
Legal Status of Artificial Intelligence Across Countries: Legislation on the Move

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Abstract:

The paper explores current legal regulation on Artificial Intelligence (AI) across countries.

The research argues that special emphasis should be laid to the prospective of treating AI as an autonomous legal personality, separate subject of law and control.

The article identifies major approaches in legislation and practice on state regulation of AI and explores a number of current options: AI as a subject of law introduced into national legislation without prior background, AI as a subject of law equal to a person, and regulated or not regulated by separate rules of law, etc.

The research rested on qualitative approach to study. The materials included national and international legislation, academic and media data. The study stood on the comparative legal analysis, integrated legal interpretation and modeling.

The research findings laid grounds for preliminary recommendations on legal drafting with regard to AI status as that of autonomous legal personality. They can be used for national legislation development, further research on legal aspects of robotic AI.

Keywords: AI, Chat Bot, Legal Personality, Legal Status.

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1. Introduction

The technological paradigm of the digital economy forms new markets, that give rise to new regulatory measures and subjects for control, including artificial intelligence (AI). The above trend primarily concerns the formation of technologies that will radically change the sustainable market economy, forcing professionals out of different areas. Regarding lawyer, the situation offers little hope, right now there are technologies that displace lawyers from the market (Nikolova *et al.*, 2017).

One of the noteworthy projects that affects both the legal services market is the emergence of the DoNotPay chat in the UK, and currently covers over 1,000 fields of law (Mannes, 2017). The popularity of the above service is due to the fact that it successfully challenged over 160,000 parking tickets issued illegally to car owners (Gibbs, 2016), the processed requests amounted to 64%.

As regards the Russian market, Sberbank launched a robot lawyer to file claims for individuals, the company GlavstrahControl launched a bot to settle insurance disputes (Tsvetkova, 2017). At the same time, it is already impossible to stop the current technological trend, therefore, the existing technological paradigm needs legislative base to regulate AI. Both lawmakers and researchers focus on the issue (Yastrebov, 2017).

In this regard, the present research states that significant weight should be attached to the issue of treating artificial intellect as separate subject of control within civil and administrative and also in criminal proceedings within the context AI competing with human. The purpose of the study is to identify key trends in national legislations on AI. The objectives of the study are the following:

- Research of current models of state regulation of AI across countries.
- Identification of challenges in the current and prospective model of administrative and legal regulation of AI.
- Development of recommendations to improve the above regulatory apparatus.

2. Materials and Methods

The study was conducted within the qualitative paradigm and integrated data from social, legislative and academic practice. Research materials integrated a number of sources:

- legislative base and draft bills concerning AI regulation;
- research papers of Russian and foreign scholars who specialize in the field under study;
- official media sources.

The research methodology rested on comparative legal research, techniques of analysis and synthesis, hypothesis formation, a method of interpretation of norms, a method of legal modeling, etc. Due to the research period limits it was not possible to cover the entire list and depth of legal phenomena in the field of AI. Therefore, *the first stage* focused on two models of the current mechanism of state regulation of AI that were selected as subject to study:

- introduction of AI in legal relations, as a subject of law without providing legislative infrastructure;
- preparation for the introduction of AI in legal relations on the basis of the comprehensive complex of legislative infrastructure.

At this stage, the analysis of regulatory sources and their interpretation was implemented.

The second stage focused on some countries that develop the legislative base for robotics - Estonia, Germany, the USA, Russia and make their policies public. This stage explored the main features in determining the legal personality of the robot, the basis for perspective legislation, formed by the state, business and legal experts. A method of comparative legal research, generalization and a method of interpretation of standard norms was mostly used at this stage.

The third stage used methods of legal interpreting and modeling to identify key legal gaps within the framework of the two current paradigms to regulate legal relations between a human and a robot.

3. Results and Discussion

The study made it possible to identify major basic approaches to AI state regulation across the countries.

3.1. AI as subject of law introduced into national legislation without prior background

Currently in general, the approach to AI is implemented either in the form of a software package (virtual platform, chat bots, programs, etc., which do not have a material shell), or programmatically (robot, drone, etc.) as an instrument for specific goals laid down in the framework of legal relations formed by legal entities (Vovchenko *et al.*, 2017. At the same time, there are cases when actions with regard to robot status contradict current national legal norms.

A case from Saudi Arabia:

Riyadh announced in 2017 that robot Sofia, that positions itself as a woman, was granted the citizenship of Saudi Arabia (Saudi Arabia Gives Citizenship, 2017). This step contradicts to a number of laws that determine the model of behavior of subjects

of legal relations in different conditions. First it contradicts the norm of Saudi Arabia citizenship that can be obtained in the following ways (Saudi Nationality System, 2018):

1. By birth;

- Birth in a traditional family, where the mother and father are Saudi Arabia citizens;
- The birth of a legal entity in Saudi Arabia, a family where the father is a citizen of Saudi Arabia, and the mother is not a citizen of the country. At the same time, a notarized acknowledgment of paternity is deemed to be necessary.
- The birth of the subject, by the mother of a Saudi citizen, where the father is not a citizen of the RAA, provided that coming of age, the subject has a permanent residence permit and is fluent in Arabic.

2. By marriage;

3. By naturalization under a number of conditions: reaching the legal age; fluent in Arabic; settlement over 10 years; legitimate way of earning; no criminal record; compliance with the norms of conduct set out in the country.

Furthermore, the case under study contradicts the accepted model of female behavior in Saudi Arabia society that introduces specific requirements to female activities, including obligation to travel accompanied by a male mahram, hijab wearing, job placement limits, limits to traveling abroad, restrictive issues in family life and inheritance rules, and some other restrictions stemming from the Shariah.

Moreover, the robot citizenship contradicts the female rights in Saudi Arabia, where a woman can perform public functions, through representation in a consultative assembly (Shura), a number of women hold positions in the public service (Shaheen, 2011).

A case form Japan:

Japan in 2017 provided a residence permit for the chat bot Shibuya Mirai under a special regulation (Cuthbertson, 2017). However, this action contradicts laws regarding residence permit procedure in Japan. It is opened for foreign specialists employed in Japanese companies, participants in the family reunification program, entrepreneurs and investors doing business in Japan, scientists, artists and athletes of world level, foreigners who married a Japanese citizen, foreign students when studying at a Japanese higher educational institution, foreign citizens in special cases (passing service, etc.). Citizenship granting in Japan is regulated by the Law on Citizenship of Japan (Nationality Law of Japan, 2018).

The Law states two options, namely by birth or naturalization. In the case of birth, the child should be born in Japan (without reference to the nationality of the parents), or by the father, and the mother holding the Japanese citizenship. In the case of naturalization, the person should live in Japan over 5 years, have legal

capacity and reach the age of twenty, have adequate standard of living, and no affiliation with organizations associated with activities against Japan.

3.2. AI as subject of law, equal to a person, and not regulated by separate rules of law

Bearing in mind above mentioned legal precedents of AI status as equal to human being in Saudi Arabia and Japan, we consider it important to focus on the procedural aspect of the public legal relations:

- Neither the chat bot, nor the robot Sofia, applied for citizenship (residence permit);
- Neither the chat bot nor the robot meets the criteria of capacity (age qualification);
- They do not meet the criteria of settledness;
- They do not speak the national language to the extent set out by law.

Due to the above formal criteria robot and the chatbot should have faced a refusal when submitting the documents. Further problems arise for AI to comply with the legislation specified by the host country. First, the emancipated woman is a robot that does not comply with the requirements specified for clothing, ethics of behavior (male escort), and this robot should have been brought to administrative and criminal responsibility under the current Saudi Arabia legislation. As regards chat bot, there are fewer problematic issues, as it does not have a material shell and is tied to the location of the server.

Along with the duties AI also receives rights, as any citizen (or a resident who has obtained a residence permit). In case of the robot Sophia, one should bear in mind that now in Saudi Arabia women can act in the executive branches, participate in labor relations and marry. However, there is no adequate state regulation with regard to securing and terminating the respective legal relations. As a consequence, when the robot is equated to a person, there will be a problem both in Sharia courts and in courts of general jurisdiction, since the model of conduct is not specified by law.

In case of chat, the situation requires detailed consideration through a publicly-legal prism. This AI performs publicly legal functions, and acts as an operational intermediary in communication between the residents of Shibuya County and government officials. Proceeding from the fact that this AI has received a residence permit as a foreign specialist (created by Microsoft) or a civil servant (serving the district), the question arises concerning the format of the employment contract, that is the only formal ground to grant residence permit.

In addition, in case of incorrect or untimely advice given this could lead to legal consequences since the legislation cannot record the fact of responsibility of AI without a physical shell, and Microsoft, as a developer is insured by the fact that the AI is a separate legal entity with all the ensuing consequences.

Considering the moral ethical aspect, the subjects under study do not have it. Furthermore, in case of administrative or criminal claims being filed, *corpus delicti* will be incomplete, due to the lack of intent (and its formal awareness).

3.3. AI as subject of law within the current and prospective legislation across continents

Bearing in mind the above mentioned constrains most countries are quick to form the necessary legislative framework, or advisory councils designed to resolve the issue of regulating AI as a newly formed subject of law.

Thus, the UK formed the AI Committee in the House of Lords (Shead, 2017). The US government does not strive to consider the legal status of AI as an individual person and focus on the AI legal definition. Section 3 of the bill on AI provides the AI generalizing definitions:

- Artificial systems capable of performing tasks without human presence (autonomous systems);
- Systems that think as by analogy with the human brain and are able to pass the Turing test or another comparable test by processing natural language, representing knowledge, automated reasoning and learning;
- Systems that act rationally achieve goals through perception, planning, reasoning, learning, communication, decision making and action (Cantwell, 2017).

As for EU countries, they pay specific attention to legal regulation of unmanned vehicles. Thus, the German Traffic Act (Czarnecki, 2017) imposes the responsibility for managing an automated or semi-automated vehicle on the owner and envisages partial involvement of the Federal Ministry of Transport and the Digital Infrastructure. A more comprehensive and understandable approach to the definition of current and prospective legislation regarding robotics is presented in the EU resolution on robotics (European Parliament Resolution, 2017). It defines types of AI use, covers issues of liability, ethics, and provides basic rules of conduct for developers, operators, and manufacturers in the field of robotics, the rules base on the three laws of robot technology by Azimov (1942).

The first key issue is the autonomy of the robot endowed with AI and the degree of third-party involvement in robot control. Hence, a legal conflict arises, as within the framework of the current legislation the robot cannot be held liable for actions and (or) inaction and as a result responsibility falls on the user, software developer, or manufacturer.

At the same time, the EU resolution raises the issue of responsibility in the event that the robot caused damage due to the decisions made by the robot itself (based on the embedded algorithms) and the definition of the third party responsible for paying compensation is impossible. At the same time, a special reservation is made about

AI, with the laid down principles of neural networks (self-learning), which actions cannot be predicted in principle and as a consequence the current legal structure cannot take into account their actions and as a consequence determine the guilty party in the process. The above document is of vital importance as it leads to legal harmonization in the field of robotic AI.

In Russia, there is a similar to the EU legislation bill, called the Grishin Law (2015), It is under Russian Parliament consideration. The draft law introduces amendments to the provisions of the Civil Code of the Russian Federation, and regardless of the robot's autonomy, imposes all the responsibility on the robot's developer, operator, or manufacturer, and includes issues of the robot's representation in court, supervisory agencies, etc. Moreover, there is a Model Convention on Robotics and AI that introduces rules on creating and using robots and AI (Neznamov and Naumov, 2017). The document seems to be well timed as it lays ground for specific branch of legal regulations on AI creation and use in society.

3.4. Challenges to AI as separate subject of law, not equal to man and regulated by separate rules of law

In case of the ongoing initiatives of the EU countries, the EU Parliament and Russia, the legislative initiatives in force regarding robotics are presumed to be identical in character, in which case the robot has limited legal capacity and all responsibility for their actions rests with the owners. At the same time, there are a number of challenging factors.

First of all, the EU resolution does not touch upon such issue as the possible scope of the robot's application. The Russian legislation envisages a restrictive list of the robot free use that is limited for exclusively peaceful purposes, as for current Civil Code developments.

Hence, a number of problems arise. In case of drone use under the control of a serviceman it is simply an instrument to fulfil an order, the responsibility for proper and improper use falls on the serviceman. In case of a robot use for military purposes, threat and danger to a person is initially embedded in the use of a tool for respective tasks. Thus, the use of robot contradicts Azimov's fundamental principles that formed grounds of the EU resolution that was used by analogy when drafting the bill.

On the other hand, military use of robots (drones) take place in Russia and abroad. This raises the question of the conflict of Asimov's principles and the EU legislation, etc. due to the current use of a robotic AI for a dual purpose.

The second essential factor is the lack of autonomous functioning of the robot. As a result, the robot is just another type of vehicle, and the need for additional regulation of the "modernized machine", in the spirit of this law disappears since responsibility

for any action lies solely on the developer, owner and so on. The EU resolution provides a clear explanation that in case of complete autonomy of a robot there is impossibility of involving a third person as responsible for the actions of the AI robot and the situation requires special consideration and specific solutions.

We mention the third factor with regard to the Russian administrative legal framework. This factor arises from the current situation when the issue regarding AI status are included and developed within the Russian Civil code. To our mind the logic of legal science and practices requires that the above-mentioned situations, their evaluation, the authority of the national executive agencies with regard to robotics should be specified in a separate legislative act, rather than in the Civil Code of the Russian Federation.

4. Conclusions

The research findings made it possible to identify two paradigms of shaping legal relations arising between robotic AI and a person, namely equalization of human rights and that of the robot, one the one hand and the definition of legal personality of a fully autonomous robotic AI, on the other.

In case of the equalization of human rights and the robot, we encounter the problem of the current legislative infrastructure, and the lack of effective regulatory mechanisms for this subject. Since in the event of an administrative, criminal or any other incident, the executive bodies will face the challenge to determine the *corpus delicti*, to form effective instruments to influence behavior, and to determine the third party's participation in the offence committed by robotic AI.

Furthermore, the current legislation admits that public authority functions could be implemented by robotic AI. Thus, arises the issue of the legal capacity legitimacy and the assessment of subsequent legal risks due to use of self-learning robotic AI. Robotic AI does not have a moral and ethical set of qualities that should be inherent in a civil servant.

The second paradigm of relations arising between robotic AI and man, implies the formation of some promising legislative base. At the same time, so far, the issue of the legal personality of a fully autonomous robotic AI, its legal capacity and responsibility has not been resolved in the current versions of national legislations. In the current variation of the law, in case of illegal incident the entire lies solely with the owner, developer, or operator of the AI. This approach significantly limits the prospect of the robotic AI development. Consequently, its use is possible only in the context of human complementary functions.

Therefore, we consider it timely to develop legal vision of the specific purpose of robotic AI, to explore and identify its legal nature in correspondence to the "spirit" of the law specified as the basic concept of prospective legislation.

Bearing in mind the research results the authors would recommend to the Russian lawmakers to consider the following:

- The possibility of introducing a self-regulation institute in the field of robotics, which will be able to develop standards and codes of conduct that are mandatory for owners and owners of robot agents to comply with, as well as by the robot agents themselves.
- The introduction of such an institution as the authorized body at the national (federal) level in the field of robotics, that will be able to determine the types of activity acceptable for robots, taking into account the fact that the robot is a source of great danger.

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