Logical and Conceptual Constructions, Theoretical and Legal Versions of the Interpretation of the Artificial Intelligence's "Legal Personality"

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***Abstract*---**The lack of sufficient legal regulation of relations associated with the use of artificial intelligence and robotics is associated with the conceptual lack of resolution of the basic issues underlying modern models of legal regulation for anything: about the concept and general status of the phenomenon to be settled. With regard to the research topic, this translates into questions about the concept and legal personality of artificial intelligence. These questions represent a kind of logical metaphor: in order to start modeling the legal personality of artificial intelligence, we must first define its concept; and the legal concept of artificial intelligence will be formulated differently depending on whether we consider it as a subject or an object of law. The authors investigate the technical, moral and legal aspects of the problem concerning the status and understanding artificial intelligence, and draw conclusions about the basic conditions for the legal regulation of this area.

Introduction

The thesis that legal regulation lags significantly behind the level of technology development has already become a truism in research on the problems of digitalization and artificial intelligence (hereinafter referred to as AI). At the same time, the point is not only that the law does not mediate newly emerging social relations and there are simply no legal regimes for many communication options in cyberspace. It is already obvious that the lack of legal regulation hinders the introduction into practice and widespread use of many scientific inventions based on AI (Quoc et al., 2021). This can be said in relation to the expansion of unmanned road vehicles, the commercial use of flying drones, some aspects of the use of high-tech weapons and autonomous unmanned underwater vehicles, and in relation to many other scientific and technological advances. And the lack of legal regulation, in turn, is associated with the conceptual lack of resolution of the basic issues underlying modern models of legal regulation of anything: about the concept and general status of the phenomenon to be settled (in our case, AI).

The dilemma about the perception of AI as a subject or object of law is resolved in different ways. Recently, more and more statements have appeared in favour of recognizing the legal personality of autonomous AI. The arguments put forward against the recognition of the legal independence and legal personality of AI can have a philosophical, moral, ideological, religious, theoretical-legal (doctrinal) and logical-legal nature. But one of the reasons explaining the significant backlog of legal regulation from the needs of technical progress is the difficulty in defining the concept and attitude to the legal personality of AI (Yang et al., 2015).

The point is that questions about the legal concept and legal personality of AI are a kind of logical "vicious circle": in order to start modelling the legal personality of AI, we must first define its concept; and the legal concept of AI will be formulated differently depending on whether we consider AI as a subject or an object of law (Čerka et al., 2017; Gurkaynak et al., 2016).

The difficulty in defining AI leads to the fact that researchers consider it through related categories, such as a robot, a robotic agent (robotized agent), a robotic system, a cyber-physical system with AI, etc.[2]. These terms also do not have clear concepts.

P.M. Morkhat, who is perhaps the most famous Russian AI researcher, defined artificial intelligence as fully or partially autonomous self-organizing software-hardware virtual or cyber-physical, including bio-cybernetic system (unit) endowed / possessing a certain list of abilities and capabilities[3]. Further, a voluminous list of such capabilities is given, which is a mixture of technologies

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[2] Digital law: textbook / under the general. ed. of V.V. Blazheev and M.A. Egorova. -. Moscow: Prospect, 2020 P.185.

[3] Morkhat P.M. On the question of the legal understanding of artificial intelligence // Agrarian and Land Law. 2017. No. 11 (155). P. 94.

(recognition of images, symbols, languages, genetic search, accumulation of information, etc.) and intellectual and emotional-volitional processes characteristic of a person (reasoning, reflection, self-regulation, decision-making, creative search etc.) (Morkhat, 2017).

The following should be indicated when commenting this approach. First, legal definitions differ significantly from general concepts. From this point of view, it must be admitted that the very model of building a legal definition proposed by P.M. Morkhat (listing essential properties / functions) may be in demand in the practice of legal regulation. Taking into account the formal certainty of the law for legal definitions of AI, the first place will come to the criteria that allow it to be identified in order to subsequently apply certain legal regimes to it (Morkhat, 2018).

Secondly, the refusal from attempts to formulate a concept replacing it with a set of features can give some advantages from the point of view of legal regulation. First of all, in conditions of semantic uncertainty, it will be necessary to make such lists open.

Thirdly, even taking into account the selectivity of the legal terminology application and the fictional nature of legal concepts and constructions, the basis of legal definitions should still has an obvious logics that implies a qualitative isolation of the object being determined. The description of the characteristics of the object should be located in the definition according to the principle "from general to particular". Such a definition should begin with an indication of the generalizing qualitative characteristics and move on to distinctive features, using formulas such as "including but not limited to".

Considering the above, the option proposed by the respected researcher cannot be recognized as optimal, although it deserves all respect as one of the few proposals structured under the requirements of legal regulation. The features used in the definition, such as virtual, cyber-physical, bio-cybernetic, need additional definition themselves. And there is no clear understanding of the terms used either in the technical or in the legal information field. All the technically rich definitions of robot and AI will eventually lead us to another logical ring of Ouroboros, where the defined and the defining words are mutually dependent.

Main part

From a certain point of view, a significant layer of problems associated with the status of AI arose on the basis of combining two phenomena and concepts into a single object: artificial intelligence and a robot. While talking about the legal personality of robots and the status of "electronic persons", most people imagine an anthropomorphic cyborg (android or gynoid), demonstrating "human" characteristics of behaviour and communication (Vidas et al., 2011; Karbab et al., 2018). The most typical characteristics that humans traditionally endow a robot were identified and formulated by the staff of the Roboworld Museum: it looks like a human; mobile and agile enough; able to communicate; possesses

"intelligence"[4]. However, modern robotics is much broader than this understanding (although, on the other hand, it is much narrower: after all, an intelligent robot does not exist yet).

Robotization has become one of the most discussed topics in the scientific area. The reason for this is the annual increase in the production of robots (Asada et al., 2001; Breazeal, 2003). So, in 2018, 422 thousand industrial robots were installed in the world, which is 6% higher than the previous indicator set in 2017. According to the forecast of the International Federation of Robotics, the growth of this market will be 10-12% per year [5].

Robots have long been used in manufacturing. In this area, industrial robots make human life much easier. For example, the FANUC company, which occupies a leading position in the robotics market, releases the FANUC ArcMate model. It is a high-precision and high-speed welding robot that allows them to do the job well. One of the company's industrial robots is the M-2000iA / 2300, which is ideal for loading and unloading heavy materials. ABB launches the IRB 5500-22 / 23 paint robot, which is perfect for exterior painting of cars[6].

In recent years, sophisticated robots have been actively used in medicine. So, in 2019, it became known about the use in hospitals of a magnetically controlled filamentous robot that can actively slide along narrow winding paths, such as the labyrinthine vasculature of a brain.[7]. The doctor can remotely guide the robot through the vessels of the brain helping to quickly heal lesions such as aneurysms and strokes.

In 2020, news appeared about the creation of a robot capable of independently drawing blood from a vein. Such a machine will help reduce infections and thrombosis that can occur with poor quality blood sampling. Clinical testing has shown the superior efficiency of the robot over the medical staff[8].

Robots have shown their effectiveness during the Covid-19 coronavirus pandemic. In Shanghai, more than 30 robotic disinfectants performed disinfection tasks around the clock in isolation wards, intensive care units, operating rooms[9]. A special robot sprayer worked in densely populated urban areas spraying disinfectants[10].

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[4] What is a robot? Access mode: http://www.carnegiesciencecenter.org/exhibits/roboworld-what-is-robot/ (Accessed date: 19.02.2020).

[5] Development of the global robotics market. Access mode: https://wtcmoscow.ru/services/international-partnership/actual/razvitie-mirovogo-rynka-robototekhniki/ (Accessed date: 05.02.2020).

[6] 10 leading manufacturers of industrial robots. Access mode: https://robo-hunter.com/news/10-vedushih-proizvoditelei-promishlennih-robotov (accessed date: 17.02.2020).

[7] MIT scientists have created a robotic thread for the treatment of aneurysms and strokes. Access mode: https://robotechinfo.ru/uchenye-mit-sozdali-robotizirovannuyu-nit-dlya-lecheniya-anevrizm-i-insultov/ (accessed date: 17.02.2020)

[8] New robot does superior job sampling blood. Access mode: https://news.rutgers.edu/new-robot-does-superior-job-sampling-blood/20200204#.XkoaiEczbIX (accessed date: 17.02.2020)

[9] In Wuhan, more than 30 robots are helping to fight the coronavirus. Access mode: https://ria.ru/20200207/1564382200.html (accessed date: 20.02.2020)

[10] Xinhua, China: A robot sprayer joins the fight against the epidemic in China. Access mode: https://inosmi.ru/social/20200212/246833066.html (accessed date: 20.02.2020)

Space exploration is inextricably linked with robotics. Lunar rovers, Mars rovers, automatic space satellites have long become commonplace. In 2019, the Russian robot Fedor was launched on the ISS as an experiment. As it turned out, the robot completed all the tasks assigned to it. In particular, it connected and disconnected electrical connectors, wiped walls, and performed other tasks assigned to it. Among other things, the robot's voice system successfully worked: it communicated with the astronauts and answered all their questions[11].

However, such a widespread practical use of robotics does not mean at all that all conceptual and regulatory issues have been resolved in this area. We immediately recall the statement by Joseph Engelberger: "I cannot give a definition of a robot, but when I see a robot, I know that this is it."[12]. Unfortunately, this approach is not acceptable in the field of legal regulation.

Soviet linguist S.I. Ozhegov defined a robot as an automaton performing actions similar to human actions[13]. Australian robotics engineer Rodney Brooks argues that a robot is something that physically affects the world, and does so, based on how it perceives (senses) the world, and how the world changes around it[14].

The Sberbank Robotics Laboratory offers a functional definition of a robot as a device united by three simultaneously executed properties: sense - the device senses the surrounding world or its elements using sensors; think - the device understands, processes information about the external world creating and adapting a model of the surrounding world and its behaviour; act - the device acts by changing the world around it in accordance with the model of its behaviour. A robot is a working mechanism programmed along several axes with some degree of autonomy and capable of moving within a certain environment performing assigned tasks[15].

The following basic concept was used in the draft Federal Law "On Amendments to the Civil Code of the Russian Federation in terms of improving the legal regulation of relations in the field of robotics," proposed by Dmitry Grishin: a robot is a device capable of acting, determining its actions and assessing their consequences based on information coming from the external environment, without full human control[16].

In the context of the research, it is necessary to distinguish between the concepts of a robot and of artificial intelligence. In a broad sense, artificial intelligence

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[11] Robot "Fedor" during the flight to the ISS exceeded the plan. Access mode: https://ria.ru/20190919/1558831674.html (accessed date: 17.02.2020)

[12] Robotics: Concepts, Methodologies, Tool, and Application/Information Resources Management Association, IGI Global, 2013:2.

[13] Ozhegov S.I. Robot / S.I. Ozhegov, N.Yu. Shvedova // Explanatory Dictionary of the Russian Language. M .: Az, 1992. Access mode: http://www.lib.ru/DIC/OZHEGOW/ozhegow_p_r.txt (accessed date: 02.02.2020).

[14] Yang S. et al. Experiences developing socially acceptable interactions for a robotic trash barrel. Robot and Human Interactive Communication (ROMAN), 2015 24th IEEE International Symposium. IEEE, 2015, 277–284.

[15] Analytical review of the world robotics market. Sberbank. Access mode: http://www.sberbank.ru/common/img/uploaded/pdf/sberbank_robotics_review_2019_17.07.2019_m.pdf (accessed date: 01.02.2020).

[16] Dentons drafted Russia's first law on robotics. Access mode: https://www.dentons.com/ru/insights/alerts/2017/january/27/dentons-develops-first-robotics-draft-law-inrussia (accessed date: 01.02.2020)

refers to a technology that reproduces human behaviour and abilities that are usually considered "intelligent" (Miller, 2019; Lee et al., 2018).

The National Strategy for the Development of Artificial Intelligence for the Period up to 2030 approved by Decree of the President of the Russian Federation No. 490 dated October 10, 2019, understands artificial intelligence as a set of technological solutions that allow simulating human cognitive functions (including self-learning and finding solutions without a predetermined algorithm) and, when performing specific tasks, getting the results comparable, at least, with the results of human intellectual activity. The complex of technological solutions includes information and communication infrastructure, software (including those that use machine learning methods), processes and services for data processing and finding solutions[17].

It is rather difficult to argue about the subjectivity and rights of the "complex of technological solutions". The autonomy of AI is possible both with its objectification, external concretizing, and outside it; besides, subjectivity for most people is inextricably linked with the external form. Therefore, the question of the AI status is replaced and merged with the question of the legal personality and status of robots. But there is no point to oversimplify.

A robot can be a carrier of artificial intelligence, if this is provided for in its tasks (Kaharuddin, 2021). At the same time, the robot continues to be a robot regardless of whether it has AI or not. For a robot, the external form of expression is significant and this is its primary sign. In any case, a robot is always a technical device with a certain degree of mobility and autonomy designed to implement some functionality. Clause 2.28 of GOST R ISO 8373-2014 "Robots and robotic devices. Terms and definitions." contains the concept of an intelligent robot or a robot with elements of artificial intelligence: a robot that performs work by reading data from the environment interacting with external sources and adapting its behaviour (Suwija, 2016).

Artificial intelligence can make a robot "smart"; artificial intelligence can multiply the capabilities of a robot and expand the scope of its use, accordingly. At the same time, from the point of view of external expression, the AI itself is, first of all, a computer program that can be installed on any medium intended for this. However, this distinction is also not enough to formulate a legal definition of AI. Much also depends on the type of AI.

 Technical aspects of legal problems

It should be noted that the provision on the allocation of a "weak" and a "strong" AI has long been established in the research of artificial intelligence (Rinartha & Suryasa, 2017). The first is, in fact, a high-tech intellectual program capable of processing huge amounts of information, but at the same time a weak AI "is able

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[17] Decree of the President of the Russian Federation dated 10.10.2019 No. 490 "On the development of artificial intelligence in the Russian Federation" (together with the "National strategy for the development of artificial intelligence for the period until 2030"). Electronic library system "Consultant Plus" URL: http://www.consultant.ru/document/cons_doc_LAW_335184/ (accessed date: 26.04.2020)

to perform certain types of tasks and is limited by them"[18]. A strong AI (or general AI) is theoretically capable of applying its powers to any problem, just like the human brain; however, such technology can reach or exceed the level of human intelligence[19]. A hypothetically possible "strong" AI will be able to make decisions under conditions of uncertainty, plan, learn, communicate in natural language, have self-awareness and empathize, that is, "not imitate, but actually reproduce mental activity"[20].

As we can see, such a technological distinction significantly complicates the development of the AI concept both in computer science and in jurisprudence. The possibility of creating a single generalizing concept of AI raises great doubts.
The question of the legal personality of AI and robots is fundamentally related to this functional distinction. Before the advent of the idea of a strong AI, no one thought about the rights of artificial intelligence and robots endowed with it (Gbaguidi & Allagbe, 2018). Industrial, household, medical, space, geological, underwater, military robots, robotic devices, programs and computers using AI technologies are used (and will be used) by people in the mode of technically complex objects, that is, property. The splash of ethical and axiological problems is associated with the prospect of the emergence of a strong AI possessing self-awareness and capable of ethical and emotional mediation of reality. That is, humanoid. So, speaking about the legal personality and status of AI and robots, we mean strong AI and robots endowed with such AI.

A black box of artificial intelligence

Experts consider the issue of trust in the developers of analytical systems (including those based on AI) the most pressing issue in terms of information security. "AI is designed to help us make decisions based on processing large amounts of data, but we do not always know what algorithms the creators put into it, how correct they are," said S. Nikitin, product manager at Gazinformservice, in his speech at Digital Forum RBK. - But the result that the system will give depends on this"[21].

Most legal collisions can be caused by open source automated systems (autonomous self-learning system)[22]. "Very often the user not only does not see what is actually happening in the information system with his rights and responsibilities, but also does not know this, - writes S.V. Timinsky. "Such situations do not lead to the feelings of comfort and safety necessary for the active use of such systems in various public areas."[23]. Even if we take into account the

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[18] Morkhat P.M. On the question of defining the concept of artificial intelligence // Law and state: theory and practice. 2017. No. 12 (156). P. 27.

[19] Ibid.

[20] Grin' S.N. Emancipation of robots. Elements of legal personality in the construction of artificial intelligence // Business. Society. Power. 2018 (March). No. 2 (27). P. 236.

[21] Zhuravleva A. Dangers of digitalization or digitalization in danger. Review of the round table at the V Digital City Forum of RBC (Materials prepared by the editorial staff of RBC + partner projects) [Electronic source]. RBC Digital Forum. Issue No. 5, 25 June 2019. URL: https://spb.plus.rbc.ru/news/5cb448c57a8aa90a3814c68e.

[22] Grin' S.N. Emancipation of robots. Elements of legal personality in the construction of artificial intelligence // Business. Society. Power. 2018 (March). No. 2 (27). P. 237.

[23] Timinsky S.V. Can a computer be a subject of law? // Free Internet library WWW.PDF.KNIGI-X.RU. URL: http://pdf.knigi-x.ru/21yuridicheskie/80819-1-mozhet-kompyuter-bit-subektom-prava-timinskiy-institut-problem-upravleniya-slozhnimi-sistemami-ran-443020-samara-sad.php

wishes of modern humanitarian international law and, for example, endow a military robot with a certain "ethical component" (insert into its database the basic ethical and legal norms approved by the world community), this will not exclude the possible unpredictability of behaviour, since ethical norms of this type are a priori ambiguous and multivariate; therefore, one way or another the question of the responsibility of such a robot will arise. With a closed code, a robot is a danger comparable to any utensil; that is, it is definitely an object designed for a specific task.

The current level of technology development does not allow us to get rid of the perception of AI as an unpredictable and potentially dangerous object. Information about incidents of machine learning began to appear quite often in the news, when the machine produced completely unexpected results that were contrary to social values. Almost all AI technologies (neural networks, machine learning, image and voice recognition) have managed to discredit themselves in some experiments or in practical use (erroneous penalties for recognition errors, uninformative consulting services, fascist statements of a machine, discriminatory screening of resumes based on gender, etc.).

This situation complicates the solution of the issue of AI's and robots' legal personality, since the predicted and observed realities differ significantly. In the event that it is possible to technologically ensure transparency, observability and controllability of the decision-making process by artificial intelligence, the state of affairs will change. Now it is really difficult for us to judge the possible potential and motivational characteristics of a future strong AI by observing the current stage of its formation.

Legal personality of robots and AI units

The dominant approach to the issue of the legal AI status today is the non-recognition of its legal personality. In general, all arguments against recognizing a robot with a strong AI as a subject of law can be summarized in four groups:

- The potential danger of AI to humans;
- The robot lacks soul and self-awareness;
- The non-biological nature of the creation;
- Non-primacy of creation (in the sense that a robot was created by man, is his creation, and from this point of view it should be considered as a property of a man).

The lack of knowledge of technology, and, consequently, the impossibility of control over the actions of a future strong AI force to consider it primarily as a threat, and not as an equal participant in social (including legal) communication. Persons who are at the forefront of the development of new technologies tend to give apocalyptic forecasts. Thus, Elon Musk, Bill Gates, and Stephen Hawking called strong AI the greatest threat to human existence.[24]. Speaking about the fact that the dangers of artificial intelligence for humanity are underestimated, E.

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[24] Stephen Hawking warns: artificial intelligence could put an end to humanity. NEURONUS.com [Electronic source]. URL: https://neuronus.com/?newsid=1287 (accessed date: 08.08.2019).

Musk said: "If machines are programmed for recursive self-improvement, their functions can have a detrimental effect on us. For example, if the machine's job is to get rid of email spam, it may decide that it is much easier to get rid of people."[25].

A wary position on this issue was reflected in official documents. Recognizing the benefits that the development of AI promises to humans, the Commission on Civil Law Regulation in the Field of Robotics of the European Parliament nevertheless focused on possible threats in its report published on the website of the European Parliament: there is a possibility that artificial intelligence will be able to surpass human intellectual abilities so much that, if humanity would not be prepared, such artificial intelligence will be able to challenge humanity's ability to control its own creation and, therefore, possibly also challenge humanity's ability to lead its destiny and ensure the survival of its species[26].

But electronic technologies cannot successfully develop in the format of regulation based on expectations that "it will come to no good". Decisions on their status and legal regimes will have to be made, and, in the opinion of many experts, the time for making such decisions has already come.

There are objections to all the above arguments of opponents of the AI legal personality; therefore, adherence to a particular position depends not so much on rational arguments and logical calculations, but on the initial internal belief of the subject. The soul is not a legal concept, but a metaphysical one. This is such an elusive concept that it cannot be used as a legal criterion, since it does not lend itself to the requirements of formal definition of law. The criterion of self-awareness is controversial and just difficult to be defined: on the one hand, from the point of view of psychology, self-awareness (and even just awareness of the isolation of one's Self) is absent in young children and is formed with age. On the other hand, a developed AI claiming its social and legal status will obviously demonstrate all those external signs of self-awareness, according to which self-awareness is considered to be inherent in a person. The same group of arguments includes moral feeling (moral choice) as a criterion for distinguishing a person from an animal and a robot. It is assumed that a person makes a decision on the basis of a moral choice, and the decision by a robot is the result of an algorithm embedded in it by technology. But the big question remains: what is the difference between this "algorithm laid down by technology" with, for example, a mental archetype or parental education, which determine the basis for a person's moral choice? If a robot with a strong AI is able not only to reproduce the pattern of human mental activity, but also to independently simulate its own reactions based on the patterns embedded in it technologically (including emotional response and empathy), then it will be technologically possible to lay the same experiences of suffering and pain in it that are inherent in man. And is it really so important what caused these suffering and pain sensations: the work of neurons in the first case, or high technology in the second one? Indeed, only the

[25] Todorov V. Artificial intelligence gives rise to fears. Why Elon Musk, Bill Gates and Stephen Hawking are afraid of artificial intelligence // Gazeta.Ru. Information and news portal. 03.07.2015. URL: https://www.gazeta.ru/tech/2015/07/03/6865489/AI_rises_fears.shtml (accessed date: 20.05.2020).
[26] DRAFT REPORT with recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL)). URL: https://www.europarl.europa.eu/doceo/document/JURI-PR-582443_EN.pdf?redirect

consequences and the result were always important for law, at least positive law.

The original biological nature of man will become a discriminatory and unconvincing criterion in a hypothetical future world inhabited, on the one hand, by anthropomorphic robots, and on the other, by modified people who have no unreplaced organs left (including a synthetic analogue of the brain). In addition, the rejection of natural childbearing, being painful, traumatic and unpredictable in its result (taking into account the decline in the reproductive function of a modern person), is even more likely for the world of high technologies than the emergence of a strong AI comparable to human.

The robot's derivability from human as an argument is also ambiguous. The weight of this argument is assessed on the basis of the subject's inner convictions and worldview, as in the case of theological evidence for the primacy of man. For some, this will be an inherently valuable argument, while others will turn to history and rational analysis. In a sense, children are derived from their parents, and legal entities are a human creation, which does not prevent them from being recognized as independent subjects of law. According to the already contested data, man descended from a monkey, but, however, he does not even think about giving it social and legal priority.

Ethical and psychological problems of legal definitions

Another nuance that makes our logical ring of Ouroboros similar to the Gordian knot is the fact that approaches to the legal personality of AI are inextricably linked to a set of ethical problems initiated by the creation of AI and digitalization in general.

The severity of the question on the need to determine the legal status of robots being AI carriers (more precisely, to change the existing legal regime of a robot as a property and object of legal relations), as well as the idea of recognizing robots as subjects of law are largely, if not primarily, due to moral arguments. Conventionally, we can distinguish two approaches in understanding morality, which give us two main ethical arguments in favour of recognizing a robot as a separate subject / phenomenon in the legal sphere and, accordingly, two possible concepts of the legal personality of a robot. These approaches are described by researchers within the animal rights discourse[27], but they perfectly help to formulate moral arguments and a moral position on the question of the legal personality of a robot. From the point of view of the utilitarian approach, the ethics of an act is assessed by its consequences. From a practical point of view, this means the following. With regard to animals, the principal point will be their nervous organization, which presupposes their ability to experience suffering. The suffering of animals (from the point of view of what is known to humans) is expressed in their ability to experience pain, as well as in the presence of harm to health in the event of abuse. This harm to health also covers those cases when the animal experiences suffering, being in confinement, being deprived of physical activity, lacking food or communication with its own kind. Regardless of whether

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[27] Grin' S.N. Emancipation of robots. Elements of legal personality in the construction of artificial intelligence // Business. Society. Power. 2018 (March). No. 2 (27). P. 237.

it is recognized that animals have intelligence and the ability to be aware of their position, the utilitarian approach allows any treatment of animals associated with unnatural restrictions, the use of violence, and the infliction of pain to be considered immoral.

It is even more difficult when applied to robots. If we assume the emergence of such an AI, in the existence of which all the issues under consideration will pass from the category of hypothetical to the category of pressing ones, then we will have to assume that robots with such an AI will be able to realize their position and experience suffering in this regard. First, we are talking about some kind of technical impact or resource constraint, under which AI units can experience feelings of discomfort or loss comparable to human pain. Secondly, and this is even more important, the AI units imagined in human dreams will be so intelligent that they will be able to realize the disadvantage and / or unfairness of their position and experience suffering from this fact. I.e., moral suffering, in human terms. Therefore, if a person considers the physical care of an animal and the provision of its biological needs sufficient from a moral point of view to protect the rights of animals, then in relation to a robot it will no longer be possible to confine oneself to such an understanding of the problem. The absence of biological nature makes the issue of physical damage to the robot less significant than intellectual impact or causing moral harm. By the way, it is precisely this consideration, in our opinion, that does not allow us to consider the utilitarian approach to morality as promising for future robotics.

The second approach - deontological - proceeds from the fact that the action is recognized as moral or immoral in itself. A deontological approach to understanding morality is formulated in the saying of I. Kant: "Cruelty to animals contradicts a person's obligation to himself, because it kills in him compassion for other's suffering, which is very useful in relations with other people." It is this approach to ethics that has become the reason for the trend of humanizing robots, which is clearly emerging in research on AI and robotics.

A demonstrative experiment is described in one of the studies on robotics. In 2011, at the Radiolab radio show, a group of children was tasked with keeping a Barbie doll, a hamster and a Furby robot upside down for as long as possible. The results were as follows: the children kept the Barbie doll in this state until their hands got tired; the children stopped tormenting the wriggling and squeaking hamster very quickly; the children also quickly returned to a "normal" state the Furby robot, which was programmed only to periodically scream "I'm scared". The description of the experience emphasizes that the children were old enough to understand that Furby is just a toy.[28]. Experience shows that humans tend to treat robots as their own kind and build an emotional connection with them. These mental characteristics of a person give rise to moral problems of robotics, requiring the formation of ethical standards of human behaviour in relation to non-human entities.

The higher the level of civilization development, the more the utilitarian

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[28] Antipova A.V., Tilichenko I.V. Social problems of robotics // Youth scientific and technical bulletin: electronic journal. – 2016. – No. 11. URL: http://sntbul.bmstu.ru/doc/852291.html (accessed date 25.09.019).

understanding of morality is replaced by the deontological one. A normal human being perceives ridicule and abuse of a mentally retarded person as immoral behaviour, although this does not cause the patient himself not only physical pain, but also moral suffering, because he does not realize what is happening. Let us recall the acclaimed novel by Daniel Keyes "Flowers for Algernon", being a brilliant challenge to the intellectual arrogance of man, which very vividly reflected the conflict between utilitarian and deontological perceptions of morality. By the way, historical and ethnographic data also speaks a lot in favour of a deontological approach to assessing the morality of a person's actions. The customs of both ancient and modern tribes allowed the infliction of suffering and physical harm to other entities (people, animals, plants), but demanded in return to ask for forgiveness and give thanks. Maasai (and other African tribes) men drink the blood of live animals (mixed with milk) regularly wounding them. Moreover, cow is considered a sacred animal. Sacrifices have been quite often combined with worship in human history; and worship and respectful ritual are necessary for the person themselves to meaningfully justify their actions. With the deontological approach, rights to animals and robots are bestowed by people for the people themselves in order to preserve the ethical and legal foundations of human community.

In our opinion, the "humanization" of robots is influenced by two significant factors: the autonomy and anthropomorphism of AI units. Industrial robots have long been actively used in production: complex robots are carriers of a developed weak AI. And no one had any thoughts about the legal personality of such machines, the extension of human rights to them or other ways of giving them subjectivity. They did not arise until autonomous anthropomorphic robots appeared on the stage of technological progress. No, they have not even appeared yet: they have become possible; they are just emerging, and there is a whole complex of questions of an ethical and legal nature along with them discussed by philosophers, anthropologists, neurobiologists, lawyers, and engineers. We can angrily kick a robot vacuum cleaner stumbling over it and not experience any moral feelings, but the same action in relation to a humanoid machine immediately acquires a whole host of meanings.

When speaking about the possibility of recognizing legal personality for electronic persons, the overwhelming majority of researchers note that this is possible and necessary precisely for units with a high degree of autonomy. The European Parliament's Civil Law Commission on Robotics interprets the category of autonomy in the following way: the autonomy of a robot can be defined as the ability to make decisions and implement these decisions in the outside world, regardless of external control or determining influence[29]. This autonomy of an AI unit is purely technological in nature, and the degree of such autonomy depends on how complex the interactions of the AI unit with the environment are.

Conclusions

I. There is no general model of regulation and the ideological basis for the legal

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[29] Draft Report with recommendations to the Commission on Civil Law Rules on Robotics. URL: http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML%2BCOMPARL%2BPE-582.443%2B01%2BDOC%2BPDF%2BV0//EN

doctrine in terms of the interaction between AI and humans so far, but the basic axiological principles of such regulation formulated taking into account the current law and the values enshrined in it, are already clearly emerging. The continuity of legal regulation requires that the newly emerging legal order should comply with the already enshrined principles of regulation reflected in constitutional and international standards. In our opinion, the fundamental values of legal regulation, which should ensure the continuity and stability of legal regulation (as independent values of the legal order) should include the obligation to protect human rights and freedoms, the priority of rights and freedoms over other values, respect and protection of human dignity, the expansion of rights, freedoms and the degree of protection of an individual as mandatory indicators of social progress. For too long and with difficulty, mankind has been moving towards a socio-political structure that protects such values, on the one hand, and has too little time to use the fruits of such a social device, on the other, to throw it all away for the sake of new ideals of technological progress in a decade (Arbab et al., 2009; Shirazi et al., 2010).

From such positions, the need to consolidate a number of fundamental provisions in the field of legal regulation of relations associated with the creation of autonomous units of strong AI and human interaction with AI becomes obvious.

II. As for the question on the legal personality of AI and autonomous intelligent robots, it must be resolved on the basis of two premises. First, the history of human civilization provides many examples of how giving rights to someone or recognizing a special status for something seemed inconceivable at different times. It once seemed unrealistic and incomprehensible to grant rights to slaves, peasants, women, children, blacks, Indians, Gentiles, prisoners of war, national minorities, transgender people, the mentally ill people, criminals, animals ... As a result, social progress has always led to the fact that any isolated part of society and any living creature has been endowed with rights and / or equated in status with others similar to them. Note that moral requirements played a greater role in this process than the ideas of a person of that period (true or false) about the rationality or intellectual potential of someone. From this point of view, it seems quite obvious that when a strong AI appears, it will be recognized as an independent actor in legal relations, and then as a subject of law.

Secondly, the idea of mechanical extension of human rights to robots seems to be very utopian and unpromising. Much more reasonable are those proposals (today, anyway) whose authors insist on the formulation of a special list of robot rights that are significant for AI units and are not applicable to humans (for example, the right to immunity, implying that any change, modification, formatting or the elimination of an artificial intelligence unit (or its complementary software (completing to a single whole)) can be carried out exclusively with the sanction of an authorized authority, and unauthorized actions of this kind are qualified as a crime against an "electronic personality"[30]; the right to exist; the right to access resources and maintenance, etc.).

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[30] Morkhat P.M. Legal personality of artificial intelligence units and responsibility for their actions // Law and state: theory and practice. 2017. No. 11 (155). P. 31.

III. As for the concept and legal definition of AI, here we must agree with those scientists who believe that there cannot be the creation of universal norms in this area applicable to all types of artificial intelligence, and its concept will differ depending on the specific area and purposes for application of technologies of this kind[31]. Following this logic, P.M. Morkhat formulated two contexts for understanding artificial intelligence:

- Artificial intelligence as a cybernetic (computer-software: algorithm + computer "hardware") *tool* for expanding and *strengthening* human *intellectual potential* and intellectual capabilities (similar to how a physical strength of a man can be increased with the help of mechanical tools);
- Artificial intelligence as *designed to replace a human* (at his will and under his control) in the performance of certain functions and in solving certain tasks, an *autonomous* cybernetic or cyber-physical computer-software unit (system, hardware object) possessing the abilities and capabilities for anthropomorphic thinking and cognitive processes such as learning and self-learning, reflection, reasoning, self-referencing and self-regulation, creative problem solving (*italics added*)[32].

It seems to us that the technological division of AI into strong and weak ones, which will have different legal regimes, is more significant. It seems that the mode of property (or property with a special status if necessary, for example, with a source of increased danger) is quite sufficient for the legal regulation of weak AI units. The question of legal personality and its content will only be considered in relation to strong AI. It seems that today it is unrealistic to create a viable and promising model of the legal personality of an AI robot / unit due to the underdevelopment of technology and the lack of necessary knowledge about the behavioural aspects and cognitive capabilities of such entities. Legal regulation should follow the principles of continuity and evolution, which will ensure the correlation between legal requirements and technological progress.

IV. An important aspect of the legal regulation of AI and robotics is the primary consolidation of ethical standards for the development and use, and later interaction with AI units. Such regulation should be carried out in line with the deontological approach to the moral assessment of behaviour and have a pronounced educational and restraining aspect.

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[31] Morkhat P.M. On the question of the legal definition of the term "artificial intelligence" // MSPU Bulletin. Series "Legal Sciences". 2018. No. 2 (30). P. 76.

[32] Ibid. P. 79.

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