Tuijin Jishu/Journal of Propulsion Technology
ISSN: 1001-4055
Vol. 44 No. 6 (2023)

The Challenges of Criminal Responsibility for the Crimes of Artificial Intelligence Systems in the Modern World

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Abstract: - Artificial intelligence has now firmly entered the lives of people around the world - in smartphones, air traffic control systems, driverless cars, personal robots, smart home systems, etc. And the world is changing even faster as people, devices, and information become more interconnected. At the same time, the growing dependence of people on machines, at the same time increases the fear of them.

There is no doubt that the freedom of robots can lead to some harmful forms of behavior, even if they have good intentions. A proper understanding of artificial intelligence is crucial to considering how it should be regulated within existing legal systems. That is why artificial intelligence systems are constantly evolving, and the issue of proper response of criminal legislation is becoming more and more relevant all over the world. Today, an unmanned vehicle is increasingly becoming the cause of a car accident, robots make mistakes during surgical intervention, and special programs commit fraud. Soon after robots become completely independent in decision-making, they can start committing crimes completely without human help.

The crimes committed by AI give rise to a reasonable question: who should be held accountable for these and other offenses: the manufacturer, the programmer, the user or the object of artificial intelligence itself? In addition, there are certain difficulties in the process of considering the composition of crimes committed by AI. Thus, the article deals with the main problems of regulating criminal liability for crimes of artificial intelligence systems in the modern world, namely, difficulties are identified in defining the concept of artificial intelligence, establishing the legal personality and delictworthiness of AI, considering crimes committed by AI in terms of elements and signs of the corpus delicti in accordance with the current Russian and foreign criminal legislation.

Keywords*: artificial intelligence, information security, information, cybercrimes.*

1. Introduction

For a long time artificial intelligence (hereinafter - AI) was something other than a fantasy of directors and writers, however, now. Artificial intelligence became a reality in everyday life and changed the way of life. People. Over the past two decades of research, artificial intelligence has been upgraded to. To such a degree that it can surpass human abilities. Today, artificial intelligence has become an integral part of almost everything. All branches of science. Cars, telephones, and even healthcare -. These are just some examples of sectors that Artificial Intelligence has infiltrated.

Today, one of the most popular AI systems are:

AI ROSS is an artificial intelligence module created by IBM to handle bankruptcy cases; AI DEEP BLUE is an independent chess team that defeated world chess champions and others.

These systems are increasingly used for collaborative work with people, because they significantly increase human productivity.

However, they also carry some negative externalities and doctrinal questions for discussion. One such external factor was the harm they could cause to human life, and that doctrinal question of responsibility needed to be addressed.

As an example, on March 19, 2018, an auto-powered SUV hit an elderly woman in Arizona's alleyways, and this is not the only time automated machines were damaged.

The rapid expansion of AI's sphere of influence has been confirmed by the entire international community. Thus, the Resolution of the European Economic and Social Committee of 31 August 2017 determines that the introduction of artificial intelligence in social practices can increase the effectiveness of activities in the implementation of many goals, namely: poverty eradication, transport safety, quality medicine, more personalized education, industrial development[1].

In addition to the obvious benefits, it also carries a destructive function and plays an increasingly significant role today in the commission of a criminal act. Using fake audio and video to impersonate another person, the technology can cause various kinds of harm.The threats include discrediting public figures, influencing public opinion, and extorting money through the impersonation of someone's child or relatives during audio and video calls.

The main areas of penetration of artificial intelligence in today's criminal world are: economy, sphere of illicit traffic in narcotic drugs and psychotropic substances, weapons, various crimes against the person (from murder to human trafficking), crimes against sexual inviolability and sexual freedom, etc.

At present, of all AI-related crimes, the greatest concern among the various countries is that of deepfakes, Use of unmanned vehicles as weapons, specialized phishing, distribution of fake news created by AI, cyberattacks, manipulation of financial or stock markets, etc.

The purpose of the study is to consider the problems of criminal responsibility for crimes of artificial intelligence systems in the modern world.

2. Theoretical and Applied Research Content

In the study, the provisions are developed to clarify and develop some aspects of the legal regulation on liability for crimes committed by AI, as well as recommendations for criminal law evaluation of such acts.

The practical significance of the study lies in the possibility of using the results in the legislative work, as well as in the activities of law enforcement agencies.

Mankind has had a long-held dream of creating artificial machinery for millennia, who would think and act like a human being and today AI is a rapidly evolving field of computer science.

In the mid-1950s, John McCarthy, who is considered the father of artificial intelligence, he defined it as "the science and technology of creating intelligent machines."[2]

Conceptually, artificial intelligence is the ability of a machine to perceive and respond to the environment independently, as well as perform tasks that usually require human intelligence and decision-making processes, but without direct human intervention.

Artificial intelligence is conditionally divided into three **categories:**

Artificial Narrow Intelligence (ANI), Artificial General Intelligence (AGI) and Artificial Superintelligence (ASI).

[1] Opinion of the European economic and social Committee on "Artificial intelligenceimplications of artificial intelligence for the (digital) single market, production, consumption, employment and society". Official journal of the European Union. 31.08.2017. No. 2017 / C 288/01. (2017)

[2] Christopher Rigano, Using artificial intelligence to address criminal justice needs. — Текст: электронный // : [сайт]. —URL: https://www.ojp.gov/pdffiles1/nij/252038.pdf (дата обращения: 22.06.2023).

To understand the meaning of artificial intelligence, we first need to explore the boundary between *artificial narrow intelligence (ANI, also called "weak" AI).* In fact, this is the current state of computer software. Computer programs are developed mainly by human programmers, at the same time, the process from input to output is open for verification. Programs usually specialize in one area and can be mathematically proven to be safe or friendly. ANI systems can perform the task in real time, but they extract information from a specific dataset. As a result, these systems do not perform anything other than the one task for which they are intended.

Artificial General Intelligence (AGI): - also called the «strong» AI.

For most experts, AGI means that an autonomous machine can perform any intelligent tasks that a person can perform. This implies generalization and abstraction of learning within the framework of various cognitive functions.

Artificial Supermind (ASI): - ASI, which is expected to be many orders of magnitude smarter than human[3].

All the types of artificial intelligence that surround us today are narrow AIs. Natural language can manage tools like Google Assistant or Siri and these systems are called «weak», because they don't have some capabilities similar to human intelligence, for example, they lack awareness, consciousness and genuine intelligence that can interact with human intelligence. In other words, they can't think for themselves. This explains why when we ask Google Assistant or Siri about how to approach solving a personal problem, or about the meaning of life or we ask an even more abstract question, we get an answer that doesn't make sense. At the same time, when we ask Siri what the weather is, she has an exact answer. This is because the system answers basic questions about the weather outside and is within the capabilities of intelligence, designed to work in such conditions. As humans, we have the ability to assess the environment and respond emotionally to these situations. The artificial intelligence around us does not have the common sense and flexibility to think like us.

Rapid technological changes in our society have led to an increase in the number of technologies affecting our lives. Our phones have assistants with artificial intelligence, who are learning which applications we use most often and where we are going when starting the car engine. Today, there are AI capable of performing exactly the same tasks without human intervention. Artificial intelligence is gradually mastering its task in order to be more efficient and become better.

At the same time, the race to create an over-reasonable artificial mechanism challenges the entire criminal legal system, since control over a person is one of the most important keys in bringing a person to justice for a crime.

The first problem related to the use of AI in the commission of crimes is the definition of AI itself. So, what is AI? This issue is quite complex and today scientists around the world have not yet reached a consensus on the definition of this phenomenon.

No one has yet given the law a legal definition of AI, since legislators obviously tend to regulate events, which have already occurred, instead of considering present or future phenomena[4].

The English word "artificial" is synonymous with words such as artificial, synthetic and unnatural. The Swedish word "artificiell" and the French "artificiel" are synonymous with this concept. The Latin term "artificialis" goes back to "artificium", which means "craft".

The word "intelligence" has many meanings in different countries of the world. As a general rule, intelligence is explained as "the ability to understand", "mental perception of something." It is important to note that data and other definitions of intelligence, as a rule, they are related to human abilities, rather than being a characteristic property of a particular machine equipment.

[3] Jens Pohl. (2017). “Artificial Superintelligence: Extinction or Nirvana?” InternSymp, p.2.

[4] Matilda Claussén-Karlsson Artificial Intelligence and the External Element of the Crime. — Текст: электронный //: [сайт]. —URL: https://www.diva-portal.org/smash/get/diva2:1115160/FULLTEXT01.pdf (дата обращения: 22.06.2023).

Russian legislation, as well as foreign legislation, also does not contain a definition of AI. Many domestic regulatory legal acts successfully operate on these concepts, however, they do not disclose its content. for example, The National Strategy for the Development of Artificial Intelligence for the period up to 2030 states that the use of AI technologies in the social sphere "it contributes to the creation of conditions for improving the standard of living of the population, including by improving the quality of services in the fields of health and education; improving the quality of public and municipal services, as well as reducing the cost of their provision".[5] However, the definition of AI itself is not presented.

In 2019, the European Commission proposed the following definition of artificial intelligence (AI) systems - software (and possibly also hardware) systems developed by humans, which, having a complex purpose, act in a physical or digital dimension, perceiving the environment through data collection, interpreting the collected structured or unstructured data, reasoning based on knowledge or processing information, the information obtained from this data and the decision on the best actions to be taken to achieve the goal.[6]

In April 2021, the European Commission proposed the first EU regulatory framework for AI. According to the project, AI systems, which can be used in various applications, are analyzed and classified according to the risk, which they represent to users. Different levels of risk will mean more or less regulation.

Thus, AI systems with unacceptable risk are systems that are considered a threat to humans and will be banned. **They include:**

- Cognitive manipulation of the behavior of people or certain vulnerable groups: for example, voice-controlled toys that encourage dangerous behavior in children.

- Social assessment: classification of people based on behavior, socio-economic status or personal characteristics;

- Real-time and remote biometric identification systems, such as facial recognition.

High-risk AI will be divided into two categories:

- Artificial intelligence systems that are used in products, subject to EU product safety legislation (aviation, automobiles, medical devices, etc.)

- AI systems related to eight specific areas that must be registered in the EU database:biometric identification and categorization of individuals, management and operation of critical infrastructure, education and vocational training, employment, employee management and access to self-employment, access and use of basic private services and public services and benefits, law enforcement agencies, migration, asylum and border control management, assistance in the legal interpretation and application of the law.[7]

On June 14, 2023, the Members of the European Parliament (MEPs) approved their position in the negotiations on the Law on Artificial Intelligence and negotiations with EU countries in the Council on the final form of the law are scheduled by the end of the year.

At the level of legal doctrine, experts also do not find unity in relation to the definition of the essence of AI.

So, for example, V.A. Tirranen suggests defining AI as "the property of intelligent systems (including computer programs and artificial neural networks) that perform functions and solve tasks, including those not specifically

[5] Национальная стратегия развития искусственного интеллекта на период до 2030 года (утв. Указом Президента РФ от 10.10.2019 г. № 490). — Текст: электронный //: [сайт]. —URL: http://www.kremlin.ru/acts/bank/44731. (дата обращения: 22.06.2023). https://www.diva-portal.org/smash/get/diva2:1115160/FULLTEXT01.pdf (дата обращения: 22.06.2023).

[6] Eric LEMONNE, «Ethics Guidelines for Trustworthy AI» (FUTURIUM - European Commission, 17 December 2018) accessed 25 May 2022. 91 Turner and SpringerLink (Online service) (n 77) at 13.

[7] EU AI Act: first regulation on artificial intelligence. — Текст: электронный //: [сайт]. —URL: https://www.europarl.europa.eu/news/en/headlines/society/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence (дата обращения: 22.06.2023).

specified, self-study and adapt their behavior to perceived external conditions, and also to make decisions based on these conditions and set goals."[8]

A. V. Ponkin and A. I. Redkina, in turn, believe that "artificial intelligence is an artificial complex cybernetic computer-software-hardware system (electronic, including virtual, electronic-mechanical, bio-electronic-mechanical or hybrid) with cognitive-functional architecture and proprietary or relevant available (attached) computing power of the required capacities and performance."[9]

The analysis of the above and other definitions allows us to identify certain signs of AI, which are also important when considering the issue of legal assessment of responsibility for crimes committed using AI.

So, as the main features of AI, we should identify:

- A certain technical device;

- The ability to make independent decisions;

- performing certain functions, etc.

Of course, based on data and other signs of AI,

The legislative consolidation of the concept of this phenomenon is an extremely necessary and important decision.

Currently, many AI systems are based on technologies that include a computer program, originally created by people, which is further developed. Therefore, the AI can participate in the actions that its initial programmers, perhaps they did not plan or did not foresee. Quite often it becomes very difficult to determine why or how the AI acted the way it did.

Another rather difficult issue is the definition of legal personality and delinquency of AI. Thus, some scientists believe that artificial intelligence is capable of possessing heterogeneous legal personality,[10] while others believe that "for artificial intelligence to acquire the status of a legal entity, it is necessary for it to have such a quality as will",[11] which he does not possess, and therefore it is not possible to endow AI with legal personality and delictworthiness. We believe that the rapid development of AI determines the expansion of the boundaries of understanding the categories of "legal personality" and "delectability".

In fact, one of the urgent problems of criminal law at the present time is the criminal liability of a legal entity.

Should criminal penalties be applied exclusively to individuals or Criminal penalties can also be applied to legal entities as subjects of law, and how can this happen?

Many experts assess the criminal liability of legal entities not only as an important and adequate response of criminal law to the improvement of a complex human society, but also as a timely response to the demands made by various international bodies such as the European Union, The Council of Europe and others, which require States to adopt these regulations to ensure the criminal liability of legal entities, related to certain criminal acts[12].

[8] Тирранен, В. А. Преступления с использованием искусственного интеллекта / В. А. Тирранен // Развитие территорий. – 2019. – № 3(17). – С. 10.

[9] Понкин, И. В. Искусственный интеллект с точки зрения права / И. В. Понкин, А. И. Редькина // Вестник Российского университета дружбы народов. Серия: Юридические науки. – 2018. – Т. 22, № 1. – С. 91.

[10] Мохат П. М. Правосубъектность искусственного интеллекта в сфере права интеллектуальной собственности: гражданско-правовые проблемы: автореф. дис. … д-ра юрид. наук. М., 2018. С. 21.

[11] Васильев, А. А. Термин "искусственный интеллект" в российском праве: доктринальный анализ / А. А. Васильев, Д. Шпоппер, М. Х. Матаева // Юрислингвистика. – 2018. – № 7-8. – С. 35.

[12] Gabriel Hallevy. (2010). “The Criminal Liability of Artificial Intelligence Entities –from Science Fictions to Legal Social Control”.Akron Law Journal, 4(2): p. 184.

Today, AI has qualities such as the ability to communicate, self-awareness, and worldly wisdom, the ability to set goals and a certain creative potential. These qualities and abilities are the result of human-written codes, which define or program AI.

The Sophia robot was activated on April 19, 2015 by Hanson Robotics Company. This robot was introduced because it has the same appearance and behavior, the same as people in previous versions of robots.

According to the developer, David Hanson, Sophia uses artificial intelligence, visual data processing and face recognition. Sofia also imitates human gestures and facial expressions and will be able to answer certain questions and have a simple conversation on a specific topic. In October 2017, the robot Sofia became a citizen of Saudi Arabia. Sofia is the first robot to receive citizenship of any country. This is controversial, because some experts are wondering if this means that Sofia can vote in elections or, for example, get married. Nevertheless, the Sophia robot is one of the evidences (signs) of the progress of artificial intelligence, which is increasingly developing in step with the times. Sofia is not only designed to do a certain job, but also acquires the status of a citizen of a country[13].

In May 2018, Google demonstrated the capabilities of its Google Duplex product, whose AI system can book a table in a restaurant, imitating the pauses, wheezes and screams of human dialogue.

Thus, it is acceptable, in our opinion, the goal is to introduce the category of "technical" capacity and apply it to AI.

Finally, attention should be paid to the very criminal law assessment of the acts committed by AI.

First of all, it should be noted that, in general, the criminal justice system requires concepts of human actions and personal guilt.

As part of the consideration of this issue, first of all, it should be taken into account the peculiarities of criminal law systems, developed in Western European countries, and systems that have their historical roots in English common law.

Thus, in common law legal systems, two elements of the corpus delicti are necessary to convict a person for committing a crime:

- Actus Reus (external element) and mens rea (internal element). It is the internal element that is the most difficult in the context of establishing responsibility for the commission of AI crimes.

There is an established principle in modern criminal law, according to which criminal liability comes only for actions, and not for thoughts, beliefs or intentions.

It is important to note here that when a criminal uses objects, tools or machines to achieve the desired result, the criminal's actions are still considered a crime. When a criminal takes advantage of intelligent beings, such as animals that do not have the ability to reason or fully understand the situation and the corresponding legal consequences, criminal law also considers the person, manipulating an intelligent being as the subject of a crime.

Due to the fact that he is currently not legally responsible for his behavior, it is necessary to trace the criminal behavior of all persons involved in the process of using AI.

Firstly, it is the AI developer, that is, the person who creates the algorithm of the program, the shell in which one or another AI will be created in the future.

Secondly, it is the manufacturer and the person who often does not directly participate in the use of AI, However, he is responsible for the proper operation of AI, in particular, we are talking about AI hardware, updates, etc.

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Thirdly, it is an AI user, that is, a person who launches artificial intelligence, and also benefits from the work of AI[14].

All these subjects can influence artificial intelligence by remotely controlling it and, accordingly, at every stage of the birth and functioning of AI, it is permissible to talk about the possibility of these persons committing criminal acts. However, the issue of responsibility becomes significantly more complicated as soon as, for example, a drone it acts autonomously, ignores user instructions and causes serious damage.

In the Middle Ages, animals were tried for criminal offenses and even punished, and it was only in the eighteenth century (XVIII century) that it was established that animals lack the most basic requirement of criminal culpability — mens rea.

The classical theory of criminal law asserts that only a person can commit a criminal act. The specific external expressions of criminal acts may vary from State to State, However, many concepts and theories of these legal systems include, that the criminal act is peculiar only to people, are similar.

There is no doubt that today artificial intelligence technologies are designed to solve common problems. They make decisions very similar to human ones when they are provided with the same information as a living organism. At the same time, machines, no matter what they can do, are not considered intelligent because they do not understand what they are doing.

The AI recognizes certain situations and reacts either the way it is programmed, or the way he learned from experience and observation. Often, after recognizing a situation, the AI copies the behavior of those who were in the same situation, or he just reacts mechanically according to the rules, not understanding the meaning of his actions. Because of this inability of AI to understand the meaning and therefore, the subsequent consequences of his actions, he cannot meet the standards of mens rea, it is necessary to recognize the presence of a mandatory subjective attribute - guilt. This argument is the subject of an active, but perhaps inconclusive debate.

Intelligence and human consciousness are dynamic, however, they function on different bases. The possibilities of human intelligence are certainly wider and are not limited to any given algorithm. Artificial intelligence does not think like a human and does not have consciousness in the same sense, as a human. Thus, the establishment of a mandatory attribute of a guilty attitude to the act –awareness of the public danger of their actions – in relation to AI, it seems extremely difficult. For example, a program like Siri does not have consciousness, namely, a certain property of the mind, although she is able to answer questions in the same conversational way as if she were a real person.

Currently, one of the most common ways to use AI in committing crimes is, these are unmanned aerial vehicles and autonomous cars. Today you can buy a car with autopilot functions, which can change lanes without the help of a person or drive up to your parking lot itself. Several fatal accidents involving autopilot systems, recently, there has been a discussion about the security of these systems. Unmanned aerial vehicles are used for both military and civilian purposes, moreover, their wide range of functions extends from observation and the delivery of equipment before being used simply as toys.

The healthcare system has not been left out of automation either. Currently, artificial intelligence is used to solve a wide range of tasks in the field of healthcare, from robotic surgeons to medical analytics and diagnostics. However, there are many legal obstacles to using those or other artificial intelligence technologies in healthcare. For example, if the AI makes a certain diagnosis after analyzing the results, what role does AI play in this case? an independent function of a medical professional or an AI – is it just an assistant to a registered practitioner, that is, a person?

[14] Каражеляков, Б. А. Проблемы уголовной ответственности искусственного интеллекта / Б. А. Каражеляков, М. Ф. Юнусов // Вопросы российского и международного права. – 2021. – Т. 11, № 9А. – С. 261-267.

In addition to determining the content of the subjective side of crimes committed by AI, One of the most urgent is the issue of determining the subject of the crime in the case of the presence of an AI in the illegal act. Currently, the most common points of view in relation to this issue are:

- the AI developer/manufacturer should be responsible;
- The person using AI should be held accountable;
- Both the AI developer and the person using it should be held accountable[15].

Indeed, by virtue of Article 1079 of the Civil Code of the Russian Federation, legal entities and citizens, whose activities are associated with increased danger to others, they are obliged to compensate for the damage caused by a source of increased danger, regardless of the guilt, if not proven, that the harm arose as a result of force majeure (clause 1 of Article 1079 of the Civil Code of the Russian Federation)[16]. Thus, given the potential capabilities of AI, it can be recognized as a source of increased danger by a court decision[17]. Moreover, activities (including those related to the use of AI), creating an increased danger to others, obliges the persons carrying it out, as indicated by the Constitutional Court of the Russian Federation in its ruling dated October 4, 2012 No. 1833-O, "to be extra careful and circumspection, as it multiplies the risk of harm to third parties many times over, what determines the introduction of the rules, placing high-risk sources on the owners — compared to individuals whose activities are not associated with increased danger, — increased burden of responsibility for the occurrence of adverse consequences of this activity, which is based on the risk of accidental harm"[18].

It should be agreed that in cases where a mentally retarded person commits a crime, a child or an animal, they are treated like innocent people, since they do not have the necessary criteria to establish guilt. However, the person giving the instructions, or is the teacher criminally responsible, if an innocent person follows someone else's instructions. This is also confirmed by the rules of regulation of criminal liability in the case of "the effect of lengthening the arms", when a person uses another person to commit a crime, who has not reached the age of criminal responsibility or is insane. An example of this could be a dog trainer, who trains his dog to attack outsiders. This idea is that although AI platforms or programs are considered positive mechanisms, the user or the developer of the system may be involved in criminal AI activities in a certain way.

Here are some examples.

Robert William was the first person in history to be killed by a robot. The accident occurred at the Ford plant in Michigan, USA, on January 25, 1979. William was killed by a robot when he climbed the ladder.

In 2015, Kenji Udary, an engineer at Kawasaki Heavy Industries, who worked for a company where some production operations were performed by a robot, he forgot to turn off the robot. As a result, the robot saw Kenji as a threat to its mission and decided that the only way to defeat himslf (the robot) is — push him against the nearest working car.

A sufficiently strong hydraulic arm of the robot ruthlessly pushed him into a nearby car, killing Kenji almost instantly before the robot returned to his work. Heiko Willig, a Volkswagen Germany representative, said that the alleged death was due to human error, and not because of a robot error, who could do the job according to what

[15] Семенцова, И. А. О концепции уголовной ответственности за деяния, связанные с искусственным интеллектом / И. А. Семенцова, А. И. Фоменко // Наука и образование: хозяйство и экономика; предпринимательство; право и управление. – 2020. – № 4(119). – С. 119-122.

[16] Гражданский кодекс Российской Федерации. Ч. 2: федер. закон от 26 янв. 1996 г. № 14-ФЗ // Собрание законодательства РФ. 1996. № 5. Ст. 410.

[17] Хисамова, З. И. Уголовная ответственность и искусственный интеллект: теоретические и прикладные аспекты / З. И. Хисамова, И. Р. Бегишев // Всероссийский криминологический журнал. – 2019. – Т. 13, № 4. – С. 564-574.

[18]По делу о проверке конституционности статьи 15, пункта 1 статьи 1064, статьи 1072 и пункта 1 статьи 1079 Гражданского кодекса Российской Федерации в связи с жалобами граждан А.С. Аринушенко, Г.С. Бересневой и других: постановление Конституц. Суда РФ от 10 марта 2017 г. № 6-П // Собрание законодательства РФ. 2017. № 12. Ст. 1780.

was programmed for them. He said that he usually works in a limited area of the plant, by taking car parts and manipulating them. A robot of the type that crushed an employee is usually kept in a cage.

In March 2018, an unmanned vehicle of the company "Uber" in Tempe, Arizona in the USA for the first time in the history of mankind, hit a pedestrian to death. There was an operator in the driver's seat of the unmanned vehicle, whose duties it was to take over the management in an emergency, however, for unknown reasons, the Uber operator could not prevent a pedestrian from being hit. Later, information appeared about, that the drone's on-board electronics recognized the pedestrian, but the car did not stop moving[19].

Russian legal doctrine has recently been increasingly inclined to believe, that AI is an instrument or means of committing crimes, whereas directly by the subjects of the crimes, committed with the help of AI are "individuals, designing, manufacturing or using technologies (systems) artificial intelligence to perform the objective side of a socially dangerous act"[20]. This position is generally consistent with the provisions of the Code of Ethics for Artificial Intelligence, which became part of the federal “Artificial Intelligence” project and Strategies for the development of the Information Society for 2017-2030. This Code establishes that currently the responsibility for the consequences of using the technology (system) AI is always carried by humans.

Thus, summing up the above, it should be noted that, Thanks to technological progress, the world is definitely, it is developing at a faster pace and the first step is to recognize the need to create a legal framework to protect the current and future generations from the potential danger of AI.

Today, machines with a certain degree of autonomy are becoming more and more active, capable of receiving information, processing it, and setting goals, evaluate the results in accordance with the criteria, make decisions and adjust behavior to ensure success without active human control. Currently, as mentioned earlier, AI does not have the characteristics of subjects of crimes, and they cannot be held accountable, however, it cannot be ruled out that the expansion of AI capabilities does not preclude its recognition as such in the near future.

3. Results and Recommendations

As a result of the conducted research, the main problems of the regulation of criminal liability were identified for the crimes of artificial intelligence systems in the modern world, namely, the difficulties in defining the very concept of artificial intelligence are identified, on the basis of which the signs of AI were established, the status of legal personality and delict worthiness (delinquency) of AI was determined, and recommendations are also given when considering crimes, committed by AI in terms of elements and signs of the corpus delicti in accordance with current Russian and foreign criminal legislation.

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