

Legal Considerations On Artificial Intelligence – Modern Age Vitalis Punctum

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Abstract

In the growth of civilization, artificial intelligence is quickly expanding its capabilities. These alterations create the challenge of applying standards, particularly international law norms, in order to resolve issues associated with the essence and technical protocol of using artificial intelligence. The article is dedicated to the issues of legal control of the production and use of artificial intelligence, as well as the construction of a conceptual framework and a definition of artificial intelligence based on the generally accepted scientific ideas. The writers also analyse the issue of establishing the legal identity of a 'electronic person' and the requirement of holding the owner accountable for moral and material damages caused by a 'electronic person.' Within the context of the use of artificial intelligence, the paper also covers critical issues regarding the enforcement of legal norms governing intellectual property and copyright, criminal culpability, and involvement in criminal procedures. The authors analyse significant dangers and uncertainties associated with artificial intelligence, which are essential for enhancing relevant laws. They develop suggestions for the future discussion of issues such as the applications of artificial intelligence at the current stage; development prospects in this sector; legally relevant problems researched in this field and the issues associated with the use of existing and the development of new autonomous intelligence systems; the development of new strategies and legal norms to bridge the gaps in the legal regulation of the use of artificial intelligence.

Keywords: - Artificial Intelligence, Law and Legal Personality, International Law, Criminal Liability, Artificial Intelligence and Jurisprudence.

Introduction

In technical terms, artificial intelligence is an automatic software control in which algorithms are not predetermined by the operator but are created independently within the system based on coded descriptions of various types of goals, representations of actions, and information based on the external environment. Operators roughly divide it into two: the first is implemented in systems designed for specific types of tasks (Apple and Yandex voice engines are examples); the second refers to systems that have generalised cognitive capabilities and are not limited in their scope (Robaldo et al., 2019).

Artificial Intelligence and the Law – Current State

Artificial intelligence as an engineering phenomenon is undergoing a period of intensive development. This is largely due to the development of new types of neural networks, control via technology entropy, the so-called swarming intelligence, etc. However, the question of legal regulation of this phenomenon, its basis and conditions of existence, its integration into other systems, and first of all, into human society, remains unsolved. The reason is that the theory of

law is lagging behind scientific and technological progress, i.e., lack of legal regulation in the areas of human-artificial intelligence interaction, moral issues, security, legal personality, responsibility, and privacy (Chen et al., 2019).

Lawmakers and the scientific community in a number of countries have taken some steps towards the creation of relevant regulations. For the first time, the necessity of legal regulation of relations between humans and artificial intelligence was mentioned by South Korean scientists, and South Korean legislators became pioneers in normative regulation of such doctrinal provisions Korean Law of Robotics Artificial Intelligence Development (2005), Robotics Ethics Charter (2007), and Legal regulation of autonomous systems in South Korea (2012). They stated the need for detailed regulation of the activities of creators of software for robot functionality, as well as those involved in their development and production, use, and destruction. The USA implements the Roadmap for US Robotics (2011, 2016) and the National Robotics Initiative (2011, 2016). Japan has developed and implemented guidelines to ensure the safe use of new generation robots, Japan Plan for Economic Revitalisation, New Robot Strategy. Japan's Robot Strategy: Review, Strategy, Action Plan (New Robot

Strategy. Japan's Robot Strategy. Vision, Strategy, Action Plan, 2015). China adopted Guidelines on Promoting the Development of Industrial Robots (Guidelines on Promoting the Development of Industrial Robots, 2014) and the global state development programme Made in China 2025 (Made in China 2025, 2015). The European Parliament adopted Resolution No. 2015/2103 (INL) on Civil Law Rules on Robotics (2015), which was based on the 2014 report *Regulating Robotics: A Challenge for Europe*, which was part of a larger European Law Perspectives study. Estonia has passed a law on robot couriers (2017) and Germany's law on the use of highly automated vehicles (2017). Russia is also implementing the state programme on the digital economy of the Russian Federation and the Strategy for the Development of the Information Society in the Russian Federation for 2017–2030.

The term 'artificial intelligence' is not defined in any official document, although the term itself is actively used in many countries. This is due to the lack of a unified legal approach in both old and new world countries to define its essence. In particular, the law makers, almost in all countries, on robotics believe that no precise definition of artificial intelligence can be given due to the reality of different types of robots. So, they think that studying the latter should be done in a casual way, with each robotic system studied on its own (Schönberger, 2019).

If we take the perception of a few researchers, they identified four types of artificial intelligence that are more popular among them, namely

- 1) Reactive machines (an example is the chess computer Deep Blue, created by IBM and defeated by G. Kasparov in the early 1990s): this type of system is not able to collect and analyse data on implemented solutions;
- 2) Systems with limited memory that can use past experience for future solutions (in particular, some functions of unmanned cars are implemented using such systems);
- 3) Intelligent machines - assuming that the term 'intelligence' in psychology means understanding; and
- 4) Systems with an artificial self-consciousness that can shape perceptions of themselves.

Legal Implications of Artificial Intelligence – Doctrinal Approaches

The problem is also sharpened by the debate on whether artificial intelligence is recognisable or not. A number of researchers take the following position: if the progress of electronic systems follows the foreseeable developmental path, the technology could be described as a thinking human-like robot, which would inevitably lead to changes in laws to cover the role of such systems in society. They argue that the legal status of an electronic system with artificial intelligence and a fully autonomous unit are not the same. The latter could, in their view, be recognized as a fully-valued cyber-subject of society, with the proviso that it would have a different range of rights and responsibilities, as it is impossible to equate a bankomat, a smart-home system and a combatant robot. This leads them to conclude that AI systems should have a certain legal status, which will depend on the functionality and other features of the particular system.

Some scholars opined that the legal position of artificial intelligence is similar to that of animals. According to him, robots cannot be subjects of law due to their lack of emotions, but they are capable of performing autonomous actions, like animals, and therefore should be legal objects and may be endowed with legal personality. Also, in this view, it is fundamentally necessary to establish the responsibility on the robotics developers' expertise in robotics (Lindroos et al., 2017).

In that way, the development of a unified international robot registry is a good idea. The doctrinal and legal basis for all types of liability for such developers, including criminal liability, should be developed. In order to find prerequisites for endowing artificial intelligence with legal personality, a number of researchers refer to G. Kelsen's 'Pure doctrine of law', according to which a subject of law is an individualized unity of a set of legal norms, establishing legal duties and subjective rights, having a definite behaviour as their content. The subject of law is not a natural reality but a construct that is created to describe legally significant actual constructions. In this connection, in their opinion, it is possible to formulate the concept of 'electronic person' and to consider it as a subject of law, as the latter is essentially a set of legal obligations and rights, the content of which can be recognized as actions of an artificial intellect. This approach makes it possible to define an 'electronic person' as a carrier of artificial intelligence (be it machine, robot, programme) that has a human-like mind, the ability to make conscious decisions not based on the algorithm laid down by the machine, robot or

programme creator and, therefore, has certain rights and obligations (Simmler et al., 2019).

Some of the countries like European Union is becoming increasingly interested in the topic and in the legal personality of the e-person. The authors of these countries argue that robots are not 'intelligent', as they can analyse data; adapt their behaviour; have physical support; acquire autonomy through sensors and contact with their environment; and are self-learning. According to its authors, the development of tools that allow assessing the levels of consciousness of an artificial intelligence, determines the question of its rights - not to disconnect against its own will; to have wide access to the paper notes that the most highly developed and technologically advanced robots should be granted electronic personhood with its own legal personality. The paper notes that the most highly developed and technologically advanced robots should acquire an electronic persona status with an inherent legal personality, and this status should apply whenever robots make their own volitional decisions or otherwise interact with third parties (Wahlgren, 1992).

Such attitudes clearly show that part of society wishes to see the 'electronic person' as a real actor, because he or she has a duty that he or she may or may not fulfil. This raises the question of who will be responsible for the non-performance of this duty? There is no clear-cut position here.

Now, the time has come for states to think about regulating artificial intelligence before it is too late. The technology insists that artificial intelligence poses an existential threat to humanity, believing that with artificial intelligence we summon a demon we cannot control. To some, this may sound overly emotional, but we think his concerns about the negative impact of artificial intelligence on human activity, including international relations, are legitimate. When venturing into the unknown, it is better to exaggerate the danger, so as not to be confronted with surprises later (Kurzweil, 2010). It is worth noting that few of the United States legal experts have already made the case that it is legally unreasonable to recognise artificial intelligence as having personality status. They suggest that electronic systems, and even systems with full artificial intelligence, cannot be regarded as analogous or identical to human beings. If we take citizenship as an example, it is a general law across the countries, including India, that 'all persons born or naturalized in the one state are citizens of the that particular state. Thus, only persons can be born, hence artificial intelligence cannot have the rights of citizens. We fully agree with this view the

reasoning is that we think that an artificial intellect is not a bearer of the critical components of personality. It is devoid of elements such as the soul, a completely free consciousness, feelings, intentionality, and self-interest. For all its development and information processing speed, far beyond even a human's potential, artificial intelligence remains a program with hardware attached to it (Rissland, 1990).

The dual positions on the admissibility of non-physical individual persons having civil rights as similar with legal persons, as well as the invalidity of argument that electronic systems cannot claim constitutional rights like individuals because they do not have souls, which is allegedly due exclusively to the class-based theological understanding of souls in society, are considered farfetched and untenable, and proposals to recognize the identity of living and artificial are harmful not only from a belief standpoint, but also in fact (Thomas, 2017).

There is a debate about the multifaceted unresolved problem of ensuring data privacy and guaranteeing respect for fundamental values and human rights, including the use of modern digital technology (Sales, 2020). If we see the global scenario regarding this, Russia relevant problem of data privacy was solved back in 2006 with the adoption of the federal law on personal data. A decade later, the European Union also adopted the General Data Protection Regulation (GDPR), which came into force 2014. There is no single principal data protection legislation in the United States. Rather, a jumble of hundreds of laws enacted on both the federal and state levels serve to protect the personal data of U.S. residents. Even in India the Personal Data Protection Bill was introduced in the lower house of the Indian Parliament in 2019. However, until now, no country's law has regulated the prohibition of disclosure and transfer of personal and confidential information by autonomous systems using artificial intelligence without the explicit approval of the source of this information (Chesterman, 2020).

And this at a time when the established position that only humans are responsible for the actions of machines is being put to the test. Artificial Intelligence technology has become trainable, capable of functioning autonomously without the need for human intervention or even human control. What's more, the artificial intelligence itself is vastly different from existing mainstream computer programmes, in that it is capable of learning by doing, based on experience. This is what allows it to make different decisions in

similar situations, taking into account previous actions (Feteris, 2005).

Artificial Intelligence – A Route from the Conceptual Definition to Strategic Regulations

Under this heading, it is inevitable to have a reasonable question arise, i.e., what is ‘artificial intelligence’? The concept was first introduced into the scientific community by one of the leading cyberneticists, J. McCarthy of Stanford University, in the second half of the 1950s. Today, artificial intelligence in general is understood by specialists as modelling of human intelligence processes using machines, computer systems, which includes training (obtaining information and rules for its use), reasoning (using rules to reach approximate or certain conclusions) and self-correction (Susskind, 1986). In the early 2000s scientists were proposed to define intelligent control as ‘automatic... when programme algorithms are not pre-determined but are generated by the control system itself on the basis of formalised descriptions of objectives, knowledge of possible actions and information on the current changes of the external environment.’

Others believe that Artificial Intelligence is a complex cybernetic software-computer system with a functional-cognitive architecture and its own processing power which has substantive properties, including a certain subjectivity as an intelligent agent; a high level of perception, recognition, analysis, evaluation and modelling of the environment and relations within it, making independent decisions and adjusting own algorithms, reproduction of cognitive functions; abilities of self-referential adaptation of own behaviour, profound self-learning, in order to solve various tasks of a particular class, or self-homologation by developing homologated protocols and ways of communication within the system itself, performing certain cognitive functions, for the moment attributed to the exclusive competence of an individual, including creative tasks, and the ability to perform them (Robaldo et al., 2019). We are inclined to consider as acceptable for possible legal regulation the essential characteristics of artificial intelligence as defined as the result of human activity, which is a complex set of communicative and technological interconnections, which has the ability to think logically, to control its actions and adjust its decisions in case of changing external conditions, as the most capacious in disclosing its essence in modern conditions (Hernandez, 1990).

As for the direct liability of artificial intelligence, in the current legal and social environment the question of its hypothetical liability is, in our opinion, a dead end: legal liability measures are simply not applicable to it. The key issue to fix the criminal liability should be the existence of the subjective side of the offence, which is absent in the latter due to the artificial intelligence unit's inability to be aware of the consequences of its harmful actions (Abdul, 2016).

It is also pertinent to mention here that an autonomous system using artificial intelligence needs to be subject to the full range of laws that apply to its human operator. Such a rule should cover private, corporate and public systems, and international law should be changed so that a person cannot claim an autonomous system did something he could not understand or foresee. At the present stage of legal development, unlawful behaviour by an artificial intelligence should always lead to human liability. In this regard, it may also be necessary to legislate a rule that an autonomous system, when communicating, must clearly disclose that it is not human. With robot-computer programmes able to engage in increasingly complex dialogue with humans, society needs reliable guarantees for the labelling and identification of AI-enabled systems. A similar approach is taken by Russian lawmakers. In Russia, the owners, manufacturers or operators of industrial robots are responsible for the unlawful consequences of their operation. In European Union, PACE Recommendation No. 2102 on Fusion with Technology, Artificial Intelligence and Human Rights held in 2017 also explicitly states that responsibility for acts of artificial intelligence lies with humans regardless of the circumstances of the event, and even references to the independence of decisions made by AI units cannot absolve their creators, owners and operators from responsibility (Larsson, 2020).

Such solutions are a natural consequence of the doctrinal approach to the mass adoption of artificial intelligence systems and their assimilation into everyday life that is being tested in the current context. In this context, the role of international law may be to coordinate the development of legal regulation; possibly develop internationally agreed guidelines to ensure the integration of fundamental values in the development of autonomous systems using artificial intelligence; to adapt existing norms and concepts; to fill gaps in legal regulation; and to develop and adopt the concept of responsibility (Craig, 2019).

However, new technologies do not necessarily require specific or new rules. Existing legal concepts are flexible and abstract enough to adapt to new technical development scenarios. Nevertheless, the consequences of certain technological developments related to autonomous devices, especially dual-use devices, can be so devastating that the current legal framework can hardly cover them anymore (McCarty, 1990).

With the increasing complexity, decentralisation and autonomy of artificial intelligence technologies, it becomes increasingly difficult to establish human control over certain outcomes. Even if a system using artificial intelligence is controlled by a human, the latter may have limited control over all possible actions and reactions of the system, nor can developers always anticipate the behaviour of self-accumulating systems. This situation calls for a unified approach to defining the (in) possible legal personality and legal liability of artificial intelligence. Whatever approaches one chooses to define the essence of Artificial Intelligence, the fact of objective existence of technology controlled by Artificial Intelligence and capable of some kind of impact on the material world around it, is evident. Artificial Intelligence is tangibly embodied and capable of analysing and producing a behavioural algorithm regardless of the programming settings, and therefore needs to be legally regulated (Schönberger, 2019).

The special capabilities of Artificial Intelligence in the field of big data analysis and prediction of various processes, and the lack of legal regulation of its use, create a serious global problem, the essence of which lies in the emerging challenges, including transparency, confidentiality, equality and accountability, that humanity already has to face. For example, because of the complex inner workings and autonomous capabilities of machine-learning algorithms, they can achieve results that humans cannot explain. The lack of transparency of new technologies is also related to the fact that many of them are developed commercially by corporations within closed algorithms. To address the emerging contradiction in the legal regulation of artificial intelligence, one possible solution, which we support, has been the proposal that certain algorithms and data should be exclusively owned by the state in order to increase transparency and ensure the security of their use (Rönsberg et al., 2019).

Conclusion

We believe it would be useful to confer in the course of a broad scientific discussion, including at

the international level, the formation of common approaches to understanding the place of artificial intelligence in the modern system of knowledge and international relations, and, based on the results obtained, the possibility of establishing in international law and subsequent implementation in national law of basic principles (possibly even international standards) of responsibility sharing between the multiple actors involved in the development or use of technologies. Indeed, such allocation of liability should reflect a true connection between the acts and omissions of the actor and the ensuing harm. And, as a number of experts have suggested, to maximize the opportunity for remedies, avoiding the task may require the development of comprehensive approaches as well as the involvement of representatives of the clergy in the law-making process, in addition to public and private actors. This is a challenge that may require the development of holistic approaches, as well as the involvement not only of public and private actors, but also of members of the clergy in the law-making process.

In this connection, it is logical to elaborate the following tasks: to formulate approaches to the future strategy or concept of artificial intelligence regulation; to define the framework of its legal personality and probability of liability; to suggest guidelines for their development both in national and international law; to investigate legally relevant problems arising from new developments in artificial intelligence, as well as those associated with the use of already existing types of autonomous intelligent systems, including transport systems.

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