

The Legal Force of Contracts Made using Artificial Intelligence Tools

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Abstract: This article provides an analysis on how the world is facing challenges on recognizing algorithmic contracts as “legal”. Although technologies are reaching highs, legal systems remain stable, being unable to adapt to new advancements. How algorithmic contracts need more recognition.

Keywords: AI, algorithmic contracts, contracts, legal systems, automated machines, mere tools, legal agents.



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Introduction

Artificial intelligence has become a part of our lifestyle in a relatively short time. Nowadays, individuals use artificial intelligence for various purposes and fields: from education and work to personal life and even psychological counseling. So, what exactly is artificial intelligence? IBM defines artificial intelligence as: "Anything that makes machines act more intelligently."

The idea of AI dates back at least 2,700 years. As Adrienne Mayor, research scholar, folklorist, and science historian at Stanford University, explains: “Our ability to imagine artificial intelligence goes back to ancient times. Long before technological advances made self-moving devices possible, ideas about creating artificial life and robots were explored in ancient myths.¹ The attempt to create a technology capable of thinking like the human mind, processing information, analyzing, and engaging in logical and critical thinking is a result of humanity’s efforts dating back to ancient times. According to the Britannica Encyclopedia, the "father of artificial intelligence," John McCarthy, is credited with creating the first computer chess games capable of playing against humans.

¹ Britannica. “Artificial intelligence. Is artificial intelligence good for the society?”

Today, artificial intelligence is widely used across various fields. The legal force of contracts formed with the help of artificial intelligence is the main topic of our current article.

1. Traditional contracts, their requirements

The formation of traditional contracts and their legality are clearly and thoroughly regulated by the legislation of countries. According to the civil legislation of Uzbekistan, contracts are agreements between two or more persons to create, change, or terminate civil rights and obligations. Although the concept of a contract is defined almost the same in all legal systems, the requirements placed on them may vary. For example, in the continental law family, the contract is subject to requirements such as mutual consent of the parties ("meeting of mixed minds"), good faith, fairness, legal capacity of the parties, and these are regulated by laws. In the Anglo-Saxon system (England, USA, Australia), it includes elements such as clear offer, accept, consideration, mutual intention, certainty, and the capacity of the parties. What about contracts made with artificial intelligence? Although algorithms have become an integral part of our lives, our laws still follow the old approach. What characteristics make contracts made with algorithms differ from traditional contracts? Why is their legal force under question?

2. The legality of contracts made by Algorithm. Can AI be counted as legal agent?

The existence of algorithms that must be understood as servants rather than mere tools justifies the creation and analysis of a distinct category called “algorithmic contracts.”² In so far as it offers an explanation for algorithmic contracts at all, current contract law relies on two outmoded assumptions: (1) algorithms are mere tools, and (2) even if they are not mere tools, a corporation is savvy enough to understand and anticipate all possible outcomes of the algorithms’³ According to the author of the article "Algorithmic Contracts," Lauren Henry Scholz, concepts such as liability and representation are only necessary for contracts made by humans, and these rules do not apply to algorithmic contracts. In addition to the author’s statements, it can be said that applying the rules of traditional contracts to AI-based algorithmic contracts requires them to acquire either a natural person or a legal entity status. For example, the application of the rules of contractual capacity, which is a basic condition for the formation of traditional contracts, to artificial algorithms also brings elements such as liability for their actions. Looking at the practices of various countries, some of them (with limitations) recognize artificial intelligence as a subject of social relations within their jurisdiction, while others are not willing to grant such a status to algorithms and code collections.

a. Mere tools

Thornton v Shoe Lane Parking Ltd (‘Thornton’) keysi (1964):

Thorntone’s car was parked at Shoe Lane Parking LTD, which operates an automated car park. Here, he buys a ticket from an automated ticket machine. The car park displayed a notice with parking charges and stated that cars were parked at the owner’s risk. Thorntone buys the ticket and heads to his appointment. When he was retrieving his car, he got injured and sued the car park. In court, the car park stated, as indicated on the tickets, that the company was not liable for personal injuries. The court referred to typical “ticket cases” and considered the offer and acceptance in the formation of the contract, with the ticket being offered by the human clerk and the customer’s acceptance being the purchase of the ticket. However, in this case, the court found that, because the machine operated automatically, the contract was completed when Thorntone inserted the money into the machine, not when the ticket was issued. According to the court’s conclusion, the

² ALGORITHMIC CONTRACTS

Lauren Henry Scholz

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³ Algorithmic contracts. 134

fact that money was inserted into the machine was considered the formation of the contract, not when the ticket was issued.

From this case, it becomes clear that automated machines cannot be representatives of contracting parties. But what about artificial intelligence? Artificial intelligence has the ability to make independent decisions, remember events, and analyze them, distinguishing it from automated machines. How should we evaluate contracts created by artificial intelligence and similar black-box algorithms?

b. Algorithmic contracts

Algorithmic contracts can be distinguished first by the role of the algorithm (tool or agent), then by the task assigned to the algorithm (gap-filling or negotiation), and finally, for negotiating algorithms, whether the algorithm is a black box algorithm or a clear box algorithm.⁴ Algorithms can be used for various purposes. Just like we use automatic machines as tools, we can also use algorithms as tools. For example, we can ask artificial intelligence to create a contract for us. It will provide us with a sample, but editing the contract and changing its terms according to the parties' wishes will be in our hands. The legal status of the contract also depends on whether it is a white box or black box algorithm. White box algorithms are those whose actions can be predicted in advance. On the other hand, black box algorithms are complex, and understanding their operations requires significant time and resources. Regulating contracts created using these algorithms, especially black box algorithms, is a bit challenging. This is because they embody features such as self-learning, adaptive mechanisms, behavior unpredictability, and opaque decision-making. This leads to the formation of contracts that are beyond the control of the contracting parties, in a "cannot be seen with the naked eye" state. However, we cannot say that these contracts are entirely unregulated by law, as some sectors have already transitioned to this system. For example, high-frequency trading. High-frequency trading uses automated trading strategies to execute a large number of orders at high speed. This is regulated by the SEC and CFTC in the United States. Another example is dynamic pricing. Dynamic pricing refers to the adjustment of service and product prices based on market conditions, demand, and supply prices in a short period of time. Since the process requires quick implementation, algorithms are widely used. Another major area is smart contracts. Smart contracts are self-executing agreements with the terms of the contract being written into code. They exist on the blockchain, a decentralized and immutable ledger, which ensures the integrity and transparency of the transactions. Smart contracts are distinguished by their trustworthy, transparent nature. Once the contract codes are integrated into the blockchain technology, they bind the parties to the contract with obligations. However, we can consider them more as a mere tool, performing the gap-filling function. We can describe smart contracts as the evolution of traditional contracts. Currently, there are very few laws that fully regulate smart contracts, but there are norms that indicate some of their elements. For example, in the legislation of the American states of Florida, New York, Nevada, and Arizona, terms like "blockchain" and "smart contracts" are encountered.

Pros and cons of contracts using AI

Pros:

- ✓ Efficiency in saving resources like speed, time, and money.
- ✓ Automated execution of contracts.
- ✓ Clarity of obligations.
- ✓ Reduction of errors.
- ✓ Fast detection and resolution of risks.

⁴ Algorithmic contracts. 136p

Cons:

- ✓ Unpredictability.
- ✓ Data dependence.
- ✓ System failure.
- ✓ Black box issue.
- ✓ Job displacements.
- ✓ Lack of human touch.
- ✓ The problem of consent.

Conclusion:

The legal force of contracts made with algorithms should be regulated by states more rapidly. The fact that contracts are not made on paper does not imply that they are not legally binding. While legal analogies are currently being applied to these contracts, in the future, new and more flexible laws will be required to address the issues arising from these contracts. The global community is struggling to regulate technologies effectively.

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