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THE ROLE OF ARTIFICIAL INTELLIGENCE IN THE APPLICATION OF LAW TO CONTRACTS OF ALIENATION OF REAL ESTATE

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ABSTRACT

The article discusses the advantages of automating legal procedures, as well as the legal risks associated with insufficient regulatory regulation of relevant technologies. It is concluded that it is necessary to legislate the principle of "human control" over AI systems and establish standards for their use in notarial and registration activities.

The digital transformation of the legal system is one of the key trends in modern civil law. The intensive introduction of artificial intelligence (AI) technologies into legal activities is radically changing the tools of law enforcement, reducing time and transaction costs when making civil law transactions. These processes are particularly relevant in the real estate sector, which is one of the most significant and complex areas of property relations.

According to Global Market Insights, "the global market for AI solutions in the legal field amounted to $1.9 billion in 2024, and its expected growth rate for the period 2025-2034 is 13.1% per year"[1]. According to NetDocuments, the use of artificial intelligence by lawyers in 2024 increased by 315% compared to 2023; 53% of small law firms and individual practitioners have already integrated generative artificial intelligence into their work processes[2].

The resolution "On approval of the Strategy for the Development of Artificial Intelligence technologies" until 2030, approved by the President of the Republic of Uzbekistan[3], designated the transition to a model of digital interaction between the state and society as a priority task. And in the European world, this vector has received legislative formalization in the form of EU Regulation No. 2024/1689 on artificial intelligence[4], which entered into force on June 13, 2024 and represents the world's first comprehensive legal act in this field. Thus, a stable regulatory framework is being formed at the global level, in which AI technologies are given the role of not just an auxiliary tool, but a

full-fledged participant in legal processes.

Purchase and sale, gift, barter, rent, as well as other agreements aimed at transferring ownership of immovable property, involve the need to verify a significant amount of documentation, analyze restrictions and encumbrances, verify title documents and state registration of the transfer of rights. These operations are primarily amenable to automation through neural network algorithms, machine learning systems, and large language models. At the same time, the widespread use of AI in the legal support of real estate transactions raises a number of fundamental issues such as: what are the legal limits of automated law enforcement or who is responsible for the erroneous decisions of algorithmic systems?

The legal framework of the study is formed by the Civil Code of the Republic of Uzbekistan[5], the Housing Code of the Republic of Uzbekistan[6], the Law of the Republic of Uzbekistan "On Notaries"[7], the Law of the Republic of Uzbekistan "On State Registration of Rights to Immovable Property"[8], the Order of the Minister of Justice of the Republic of Uzbekistan "On approval of the instructions on the procedure the commission of notarial acts by notaries"[9].

Contracts for the sale and sale of real estate (§ 4, Chapter 29 of the Civil Code of the Republic of Uzbekistan), donations (Chapter 31), barter (Chapter 30), rent (Chapter 32) combine a number of features essential for the purposes of law enforcement automation. Firstly, for the transfer of ownership of immovable property, state registration is required, provided for in Article 111 of the Civil Code of the Republic of Uzbekistan [10] and the Law "On State Registration of Rights to Immovable Property", the Law of the Republic of Uzbekistan No.803[11].

The specifics of this process are the delegation of the primary legal review to automated information systems. In this model, a transaction is transformed from a classical expression of will into a deterministic digital procedure. This means that the Notary system acts as a technological filter: through interdepartmental interaction, it verifies the status of the object in real time and the legal personality of the parties (confirmation of authority through the Registry Office and the Ministry of Internal Affairs). Thus, the technological algorithm eliminates the possibility of registering defective transactions, ensuring an unprecedented level of reliability of the state register of rights. The fiscal component of the process is also fully automated: the system blocks the generation of a legally significant act upon detection of unfulfilled tax or utility obligations. This transforms the alienation agreement from a traditional private law agreement into a structured array of verified data, ensuring a seamless transition of rights in the digital legal environment of Uzbekistan.

In the context of the rapid digitalization of civil turnover, the integration of artificial intelligence technologies into the mechanisms for making and registering real estate transactions is becoming a priority vector for the development of the legal system[12]. Unlike existing automated systems operating on the basis of rigid

deterministic algorithms, AI technologies provide a transition to predictive analytics and cognitive audit of legally significant facts.

One of the key areas is intellectual legal audit[13], which involves the use of natural language processing (NLP) algorithms for the semantic analysis of unstructured title documents[14]. The use of AI makes it possible to identify hidden risks, such as the presence of temporarily absent persons who retain the right to use residential premises, or defects in the succession chain accumulated over a long period of operation of the facility [15]. First, we are talking about identifying persons who have the right to lifelong or temporary use of residential premises, for example: convicts, persons undergoing compulsory medical treatment,
or children in orphanages who were discharged from the facility decades ago, but legally retain the right to move in. Artificial intelligence technologies are capable of cross-searching the digitized archival funds of the Ministry of Internal Affairs and guardianship authorities, comparing historical registration data with the current state of the housing stock. Secondly, AI minimizes the risks associated with the illegality of succession. Standard verification is often limited to the last transaction, however, judicial practice shows that invalidation of any of the previous transactions in the chain can lead to the recovery of property from a bona fide acquirer in a vindication lawsuit[16]. Machine learning algorithms are capable of conducting a comprehensive audit of the entire history of rights transfers, assessing the legitimacy of each link in the chain and signaling suspicious transactions, which de facto implements the concept of absolute title transparency, inaccessible to discrete verification methods.

Special attention should be paid to the concept of integrating AI into a system of self-executing contracts (smart contracts) operating on the basis of decentralized registries. AI in this architecture acts as an “intellectual oracle”[17], verifying the fulfillment of non-digital conditions by the parties. Together with AI algorithms, smart contracts are able to automatically verify the terms of a transaction, perform calculations, register the transfer of ownership and ensure the escrow of funds. According to expert forecasts, by 2030, smart contracts will serve 20-30% of real estate transactions in developed markets[18].

Thus, the institutionalization of AI in the digital legal environment of Uzbekistan requires the improvement of the regulatory framework, including the development of ethical standards and norms on the allocation of responsibility for algorithmic errors[19]. This will transform the role of the notary and the registration authority towards providing high-tech supervision of the legality of a complex, multi-level process of alienation of real estate.

At the same time, the introduction of artificial intelligence into the law enforcement practice of real estate transactions in the Republic of Uzbekistan is associated with a number of fundamental doctrinal and legislative problems. Firstly, the most acute problem is the lack of special regulatory

and legal regulation of the use of cognitive technologies in notary and registration activities. The current legislation does not contain norms regulating the legal force of automated legal opinions, the procedure for the procedural documentation of the results of AI verification and their evidentiary status in civil proceedings. Secondly, the issue of delegating responsibility for algorithmic errors remains unresolved. In a situation where the AI system does not identify a critically significant encumbrance or verifies a falsified document, a legal vacuum arises in determining the subject of responsibility: whether they are the developer of the algorithm, the operator of the information system, the state registrar or a notary. Unlike the classical institution of responsibility of officials for unlawful actions or omissions[20], the mechanism of compensation for damage caused as a result of a "technological malfunction" or a neural network error has not been considered in the national law of Uzbekistan at the moment.

The issue of trust in algorithmic solutions on the part of participants in civil turnover is also of fundamental importance. Real estate is, as a rule, the most valuable asset of an individual, and therefore any doubts about the reliability of a legal support instrument for a transaction lead to a decrease in confidence in the relevant system. The formation of a legal culture adapted to the conditions of digital turnover is a necessary prerequisite for the full implementation of AI in this area.

The transformation of the legal regulation of the alienation of real estate in Uzbekistan indicates the transition from traditional documentation to the formation of a deterministic digital ecosystem. Modern contracts of sale, exchange, donation and rent in the digital environment of the Republic have been transformed into structured data arrays, where the legal purity of the transaction is ensured by control algorithms and the integration of information systems of the notary and cadastre. The prospective implementation of artificial intelligence and smart contracts will automate a deep retrospective audit, minimizing the risks of challenging transactions and claiming property from bona fide purchasers. According to expert forecasts, such a technological transformation will ensure an increase in market liquidity and a reduction in transaction costs by 40-60%, turning real estate into the most transparent investment asset[21]. However, the successful implementation of these technologies requires the prompt elimination of the legal vacuum regarding liability for algorithmic errors and the determination of the procedural status of AI solutions. To ensure the stability of civil turnover, it is necessary to legislate the mechanisms of “digital title insurance” and the responsibility of system operators for technological failures. The implementation of these measures will allow Uzbekistan to create a highly technological model of real estate turnover that guarantees maximum protection of property rights in the context of global digital transformation.

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