

# *A Brief Analysis of the Legal Status of Electronic Agents in Commercial Transactions*

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**Abstract.** With the continuous advancement of technology, online transactions have gradually become the predominant mode of commerce in society. Currently, a new type of transaction facilitator has emerged in online transactions, known as electronic agents. This specialized concept and its legal definition originated in Western countries, and China has also adopted this concept. Electronic agents cannot be construed as natural persons, nor can they be fashioned as legal entities. They are merely tools capable of executing the will of individuals, albeit with some distinctions from conventional transaction tools. Establishing the legal status of electronic agents can reduce conflicts and contradictions related to online transactions in our current lives, facilitate the development of automated electronic transactions, and promote the rapid progress of our society. Currently, legislation in China in this regard remains uncharted territory, yet our lives are already enveloped by these online transactions. This has resulted in the inability to reach a unanimous resolution for many disputes involving electronic agents in our daily lives, leaving judges to resolve issues based on fundamental legislative principles or relevant legal provisions. The party employing the machine is often an organization with superior cognitive abilities compared to individuals. Therefore, we should consider electronic agents as their employees, and the actions they take should be the responsibility of legal or non-legal entities. It is essential to prioritize the protection of the weaker party as much as possible.

**Keywords:** electronic agents, legal personality, civil agency

## **1. Introduction**

The concept of electronic agents refers to a technological tool wherein programmers can set specific programs to engage in transactions with the general public and maintain electronic records. In the rapidly advancing 21st century, the pace of life has accelerated, and people are increasingly focused on efficiency. This has given rise to numerous instances of machines replacing human involvement in various transactions, significantly enhancing convenience and efficiency. Despite our lives being increasingly surrounded by these so-called electronic agents, legislation in our country remains a blank slate on this matter, resulting in many disputes that cannot be resolved. Judges are left with no option but to rely on legal principles to address these disputes. In my perspective, electronic agents involved in transactions can be viewed as employees [1], and the actions they undertake should be the responsibility of legal or non-legal entities. This is because parties employing electronic agents in

commercial transactions often possess superior cognitive abilities compared to ordinary individuals and have a greater capacity to bear risks. In the following sections, I will expound on the concept of electronic agents, their widespread applications and associated advantages and disadvantages in our country, the various disputes arising from the use of electronic agents in practice, and how to resolve them.

## 2. Nature and Characteristics of Electronic Agents

Electronic agency [2] has become a common reality in today's e-commerce landscape. As e-commerce trade volumes continue to grow, a series of legal issues arising from electronic agency have garnered global attention. The UNCITRAL has reinforced the use of the term "electronic agents" in the certificate content. While an exact definition is not provided, the concept has been established internationally. The United States, in particular, has been at the forefront of regulating electronic agency. In terms of the definition of electronic agency, the United States, in its Electronic Signatures in Global and National Commerce Act (E-Sign Act), Section 101, the Uniform Electronic Transactions Act (UETA), Section 2, and the Uniform Computer Information Transactions Act (UCITA), Section 102, provides essentially consistent provisions: "Electronic agency is a computer program or an electronic or other automated means used independently to initiate an action or respond to electronic records or performances, in whole or in part, without relying on personal scrutiny or behavior."

Because electronic agents fully embody the manifestation of the ultimate controlling party's intent and result in legal consequences for which the ultimate controlling party is responsible, they are referred to as "agents". However, they are not traditional agency representatives under civil and commercial law. Electronic agents possess the following characteristics:

- i. Electronic agents are virtual "entities" and fundamentally computer programs. They neither have independent assets nor the legal capacity to undertake obligations. Therefore, they do not have independent legal personality and are not considered natural persons or legal entities in the legal sense.
- ii. The creation and existence of electronic agents depend on the will of the ultimate controlling party, with decision-making authority residing solely with the ultimate controlling party. Given current technological conditions, electronic agents do not possess the capability to choose or refuse the ultimate controlling party.
- iii. In general, if electronic agents are lawfully and appropriately applied on relevant e-commerce websites by the ultimate controlling party, they are considered to represent the intent of the parties. There is no need for separate authorization documents to be produced. This concept is somewhat akin to apparent authority in civil and commercial law. In other words, if the counterparty logs into the relevant e-commerce website and communicates with the electronic agent, there is reason to believe that the electronic information issued by the electronic agent originates from its ultimate controlling party.

### 2.1 Common Electronic Agents in Everyday Life

We are currently living in the information age, where the pace of life across the entire nation is rapid. Slowing down even slightly might cause us to fall behind the times. Therefore, we all strive for efficiency to the best of our abilities. This is true for the majority of individuals, but for businessmen, opportunities can be fleeting. Therefore, electronic agents are of utmost importance to them. Currently, the most common electronic agents we encounter in our daily lives are automated vending machines and self-service ATMs in banks, among others [3].

### 3. Disputes Arising from the Electronic Agents

In 2006, Ting Xu went to an ATM machine at a certain bank to withdraw money. Surprisingly, for each CNY 1000 yuan withdrawal, only CNY 1 yuan was deducted from the bank card account. Ting Xu subsequently made continuous withdrawals totaling CNY 54,000 yuan. Later that evening, Ting Xu returned to his residence and informed his partner about the situation.

The two immediately went to the bank again to withdraw more money. Subsequently, after police investigation, Ting Xu made a total of 171 withdrawals amounting to CNY 175,000 yuan, while his partner withdrew CNY 18,000 yuan. Afterward, both individuals immediately left for another location to evade arrest. In November of the same year, Ting Xu and her partner were arrested and brought to justice.

In this case, the ATM machine malfunctioned, resulting in Ting Xu being charged only CNY 1 yuan for each CNY 1000 yuan withdrawal. If Ting Xu had withdrawn money through manual means at the counter and obtained the same result due to the staff's operational error, would the outcome have been different? The answer is affirmative. If it was obtained due to staff error, Ting Xu would have been deemed to have received unjust enrichment [4] and would have borne only civil legal liability, with no involvement of criminal responsibility. In such a case, does the bank not bear any responsibility for the malfunction in the ATM system it provided for public use?

In an online game, players could participate in a lottery by recharging their accounts. However, for a period of time, due to a system issue, some players noticed that the game would lag for a few moments during the lottery, and during this lag, multiple gift packages could be obtained by clicking the screen multiple times. As a result, these players took advantage of this bug to obtain multiple gift packages and then sold them. After some time, the game developers discovered the bug and took the aforementioned players to court, seeking to hold them criminally responsible. The handling of this case is likely to be similar to the outcome of the Ting Xu case.

The root cause of these disputes is the lack of clear legal status for electronic agents in China [5], as well as the absence of a perspective from commercial law on the legal status that electronic agents should hold.

#### 3.1 Resolution of Disputes Arising from Electronic Agents in Practice

As of now, China lacks specific legislation regarding electronic agency, leaving judges with significant discretionary power when handling such cases. Currently, based on various precedents, our country tends to categorize such cases as criminal matters. This has led to many individuals facing imprisonment due to issues with machines or systems, causing irreparable harm to their lives.

### 4. How to Resolve the Awkward Situation of Electronic Agents in China

#### 4.1 Accelerating Legislation

As society rapidly evolves, an increasing number of disputes arise, and legislation itself is a means to address real-life conflicts and contradictions [6], rather than making anticipatory laws for future disputes. Therefore, our country needs to expedite the legislative process to uphold social stability and order, as the legislation enacted years ago cannot adequately address the emerging new conflicts and disputes.

## 4.2 Utilizing Legislative Principles to Address Relevant Judicial Issues

Because relevant legislation requires a prescribed legal procedure, it often takes a significant amount of time. However, our society is in a constant state of flux, with conflicts and disputes occurring at all times. As people's legal awareness continues to grow, litigation becomes their primary choice for dispute resolution. As long as the relevant filing conditions are met, the courts must conduct hearings and render final judgments. At this point, the law alone may not provide enough guidance for judges' decisions. Instead, judges seek relevant legislative principles and the spirit of the law to make judgments, aiming to achieve substantive justice to the greatest extent possible.

## 5. Legal Status of Electronic Agents in China

### 5.1 Organum

Many people view the existing electronic machines as devoid of natural human consciousness and independent thinking abilities. They consider these machines merely as transactional tools used by companies, enterprises, and organizations to expand their markets.

### 5.2 Legal Personality Theory

Some argue that with the rapid development of electronic agents, they could be granted legal personality, similar to companies and enterprises. If an electronic agent were to possess legal personality, it would imply that it has full legal capacity and the ability to engage in full legal acts. In the event of a dispute occurring during a transaction with a natural person or legal entity, it would mean that the machine is independently liable. However, this notion contradicts our understanding and is practically unfeasible. Granting legal personality to electronic agents would result in significant challenges and complications [7].

## 6. Conclusion

As our era continues to evolve, the methods of electronic transactions around us are growing increasingly diverse. Along with this, disputes arising from electronic agents are also on the rise. Since our country lacks relevant legislation, but the courts cannot refuse to hear such cases on this basis, we are currently only able to conduct trials based on relevant regulations and legislative principles. When judges adjudicate such cases, the first step is to determine the legal status of the machine or software in society. However, within the academic community, there are numerous theoretical viewpoints, which can lead to inconsistent judgments for similar cases. Therefore, it is imperative to expedite legislation related to electronic agents.

## References

- [1] Chen, L. (2009). *Legal Personality Analysis of Electronic Agents*. *Journal of Mudanjiang University*, 12.
- [2] Guo, W. H. (2001). *Legal Issues in Cyberspace and Their Countermeasures*. Law Press · China.
- [3] QI, A. M., WAN, X., & ZHANG, S. H. (2000). *The Civil Law Principles of Electronic Contracts*. Wuhan University Press.
- [4] SHI, S. K. (2000). *General Principles of Civil Law*. China University of Political Science and Law Press.
- [5] WANG, Z. H. (2018). *On the Legal Personality of Electronic Agents*. *Modern Business Trade Industry*, 1.
- [6] Zhang, C. (Ed.). (2000). *Preliminary Study on E-commerce Law*. China University of Political Science and Law Press.
- [7] Li, X. Y. (2006). *Journal of China West Normal University(Philosophy & Social Sciences)*, 3, 40.