



THE BREAKTHROUGH OF PHILOSOPHY OF MIND IN THE CONSTRUCTION OF ARTIFICIAL INTELLIGENCE CONCEPTS IN MARXIST PHILOSOPHY



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Abstract: In the context of contemporary technology, artificial intelligence has become the focus of thinking and dialectics, reaching boundaries beyond the dimensions of technology and directly to the core of human existence and consciousness. Philosophy of mind, as an ancient and profound way of thinking, has encountered many obstacles in the construction of artificial intelligence concepts. Marxist philosophy emphasizes the determinism of matter and mode of production. From the perspective of Marxist philosophy, this study compares and analyzes the theoretical differences and complementarities between it and traditional philosophy of the mind, with the aim of providing a new perspective for the construction of artificial intelligence concepts and enriching their connotations. The study first conducts a conceptual analysis of Marxist philosophy and, then, proposes a supplement and transcendence of Marxist philosophy to the philosophy of mind based on the construction of artificial intelligence concepts. The research finds that a philosophical dialogue has been formed between artificial intelligence and historical materialism, which not only reveals how to understand artificial intelligence from the historical dimension, but also provides valuable philosophical guidance for people in this era full of opportunities and challenges. In the process of technological evolution, people must adhere to the bottom line of humanistic spirit and ensure that technology always serves the human beings' comprehensive, free and balanced growth. In addition, in order to ensure that artificial intelligence technology truly serves the common well-being of mankind, people also need to constantly reflect on, adjust and improve the development and application of technology, and jointly promote social progress.

Keywords: Marxist Philosophy. Artificial Intelligence. Philosophy of Mind. Conceptual Construction. Connotation. Social practice.

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WU, Xinying; ZHAO, Ying. O avanço da filosofia da mente na construção de conceitos de inteligência artificial na filosofia marxista. *Transformação: revista de filosofia da Unesp, Marília*, v. 47, n. 6, e02400332, 2024.

Resumo: No contexto da tecnologia contemporânea, a inteligência artificial tornou-se o foco do pensamento e da dialética, ultrapassando as fronteiras das dimensões da tecnologia e chegando diretamente ao âmago da existência e da consciência humanas. A filosofia da mente, como forma antiga e profunda de pensar, tem encontrado muitos obstáculos na construção de conceitos de inteligência artificial. A filosofia marxista enfatiza o determinismo da matéria e do modo de produção. A partir da perspectiva da filosofia marxista, este estudo compara e analisa as diferenças e complementaridades teóricas entre esta e a filosofia tradicional da mente, com o objetivo de fornecer uma nova perspectiva para a construção de conceitos de inteligência artificial e enriquecer as suas conotações. O estudo começa por fazer uma análise conceitual da filosofia marxista e, em seguida, propõe um complemento e uma transcendência da filosofia marxista para a filosofia da mente, com base na construção de conceitos de inteligência artificial. A investigação tem como objetivo revelar os conhecimentos únicos e profundos da filosofia marxista, na compreensão da inteligência artificial e da relação entre a inteligência artificial e o ser humano.

Palavras-chave: Filosofia Marxista. Inteligência artificial. Filosofia da mente. Construção conceitual. Conotação.

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INTRODUCTION

As a modern philosophy that emerged independently in the second half of the 20th century, philosophy of the mind is regarded as one of the most important branches of contemporary philosophy. Philosophy of mind has become an important branch in part because of human curiosity about the nature of the mind: what can our mind know? What is the structure of the mind? What influence can the mind have on our behavior? The philosophy of mind has been systematically studied since the 17th century, when Descartes

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defined the mind as “[...] all that we are conscious of operating within us” (Alanen, 2009, p. 8); John Locke (1975, p. 24) put it a little differently: “I do not say that man has no soul, because he does not feel it in his sleep”. With the continuous progress of the technological era, human society stands at a historic intersection. Every technological revolution not only changes the way of production and life, but also delves deeper into the foundation of human nature, perception and consciousness, prompting people to rethink their own positioning and significance of existence (Calvente, 2022, p. 19). Especially in the 21st century, the rise of artificial intelligence has once again become a focal point for philosophy and reflection, prompting people to once again face the essence of themselves and seek their place in human history and philosophical narrative. The traditional philosophy of mind has always been committed to delving into the mysteries of human heart, seeking the origin and essence of consciousness and existence from various perspectives, and attempting to explain how human consciousness, thinking and free will are interrelated with material life and biological evolution. However, with the rapid development of artificial intelligence technology, traditional spiritual philosophy is facing unprecedented challenges. Can machines possess consciousness similar to humans? Can they think independently, create or even possess emotions? These issues not only touch the boundaries of technology, but also further challenge the basic understanding of “intelligence” and “consciousness”. Although there is a certain gap between Marxist philosophy and contemporary one in historical periods, due to its practicality and openness, it still exhibits distinct characteristics of the times and sustained vitality, intertwined with modern philosophical trends in multiple fields (Sasan, 2022, p. 6).

The main purpose of the research is to explore the theory of artificial intelligence concept construction in the philosophy of mind from the perspective of Marxist philosophy to supplement and surpass, and realize the harmonious symbiosis between human and machine. According to the research purpose, the basic theoretical framework has been formed. In the outline of Marxist philosophy, it is mentioned that Marxist philosophy emphasizes that matter determines consciousness, and practice is the only criterion for testing truth and the regularity of the human society’s historical development. These principles provide a unique perspective for understanding artificial intelligence, that is, as a product of human social practice, its nature and development are constrained by the society’s material production conditions. The intersection of artificial intelligence and philosophy of mind refers to the fact that philosophy of mind focuses on the nature of subjective experiences, such as consciousness and free will, while the development of artificial intelligence attempts to simulate or even surpass these subjective abilities. The two have overlaps in the nature of consciousness, decision-making mechanism and autonomy. As a supplement to the philosophy of mind, Marxist philosophy holds that social circles and nature are interrelated and interacting unity. As a product of nature’s human transformation, the development of artificial intelligence is closely related to the changes of natural environment and social structure.

Under the framework of Marxism, the relationship between man and machine is examined in the broader social production relations, emphasizing human-machine collaboration rather than simple substitution or opposition. Marxism emphasizes the decisive role of practice in understanding and transforming the world, and every breakthrough in artificial intelligence technology is the result of practical activities in human society, reflecting the changes in social productive forces and production relations. In the transcendence of Marxist philosophy to philosophy of mind, it is mentioned that Marxism uses the principle of historical materialism to analyze the development of artificial intelligence technology, reveal the social and historical motivations behind it, and predict its impact on social structure, mode of production and even human development. Unlike philosophy of mind, Marxism not only focuses on the technical aspects of artificial intelligence, but also focuses on how it promotes the people's overall development, including skills improvement, thinking expansion and social relationship optimization. In the view of Marxism, the development of artificial intelligence technology is one of the important tools to realize the communist ideal, which helps to eliminate labor alienation, promote common prosperity, and ultimately realize the human beings' free and comprehensive development. Marxism also emphasizes the role of cultural factors in the development of AI, including values, ethics, social customs, etc., which will influence the design, application and social impact of AI.

1 OVERVIEW OF MARXIST PHILOSOPHICAL THOUGHT

1.1 OVERVIEW OF MATERIALISM AND ARTIFICIAL INTELLIGENCE

Marxist philosophy is a comprehensive worldview and methodology that advocates the objective existence of the material world and holds that human social existence determines human consciousness (Turenko, 2022, p. 11). It attaches importance to the central position of practice in the process of cognition, and believes that human beings can change their living conditions through practice. Marxist materialism insists on the material world's objective existence, believing that matter still exists even in the absence of human consciousness. This is in stark contrast to the idealistic view that consciousness or spirit is the basis of reality. For Marxism, practice plays a central role in the process of cognition. People acquire knowledge about the world through practical activities with the material world. Practice provides us with the standard to test the correctness of our knowledge, and it is also the source of deepening knowledge. In the relationship between matter and consciousness, although Marxism emphasizes the leading role of matter, it does not regard consciousness as a simple reflection of matter. Consciousness arises on a material basis, especially under specific production relations and conditions of life. Therefore, consciousness is both relatively independent and closely related to the material world.

In Marx's view, material production is the origin and true foundation of history, and the transformation of the mode of production will greatly change the way of human existence. More importantly, the capitalist mode of production, in the process of replacing the feudal mode of production, promoting the development of productive forces and establishing human subjectivity, has gradually exposed the irreconcilable internal contradictions existing in capitalist society and the inevitability of its transition to a higher communist social form. In the same way, the main threat of artificial intelligence to humanity today does not come from intelligent machines themselves, but from the way they are applied. Based on the above considerations, in order to scientifically explore the possible multi-faceted impact of artificial intelligence on the human society's development prospects, we must go beyond positivism and analyze the major changes brought by technology to the way of human existence and the human society's development prospects based on historical materialism.

1.2 THE ESSENCE OF CONSCIOUSNESS

1.2.1 AN ANALYSIS OF SUBCONSCIOUS CONNOTATION FROM THE PERSPECTIVE OF NEUROSCIENCE AND PHILOSOPHY

Consciousness is often described as the perception and cognition of oneself and the surrounding environment. But in fact, consciousness, as a function and attribute of the human brain, is much more complex than this simple description. Based on the perspective of neuroscience, consciousness is not only a product of a single brain region, but also the result of complex network interactions among multiple brain regions. The global workspace theory suggests that consciousness is the interaction among various specialized information processing regions of the brain. However, certain specific regions of the human brain, especially the prefrontal lobe and thalamus, play a central role in consciousness formation. These areas are closely related to information processing, decision-making and advanced cognitive functions.

Contemporary neuroscience has revealed how the brain determines behavior through neural cells and circuits. Data shows that the adult brain contains approximately 100 billion neurons, including approximately 30 billion neurons and 1000 trillion synapses in the cerebral cortex. These synapses intersect extensively, forming countless synaptic connections, and these biological forms are closely related to the function of the brain. In order to delve deeper into the essence of consciousness, biochemist Edelman described three key brain structures. The first is the thalamic cortical system, which is a large three-dimensional network formed between the thalamus and the cortex through the integration of cortical neuronal fibers. This structure has functional zoning in space. The second key brain structure is a unidirectional parallel multi-synaptic neuronal circuit that connects the cerebral cortex and its affiliated structures. The core function of this structure is to ensure various isolated

complex movements, ensuring speed and accuracy during task execution. The third key brain structure is the diffuse nerves that radiate outward, which enables neurotransmitters to project to other regions in the event of a sudden event, thereby affecting neural activity.

From a philosophical perspective, consciousness is not just a neurobiological phenomenon, but a deep philosophical issue involving existence, perception and individual experience. Consciousness is understood as an individual's first-person experience of the external world, which is a comprehensive embodiment of individual perception, thinking and understanding. The experience is unique, private, and its depth and richness cannot be fully captured by any objective means. Second, consciousness enables individuals to engage in self-reflection, a self-reflection function known as "metacognition," which enables people not only to passively receive information, but also to actively evaluate the behavior. In addition, the attributes of consciousness include continuity and subjectivity. Continuity implies that consciousness is a fluid, continuous experience, while subjectivity emphasizes that the experience of consciousness is not transferable and cannot be fully understood or replicated by others. The philosophical exploration of consciousness is still one of the core issues in philosophy.

1.2.2 THE REACTIVE EFFECT OF CONSCIOUSNESS ON THE MATERIAL WORLD

In Marxist philosophy, the exploration of the essence of consciousness mainly includes the relationship between consciousness and matter, the sociality of consciousness, and the emergence and development of consciousness. The explanation for the dialectical relationship between consciousness and matter is that consciousness is a reflection of the objective material world. However, this 'reflection' is not mechanical or passive, but rather an understanding of the material world obtained through people's labor practice activities. Therefore, consciousness is not just a mirror of matter, but a result of subjective processing and interpretation by humans. On the other hand, the sociality of consciousness is formed in people's relationships with the external world under specific social and historical conditions. This means that consciousness always carries specific class, cultural and historical colors.

In the generation of consciousness, Marxist philosophy particularly emphasizes the decisive role of practice. Practice is not only the source of consciousness, but also the only criterion for testing the correctness of consciousness. And how does consciousness manifest? In Marxist philosophy, language is an important carrier of consciousness, through which people express, transmit and exchange ideas. But language is not just an external manifestation of consciousness, it also shapes people's ways of thinking. Different cultural and linguistic backgrounds may lead to different worldviews and thinking patterns. From the perspective of Marxist philosophy, the relationship between consciousness and matter is dynamic and bidirectional. Human social existence determines social consciousness, but, at

the same time, people can change their material environment through their own practical activities. This viewpoint is clearly elaborated in “German Ideology”, which mentions that people are not only products of history, but also creators of history (Hîncu, 2022, p. 24). Consciousness, especially collective consciousness, such as consciousness forms, culture and social beliefs, can stimulate group action and promote social change. This change is not only a change in material production methods, but also involves social structure and interpersonal relationships. In this process, people’s practical activities constantly have an impact on their social existence, forming a continuous cycle process. Therefore, Marxist philosophy not only sees the side where consciousness is determined by material life, but also sees the dynamic and transformative role of consciousness in material life. This understanding of the relationship between material and consciousness provides Marxism with its revolutionary theoretical foundation, emphasizing the people’s subjectivity and the possibility of revolutionary change.

Marx believes that human subjectivity is formed in practice, and can be confirmed and strengthened in practice (Burawoy, 2022, p. 118). Artificial intelligence cannot acquire the same subjectivity as human beings, and its behavior is not practical. Because the subject nature is to have the freedom to make choices and behaviors, practice is planned and purpose, and artificial intelligence can only act within the scope of established rules. Without free will, it cannot become a real subject. Moreover, Marx also believes that “the essence of man is not an abstract object inherent in a single person, but in its reality, it is the sum of all social relations”, and artificial intelligence cannot experience meaning in its actions, so as to obtain certain social attributes and form some social relations.

2 THE INTERSECTION OF ARTIFICIAL INTELLIGENCE AND PHILOSOPHY OF MIND

2.1 THE BASIC CONCEPTS OF PHILOSOPHY OF MIND

Philosophy of mind is also known as spiritual philosophy. Philosophy of mind studies philosophical issues related to the essence, origin and function of the mind. The core issues it explores revolve around consciousness, individuality, free will, emotions, thinking, perception, and other mental processes and states (Hübner, 2022).

Philosophers from ancient Greece, such as Plato and Aristotle, to modern thinkers, such as Dennis and Chermisky, have always been exploring the essence of the mind. Plato believed that the mind is immortal, while Aristotle believed that the mind has physical power. Modern philosophy, on the other hand, focuses more on whether the mind is equivalent to brain processes, or whether there are some intangible entities. In philosophy of mind, there are specialized classifications for this, namely dualism and monism. Descartes’ dualist stance emphasizes that the mind and body are two distinct entities; Spinoza’s dualism holds that consciousness and body are like the front and back of a coin, with physical properties

on one side and spiritual properties on the other. Monism can be explored from two main schools: materialism and idealism. Materialist monism is based on materialism, which holds that all phenomena are the material world's products. This view sees the mind and the brain as inseparable, and suggests that human mental activity is related to biochemical and neural responses. With advances in neuroscience and biology in recent years, this view has gained further support. Idealist monism is different, arguing that the material world is an external manifestation of the mind or consciousness. Reality is a structure made up of people's minds, and the material world is only one aspect or level of this structure. From this perspective, consciousness is dominant and matter is secondary. Although there are obvious differences between the two monistic views, they both attempt to provide a closer explanation of the relationship between mind and matter.

2.2 THE PROBLEM OF “CONSCIOUSNESS” IN ARTIFICIAL INTELLIGENCE

In the field of artificial intelligence, the discussion of ‘consciousness’ has become a key and controversial issue. In the context of philosophy of mind, the issue of “consciousness” in artificial intelligence has sparked deeper philosophical exploration. If artificial intelligence is a pure collection of algorithms and code, can it really have consciousness similar to humans? Or is artificial intelligence consciousness just a byproduct of its computing power, far from the complexity and depth of human consciousness? Contemporary spiritual philosopher Charles pointed out that the issue of consciousness is the most challenging among all psychological phenomena. Meanwhile, although contemporary computer and cognitive neuroscientists have been able to interpret the activities of the human brain at the neuronal level, little is known about the true essence of consciousness. This indicates that both in the field of philosophy and science, the issue of consciousness is considered the most challenging problem. Generally speaking, research tends to start with simple problems and gradually delve deeper.

Compared to the core issue of consciousness, the daily usage of ‘consciousness’ should be easier to understand. In conventional contexts, ‘consciousness’ refers to people's conscious state of perception and is often used interchangeably with adjective forms, such as ‘conscious’ or ‘unconscious’. This word is related to a certain psychological activity, mainly related to the basic response to external stimuli. But as we delve deeper into its true meaning, the problem becomes much more complex. In the field of spiritual philosophy, the interpretation of consciousness phenomena is still highly controversial. Although many theories have been proposed around this concept, there is no single theory that can uniformly and convincingly explain consciousness (Kasirzadeh, 2022). The core challenge lies in the fact that consciousness is the most central and complex phenomenon in the soul, and directly connects people with the outside world and their own relationships, marking the humanity's special position in the universe. Currently, philosophers are striving to reveal the physical,

neural, cognitive and representational characteristics of consciousness, but most theories adopt a reductionist approach, attempting to simplify consciousness into observable or inferential logical activities. Although this helps to understand some aspects of consciousness, these theories often do not view consciousness as a dynamic process involving the interaction between the conscious subject and the object.

2.3 THE BOUNDARY BETWEEN ARTIFICIAL INTELLIGENCE AND SELF-AWARENESS

In the discussion of the boundary between artificial intelligence and self-awareness, it is first necessary to recognize the fundamental difference between the two. Human self-awareness, as a product of biological evolution, involves multidimensional identification, such as identity, autonomy and emotions. It is not only about understanding the external environment, but also involves in-depth thinking about the positioning and significance of oneself (Mabaquiao, 2022). And artificial intelligence, despite its ability to calculate and process information constantly approaching or even surpassing humans in some aspects, lacks this deep and innate inner perception of self-existence. The ‘cognition’ of artificial intelligence is more based on algorithms and data, rather than emotions and experiences. From the current research results in the field of artificial intelligence, it can be seen that the self-awareness of machines is not formed overnight, but rather a gradual process. Starting from the development of the first single intelligent robot capable of completing a certain setting, researchers are committed to enabling robots to complete more complex tasks. Taking autonomous driving technology as an example, current technology has supported cars to independently complete driving tasks, choose routes and easily respond to emergency situations. But in fact, this does not mean that these vehicles have a similar self-awareness to humans (Pitts, 2020, p. 35). The core issue regarding whether a machine possesses true self-awareness remains its unsupervised learning ability. Unsupervised learning allows machines to independently learn and execute tasks beyond given instructions. This behavior that goes beyond setting tasks may be misunderstood as the self-awareness of machine. However, deep learning or other advanced artificial intelligence technologies, even if capable of completing complex tasks, are not equivalent to true consciousness or self-awareness (Castro, 2021). In fact, machine learning is simply the interpretation and operation of specific tasks based on artificially designed algorithms and data. This does not involve real self-awareness activities. At the same time, artificial intelligence is still unable to experience emotions, desires, or pain, which are key elements that constitute human self-awareness.

However, with the advancement of artificial intelligence technology, we have seen some artificial intelligence systems exhibit similar “cognitive” abilities to humans in certain specific tasks. This raises the question of whether artificial intelligence can, or it will be able to develop consciousness or self-awareness similar to humans in the future. This issue is not only

related to technology and science, but also a profound philosophical issue. Because it involves the essence of consciousness and how we define and understand consciousness. Returning to the Marxist perspective once again, even if artificial intelligence develops a consciousness similar to human consciousness on a certain day, its consciousness will still be closely connected to its “social” and “material” environment, that is, its design, programming and operating environment (Krishnappa, 2020). This means that the consciousness of artificial intelligence will be closely linked to its specific functions and purposes, rather than being innate and linked to historical and social backgrounds like humans. Therefore, although artificial intelligence may simulate features similar to self-awareness in technology, there is still a clear boundary between it and human self-awareness from a philosophical and moral perspective.

3 THE SUPPLEMENT OF MARXIST PHILOSOPHY TO PHILOSOPHY OF MIND

3.1 THE SOCIAL REALM AND NATURE IN MARXIST PHILOSOPHY

Philosophy of mind focuses on the individual’s internal experiences, perceptions, emotions and consciousness. It explores how to understand human subjective experiences and their relationship with the external world. Based on the philosophy of the mind, it has always been impossible to comprehensively and completely construct the concept of artificial intelligence. Marxist philosophy advocates that human consciousness and thinking are not generated from the air, but are formed under certain social and economic conditions. Consciousness is seen as the superstructure of social existence, which is based on material productivity and production relations (Gaiseanu, 2021). In other words, people’s thoughts, beliefs, culture and political views are shaped by the material conditions in which they live. Therefore, from the definitions of nature and society, it can provide a supplement for the construction of artificial intelligence concepts. Marx believed that nature is an objective entity that exists independently of human consciousness. This objective materialistic understanding of nature reveals a core viewpoint that humans are not the nature’s masters, but rather a part of it. This understanding of nature enables humans to humbly position themselves within nature, while also providing a more harmonious and sustainable paradigm for the relationship between humans and nature.

Compared to the nature’s objective existence, the social sphere is more complex. It is constructed based on the interaction between humans and nature, as well as the relationships among humans. In this process, productivity and production relations are two core concepts. Productivity reflects the relationship between humans and nature, and is the way humans interact with nature to meet basic needs. And production relations reflect the mutual relationships among people in the production process. The dynamic interaction between these two forms the society’s basic structure and has a profound impact on ideology, culture and

politics. When research shifts this perspective to artificial intelligence, artificial intelligence is both a product of natural science and technological progress, reflecting humanity's in-depth research and mastery of natural laws. At the same time, it is also a product of the human society's development and an inevitable outcome in the process of modern industrialization and informatization. In the social dimension, artificial intelligence is seen as a new stage of productivity development, heralding potential revolutionary changes in production relations and methods. Automation and intelligence may redefine the relationship between labor and capital, triggering profound changes in fields, such as employment, education and social welfare. By delving deeper into the natural and social realms of Marxist philosophy, a more comprehensive understanding of the origin and essence of artificial intelligence can be gained, foreseeing its potential profound impact in future society.

3.2 THE RELATIONSHIP BETWEEN HUMANS AND MACHINES

From the perspective of Marxist philosophy, the relationship between humans and machines is not just an interaction at the level of technology or tools, but deeply involves productivity and production relations, as well as related economic, social and cultural changes. Since the Industrial Revolution, machines, as symbols of productivity, have profoundly changed human society. Marx believed that the emergence of tools and machines not only expanded human production capacity, but also changed the relationship between humans and nature, and even among humans. In modern times, artificial intelligence, as a highly developed 'machine', once again challenges the understanding of this relationship. Artificial intelligence is no longer just a tool. It has the ability to learn, adapt and, to some extent, make independent decisions. This makes the relationship between humans and artificial intelligence more complex. Unlike traditional machines that only rely on human muscle power, artificial intelligence amplifies human thinking abilities in areas, such as information processing and decision support. Therefore, the interaction between humans and artificial intelligence is no longer simply controlled, but a composite relationship of cooperation and competition, complementarity and replacement. From a philosophical perspective, the relationship between humans and artificial intelligence touches upon fundamental issues, such as the meaning of existence, human autonomy and free will, and whether machines may have consciousness and emotions similar to humans. Under the framework of Marxism, this relationship also involves how artificial intelligence affects social structure and production relations as a new productive force, as well as the economic and social inequality issues it may bring.

The future is not only about how to improve artificial intelligence technically, but more importantly, how to rethink and position the relationship between humans and artificial intelligence at the philosophical, ethical and social levels, ensuring that this relationship is more harmonious, balanced and sustainable. In recent years, China's attention

to the ethics of artificial intelligence has also risen to the national level. The Notice of The State Council on the issuance of a New Generation of Artificial Intelligence Development Plan puts forward relevant plans for artificial intelligence ethics, pointing out that, by 2020, artificial intelligence ethics norms and policies and regulations, in some fields, will be initially established. In China, many enterprises are also actively participating in the discussion, such as Baidu Enterprise, based on Marxist philosophy proposed, which involves four principles of artificial intelligence ethics, including the highest principle of artificial intelligence is safe and controllable. Innovation vision is to promote human access to technology and ability more equal. Existential value is to teach people to learn and let people grow, rather than beyond them and replace them. The ultimate ideal is to bring more freedom and possibility to mankind. Tencent enterprises put forward the concept of “available, reliable, knowable and controllable”, advocating the good of science and technology.

3.3 SOCIAL PRACTICE AND THE DEVELOPMENT OF ARTIFICIAL INTELLIGENCE

In Marxist philosophy, social practice is regarded as the starting point and destination of human understanding, emphasizing that, in the process of changing the external world through practice, humans are constantly recognizing and changing themselves. The core idea of this practice provides a unique perspective for us to delve into the relationship between social practice and the development of artificial intelligence. As a technological revolution, the development and application of artificial intelligence are undoubtedly a part of contemporary social practice. But this is not just a matter of technological progress, but also a comprehensive phenomenon closely related to various factors, such as social production methods, economic structure and cultural values.

In the perspective of Marxist philosophy, technology is not isolated from social practice, but interacts and influences with social practice. The development of artificial intelligence is not only the result of technological logic, but also a reflection of various contradictions and needs in social practice. Secondly, the wide application of artificial intelligence is profoundly changing the traditional form of social practice. During the pandemic, for example, AI-enabled remote services became an important part of social work. Technologies, such as video counseling and smart voice assistants, help social workers cross geographical barriers to provide immediate support to clients in remote areas or with limited mobility. The application of artificial intelligence in healthcare has enabled people to gain a deeper understanding of their own health, resulting in a more nuanced understanding of the state of mind and consciousness. In addition, social practice also provides guidance and constraints for the development of artificial intelligence. In Marxist philosophy, people’s

practical activities are always aimed at satisfying people's actual needs. Through big data analysis, artificial intelligence technology can identify the trend of service demand, predict the possibility of social problems and help social workers carry out precise intervention. For example, by analyzing historical data with machine learning algorithms, it is possible to predict areas where juvenile crime is rising, so that preventive measures can be deployed in advance. It can be seen that, in the field of education, artificial intelligence can provide personalized education resources and guidance, which can help students better understand their own learning needs and abilities, so as to have a clearer understanding of self-cognition and mental state. At the same time, as part of social practice, the development of artificial intelligence is also constrained by social norms, such as law, ethics and culture. For example, when AI processes sensitive personal information, it must do so with the user's informed consent and ensure that the data is stored encrypted.

4 THE TRANSCENDENCE OF MARXIST PHILOSOPHY OVER PHILOSOPHY OF MIND

4.1 ARTIFICIAL INTELLIGENCE AND HISTORICAL MATERIALISM

Historical materialism occupies an extremely important position in the core concept of Marxist philosophy. It advocates that the development of history is determined by the mode of material production, rather than by people's thoughts or consciousness. When studying the combination of this concept with artificial intelligence, it will be found that there are many profound philosophical connections and interactions between the two. Especially in the era of artificial intelligence, historical materialism provides a sharp decoding key, helping people reveal the philosophical significance behind it.

Firstly, artificial intelligence is not only a leap in technology, but also an inevitable product of the development of productivity. It is a milestone in human exploration of nature and the world's transformation. Its birth and diffusion are undoubtedly a clear footnote in the evolution of production relations and modes of production in the times, confirming the decisive guiding role of material production methods in the historical process. Secondly, the contradictions and conflicts between productivity and production relations, revealed by historical materialism, have now been newly reflected in the widespread application of artificial intelligence. Artificial intelligence may reshape the delicate balance between labor and capital, redefine the workers' status and value, and lead to profound changes in social structure and economic system, further impacting existing social organizations and operating modes. More profoundly, historical materialism endows humanity with a unique subjectivity positioning, emphasizing that humanity is not only shaped by history, but also has the ability to rewrite history. In the era of artificial intelligence, this means that people cannot be swayed by technology and blindly worship machines, but should always maintain the humans'

central position and ensure that technology truly becomes a tool for serving the humanity's comprehensive development.

To sum up, there has been a philosophical dialogue between artificial intelligence and historical materialism, which not only inspires how to understand artificial intelligence from a historical perspective, but also provides valuable philosophical guidance for people in this era full of opportunities and challenges.

4.2 TECHNOLOGICAL DEVELOPMENT AND COMPREHENSIVE HUMAN DEVELOPMENT

In Marxist philosophy, the human beings' comprehensive development is endowed with supreme significance, and this philosophical pursuit aims to promote everyone's harmonious growth at the material, spiritual and cultural levels. When comparing this great pursuit with the rapid progress of technology, especially artificial intelligence, the close interaction and philosophical tension between the two are highlighted.

Artificial intelligence technology, through technologies, such as personalized learning, virtual reality and augmented reality, enables education to better meet everyone's needs and potential, thereby promoting the comprehensive improvement of knowledge and skills, and creating unprecedented possibilities for human comprehensive development. In addition, the application of this technology in medical, psychological and physical health fields is also expected to further improve the quality of human life. Google's DeepMind, for example, has developed Streams, an AI system to help doctors process and recognize data from medical images, such as MRIs and CTs. The system can automatically scan and recognize thousands of digital images, quickly locate and label lesions, and, thus, improve the accuracy and speed of medical diagnosis. But this does not mean that technological progress is completely worry free. Excessive addiction to technology may lead to damage to human physical and mental health, such as prolonged immersion in the virtual world, which may lead to alienation from the real society. More importantly, the rapid evolution of technology may lead to a more polarized distribution of social resources, making the acquisition and application of technological resources more centralized, which contradicts the concept of comprehensive human development. From a Marxist perspective, technology should not be self-sufficient or just a tool of capital. On the contrary, technology should serve people and provide support and conditions for their comprehensive development. This requires always putting people at the center in the process of technological development, ensuring that technology truly brings benefits to humanity, rather than becoming an obstacle that restricts or harms human comprehensive development.

Therefore, under the philosophy of Marxism, the relationship between technological progress and human comprehensive development is not incompatible, but to achieve true

harmonious coexistence, we must adhere to the bottom line of humanistic spirit in the process of technological evolution, and ensure that technology always serves the comprehensive, free, and balanced growth of humanity.

4.3 ARTIFICIAL INTELLIGENCE, COMMUNISM AND COMMON PROSPERITY

In the theoretical framework of Marxist philosophy, communism is not only the ultimate goal of social development, but also an unremitting pursuit of exploring fairness, justice and common prosperity. When research is combined with the development of artificial intelligence technology to consider the goal of communism, a series of thought-provoking questions and reflections arise.

Artificial intelligence, as a technology with powerful computing and self-learning capabilities, has the potential to greatly improve production efficiency and create wealth. The development and application of this technology provide the possibility for more efficient allocation and utilization of resources, thus theoretically creating conditions for common prosperity. Intelligent production processes, services and accurate demand forecasting can all bring greater benefits to the public. For example, in the field of autonomous driving, the self-driving product Waymo has begun testing self-driving cars in several cities in the United States. Tesla's autopilot system is also gradually improving and realizing autonomous driving functions for scenes, such as highways. However, in parallel, the popularization and widespread application of this technology may bring about a series of social problems, such as the turbulence of the job market and the expansion of income inequality, which may contradict the ideas of communism. Therefore, how to ensure that artificial intelligence technology promotes social development, while not amplifying social inequality, is the transcendence of Marxist philosophy over the philosophy of the mind. From the perspective of Marxism, technology itself is neutral and can serve both capitalism and communism. The key issue is how to guide and apply it in the human society's practice. Only when artificial intelligence follows the principles of socialization and democratization, and is developed and applied under these two major directions, it can be expected to become a powerful assistant to communism and the vision of common prosperity.

From the perspective of Marxist philosophy, there is both the possibility of cooperation and the risk of conflict among artificial intelligence technology, communism and common prosperity. In order to ensure that artificial intelligence technology truly serves the humanity's common welfare, it is necessary to constantly reflect, adjust and improve in the development and application of technology, ensure its coordination with Marxist concepts and jointly promote social progress.

4.4 ARTIFICIAL INTELLIGENCE AND CULTURAL FACTORS

Culture is the human society's basic component, which determines the human beings' way of thinking, behavior habits and values. Cultural factors also play an important role in the development of artificial intelligence. There are many differences among different cultures, and these differences will affect the design and application of AI. For example, the emphasis on collectivism in Chinese culture and individualism in American culture can lead to very different AI algorithms and designs used by Chinese and American teams for the same kind of task. Marxist philosophy holds that culture and philosophy are mutually mediating and constructively interacting, forming a hermeneutic cycle of mutual interpretation. By analyzing the function and essence of culture, the writers of Marxist classics revealed the general law of cultural development and pointed out the direction and goal of socialist cultural construction.

In the historical process of China's revolution, construction and reform, the basic principles of Marxism and the fine traditional Chinese culture have matched each other, developed in both directions and achieved each other, which not only enabled China to achieve political and economic self-reliance, but also achieved cultural and spiritual self-reliance. Specifically to the construction of philosophy of mind, Marxism provides a new perspective and method for philosophy of mind through the combination of excellent traditional Chinese culture. For example, the ecological interpretation of "the unity of nature and man", the core category of traditional Chinese culture, has been endowed with new epochal connotation in the context of global ecological crisis, which not only concerns the interpretation of modernity of traditional Chinese culture, but also involves it. It is also related to the important theoretical issue of how to understand and promote the combination of the basic principles of Marxism with the excellent traditional Chinese culture. This combination not only activated the essence of traditional Chinese culture, but also made Marxism take root and sprout in China's land, providing rich cultural soil and profound philosophical thinking for the study of philosophy of mind.

CONCLUSION

With the continuous breakthroughs in artificial intelligence technology, the issues that traditional spiritual philosophy is concerned about are increasingly intertwined with reality. Facing such technological changes, relying solely on traditional theoretical frameworks is no longer sufficient to answer these new questions. Marxist philosophy is a theoretical system closely related to practice, history and society, which provides us with a new angle to view the philosophy of mind. This study explores how Marxism views and solves the problem of artificial intelligence in the philosophy of mind. Through the analysis

of the social production relations, economic foundation and human social practice behind the problem, we can more deeply understand the challenges and opportunities brought by artificial intelligence. More importantly, under the guidance of Marxist theory, we found that artificial intelligence technology does not exist in isolation. It is closely connected with our society and culture. Therefore, humanity needs to go beyond technology itself to ensure that technological advances truly serve human development. Marxist philosophy points us in this direction and helps us find a balance between technology and humanity.

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