influenzando lo sviluppo delle relative politiche.

1. Introduction.

As can be concluded from history, artificial intelligence, which is considered a scientific discipline, appeared shortly after the invention of the first computers. It is attributed to the skills characteristic of intelligent beings, including proving hypotheses, reasoning, and playing games.

About how much importance AI will have in the future some scientists have been aware of for a long time. In 1960, the father of cybernetics, Norbert Wiener, stated that it was 'now generally admitted, over a limited range of operation, machines act far more rapidly than human beings and are far more precise in performing the details of their operations. This being the case, even when machines do not in any way transcend men's intelligence, they very well may, and often do, transcend men in the performance of tasks.[1]

The concept of artificial intelligence cannot be precisely defined. It can be found a large number of definitions of AI in the literature. The first definition of AI presented by John McCarthy referred to the unity of 'science and engineering in the creation of intelligent machine' i.e. creation of especially intelligent computer programs. The definitions, which appeared a little later, can be grouped into four categories taking into account two main criteria. One

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[1] N Wiener, 'Some Moral and Technical Consequences of Automation' (1960) 131(3410) Science 1355-1358 <https://doi.org/10.1126/science.131.3410.1355> accessed 12 April 2024; or see AL Samuel, 'Some Moral and Technical Consequences of Automation - A Refutation' (1960) 132(3429) Science 741-742 <https://doi.org/10.1126/science.132.3429.741>; or see M Hauser, 'What's fair? The unconscious calculus of our moral faculty' (2007) 278(41-50) Novartis Foundation symposium discussion 50-55, 89-96, 216-221.

group of definitions relates to the process of thinking and reasoning, while others take into account the factor of behavior. Another difference between the definitions of AI takes into account the category of success.[2]

Over-time, especially in recent years, the rapid growth of AI systems has led to these systems being used in almost every sphere of life. AI can be used in a wide variety of sectors such as healthcare, energy consumption, automotive safety, agriculture, climate change, and financial risk management. It can also help detect fraud and cyber security threats and enable security agencies to effectively fight crime.

Since it is used in several areas, the question of its legal regulation is also logically raised. From 2019 to 2020, scholars paid more attention to the study of AI jurisprudence by scientifically defining the corresponding rights, obligations, responsibilities, and other basic categories, laying solid foundations and providing theoretical support for the sound development of the legal system regulating AI. They also emphasize establishing a regulatory system compatible with the development of AI with a focus on finance, transportation, medical care, and urban construction, building a reasonable and practicable AI law system following statutory procedures to ensure that the development of AI obeys rules and laws. In addition, more research has been conducted on the core of AI law, primarily on theoretical and practical discussions on 'AI' and 'big data', in which scholars analyze legal issues in AI applications from an overall perspective, providing more systematic and in-depth theoretical research on the connotation and the major body of accountability in AI law.

It's worth mentioning that COVID-19 spread throughout the world in 2020 and has taken a heavy toll on human society and the global economy. In the battle against COVID-19, AI has played an extraordinary role in safeguarding the common home of humankind. AI technologies have been widely applied on the frontline, such as health QR codes, whole genome sequencing, CT imaging, and smart medical care. Their presence to provide support in each area, including epidemic monitoring and analysis, virus traceability, prevention, control and treatment, and resource allocation, has significantly improved the capability and efficiency of epidemic prevention and control. With its extraordinary performance in the fight against the virus, AI seems to herald a new period of explosive growth. People have had a deeper understanding of the power and role of AI. As a 'double-edged sword', AI has brought risks and challenges while empowering society. Increasing attention and concern from the public have been aroused for increasingly prominent problems involving

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[2] D Prlja, G Gasmi and V Korać, 'The Artificial Intelligence in the EU legal system' (2023) 19 Archaeology and Science <https://doi.org/10.18485/arhe_apn.2023.19.14> accessed 5 march 2024. The authors analyse how the EU institutions approach solving the issue of the safe use of artificial intelligence. The Communication on the European Approach to Artificial Intelligence, of the European Parliament and the Council of Europe, the Coordinated Plans of the European Parliament and the Council of Europe for Artificial Intelligence, and the Proposal for the Regulation on Artificial Intelligence of the European Parliament and the Council of Europe were discussed. The Proposal contains a preamble with 89 points and twelve chapters with 85 articles. In the first title – General Provisions, the subject matter of the Act is specified, as well as the scope of its application, and definitions of 44 terms are given, including the definition of artificial intelligence systems.

security, law, ethics, and other aspects in the rapid development of new-generation AI.[3]

In the war in Ukraine and recent periods of the war in Israel and Palestine where high military technology is used, AI plays a significant role, such as the use of drones, cybertechnologies, etc. Therefore, the issue of protection and prevention in the use of these AI systems is also further emphasized. We were able to see in these war conflicts that the use of AI may lead to a violation of the primary human right – the right to live.

Additionally, the presentation of the Chat GPT robot, which can talk like a human with a high degree of fluency and coherence, drew the world's attention to the use of AI in the service of humans, but also to the possible dangers it can bring. Hence, security and ethics are the two main components that need to be addressed in AI laws.

Related to the work of the courts by 2020 some courts had begun to operate in quite different ways and had integrated Online Dispute Resolution (ODR) features into their activities, digitized records, enabled paperless e-filing systems, and begun to develop new ways of engaging with people that were supported by technology.

Courts adopting such approaches were sometimes referred to as 'online courts' or 'e-courts' to distinguish them from courts that had yet to adopt technologically driven reforms. In some justice systems, these developments were led by courts and Chief Justices (particularly in the USA), and in other places, the developments were supported by organizations that were external to the court by the government or a combination of judicial officers working with the government (for example in the UK and China with the 'smart court' initiatives).

In 2020, as a result of the COVID-19 pandemic, more courts began to change how they operated or enhanced and accelerated technological changes that were already underway. Some courts were not, however, able to rapidly convert court systems to a remote mode of operating and, as a result, delay, postponement, and confusion surrounded court activities, with jurisdictional novelty a feature of 2020 responses to a global pandemic. In some instances, a shift to a remote court operation could not be undertaken because of judicial, court, or societal issues that included a lack of access to technology or an inability to use existing technologies.[4] The abovementioned examples show that the ground for the development and use of AI existed before the pandemic, but the whole process was even more accelerated during COVID-19.

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[3] C Yudong, *Blue Book on AI and Rule of Law in the World (2020)* (Springer 2022) <https://doi.org/10.1007/978-981-19-3586-2> accessed 10 March 2024. For the COVID-19 impact on AI see H Roberts and others 'The Chinese approach to artificial intelligence: an analysis of policy, ethics, and regulation' (2021) 36 AI & Soc 59-77 <https://doi.org/10.1007/s00146-020-00992-2> or H Roberts and others (2021) 'The Chinese Approach to Artificial Intelligence: An Analysis of Policy, Ethics, and Regulation' in L Floridi (ed.) *Ethics, Governance, and Policies in Artificial Intelligence. Philosophical Studies Series* (Springer, 2021) vol 144 <https://doi.org/10.1007/978-3-030-81907-1_5>

[4] T Sourdin, *Judges, Technology and Artificial Intelligence* (Edward Elgar Publishing 2021) 1-2, <http://dx.doi.org/10.4337/9781788978262> accessed 7 June 2024. For more see the discussion in Chapter 10 entitled: 'Future Justice' 272-296 of this book and also in WD Heaven, 'OpenAI's New Language Generator GPT-3 is Shockingly Good – and Completely Mindless' (2020) MIT Technology Review <https://www.technologyreview.com/2020/07/20/1005454/openai-machine-learning-language-generator-gpt-3-nlp>.

In the next chapter, we will take a look at the existing legal framework of AI worldwide and the national strategies that the countries have adopted.

2. Artificial Intelligence Regulation in the EU.

In many societies, laws are designed and updated to regulate and follow the changes in the social circumstances between the people. Hence, the base for creating AI regulations is already there in some fields, for example in criminal law, specifically cybercrime. In fact, for at least two decades, (also) European rulers and legislators started turning their attention to new forms of offenses perpetrated in the dematerialized world of IT, trying to set common minimum rules for the harmonization of cybercrime and the consequential issues, such as competence and jurisdiction, also at the international level. The Budapest Convention on Cybercrime signed in 2001 and drafted by the Council of Europe, represented, for a huge number of jurisdictions, the first legally binding instruction to set forth specific legislation tackling such a phenomenon. The first part of the document harmonized the Member States' substantive criminal law, by providing a list of offenses that the High Contracting Parties must introduce in their jurisdictions.[5]

Cryptocurrency crimes may also be mentioned as some of the new types of crimes. They can be identified and prosecuted like any conventional illicit activities, but some of their unique features may not have been covered under existing laws on financial crimes, for example, micropayments, individual activities, and jurisdictions. Since cryptocurrency has been active online, related financial crimes are likely transnational, including individuals and organized criminal groups. Therefore, international coordination and cooperation, as well as data sharing, have become essential for combating cryptocurrency crimes. Moreover, the jurisdictions of prosecutions, law applications, and sentencing standards also vary across countries. This situation makes the proceeding of such crimes more complicated. The micropayments refer to transactions less than the smallest unit of currency; individual cryptocurrency activities are somehow not covered by regulatory rules in many countries, such as in the UK and the US; a standardized scheme for determining jurisdictions is anticipated to facilitate the prosecution processes of international financial crimes.[6]

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[5] S Quattrocolo, *Artificial Intelligence, Computational Modelling and Criminal Proceedings* (Springer 2020) vol 4. For more details, see A Sachoulidou, 'Going beyond the 'common suspects': to be presumed innocent in the era of algorithms, big data and artificial intelligence' (2023) Artif Intell Law. <https://doi.org/10.1007/s10506-023-09347-w> accessed 20 June 2024 or see LF de Oliveira and others 'Path and future of artificial intelligence in the field of justice: a systematic literature review and a research agenda' (2022) 180 *SN Soc Sci* 2 <https://doi.org/10.1007/s43545-022-00482-w> accessed on 20 June 2024.
[6] A Lui and N Ryder (eds), *FinTech, Artificial Intelligence and the Law: Regulation and Crime Prevention* (Routledge 2021) 125-136. Micropayments in the UK refer to transactions below a penny. The Bank of England deems that enabling micropayments, cryptocurrency could create a new business model: instead of paying monthly subscriptions for digital media, consumers can choose an individual news article to read (Bank of England. With its digital feature, cryptocurrencies can be converted to decimals rather than integer units like normal currencies. However, making small payments that fall below thresholds of reporting requirement has been a method for money laundering. Since using a number of gophers to launder illicit earnings can be costly and risky, small payments may only relate to small illicit earnings. With the aid of cryptocurrencies, offenders can create many pseudonymous accounts online and 24/7 process

Considering that AI development is still in its initial period, the major countries and regions in the world are not eager to introduce regulatory measures but to formulate a framework of governance principles.

If we make a comparative analysis of the most important legal systems in the field of artificial intelligence (USA, EU, China, UN) we can conclude that it represents the subject of strategic documents. In the mentioned countries and international organizations, it is regulated by the adoption of strategic documents that address the social, legal, political, and economic 'background' of AI. AI systems can be partially regulated, primarily in connection with the regulation of certain institutes within the framework of special legal texts on copyright and related rights, protection of personal data, administrative regulations, etc.

The Artificial Intelligence Act is the first comprehensive legal framework in the world that regulates the specific uses of AI, while the Coordinating Plan for Artificial Intelligence offers strategic alignment, policy action, and acceleration of investments. Together, they represent the European approach to AI - an intelligence that puts people first.[7] As part of its digital strategy, the EU wanted to regulate AI to ensure better conditions for the development and use of this innovative technology. AI can create many benefits, such as better healthcare; safer and cleaner transportation; more efficient production; and cheaper and more sustainable energy. Parliament's priority was ensuring that the EU's AI systems are safe, transparent, traceable, non-discriminatory, and environmentally friendly. AI systems should be supervised by humans, rather than automation, to prevent harmful outcomes. The focus of the European Commission in the past period when it comes to regulation of AI was modernizing product liability regulation in the digital age, enabling compensation for damage caused by robots, drones, and smart home systems that are unsafe due to software upgrades, error in AI, or digital services necessary to manage the product, as well as failure to deal with shortcomings and vulnerability to cyber-attacks by manufacturers. As a result, in June 2023, the European Parliament voted on a set of rules for AI, the first of its kind in the world. The law's final text was refined in negotiations with the Council of the European Union. In December 2023, the Council and the Parliament reached an agreement on The Artificial Intelligence Act.[8] In January 2024, the Council published a Draft Regulation of the European Parliament and the Council for establishing harmonized rules for AI and amendments of certain legislative acts of the Union - Analysis of the final compromise text for the agreement.[9] On July 12, 2024, the AI Act was officially published and will come into force on August 1, 2024. The AI Act aims to ensure that AI technologies are safe and transparent and respect fundamental rights while fostering innovation and investment in the AI sector. The new rules establish obligations

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micropayments. Although processing such payments may come with fees and expenses, it should be cheaper and less risky than hiring a human.

[7] European Commission website <https://digital-strategy.ec.europa.eu/en/policies/artificialintelligence#:~:text=The%20AI%20Act%20is%20the,AI%20that%20puts%20people%20first> accessed 30.05.2024.

[8] Council of Europe website <www.consilium.europa.eu/en/policies/artificialintelligence/timeline-artificial-intelligence/>accessed 30.05.2024.

[9]<https://data.consilium.europa.eu/doc/document/ST-5662-2024-INIT/en/pdf>accessed 10.06.2024.

for providers and users depending on the level of risk from AI. Although many AI systems pose minimal risk, they should be evaluated. Also, the Law bans the use of AI for biometric surveillance, emotion recognition, and predictive policing, while systems like Chat GPT must disclose that content is generated by AI, and AI systems used to influence voters during elections are considered high risk.

Related to the level of risk while using AI we will briefly go through the EU rules for AI. In addition to risk-free or low-risk AI systems, there are also high-risk and unacceptable-risk systems. AI systems with unacceptable risk are systems that are considered a threat to humans and will be banned. They include cognitive behavioral manipulation of people or certain vulnerable groups: for example, voice-activated toys that encourage dangerous behavior in children; social scoring: classifying people based on behavior, socioeconomic status, or personal characteristics; real-time and remote biometric identification systems, such as facial recognition.

Some exceptions may be allowed: for example, 'post' remote biometric identification systems where identification occurs after a significant delay, will be allowed to prosecute serious crimes, but only with court approval.

AI systems that negatively affect security or fundamental rights will be considered high-risk and will be divided into two categories:

1) AI systems used in products covered by EU product safety legislation. This includes toys, aviation, automobiles, medical devices, and elevators.

2) AI systems fall into eight specific areas that will need to be registered in the EU database: Biometric identification and categorization of natural persons; Management and operation of critical infrastructure; Education and vocational training; Employment, management of workers, and access to self-employment; Access and enjoyment of basic private services and public services and benefits; Law enforcement; Management of migration, asylum, and border control; Help with legal interpretation and application of the law.[10]

The field of AL has made tremendous advances in the last few decades, but as smart as AI is now, it is getting exponentially smarter and becoming more autonomous in its actions. This raises a host of challenges to current legal doctrine, including whether the output of AI entities should count as 'speech', the extent to which AI should be regulated under antitrust and criminal law statutes, and whether AI should be considered an independent agent and responsible for its actions under the law of tort or agency.[11] Therefore, it's

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[10] European Parliament and Council Regulation (EU) 2024/1689 of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act) [2024] OJ L, <https://eur-lex.europa.eu/eli/reg/2024/1689/oj> accessed 18.07.2024.

[11] W Bartfield, U Pagallo, *Research Handbook on the Law of Artificial Intelligence Series* (Edward Elgar Pub 2018) <https://doi.org/10.4337/9781786439055> accessed on 23 June 2024. It is worth noting here author and futurist Ray Kurzweil's predictions for the future given his seminal writings about the future of information technology and AI. Kurzweil lists 2029 as the date in which AI will pass a valid Turing test and therefore be considered to have achieved human levels of intelligence. Additionally, he lists the date 2045 for the "Singularity" which he claims is when we will multiply our effective intelligence a billionfold by merging with the AI we have created. Kurzweil's timetable for the singularity is consistent with other predictions of noted futurists—for example, those of Softbank CEO Masayoshi Son, who predicts that the dawn of super-intelligent machines will happen by 2047.

impossible to predict its development but preventive regulatory measures must be taken.

In some areas, it will be very difficult to implement it without any negative consequences. For example, no simple rule-chaining or pattern-matching algorithm can accurately model judicial decision-making because the judiciary has the task of producing reasonable and acceptable solutions in exactly those cases in which the facts, the rules, or how they fit together are controversial.[12]

Every AI system is different. The use of AI tools by public and private regulators must be guided by a comprehensive technological management strategy grounded in a revised conception of what regulatory responsibility entails. Secondly, the revised understanding, described as a 'new benchmark for legality', must be incorporated into the rules governing the exercise of regulatory power that depend on these technological measures. The revision of these rules requires a 'new coherentism' which focuses on the compatibility, and inter-contingency, of regulatory measures with newly established benchmarks for legality.[13]

3. Artificial Intelligence and the Rule of Law.

What does computable law mean for the legal system's autonomy, authority, and legitimacy? Are we witnessing a shift from the Rule of Law to a new Rule of Technology? Should we even build these things in the first place?[14] Many questions arise from the high level of usage of AL There are 2 essential problems, related to its use and regulation. Ethical and societal dimensions of

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[12] G Sartor, LK Branting, 'Introduction', in G Sartor, LK Branting (eds) *Judicial Applications of Artificial Intelligence* (Springer 1998) <https://doi.org/10.1007/978-94-015-9010-5_1> accessed 24 May 2024. See more at RL Canalli, 'Artificial intelligence and the model of rules: better than us?' (2023) 3 AI Ethics , 879-885 <https://doi.org/10.1007/s43681-022-00210-3> accessed 15 July 2024; M Araszkiewicz and others, 'Thirty years of Artificial Intelligence and Law: overviews*'* (2022) 30 Artif Intell Law, 593-610 <https://doi.org/10.1007/s10506-022-09324-9> accessed 15 July 2024 and T Bench-Capon, 'Thirty years of Artificial Intelligence and Law: Editor's Introduction' (2022) 30 Artif Intell Law , 475-479 <https://doi.org/10.1007/s10506-022-09325-8> accessed 15 July 2024.

[13] S Deakin, C Markou (eds), *Is Law Computable? Critical Perspectives on Law and Artificial Intelligence Series* (Hart Publishing 2020) 140-150 <https://doi.org/10.1111/1468-2230.12659> accessed 10 February 2024. In broad terms the chapters in this volume take one of two approaches to the question of law and computation. The first approach asks the theoretical question of whether or not computational reasoning carried out by AI can effectively simulate or replace legal reasoning. The second approach considers pragmatic problems that data driven technologies currently pose to the legal system.

[14] The autonomy of the legal system traditionally relies on the discretion of judges and legal professionals who interpret laws and make judgments based on a mix of statutory guidance, case law, and moral considerations. Computable law can reduce this human discretion by replacing or supplementing it with algorithmic decision-making. As the legal system becomes more dependent on technology, it might lose some of its traditional autonomy. Decisions and processes could become contingent on the functionality and design of technological tools, potentially reducing the ability of human actors to influence outcomes. Computable law promises greater predictability and consistency in legal decision-making, which are key components of the Rule of Law. However, this consistency must be balanced against the need for contextual and nuanced judgments that human actors provide. Technology can enhance access to justice by making legal resources and processes more accessible and efficient. However, it can also create new barriers, particularly for those who lack digital literacy or access to technology. Automating legal processes can lead to increased efficiency, reduced costs, and improved access to justice. It can also help in handling large volumes of data and complex cases more effectively. There are significant risks, including the potential for bias, loss of human judgment, and reduced transparency. Building these systems requires careful consideration of ethical, legal, and social implications.

artificial Intelligence must be taken into consideration which means that if it is used unethically, the consequences can be fatal, and the sphere in which it is used unintentionally can also lead to unwanted consequences. The second problem derives from the inability of the inventors of AI to understand fully what the legal regulation of this area means and how it should be done, to help lawmakers, and the lawmakers cannot understand how these systems work to regulate them accordingly. in this sphere, a lot of work will need to be done to increase the cooperation between the inventors of AI systems and those who will have to regulate them.

Taking into consideration the effects of the AL systems on the whole society and to avoid the shift to the Rule of Technology, we must analyze the possibility to re-work the Rule of Law, as a concept that ensures an orderly and just society that guarantees fundamental rights and values, so that it covers the use of technological tools by both public and private regulators. First, for any community, technological management (just as with rules and standards) mustn't compromise the essential conditions for human social existence (the commons). The Rule of Law should open by emphasizing that the protection and maintenance of the commons is always the primary responsibility of regulators. Moreover, all uses of technological management, whether by public regulators or by private regulators or actors should respect this fundamental responsibility. Secondly, where the aspiration is not simply to be a moral community (a community committed to the primacy of moral reason) but a particular kind of moral community, then it will be a condition of the Rule of Law that the use of technological management (just as with rules and standards) should be consistent with its particular constitutive features – whether those features are, for instance, liberal or communitarian, rights-based or utilitarian, and so on. Such is the nature of the second tier of responsibility. Many modern communities have articulated their constitutive values in terms of respect for human rights and human dignity.[15] This is done through the conscious experience of people in one society. But AI lacks conscious experience, therefore it cannot define its objectives. AI does not appear to be conscious and it cannot formulate its ends. AI's inability to form ends poses difficulties in regulating it. We often assign moral blame and impose legal liability based on intent. But AI cannot form intent. Further, those who adopt AI will often have good intentions. That could allow AI to cause harm that escapes liability in our current legal systems.[16] For example, an employer might rely on AI to award promotions, hoping to make its decisions more objective and less susceptible to improper biases. But the effect may be the opposite. AI may predict future employee success using past employment decisions that

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[15] For more details see R Brownsword, H Somsen, 'Law, innovation and technology: fast forward to 2021' (2021) 13(1) Law, Innovation and Technology 1-28 <https://doi.org/10.1080/17579961.2021.1898298> accessed 23 July 2024 or N de Marcellis-Warin and others, 'Artificial intelligence and consumer manipulations: from consumer's counter algorithms to firm's self-regulation tools' (2022) 2 AI and Ethics 259-268 <https://doi.org/10.1007/s43681-022-00149-5> accessed 23 July 2024.

[16] L Di Matteo, C Poncibò and M Cannarsa (eds), *The Cambridge Handbook of Artificial Intelligence: Global Perspectives on Law and Ethics* (Cambridge University Press 2022), 46-74. See more at Part II. AI. Contracting and Corporate Law: AI in negotiating and entering into contracts by Eliza Mik, AI and contract performance by Andre Janssen; and Part III. AI and Liability: Are existing tort theories ready for AI? An American perspective by Robert A. Heverly.

were tainted by improper biases. The outcome could be discrimination against members of protected classes.

Concerning legal cases, since legal rules employ terms and concepts that can be vague and open-ended, a computational model of reasoning with cases would help. Courts often interpret the meaning of legal terms and concepts by drawing analogies across cases illustrating how a term or concept has been applied in the past.

There are computational models of analogical reasoning with legal cases. The models are based on three basic approaches. The first, prototypes and deformations, focus on how to decide a case by constructing a theory based on past cases. The second, dimensions and legal factors, employs stereotypical patterns of fact that strengthen or weaken a side's argument concerning a legal claim or concept. The third, exemplar-based explanations (EBEs), represents legal concepts in terms of prior courts' explanations of why a concept did or did not apply. The models illustrate how to represent legal cases so that a computer program can reason about whether they are analogous to a case to be decided. In particular, they illustrate ways in which a program can compare a problem and cases, select the most relevant cases, and generate legal arguments by analogy for and against a conclusion in a new case.

Legal rules and concepts are promulgated for normative purposes. Teleological arguments (i.e., arguments from the purposes or values served by a rule) play an important role in drawing legal analogies. Computational models that integrate legal rules, intermediate legal concepts (ILCs) from those rules, and cases applying the rules need to take underlying values into account. Therefore, techniques have been introduced for computationally modeling teleological reasoning by integrating values into the measures of case relevance and models of legal analogy.

The integration of text analytics into legal systems marks a significant advancement in the field of cognitive computing. Automated extraction of case facts and legal concepts from natural language texts enhances the efficiency, accuracy, and scalability of legal processes. However, ensuring data quality, addressing bias, and maintaining transparency and interpretability are critical to the successful implementation of these technologies. As text analytics continues to evolve, it will play an increasingly vital role in shaping the future of legal practice and the rule of law.[17]

In this brief analysis of AI and the rule of law, it can be concluded that AI presents both opportunities and challenges for the rule of law. As AI systems become more integrated into legal processes, they have the potential to enhance efficiency, accuracy, and access to justice. However, they also raise concerns about fairness, accountability, transparency, and the potential for bias. To harness the benefits of AI while safeguarding the rule of law, it is essential to develop robust legal and regulatory frameworks, ensure continuous oversight, and foster collaboration between human professionals and AI systems.

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[17] KD Ashley, *Artificial Intelligence and Legal Analytics: New Tools for Law Practice in the Digital Age,* (Cambridge University Press 2017) 74. Read Part I. Computational models of legal reasoning: Introducing AI and law and its role in future legal practice and Part II. Legal text analytics: representing legal concepts in ontologies and type systems 32-34.

4. Artificial Intelligence in Contract Law.

As we have seen AI technologies can be used in different areas of life and different areas of law as well. Regarding its use in law, for example, AI may be used significantly in some aspects of contract law. It cannot negotiate complex legal terms, or draft clauses that allocate the risks of breach or reason about the mental states of the other party. However, AI can surpass humans in those aspects of the contracting process that involve (or require) real-time analysis of vast amounts of transaction parameters such as prices, delivery terms, product selections, etc.[18] The use of AI in the process of entering into contracts must be distinguished from its much simpler predecessor, namely electronic negotiation systems. The latter term refers to systems facilitating commercial communications, such as the structured exchange of electronic messages or electronic auction models.[19] Although such systems increasingly rely on AI, they are limited to the support of human negotiators and cannot negotiate instead of humans.[20]

In contract law, AI can be helpful in many aspects because of the basic principles on which the contract law relies.

We are witnessing a major revolution in how contracts are initiated, negotiated, concluded, performed, and enforced. One of the most significant trends in the field of contracting and contract law is the use of AI techniques, such as machine learning (ML) and natural language processing (NLP) – deployed by many companies during the whole lifecycle of a contract to make contracting more efficient. At the pre-contractual stage, AI and ML algorithms analyze vast amounts of data to provide insights into customer behavior, preferences, and vulnerabilities. These insights help companies create highly targeted advertising campaigns and tailor products and prices to individual customer profiles. Credit institutions use AI-driven profiling to assess creditworthiness more accurately. AI can analyze historical data and predict future behaviors, improving the accuracy of credit ratings and reducing risk. Insurance companies employ AI to better assess the risk associated with insuring an individual or entity. At the contractual stage, NLP algorithms assist in drafting contracts by pulling in relevant clauses and terms based on the contract type and context. This reduces the time and effort required to create initial contract drafts. Built on blockchain technology, smart contracts automatically execute and enforce the terms of an agreement when predefined conditions are met. They reduce the need for intermediaries and

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[18] AI's role in contract law demonstrates its capacity to enhance efficiency, accuracy, and risk management in the contracting process. However, the technology's limitations in negotiating complex terms and understanding human intentions underscore the need for a hybrid approach that leverages both AI and human expertise. By thoughtfully integrating AI into contract law, we can optimize the benefits while maintaining the essential human elements that underpin legal fairness and justice.

[19] M Schoop, A Jertila, T List, 'Negoisst: A Negotiation Support System for Electronic Business-to-Business Negotiations in E-Commerce' (2023) 47(3) Data & Knowledge Engineering 371 <https://doi.org/10.1016/S0169-023X(03)00065-X> accessed on 27 May 2024. The paper is about the second phase of a business transaction and deals with electronic negotiation support.

[20] G Dobrijevic, 'Bargaining Chip: Artificial Intelligence in Negotiation,' in B Christiansen, T Škrinjaric (eds), *Handbook of Research on Applied AI for International Business and Marketing Applications* (IGI Global 2021). See also G Dobrijevic, and F Djokovic, 'E-Negotiation: Can AI Negotiate better deals?' (Sinteza 2020 - International Scientific Conference on Information Technology and Data Related Research, Belgrade, 2020) <10.15308/Sinteza-2020-289-294> accessed on 18 April 2024.

enhance trust and transparency in contractual agreements. AI tools can also simulate various negotiation scenarios and provide strategies to achieve optimal outcomes. NLP can be used to analyze the language and terms proposed by the counterparty, identifying potential risks and opportunities.

AI models can evaluate an applicant's risk based on a comprehensive analysis of personal circumstances, behavioral patterns, and past data. In the post-contractual stage systems continuously monitor the performance of contractual obligations, alerting parties to any deviations or breaches. This ensures timely compliance and helps prevent disputes. AI-driven platforms may also facilitate online dispute resolution by analyzing the contract and relevant communications to provide recommendations. These systems can mediate disputes more efficiently than traditional methods.[21]

Even some characteristics of contract law that at first stance, look like they can be only managed by humans like for example intention in concluding contracts, in contract law AI can deal with it. Although the intention is a human aspect the question is why the product was put on the market to be sold if there was no intention by the seller. AI just needs to inspect if the buyer fulfills all the conditions to conclude the contract for sale.

It is also worth mentioning the importance of the differences in the legal systems when regulating AI.

One of the main questions in contract law is whether the operator of AI systems used to perform a contract can be held liable for damages. For a better understanding of the issue of liability for breach, a few words on contractual liability in common law and civil law are useful. One of the fundamental differences between common and civil laws is the different requirements for awarding damages in contract law. While the common law assumes strict liability of the contracting party in breach of contract (existence of a breach is sufficient), the civil law legal systems also require fault (intent or negligence).[22] Therefore, the use of AI in the common law legal systems would be more helpful in this regard because of the different manner of regulating the liability for damages.

The benefits of using AI are enormous without a doubt. However, regulating AI will not be easy. For example, AI is increasingly important in corporations' internal decision-making. The technology promises increased efficiency, especially for business decisions that are made based on extensive and complex data. AI makes it possible, for instance, to analyze data from customer relationships or production processes on a massive scale, and to prepare it for decision-making processes, such as in the context of algorithmic marketing, algorithmic market research, or algorithmic controlling. Automated decision-making in corporations thus promises key entrepreneurial advantages and

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[21] M Ebers, C Poncibò, M Zou, (eds) *Contracting and Contract Law in the Age of Artificial Intelligence* (Hart Publishing 2022),19-23. For a discussion of the use of AI systems in alternative dispute resolution schemes cf M Ebers, 'Automating Due Process – The Promise and Challenges of AI-based techniques in Consumer Online Dispute Resolution', in X Kramer and others (eds), *Frontiers in Civil Justice: Privatisation, Monetisation and Digitisation.* (Edward Elgar Publishing 2022) (forthcoming).
[22] For more details see C Wendehorst, 'Liability for Artificial Intelligence: The Need to Address Both Safety Risks and Fundamental Rights Risks' in S Voeneky and others (eds), *The Cambridge Handbook of Responsible Artificial Intelligence: Interdisciplinary Perspective*s (Cambridge University Press 2022) 187-209 <https://doi.org/10.1017/9781009207898.016> accessed 26 July 2024.

efficiency gains. However, automated decision-making also represents the crucial regulatory challenge of this technology.[23] it must be taken into account that an error in the AI system that would contribute to adopting a wrong business decision can lead to big financial losses for the company, but also for customers and other entities on the market depending on the company's activity.

5. Artificial Intelligence Liability, Transparency, and Future Development.

The issue of liability for AI systems is complex and multifaceted, involving questions of accountability, legal responsibility, and ethical considerations. As AI systems become more autonomous and integrated into various aspects of society, addressing liability becomes increasingly crucial.

AI, unlike standard static rules-based software algorithms, is dynamic. It is trained on (often historical) data and continues to learn based on initial parameter rules set from its inputs and its environment. It adapts (whether in a supervised or unsupervised manner) to new situations and new application domains. Based on its 'learning', the AI can recognize patterns, make predictions, make recommendations, and auto-label, helping to speed up processes, thus making them often faster and more efficient than human operations. This raises questions of whether such automatic labeling and/or AI-driven recommendations and predictions are accurate and fair. The output from AI may correctly present the desired end goal, but it is unlikely to understand the context in which that output is to be applied. This can lead to biased or domain-inappropriate results. Furthermore, the efficiencies of AI can also lead to fewer humans being employed in such tasks. This can lead to deskilling or a reduction in human capacity and capability. There are socio-economic effects of AI replacing humans in tasks, such as job losses or role changes, which also have implications for the future of work. This can impact how humans feel valued, feel significance, and experience the fulfillment and joy of a 'job well done' that a paid-for occupation can provide, which also can impact income and ability to earn. A dim picture can be painted of a downward spiral of mankind if ethical and societal impacts even at smaller AI-task levels are not taken seriously at an early stage.[24]

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[23] While AI offers significant benefits for corporate decision-making, these must be balanced against the need for ethical considerations, accountability, and regulatory compliance. By developing comprehensive legal frameworks, implementing ethical guidelines, ensuring transparency and accountability, and protecting data privacy and security, regulators can address the challenges posed by AI and ensure its responsible use in corporate contexts. This balanced approach will help maximize the benefits of AI while mitigating its potential risks.

[24] C Kerrigan (ed), *Artificial Intelligence Law and Regulation* (Edward Elgar Publishing 2022), 398-399 <http://dx.doi.org/10.4337/9781800371729> accessed 17 June 2024. The author highlights several critical points about the nature and implications of AI: Dynamic Nature of AI (Training and Adaptation: Unlike static rules-based algorithms, AI systems are dynamic, learning from data and adapting to new situations and environments); Accuracy and Fairness Concerns (Bias and Context Understanding): AI's ability to automatically label and make recommendations is powerful but raises questions about accuracy and fairness; Socio-Economic Impacts (Employment and Deskilling): The efficiencies brought by AI can lead to fewer human jobs in certain areas, resulting in deskilling and reduced human capacity (Future of Work): The displacement of human labor by AI has broader implications for the future of work. It can influence how

The importance of liability and AI systems has already been mentioned in several recent documents issued by the European Union (EU). The White Paper on Artificial Intelligence, for instance, stresses that the main risks related to the use of AI concern the application of rules designed to protect fundamental rights as well as safety and liability-related issues. Scholars have also concluded that 'liability certainly represents one of the most relevant and recurring themes' when it comes to AI systems. This emphasis on liability is not surprising considering that AI systems will increasingly cause damage. Reference can be made to recent accidents involving autonomous vehicles. The autopilot of a Tesla car, for instance, was not able to distinguish a white tractor-trailer crossing the road from the bright sky above, leading to a fatal crash. A self-driving Uber car recently hit a pedestrian in Arizona. The woman later died in the hospital. A robot also attacked and injured a man at a tech fair in China. A surgical robot at a hospital in Philadelphia malfunctioned during a prostate surgery, thereby severely injuring the patient. These examples show that accidents may happen despite optimizing national and supranational safety rules for AI. This is when questions of liability become important. Nevertheless, the application of liability regimes for damage caused by AI systems can be challenging. The characteristics of AI systems such as opaqueness, autonomy, connectivity, data dependency, or self-learning abilities make it difficult to trace back potentially problematic decisions made with the involvement of such systems. This in turn may make it challenging for victims to obtain compensation under the current EU and national liability regimes. Moreover, there is also some uncertainty regarding the allocation of responsibilities between different economic operators in the supply chain of AI systems. Several parties can be involved such as the developers of the software/algorithm, the producer of the hardware, owners/keepers of the AI product, suppliers of data, public authorities, and the users of the product. Persons who have suffered harm may not have effective access to the evidence that is necessary to build a case in court and may have less effective redress possibilities compared to situations in which the damage is caused by 'traditional' products. It is, however, important that victims of accidents involving AI systems are not confronted with a lower level of protection compared to other products and services for which they would get compensation under national law. Otherwise, societal acceptance of those AI systems and other emerging technologies could be hampered and a hesitance to use them could be the result.[25]

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individuals perceive their value and significance, potentially diminishing the fulfillment derived from meaningful employment; Ethical and Societal Considerations (Impact on Human Well-being): The potential for AI to affect human well-being and societal structures underscores the importance of considering ethical and societal impacts early in AI development. Ensuring that AI systems are designed and implemented with these considerations in mind is crucial to prevent negative outcomes.

[25] J De Bruyne, C Vanleenhove (eds), *Artificial Intelligence and The Law* (Intersentia 2021) 360-361. The authors examine whether victims may be successful in claiming recovery for damage caused by AI systems under Belgian tort law. They limit their research to the application of tort or extra-contractual liability regimes in the context of AI. Contractual and criminal liability for damage caused by AI systems are thus not addressed. They restrict their research to tort liability as this is a re-occurring and important topic in several documents that were recently issued by the European Commission. Extra-contractual liability encompasses many of the most fundamental questions and problems that arise in the context of AI and liability. They focus on fault-based liability for damage caused by AI systems, product liability and liability for defective things.

Machine learning and computer processing cannot at this stage be compared with human reasoning and emotional intelligence. If AI eventually acquires the faculty for practical reasoning (and it probably will in the distant future) and agency, then the normal rules of criminal responsibility (whatever they are at the given point in time) will apply. There will be no need for new rules if these machines can make rational choices, but there will be a need for transitional rules for the long period when these AI machines straddle between being able to make fully autonomous choices and partially autonomous choices. At the moment, they can do neither. Civil law such as manufacture liability rules already applies to AI, because at the moment, it is considered no more than an instrument in the hands of human agents.[26]

Artificially intelligent systems should make user lives easier and support them in complex decisions, or even make these decisions completely autonomously. However, at the time of writing, the processes and decisions in an intelligent system are usually not transparent to users. They do not know which data are used, for which purpose, and with what consequences. There is simply a lack of transparency, which is important for trust in intelligent systems. Transparency and traceability of decisions are usually subordinated to performance and accuracy in AI development or sometimes play no role at all. The creation of substantial laws, like the General Data Protection Regulation (GDPR) also referred to as Regulation (EU) 2016/679 (Regulation, 2016), and ethical principles, is intended to remedy this situation and contribute to improving transparency and control. However, legal regulations demand that applications, or more precisely, the socio-technical systems, consider legal aspects and equally consider all stakeholders; e.g., software architects, developers, legal professionals (who check and confirm legal compliance), providers, and users.

In this part, the development of legally compliant software needs a tight collaboration between the different stakeholders must be emphasized. Developing legally compliant software necessitates a multifaceted approach involving close collaboration among software developers, legal experts, end-users, and regulatory bodies. By understanding and integrating legal requirements, providing transparent and accessible information to users, and continuously monitoring and updating the software, providers can ensure that their applications remain compliant with the law. This approach not only protects users but also safeguards the providers from potential legal breaches, contributing to the overall reliability and trustworthiness of the software.[27]

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[26] DJ Baker, PH Robinson, *Artificial Intelligence and the Law: Cybercrime and Criminal Liability* (Routledge 2020) 3. We often hear the term "autonomous weapon," but this is an oxymoron. Currently, a machine cannot be criminally liable either directly or through the law of complicity for any harm it causes. There is currently no comparison between "machine learning" and "human understanding." Nonetheless, like all machines, AI has capabilities beyond those of a single human. It is true that AI-equipped machines can do many things that humans cannot, but the same can be said of machines generally.

[27] SJ Thomson, *Machine Law, Ethics, and Morality in the Age of Artificial Intelligence* (IGI Global 2021) 13 <10.4018/978-1-7998-4894-3> accessed 24 May 2024. In this chapter the authors describe what intelligent systems are and explain how users can be supported in specific situations using a context-based adaptive system. In this context, the authors describe the challenges and problems of intelligent systems in creating transparency for users and supporting their sovereignty. The authors then show which ethical and legal requirements intelligent systems have to meet and how existing approaches respond to them.

About the future development of AI, we can say that current AI technology, often based on machine learning, is narrow in the sense that it can learn to solve specific problems, such as selecting a job applicant, writing texts, or playing a game. Typically, it cannot solve problems across a wide range of contexts. For instance, an AI system that has learned to drive a car cannot transfer that knowledge into a new domain; it cannot make investment suggestions or write a love letter. AGI is a label often used for future forms of AI that are significantly less limited than current technologies and far more capable of competing with human intelligence than narrow AI. AGI has been defined as a form of AI that 'equals or exceeds human intelligence in a wide variety of cognitive tasks'. So far, it does not exist, but narrow AI can solve many problems without any need to be intelligent. The idea of AGI is based on the hypothesis that progress can be made toward the increased and broad intelligence of artificial agents. Given the speed at which AI has been developed and has taken over on a global scale, some argue that the possibility that AGI may be created cannot be excluded.[28]

6. Artificial Intelligence in the Republic of North Macedonia

The use of artificial intelligence (AI) in the absence of strategy or regulation exposes citizens to the risk of potential abuse. Although many countries have already adopted a national strategy for AI, this is not the case in the Republic of North Macedonia. In September 2021, a working group for the National Strategy for AI was established, consisting of domestic experts, but also successful Macedonians who are globally recognized professionals in this field and work in world-renowned companies and universities. One of the objectives of the National Strategy for Artificial Intelligence is to give a chance to many domestic, innovative startup companies to realize their ideas and projects, respectively education as well as access to modern equipment. Unfortunately, only one meeting has been held since 2021. The strategy is part of the economic development plan of the Republic of North Macedonia and part of the National Strategy for Development 2021-2041. After the elections and establishment of a new Government and taking into account the fact that AI is developing at an enormous speed, and the risks were aforementioned, the Republic of North Macedonia should proceed faster with the adoption of the National Strategy for AI.

About the next steps, the Fund for Innovation and Technological Development in communication with UNDP, the World Bank, as well as other interested parties who have experience and knowledge in the development of a National Strategy AI, will work to provide a leading expert, i.e. a consultant or a team that will help in the process of developing the strategy, with the support of the working group, as well as in the process of developing a financial

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[28] B Custers, E Fosch-Villaronga, *Law and Artificial Intelligence: Regulating AI and Applying AI in Legal Practice* (Springer 2022) 521-522 <https://doi.org/10.1007/978-94-6265-523-2> accessed on 29 June 2024. See also P Księżak, S Wojtczak, 'Consent' in P Księżak, S Wojtczak (eds) *Toward a Conceptual Network for the Private Law of Artificial Intelligence. Law, Governance and Technology* (Springer 2024) vol 51 <https://doi.org/10.1007/978-3-031-19447-4_5> accessed 26 July 2024.

construction for the realization of the whole process. However, it should be taken into account that it is a very extensive process, for which significant resources, time, and humans, are necessary, but if the members of the working group are dedicated to the creation and development of a successful strategy, it will have positive benefits for the ecosystem.[29]

First, the companies need to transform, and all companies need to do that, collect data, adapt processes and systems, and then get the most out of AI. At the moment when the market of the European Union opens, the biggest problem will be Macedonian companies that will not invest on time, because there will be greater competition with companies that are more technologically developed.[30]

The main question is how ready is North Macedonia for the use of AI in the public sector, do we have a relevant digital infrastructure and what are the possible risks of the use of AI in the absence of a National Strategy? For this reason, the communication and cooperation between different entities will enable the country to adopt a relevant and accurate national strategy on AI.[31]

Its worth mentioning that in the field of education and research universities in North Macedonia are increasingly offering programs and courses related to AI, machine learning, and data science to equip students with the necessary skills. Collaborative efforts with international universities and research institutions are fostering a robust academic environment for AI research and development. Research institutions are actively working on AI projects, often in collaboration with EU programs and other international bodies. Key areas of research include AI applications in healthcare, agriculture, and smart cities. The tech industry in North Macedonia is growing, with several companies focusing on AI and related technologies. Startups are emerging in AI-driven software development, fintech, and health tech fields. Innovation hubs and tech incubators are supporting startups and fostering a culture of innovation. These hubs provide resources, mentorship, and funding opportunities for AI-based startups. Therefore, we can say that with supportive government policies, investment in education and infrastructure, and a growing tech industry, AI can significantly contribute to the country's development and global competitiveness.[32]

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[29] Fund for Innovation and Technological Development of North Macedonia, <https://fitr.mk/> accessed on 25 May 2024. The Fund for Innovation and Technological Development is a leading government institution for supporting startups and innovative companies in the Republic of North Macedonia. The main priorities of the Fund are improved access to financial support for innovation and technological development and promotion and encouragement of innovation activity in North Macedonia.

[30] In the business sector in the Republic of North Macedonia, companies like Data Masters actively help domestic companies to adapt to new technologies and implement AI solutions in their operations. See some case studies at <https://datamasters.ai/> accessed on 05 September 2024.

[31] <https://mk.bloombergadria.com/tehnologija/digitalizacija/61686/vestackata-inteligencija-vo-javniot-sektor-do-kade-e-makedonija/news/> accessed on 05 September 2024. The first digital assistant in North Macedonia was launched in 2023. It was heralded as the first AI-based assistant of its kind in the region. It was made available to citizens and above all to foreign investors in order to receive complete information about the conditions for investing in North Macedonia and about the state aid offered for investments. In reality, it was only a chatbot with data related to foreign investments, and not the use of AI. Its simple use shows that it is more of a PR tool than a real use of machine learning and artificial intelligence for the needs of citizens.

[32] Institute for Digitalization, Economy and Innovation IDEI-Skopje, <https://idei.org.mk/category/pub/st/> accessed on 05 September 2024. The Institute is dedicated to improving public policies by building an open,

Although more countries are still limited in regulating AI, the problems that can cause its use and the consequences it can bring are already obvious. The greatest danger to people is the latest military technologies used, drones, cyber-attacks, etc. The Republic of North Macedonia is no exception. Chat GPT is another example of the possible misuse of AI, which is also heavily used by Macedonian students. In practice some students used it to copy seminar papers, master thesis, and doctoral dissertations instead of using it as a benefit, to get more information on how to write a thesis. From the above-mentioned, we can see that AI has positive and negative sides. It's up to human morality which one will be used.

7. Conclusions.

What we can draw as a conclusion is that the benefits of artificial intelligence should be used but only for the benefit of humanity. It would not be advisable for AI to take over the whole control in certain fields. There must be limitations in its use precisely because its unlimited use can cause great dangers leading to harmful consequences, even endangering people's lives.

AI brings with it many benefits for traditional social concepts by helping in the efficiency and success of many business and private activities, faster and better than a human does. The fields of application of AI are numerous and include important sectors such as agriculture, transport, catering, tourism, healthcare, sports, arts, etc.

Further directions of development, should be based on the arrangement of AI systems in special regulations and areas of law, and not exclusively on a single regulation that would regulate the application of AI in an equal way in in all areas. The possibilities of information and communication technologies are enormous, which is also accompanied by a significant risk to the rights and freedoms of citizens, so it is necessary to investigate and arrange it in detail (legal norms) the relationship between the specific form of AI and the area of law in which is applied (administrative law, constitutional law, commercial law, data protection law, etc.). The integration of AI into contracting processes that was analyzed briefly in this article is creating a paradigm shift, enhancing efficiency, accuracy, and customization while also posing challenges related to data privacy and ethical use. As AI technologies continue to advance, they will further transform the way contracts are initiated, negotiated, concluded, performed, and enforced, leading to a more dynamic and responsive contracting environment. In addition, it is necessary to pay more attention to

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credible socio-economic system through the use of digital tools and innovative solutions. The Institute has published analyses, studies, opinions and reports related to AI. See A Kostadinov, *Artificial inteligence and politics: Comparative analysis of the character of the political debate on Twitter among the leaders of the three biggest Macedonian parties* (Insitute for Digitalization, Economy and Innovation IDEI-Skopje 2023) <https://idei.org.mk/wp-content/uploads/2023/11/%D0%92%D0%B5%D1%88%D1%82%D0%B0%D1%87%D0%BA%D0%B0%D1%82%D0%B0-%D0%B8%D0%BD%D1%82%D0%B5%D0%BB%D0%B8%D0%B3%D0%B5%D0%BD%D1%86%D0%B8%D1%98%D0%B0-%D0%B8-%D0%BF%D0%BE%D0%BB%D0%B8%D1%82%D0%B8%D0%BA%D0%B0%D1%82%D0%B0.pdf> accessed on 05 September 2024.

the implementation of new technology opportunities within traditional branches of law and institutes. In that sense, legal systems must adapt to the challenges that usage of AI brings, i.e. they should provide a high level of reliability and safety of the functioning of the AI system. It can be achieved only by adopting new precise regulations, which will define the standards, which they have to fulfill high-risk and low-risk applications that use AI.

Bearing in mind that AI directly affects the lives of citizens and the functioning of society, legal systems and legal science should not remain silent on its appearance and the increasing use of new technologies in everyday life social and business activities.