JOURNAL OF INTELLECTUAL PROPERTY AND HUMAN RIGHTS

Volume: 4 Issue: 10 | Nov–2025 ISSN: 2720-6882
http://journals.academiczone.net/index.php/jiphr

ARTIFICIAL INTELLIGENCE AND CRIMINAL-LEGAL LIABILITY: COMPARATIVE LEGAL ANALYSIS

Khudaykulov Feruzbek Khurramovich
Acting Professor of the Department of Criminal Law, Criminology and Anti-Corruption of Tashkent State University of Law,
Doctor of Science in Law
ORCID: https://orcid.org/0000-0002-4940-3762
E-mail: dr.profi114@gmail.com

Abstract: In this article extensively are used logical, inductive, deductive, systematic, logical-legal, and comparative-legal methods. In particular, first of all, In the current period of intensive technological development, artificial intelligence (AI) is penetrating almost all spheres of human life, artificial intelligence (AI) is now able to diagnose patients, analyze legal documents in court proceedings, and even commit crimes, at the same time, technological development has raised many issues and questions in the theory of criminal law around the world, such as the subject of crime, the instrument and means of committing a crime. This article concludes, based on existing scientific approaches in criminal law doctrine, that artificial intelligence (AI) corresponds to the concept of a means of committing a crime in both broad and narrow senses. Specifically, firstly, in cases where both animate and inanimate objects can be included as means of committing a crime, artificial intelligence (AI) can be classified into any category regardless of the approach to its legal nature. Secondly, with a narrow understanding of the means of committing a crime, it is stated that AI can be categorized as an object of the material world and compared to specially trained animals that obey their owner's commands. This article analyzes why artificial intelligence (AI) cannot be considered a subject of crime in the Romano-Germanic legal family's criminal law, as criminal liability is based on the “minimal” and “sufficient” combination of four elements of corpus delicti and their defining characteristics. It also examines how AI can serve as a necessary element of corpus delicti in some crimes, such as an instrument or means of committing a crime. Additionally, the article discusses the necessity of recognizing AI as a subject of crime in certain cases within Anglo-Saxon family criminal law. The specific criminal-legal significance of artificial intelligence (AI) as a means of committing crimes is substantiated. Furthermore, the article analyzes scientific approaches and views on artificial intelligence (AI) in criminal law within both Romano-Germanic and Anglo-Saxon legal families. Based on this analysis, specific proposals and recommendations for improving the criminal legislation of the Republic of Uzbekistan in this regard are developed.

Keywords: *artificial intelligence (AI), criminal-legal liability, actus reus(criminal conduct), mens rea(a mental intent), perpetrator-via-another, natural-probable-consequence, direct liability, subject of the crime, instrument of the crime, means of the crime*.

Introduction

In the current period of intensive technological development, artificial intelligence (AI) has penetrated almost all spheres of human life. In particular, the legal sphere is characterized by the fact that it requires a large volume of textual information and complex analysis processes, which requires the adoption of transformational technologies such as artificial intelligence (AI). Legal Tech, that is, legal technologies, allow automating legal analysis processes through artificial intelligence (AI) tools, increasing efficiency, and optimizing costs. In recent years, major language models such as ChatGPT, Claude, Gemini, Grok, Deepseek, QWEN, and Meta AI have provided unique opportunities in the legal field, fundamentally

changing the work processes of lawyers and legal professionals.

Artificial intelligence (AI) is bringing revolutionary changes in the field of law by automating and optimizing legal analysis processes. Artificial intelligence (AI) performs tasks such as analyzing large amounts of legal documents, identifying risks, and predicting court decisions, based on natural language processing, machine learning, and in-depth learning algorithms. While traditional methods are often time-consuming and prone to human error, artificial intelligence (AI) tools provide speed, accuracy, and cost reduction.

Additionally, these technologies simplify operational tasks for lawyers and allow them to dedicate more time to strategic matters. For example, AI identifies risky clauses in contract analysis, accelerates legal research, and offers automated solutions for customer interaction. Artificial intelligence (AI) models such as ChatGPT, Claude, Gemini, Grok, Deepseek, QWEN, and Meta AI provide unique advantages in these processes, but their effectiveness depends on data quality, privacy, and human control. The application of artificial intelligence (AI) in the legal field raises issues such as data security, ethical problems, and technological limitations, which require caution and professional experience from lawyers.

Artificial intelligence (AI), previously found only in science fantasy films, is now capable of diagnosing a patient, analyzing a legal document during a court case, and creating a work of art, even being capable of committing a crime. At the same time, technological advancements are raising numerous issues and questions in the theory of criminal law worldwide, such as the subject of crime, the instrument and means of committing a crime, and artificial intelligence. For example, if a crime is committed as a result of artificial intelligence making a wrong decision, who will be to fault? Is artificial intelligence (AI) responsible for the programmer, user, or artificial intelligence (AI) as an independent system that programmed it with special algorithms? That is, can artificial intelligence (AI) be a subject of crime?

This article analyzes issues such as the fact that artificial intelligence (AI) cannot be a subject of crime due to the fact that criminal liability in Romano-Germanic family criminal law is based on the combination of four elements of the corpus delicti and the “minimal” and “sufficient” characteristics representing them, as well as the fact that it serves as a necessary characteristic of the corpus delicti in some crimes, such as an instrument and means of committing a crime, and the need to recognize it as a subject of crime in some crimes in Anglo-Saxon family criminal law.

Artificial intelligence (AI) and information resources created using it must not cause harm to a person, his life, health, freedom, honor and dignity, and violate his other inalienable rights.

Discussion

Artificial intelligence (AI) is a combination of separate information technologies that can process and analyze data, as well as simulate the human cognitive function and include algorithms for analyzing various data, and also allow creating a digital profile of a person, identifying the type of software used and its possible weaknesses.

Artificial intelligence (AI) operations are based only on certain algorithms, which are created by special programmers. It cannot be recognized as a subject of a crime. Because in the Romano-Germanic legal family, the single basis of criminal liability in criminal law is the presence of all elements of the corpus delicti. It is known that in the theory of criminal law of the Romano-Germanic legal family, there are three concepts of the corpus delicti: the concept of scientific abstraction of the corpus delicti, the concept of the normative or legislative model of the corpus delicti, and the concept of the real corpus delicti.

Currently, when formally defining the corpus delicti, a group of scholars rely on a concept known as the normative or legislative model [1].

Some of our national scholars argue that “Criminal law does not provide the concept of the elements of a crime and its characteristics(signs), and the definition of the elements of a crime is theoretical. Nevertheless, the concept of “composition of a crime(corpus delicti)” is widely used in the Criminal

Code, the Criminal Procedure Code, and judicial and investigative practice" [2, P. 24]. (Concept of scientific abstraction of the corpus delicti).

The corpus delicti has its own general social significance, and according to M.Kh.Rustambaev and A.A.Mirzaev, "The corpus delicti is a prohibitive norm or a norm of behavior of a member of society. The corpus delicti stipulated by criminal law is considered the normative basis of criminal liability" [3, P. 110, 97]. (Concept of the normative or legislative model of the corpus delicti).

M. Usmonaliyev, P. Bakunov, and R. Kabulov state that "The corpus delicti is the basis of criminal liability and consists of the combination of objective (external) and subjective (internal) signs of a criminal act" [4, P. 131, 94].

O.X.Rasulov and A.S.Yakubov further clarify the concept of the corpus delicti: "The corpus delicti is the minimal and sufficient combination of objective and subjective signs characterizing a certain socially dangerous act as a crime" [5, P. 90]. (Concept of real corpus delicti).

The corpus delicti consists of four elements: the object of the crime, the objective side, the subjective side, and the subject. The necessary signs of a criminal subject are three: sanity, age of criminal responsibility, and physical personality.

According to Article 17 of the Criminal Code of the Republic of Uzbekistan, " Sane individuals aged sixteen years or above at the moment of commission of a crime, shall be subject to liability". Each person, in whose acts availability of corpus delicti has been proven, shall be subject to liability (Article 10 of the Criminal Code). Grounds for liability shall be commission of an act containing all elements of corpus delicti of a crime envisaged by this Code (Part 2 of Article 16 of the Criminal Code).

In Roman-German criminal law, there are two formal (legal) bases for the impossibility of artificial intelligence (AI) being a subject of a crime: the first is the absence of necessary signs of the subject of the crime, and the second is the absence of necessary signs (guilt, motive, and purpose) and elements (intellectual and volitional) of the subjective side of the corpus delicti.

In the Anglo-Saxon legal family doctrine, there is no single definition of the concept of crime; a criminal act is recognized as a crime based on the concept of "actus reus-mens rea." "corpus delicti", the origins of which go back to ancient Roman law, consists of such basic elements as "actus reus" and "mens rea." The concept of "actus reus-mens rea" is based on the principle "actus non facit reum nisi mens sit rea" [6, P. 69-79], which means that "An act does not make a person guilty unless the mind is also guilty."

"Mens rea - meaning guilty mind in Latin, is a subjective element of the corpus delicti and represents a mental attitude towards the committed criminal act. Actus reus - in Latin means guilty act, deed, and is considered an objective element of corpus delict and represents the external aspect of the crime, such as the committed criminal act, its criminal consequence, and the causal link between the criminal act and consequence" [7, P. 1-44].

In Anglo-Saxon criminal law, the structure of the corpus delicti consists of two elements. These are the criminal act (actus reus) and the guilty mental attitude (mens rea).

In Anglo-Saxon criminal law, efforts to substantiate scientific approaches to recognizing artificial intelligence (AI) as a subject of crime based on the provisions of the doctrine of criminal law are increasingly becoming widespread.

J.K.C.Kingston [8, P. 272] stated that Hallevy [9, P. 180] goes on to propose three legal models by which offences committed by AI systems might be considered:

1. Perpetrator-via-another. According to this model, AI programs could be held to be an innocent agent, with either the software programmer or the user being held to be the perpetrator-via-another. However, if the innocent agent was instructed by another person, then the instructor is held criminally liable. Hallevy [9, P. 180] gives an example, a user purchases a servant-robot, which is designed to execute any order given by its master. The specific user is identified by the robot as that master, and the master orders the robot to assault any invader of the house. The robot executes the order exactly as ordered. This is not different than a person who orders his dog to attack any trespasser. The robot committed the assault, but the user is deemed the perpetrator.

2. Natural-probable-consequence. In this model, part of the AI program which was intended for good purposes is activated inappropriately and performs a criminal action [8, P. 272].

3. Direct liability. This model attributes both actus reus and mens rea to an AI system. For strict liability offences, where no intent to commit an offence is required, it may indeed be possible to hold AI programs criminally liable [8, P. 273]. J.K.C.Kingston [8, P. 273] stated that considering the example of self-driving cars, speeding is a strict liability offence; so according to Hallevy, if a self-driving car was found to be breaking the speed limit for the road it is on, the law may well assign criminal liability to the AI program that was driving the car at that time.

The Romano-Germanic family of law, and in modern criminal law, the topic of recognizing artificial intelligence (AI) as a means of committing crimes, is increasingly attracting scientists in scientific research, monographs, and scientific articles.

The concept of artificial intelligence (AI) generalizes individual information technologies that can process and analyze data, as well as imitate the human cognitive function. Artificial intelligence (AI) algorithms can include various data analysis algorithms, which allow creating a digital human profile, identifying the type of software used, and its possible vulnerabilities [10, P. 54-61].

Researchers of some CIS countries are putting forward scientific approaches to the systematization of individual cases of criminal liability for a certain number of acts committed with the use of artificial intelligence (AI) and their reflection in criminal legislation[11, P. 55-58, 37-40]. Some scholars propose to consider artificial intelligence (AI) in criminal law as a “method or means of committing a crime,” transforming it from a facultative to a necessary sign of the objective side of the corpus delicti [12. P. 169-178].

In the doctrine of classical and modern criminal law, scientific approaches to the narrow and widely understood means of committing a crime are put forward.

In particular, N.S.Tagansev noted that "Criminal activity can be committed through different means of committing crimes. Such means can be, firstly, the body of the subject of the crime, and secondly, objects and items of the material world located outside." [13, p. 815].

According to A.V.Stepanova, “In criminal activity, the means of committing a crime can include not only inanimate objects, but also living things, not only the forces of nature, but also, under certain circumstances, even another person, in particular, those who are mentally ill” [14. P. 349-355].

A.B. Chugunok notes that "when describing scientific approaches to the means of committing a crime, it is impossible to talk about intangible means in criminal law, since the means of committing a crime are considered as a sign of the objective side of the corpus delicti." However, it should be noted that the means of human criminal activity can be living objects of the environment, for example, animals, birds, reptiles, studied through special exercises. [15. P. 101]

Based on the aforementioned scientific approaches, it can be concluded that artificial intelligence (AI) corresponds to the concept of a means of committing a crime in both broad and narrow senses. In the first case, where the means of committing a crime can include both animate and inanimate objects, AI can be classified into any category, regardless of the approach taken to its legal nature. In the second case, with a narrow understanding of the means of committing a crime, AI can be categorized as an object of the material world and compared to specially trained animals that follow their owner's commands. After all, artificial intelligence (AI) is always created to fulfill specific objectives of its owner.

For a complete study of the specific criminal-legal significance of artificial intelligence (AI) as a means of committing a crime, it is necessary to consider its relationship with the signs of the objective side of the corpus delicti. Currently, due to the fact that judicial and investigative practice in criminal cases involving artificial intelligence has not yet been fully formed, through the analysis of some judicial and investigative practice, in crimes in the sphere of economics, artificial intelligence (AI) is manifested as a kind of means of facilitating the commission of crimes.

The following criminal offenses, which are specified in the Special Part of the Criminal Code, can be cited as examples of the manifestation of the quality of artificial intelligence (AI) in economic crimes as

a means of specific facilitation of the commission of crimes:

– fraud (Article 168, Part 3, clause “g” of the Criminal Code);

– banditry (Article 164 of the Criminal Code);

– intentional destruction or damage of property (Article 173 of the Criminal Code), etc.

Conclusion

Studying the doctrine of classical and modern criminal law, we distinguish the following specific criminal law significance of artificial intelligence (AI) as an instrument and means of committing a crime:

1. When artificial intelligence (AI) is used as a tool for committing a crime in a particular crime, it increases the level of social danger of this crime and precisely it determines it. For example, in the crime of violation of legislation on personal data (Article 1412 of the Criminal Code), artificial intelligence (AI) is used as a tool for committing a crime when processing, supplementing, or disseminating personal data to a degree that does not correspond to reality and causes damage to public relations related to personal data protected by criminal law;

2. When committing a crime of fraud using artificial intelligence (AI) as a means of committing a crime, the degree of social danger of this crime is determined precisely by the method (deception or abuse of confidence) and the means (artificial intelligence (AI) facilitating the commission of fraud);

3. When committing a crime of fraud using artificial intelligence (AI) – the means of committing the crime is manifested as an aggravating (qualifying) sign of liability;

4. When committing a crime using artificial intelligence (AI), the means of committing the crime are considered as aggravating circumstances when imposing a sentence.

In order to express the above specific criminal law significance of artificial intelligence (AI) as a means of committing crimes, we propose the following proposals:

First, in Section VIII of the Civil Code, "Legal Meaning of Terms," it is proposed to define the concepts of “Artificial Intelligence (AI)” as follows:

“Artificial intelligence (AI) – it is a set of separate information technologies that can process and analyze data, as well as imitate human cognitive function and may include various data analysis algorithms, as well as create a digital profile of a person, identify the type of software used and its possible vulnerabilities.”

Secondly, we propose to amend part 2 of Article 28 of the current Criminal Code with the following additions:

“The perpetrator is recognized as the person who directly committed the crime, fully or partially, or who committed the crime using persons or other means or as well as artificial intelligence (AI) that cannot be held liable in accordance with this Code.”

Thirdly, we propose to amend clause "g" of part 4 of Article 168 of the current Criminal Code:

Fraud committed:

a) in large amounts;

b) repeatedly or by a dangerous recidivist;

c) by taking advantage of official position;

g) committed using an information system, including information technologies or artificial intelligence (AI), which is a set of separate information technologies capable of processing and analyzing data, as well as imitating human cognitive functions, shall be punished with fine from three hundred to four hundred times the base calculation amount or correctional labor from two to three years or imprisonment

from five to eight years with deprivation of a certain right.

REFERENCES

1. Уголовное право России. Части Общая и Особенная: учебник / В.А.Блинников, А.В.Бриллиантов, О.А. Вагин [и др.]; под ред. А.В.Бриллиантова., - 2-е изд., перераб. и доп. Москва: Проспект, 2015.; Кочои С.М. Уголовное право. Общая и Особенная части: краткий курс. – М.: Контраст; Волтерс Клушер, 2010.; Уголовное право Российской Федерации. Общая и Особенная части: учебник / Т.Б.Басова, Е.В.Благов, П.В.Головненков [и др.]; под ред. А. И. Чучаева. – М.: Контраст; ИНФРА-М, 2013. (Criminal Law of Russia. General and Special Parts: textbook / V.A. Blinnikov, A.V. Brilliantov, O.A. Vagin [et al.]; edited by A.V. Brilliantov, - 2nd edition, revised and enlarged. Moscow: Prospect, 2015.; Kochoi S.M. Criminal Law. General and Special Parts: a short course. - Moscow: Kontrast; Wolters Klusher, 2010.; Criminal Law of the Russian Federation. General and Special Parts: textbook / T.B. Basova, E.V. Blagov, P.V. Golovnenkov [et al.]; edited by A.I. Chuchaev. - Moscow: Kontrast; INFRA-M, 2013.)
2. Ochilov X.R., Xaydarov Sh.D., Shamsidinov Z.Z. “Jinoyat huquqi” (Umumiy qism). – T.: TDYU nashriyoti, 2021. – B. 24. (Ochilov Kh.R., Khaydarov Sh.D., Shamsidinov Z.Z. “Criminal Law” (General Part). – T.: Publishing House of the TSU, 2021. – P. 24.)
3. Rustambayev M.X. O‘zbekiston Respublikasining Jinoyat kodeksiga sharhlar. Umumiy qism / M.Rustambaev. – Tashkent: Adolat nashriyoti, 2021. – B. 110., Мирзаев А.А. Уголовно-правовые и криминологические проблемы борьбы с преступлениями против республики Узбекистан: дис. … д-ра юрид. наук: 12.00.08 / Мирзаев Азиз Алишерович. – Ташкент, 2009. – С. 97. (Rustambayev M.Kh. Comments to the Criminal Code of the Republic of Uzbekistan. General part / M.Rustambaev. – Tashkent: Adolat Publishing House, 2021. – P. 110., Mirzaev A.A. Criminal-legal and criminological problems of combating crimes against the Republic of Uzbekistan: dis. … Doctor of Law: 12.00.08 / Mirzaev Aziz Alisherovich. - Tashkent, 2009. - P. 97.)
4. Usmonaliyev M., Bakunov P. Jinoyat huquqi. Umumiy qism: Darslik – Tashkent: Nasaf, 2010. – B. 131., Jinoyat huquqi. Umumiy qism: Darslik (To‘ldirilgan va qayta ishlangan ikkinchi nashri) / R.Kabulov, A.A.Otajonov va boshq. – T.: O‘zbekiston Respublikasi IIV Akademiyasi. 2012. – B. 94. (Usmonaliyev M., Bakunov P. Criminal law. General part: Textbook – Tashkent: Nasaf, 2010. – P. 131., Criminal law. General part: Textbook (Completed and revised second edition) / R.Kabulov, A.A.Otajonov et al. – T.: Academy of the Ministry of Internal Affairs of the Republic of Uzbekistan. 2012. – P. 94.)
5. Якубов А.С Теоритические проблемы формирования правовой основы учения о преступлений: предпосылки, реальность, перспективы – Т., 1996, – С. 95., Rasulov O.X. Sovet jinoyat huquqi. Umumiy qism – T.: O‘qituvchi, 1969. – B. 90. (Yakubov A.S. Theoretical problems of the formation of the legal basis for the doctrine of crimes: prerequisites, reality, prospects - T., 1996, - P. 95., Rasulov O.Kh. Soviet criminal law. General part – T.: Teacher, 1969. – P. 90.)
6. De Caro M. “Actus non facit reum nisi mens sit rea”. The Concept of Guilt in the Age of Cognitive Science // Neuroscience and Law: Complicated Crossings and New Perspectives. – 2020. – P. 69-79.
7. Cross N. Criminal justice, actus reus and mens rea //Forensic Psychology, Crime and Policing. – Policy Press, 2023. – P. 108-113., Sarch A. F. Knowledge, Recklessness and the Connection Requirement Between Actus Reus and Mens Rea //Penn St. L. Rev. – 2015. – Vol. 120. – P. 1-44., Watt, M. A. (2019). Guido and the guilty mind: Mens rea and actus reus in Inferno 27. Forum Italicum, 53(2), – P. 318-326. https://doi.org/10.1177/0014585819831969.
8. Kingston, J. (2016). Artificial Intelligence and Legal Liability. In M. Brame, & M. Petridis (Eds.), Research and Development in Intelligent Systems XXXIII: Incorporating Applications and Innovations in Intelligent Systems XXIV (pp. 269-279). Springer-Verlag. https://doi.org/10.1007/978-3-319-47175-4_20
9. Hallevy, Gabriel (2010) "The Criminal Liability of Artificial Intelligence Entities - from Science Fiction to Legal Social Control," Akron Intellectual Property Journal: Vol. 4: Iss. 2, Article 1. – pp. 171-199. Available at: https://ideaexchange.uakron.edu/akronintellectualproperty/vol4/iss2/1

10. Жарова А.К. Искусственный интеллект – средство или способ совершения мошенничества в сфере компьютерной информации? // Государство и право. 2023. № 2. С. 54–61. (Zharova A.K. Artificial intelligence – a means or a method for committing fraud in the field of computer information? // State and Law. 2023. No. 2. P. 54–61.)
11. Ефремова М.А., Лопатина Т.М. Робототехника в уголовном законодательстве Российской Федерации // Росс. следователь. 2021. № 11. С. 55–58. DOI: 10.18572/1812-3783- 2021-11-55-58; Бегишев И.Р. Международно-правовые основы регулирования искусственного интеллекта и робототехники // Междунар. публичное и частное право. 2021. № 1. С. 37–40. DOI: 10.18572/1812-3910-2021-1-37-40 (Efremova M.A., Lopatina T.M. Robotics in the Criminal Legislation of the Russian Federation // Ross. Investigator. 2021. No. 11. pp. 55–58. DOI: 10.18572/1812-3783-2021-11-55-58; Begishev I.R. International Legal Framework for Regulating Artificial Intelligence and Robotics // International Public and Private Law. 2021. No. 1. P. 37–40. DOI: 10.18572/1812-3910-2021-1-37-40)
12. Грачева Ю.В., Арямов А.А. Роботизация и искусственный интеллект: уголовно-правовые риски в сфере общественной безопасности // Актуальные проблемы росс. права. 2020. № 6. С. 169–178. DOI: 10.17803/1994-1471.2020.115.6.169–178 (Gracheva Yu.V., Aryamov A.A. Robotization and artificial intelligence: criminal-legal risks in the field of public safety // Actual problems of Russian law. 2020. No. 6. P. 169–178. DOI: 10.17803/1994-1471.2020.115.6.169–178)
13. Таганцев Н.С. Русское уголовное право. - 2-е изд., пересмотр. и доп. - СПб.: Гос. тип., 1902. - Т. 1. – С 815. (Tagantsev N.S. Russian criminal law. - 2nd ed., revised and supplemented. - St. Petersburg: State type, 1902. - V. 1. - P. 815.)
14. Степанова А.В. Взаимосвязь искусственного интеллекта как средства совершения преступления и иных субъективных признаков состава преступления // Образование и право. 2021. №5. – С. 349-355. URL: https://cyberleninka.ru/article/n/vzaimosvyaz-iskusstvennogo-intellekta-kak-sredstva-soversheniya-prestupleniya-i-inyh-subektivnyh-priznakov-sostava-prestupleniya (Stepanova A.V. The relationship between artificial intelligence as a means of committing a crime and other subjective signs of a crime // Education and Law. 2021. No. 5. - P. 349-355. URL: https://cyberleninka.ru/article/n/vzaimosvyaz-iskusstvennogo-intellekta-kak-sredstva-soversheniya-presupleniya-i-inyh-subektivnyh-priznakov-sostava-presupleniya)
15. Чугунок А.Б. Понятие и значение орудий и средств совершения преступления в уголовном праве // Вопросы юридической техники в уголовном и уголовно-процессуальном законодательстве: сб. науч. ст. - Ярославль: Изд-во «Ярослав». -1997. – С. 101. (Chugunok A.B. Concept and meaning of instruments and means of committing a crime in criminal law // Issues of legal technique in criminal and criminal procedural legislation: collection of scientific articles. - Yaroslavl: Yaroslav Publishing House. - 1997. - P. 101.)