Analysis of the Legal Status of AI Serving as Directors

Yutong Xie

University of Bristol, Bristol, BS8 1RJ, United Kingdom

Abstract: With the continuous upgrading of artificial intelligence technology, an increasing number of enterprises are applying artificial intelligence systems in corporate governance. However, the current Company Law of China has not yet made clear provisions on the legal subject status of AI as-Director. This article takes the practical situation of industrial intelligence as the entry point, analyzes its legal status from multiple perspectives, sorts out various viewpoints in the academic circle, and finally proposes solutions. The involvement of artificial intelligence in corporate governance is an inevitable trend in the digital economy era, but it currently does not have the qualification of a formal director. However, with technological iteration and institutional improvement, artificial intelligence is expected to become the "third type of subject" in the field of company law, promoting the innovation of legal personality theory and the dynamic balance between technology and law.

Keywords: AI as-Director; Legal Status; Legal Personality; Corporate Governance

1. The Advantages of Artificial Intelligence's Involvement in Corporate Governance

In 2014, the British company Aging Analytic developed the artificial intelligence system Validating Investment Tool for Advancing Life Sciences (hereinafter referred to as VITAL). It also authorized Hong Kong China venture capital firm Deep Knowledge Ventures (hereinafter referred to as DKV) to use it for investment decisions. This system has been called "the world's first robot company director" by some media. As a member of the DKV Investment Committee, the main function of VITAL is to analyze data and thereby evaluate investment projects in areas such as anti-aging medicine and anti-cancer treatment. However, due to the company law of Hong Kong China at that time, it was unable to obtain the formal qualification of a director. Theoretically speaking, although it can participate in the voting process related to investment, in practical operation, it does not have the same voting rights as human committee member. Moreover, within DKV, it is more inclined to position it as an "observer" of the board of directors, merely providing auxiliary support for decision-making and not possessing substantive decision-making right [1].

After analyzing the legal status of VITAL, scholars have reached a basic consensus: as a weak artificial intelligence, VITAL's core value lies in enhancing data processing efficiency and reducing information asymmetry. However, it lacks independent consciousness and autonomous will, with its decision-making entirely dependent on preset algorithms and data input by humans. Therefore, it can only function as an "auxiliary decision-making tool" and cannot obtain formal director qualifications. Additionally, VITAL is unable to replace humans in making value judgments involving social responsibility considerations and ethical trade-offs, and final investment decisions still require confirmation by natural person directors. Despite this, VITAL's emergence directly highlights a legal gap in corporate law: whether non-natural persons can serve as directors[2].

2. The Definition of AI as-Director

2.1 Analysis of the Limitations of the Legal Status of Traditional Legal Subjects

Legal subject is a main theory in legal area, which is an important concept for legal abstraction of human nature. It not only corresponds to individuals in the real world, but also profoundly carries human dignity and personality values. Traditional jurisprudence clearly defines that a legal subject specifically refers to the entity that enjoys rights and assumes obligations within the legal system. Its core elements are having self-awareness and free will, as well as distinct social attributes. Natural persons are typical legal subjects, while non-natural person subjects such as legal persons are the types that obtain subject qualifications

through legal formulation [3].

At present, artificial intelligence has not yet developed self-awareness and free will, and does not meet the main requirements of a legal subject. However, it has the dual attributes of an "intelligent agent" and a "tool", and has already posed a threat to the traditional legal system. If in the future, strong artificial intelligence can independently set goals, plan behavioral paths, and its decision-making results are not subject to human intervention, possess independent value judgment capabilities, and do not rely on humans or legal persons as carriers of responsibility, whether it needs to be granted legal subject status is an important issue that urgently needs to be studied in advance and prepared for [4].

2.2 Differentiating Characteristics between AI as-Director and Natural Person Directors

Under the framework of traditional company law, the setting of directors' rights and obligations is based on the core premise of "human subjectivity", and the elements of it include self-awareness, rational ability and moral responsibility. Therefore, directors must be natural persons or legal entities with legal personality. From a philosophical perspective, the German Enlightenment philosopher Kant pointed out that reason is the most essential distinction between human beings and things. Only rational beings can be regarded as "the end itself", while irrational causes lack rational nature and only have instrumental value. They cannot become subjects with personality and do not have moral status. Kant's anthropocentrism theory clearly demarcates the boundary between human beings and non-human beings: those who exist according to the will of nature and are irrational are called "things", and those who are rational are called "human beings". This theory not only provides a solid support for the legal subject qualification of natural persons as directors, but also fundamentally indicates that artificial intelligence lacking rationality and personality cannot become a qualified legal subject [5].

China's Company Law is also based on this logic, clearly requiring natural person directors to rely on their own experience and rational judgment in decision-making, fulfill their duties of loyalty and diligence, and bear corresponding legal responsibilities if damage is caused due to fault. The premise of this accountability mechanism is that natural persons inherently possess complete subjectivity and full legal personality. The decision-making logic of AI as-Director is fundamentally different from that of natural person directors. Their behavioral essence is an algorithm-driven process of solving closed scenarios. They are unable to set goals independently or carry out creative practices, nor do they possess independent rational judgment and moral responsibility assumption capabilities. This is also one of the essential differences between an AI as-Director and a natural person director [6].

2.3 Feasibility of Electronic Personality of AI as-Director

The electronic personality of AI as-Director requires support from three aspects: law, technology and practice.

China's Company Law does not prohibit non-natural persons from serving as directors, which reserves institutional space for the electronic personality of artificial intelligence. At present, the academic research on the legal personality of directors of artificial intelligence mainly forms three viewpoints: The first view is a definite conclusion (also known as the "tool theory"). Scholars who hold this view believe that artificial intelligence is essentially a technical tool, essentially an agent of software, lacking independent will and moral capacity, and should be excluded from the category of legal subjects [7]. The second viewpoint is the affirmative view. Scholars who support this theory propose that the relationship between artificial intelligence and all parties and users is a legal agency relationship, and the agent is responsible for the actions of the principal. At the same time, one, as an agent, should have the capacity for conduct and thus possess the status of a legal subject [8]. Therefore, this theory has given rise to the electronic personality theory and the virtual personality theory, attempting to further endow artificial intelligence with the status of a legal subject in practice. The third theory is the compromise theory (also known as the "limited legal personality theory"). Scholars hold that artificial intelligence possesses legal personality, but its status is slightly inferior to that of natural persons. When formulating the capacity for rights of artificial intelligence, some reservations should be made regarding its capacity for rights.

Based on the above theoretical analysis, the

author believes that the electronic personality of artificial intelligence directors in corporate governance is feasible [9]. Although at this stage, the behavior of AI as-Director is still governed by preset algorithmic programs and they do not possess the unique autonomous consciousness and rational decision-making ability of humans, and are unable to independently exercise rights or fulfill obligations, they can be placed in an auxiliary position to perform specific functions on behalf of humans. At the same time, fully considering the potential transformation of the rapid development of artificial intelligence technology, especially the possibility of it forming a higher degree of autonomous decision-making ability through deep learning in the future, a dynamic subject qualification recognition system can be established [10]. By constructing a dual assessment model of "technology maturity-decision-making autonomy", the subject qualifications of artificial intelligence serving as directors can be confirmed at different stages. That may create a third type of subject qualification with specific rights and obligations through legal drafting techniques, and further establish its subject status at the practical level [11].

In terms of technology and practice, the underlying technologies that support directors of AI in establishing electronic personas are already in place. Currently, evidence is mainly preserved through block-chain technology, and the decision-making algorithms of AI are utilized to optimize and ensure the autonomy and traceability of the electronic personas. However, this still cannot bridge the personality gap between AI and natural persons. Take the death case of an Uber self-driving test vehicle that occurred in Tempe, Arizona, USA on March 18, 2018 as an example [12]. Although the US judicial department made a decision not to prosecute Uber after investigation, But Rafaela Vasquez, the vehicle safety supervisor, has been charged with "criminal negligence resulting in death". The case details show that the system of Uber's self-driving test vehicle had identified a pedestrian target 5.6 seconds before the collision but mistakenly classified it as a motor vehicle. Within the following 5.2 seconds, the system was wrongly classified as "Other" again, identifying the dynamic target as a static obstacle, resulting in the failure of the risk assessment. Subsequently, the system repeatedly switched between "car" and "others", causing logical confusion in the decision-making system and ultimately leading to the failure of the braking command generation mechanism [13]. This reflects the algorithmic rigidity problem of artificial intelligence systems: the system relies on preset logic and lacks the ability to understand scenarios, which is why it misjudges the types of pedestrians and the algorithm is set to prioritize passenger comfort and disable emergency braking, ignoring the lives of pedestrians, which highlights the mechanical nature of its ethical decision-making [15].

3. The Current Plan for Granting Legal Personality to AI as-Director

3.1 Refine the Applicable Scenarios of AI as-Director

The legal basis for the electronic personality determination of AI as-Director cannot rely solely on theoretical deduction; it is also necessary to comprehensively consider its specific application scenarios and the value of social functions. At present, the more feasible approach is to focus on areas of adaptability and low risk, giving priority to piloting AI as-Director in fields with high standardization, low ethical disputes, and strong compliance requirements, and prioritizing the data processing advantages of AI. For instance, the VITAL of DKV Company applies investment due diligence in the life science field. By analyzing historical data, it reveals investment trends and assists in approving investment decisions. It does not involve the formulation of main strategies and avoids excessive investment in overvalued projects. This is precisely a typical practice of standardized decision-making [15].

3.2 Establish Common Technical Standards for AI as-Director

If AI as-Director are to obtain legal personality, their decision-making algorithms must meet verifiable requirements. They can refer to the "algorithmic-protocol Equivalence principle" to ensure that the algorithmic decision-making process corresponds to specific rules and data input, and to ensure that their performance standards are aligned with those of human directors, thereby solving the problem of responsibility definition brought about by the "algorithmic black box". In addition, the technology of AI as-Director should incorporate compliance bottom lines and ethical guidelines,

establish an algorithmic bias detection mechanism, and reduce discriminatory decisions through data screening, model optimization and other means to ensure that its decisions comply with industry ethical norms and legal provisions, and avoid legal disputes caused by technical flaws.

3.3 Gradually Improve the Legal System

The improvement of the legal system requires time and practice. At present, the traditional object status of AI as-Director can be maintained based on their auxiliary functions in corporate decision-making. AI can be allowed to indirectly participate in governance through the path of "corporate director + algorithmic control", and regulation can be carried out by improving the interpretability of algorithms and other supporting systems. For the strong artificial intelligence that may emerge in the future and possess deep learning capabilities and autonomous decision-making systems, the theory of corporate personality formulation can be drawn upon to endow it with a legal personality subject to certain conditions. Through the assessment of technological maturity and social risks, its legal status can be flexibly defined. Once the practice becomes mature, the independent legal personality can be clearly defined, and the relevant systems can be gradually improved.

4. Conclusion

The involvement of artificial intelligence in corporate governance is an inevitable trend in the digital economy era. The emergence of AI as-Director not only breaks the traditional company law's fixed understanding of governance subjects but also provides new possibilities for improving corporate decision-making efficiency and optimizing governance structures. The dispute over the legal status of AI as-Director is essentially a collision between technological innovation and the lag of law. With the continuous iteration of technology and the constant improvement of systems, AI as-Director may become an important exploration of the "third type of subject" in the field of company law, not only promoting the intelligent and efficient development of corporate governance, but also injecting new contemporary meaning into the development of legal personality theory.

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