

LEGAL QUALIFICATION OF ARTIFICIAL INTELLIGENCE: RESPONSIBILITY ISSUE

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Abstract

In today's world, many scholars argue whether Artificial Intelligence is a subject of law and must be responsible for the consequences of its actions; or whether it is a property, and the developers of AI technologies must be responsible for the mistakes of their creation. This article is aimed define the legal status and capacity of Artificial Intelligence by analyzing opinions of experts and existing legal practice. In the end we will specify the status of Artificial Intelligence and decide whether it is a subject or object of legal relations.

Keywords: artificial intelligence (AI), legal status, subject of law, object of law, legal capacity, legal regime, source of increased danger, intellectual property, electronic entity, robotic agents.

Introduction

The boundaries of AI's responsibility

First historical approach of AI referred to the object of law, suggesting that computer technology was a property of its creator. However, progressive development of AI technology has led to a second approach of defining the concept of "AI". In accordance with the new approach, nowadays AI is capable of acting autonomously and improving itself.

Vasilyev Aleksandr claimed that "capability of decision-making and independence of modern AI technologies conditioned the exit of the sphere of AI beyond the limits of previous technologies and caused the need to form a set of additional legal norms for the regulation of AI technologies" [1, page 104].

Additionally, the perspective of endowing a robot with self-awareness was also proved by computer technologies scientist R. George Wright. George Wright believed that most advanced robots can possess some degree of self-awareness or the ability to perceive environmental phenomena independently.

This idea can be proven by the next example. Recently computer researchers decided to test AI technologies, namely how independent they are in learning and decision making. To achieve this, researchers build a computer game with two players: a red and blue team. Blue team was controlled by AI, while researchers played as a red team. The idea of the game was for the blue team to survive and for the red team to catch blue ones. The map of the game was small and there was only one building and a ladder on the map. AI lost the first 5 attempts, and after analyzing the map AI found that it can hide inside of the house. Yet hiding inside of the house was not the saving option as researchers were picking up the ladder, climbing to the roof of the building and entering the house from the top. This led to another 20 losses for AI until it found that the final problem was the ladder, so AI made the following decision: it was picking up the ladder and taking it inside the house, so the researchers were no longer able to catch them. Therefore, these studies showed the ability of AI to think, analyze and decide on its own, because AI was not firstly coded for hiding inside of the house or picking up the ladder.

AI as a subject of law

As it was mentioned above, AI can make decisions independently, so many scholars consider AI as a subject of law, capable of exercising subjective rights and legal duties. Let us consider the legal personality of AI within the framework of the classical subjects of law: individuals and legal entities.

Individuals. First, it is important to mention that cognitive abilities of AI are very limited compared to human brain functions. Neural network of AI is built according to the principle of functioning of biological nerve cells of a human brain. Neural networks of the most advanced AIs have only few layers: input layer, hidden layers and one output layer of neurons. However, the human brain contains billions of neurons with billions of connections, which means that the human brain is more functional and effective. Moreover, neural networks layers of AI act in turn and sequentially, while the human brain exchanges the information between neurons parallelly and asynchronously. Attempts to fully replace the human brain with AI are unsuccessful as of now because an artificial neural network is a simulation, unable to replicate the original.

Therefore, comparison of AI to individuals does not stand up to scholar's criticism from a physiological and biological point of view.

Even though the recognition of AI as a subject of law cannot encroach with the exclusive status of the person, German scholars suggest the use of compromise concepts, specifically the status of partial legal capacity "Teilrechtsfähigkeit" [2, page 142].

Legal entities. Many scholars also suggest that AI may have some characteristics of a subject of law by analogy with legal entities. According to V. Laptev [3, page 102] AI and legal entities have the following similarities:

- both have registration and accounting number;
- both have productive and economic competence, corresponding to its activities;
- both have a material value;
- both can be brought to legal responsibility.

From the above it may be seen that AI can be classified as a legal entity due to relatedness. Nevertheless, AI and legal entities are not completely same and there are certain differences between them. Unlike the legal entity, which is an immaterial subject, the AI is material or attached to material media.

For this reason, some scholars propose an independent legal formulation and make AI an “electronic entity” [4, page 8], but this term is yet to be approved due to material differences between legal entities and AI.

Therefore, the ability to self-learning and autonomous activity is not a sufficient basis for endowing AI with legal personality. This can also be exemplified by the following case.

In 2016, Dmitry Grishin, CEO of “Mail.ruGroup” in Russia, proposed the concept of a Law “on robotics and AI”. The concept envisioned the creation of an AI technologies Registry and limitation of liability for the creators and owners of the technologies, which could reduce the risks of potential investors, encouraging investment in development. The concept provided for amendments to the Civil Code of the Russian Federation, which would have a chapter regulating the status of “robotic agents”, namely complex AI technologies registered in a special unified state register. To simplify, the essence of the Law comes down to limiting the owner's liability for the AI's actions. Liability for damages in this case could be applied only to AI technologies themselves.

However, this concept has been severely criticized by prominent Russian legal scholars, who spoke of the underdeveloped nature of the concept. For example, Anton Ivanov, who was the chairman of the Supreme Arbitration Court of the Russian Federation, pointed out that the introduction of the status of a “robotic agent” in the Civil Code of the Russian Federation entails the recognition of AI as subjects of civil law. The recognition of robots as subjects of law presupposes that they have consciousness and volition sufficient for their participation in civil relations. According to A. Ivanov, based on the current level of development of AI, giving AI technologies the status of a subject of law, which can participate in civil turnover without constant human assistance, is a poor and hasty decision.

Furthermore, Artificial neural networks are the most simplified model of the human brain. Of course, an artificial neural network can easily surpass human abilities as it is trained for a specific task, though AI technologies lack some of the specific components of personality: soul, free consciousness, feelings, intentionality, personal interests, freedom of will. For that reason, A. Shestak believes that “despite the powerful speed of information processing, exceeding human capabilities by several times, AI remains a program with material and technical support attached to it” [5, page 206].

It should also be noted that from the position of general civil legislation, animals are considered as a property, despite their high cognitive abilities, capabilities of self-learning and self-improvement.

Thus, relying on the investigations and opinions of legal scholars it is fair to conclude that the attribution of AI to the subjects of law is premature and inappropriate. AI cannot be liable for the decisions and actions unless it develops enough to become close to the human brain and gain personal characteristics.

AI as an object of law

It is a well-known fact that the object of legal regulation in the general theory of law should be understood as material and spiritual benefits, the provision and use of which satisfy the interests of the empowered party of legal relations. Following the legislation of Uzbekistan “Objects of civil rights include things, such as money and securities, other objects, property, including property rights, works and services, inventions, industrial designs, works of science, literature, art and other results of intellectual activity, as well as personal non-property rights and other tangible and intangible benefits” [8, article 81].

We have determined that AI at the present time cannot be a subject of law and have legal capacity. Therefore, AI should be referred to as the object of law, but as indicated above, there are several types of objects. In legal science there is no consensus on the attribution of AI to certain objects of law.

Firstly, the legal regime of a property can be applied to technology fixed on a material carrier and involved in the civil trade. Robots, unpiloted cars and drones are perfect examples of the above statement. A property is one of the main objects of civil rights. Since the legislator does not give a legal definition of a "property", it can be interpreted broadly. From this perspective, AI technologies can be described as an individually defined property with an inherently unique production code and registration number. For instance, the legislation of the Russian Federation establishes “mandatory certification, attestation, and state registration for unpiloted aerial vehicles (drones)” [6, page 90].

Secondly, AI can be defined as a source of increased danger. The reason for this is the inconsistency of AI and the uncertainty of its decisions because, as it was mentioned above, AI technologies may violate privacy rights or make illegal decisions. Consequently, liability for activities involving the use of AI should be borne by users of AI. In the case of an inherent defect or programming error in the code, liability by way of recourse may be imposed on the producer or developer of the AI respectively.

And thirdly, the scientific literature often highlights the idea of attributing AI to the objects of legal regulation by analogy with the legal regime established for animals. Even though animals are intelligent, have soul and characters, they are still qualified as property. For instance, in case a dog harms another human, the host of this dog will be responsible for the consequences.

Consequently, in accordance with the above viewpoints, the role of AI can equate to property or take a close position to it.

It should also be noted that some scholars emphasize on protection of intellectual rights of the AI as it is a result of intellectual activity. Currently, AI is not considered as intellectual property protected by law and because of that the computer industry has noted the problem of software cloning. For example, clone developers copy the idea of the original program, changing only the external form of its expression, and there is no punishment for them to be applied.

Conclusion

The problem of attributing AI to the subject or object of legal relations is a controversial issue in legal science. The model of legal regulation of AI depends directly on determining the place of AI among the elements of the legal relationship [7, page 85].

Based on the above analyzes, we can conclude that it is premature and inappropriate to classify AI as a type of subject of legal relations. In this regard, AI as of today is more likely to be referred to as the object of legal regulation.

Considering the specificity of this object of legal regulation, in the current legislation, it seems that the legal regulation of the use of AI should be comprehensive in nature and focus on the norms of property law, on infliction of harm by a source of increased danger, as well as the norms of copyright.

However, the rapid development and improvement of AI does not guarantee the continued existence of this viewpoint. At the same time, it seems that AI will not be able to take the place of an independent subject of law in the foreseeable future.

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