Research on the Influence of Artificial Intelligence on Human Social Development from the Perspective of Marxism

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ABSTRACT

Artificial intelligence is the product of the high development of productive forces in the information industry era, and it is also an important driving force of the fourth industrial revolution, that is, the green industrial revolution. Artificial intelligence not only improves social productivity, but also plays an important role in the transformation of production and life style of human society. The development of artificial intelligence is accompanied by privacy leakage, employment and man-machine dependence, which brings some labor pains to human society, but generally promotes the progress of human society and the free and comprehensive development of human beings. Under the guidance of Marxist theory, this paper probes into the influence of artificial intelligence on the development of human society.

Keywords: *Marxism, Artificial intelligence, Free and All-round Development, Social development*

1. INTRODUCTION

Artificial intelligence is a theoretical and technological innovation based on computer ability and big data to simulate and extend human intelligence. It is a new important achievement of science and technology and promotes the progress of science and technology to a certain extent. Xi Jinping stressed that artificial intelligence is an important driving force for a new round of scientific and technological revolution and industrial transformation. Speeding up the development of a new generation of artificial intelligence is a strategic issue concerning whether our country can seize the opportunity of a new round of scientific and technological revolution and industrial revolution. With the high development of the information age, a new round of scientific and technological revolution and industrial transformation led by artificial intelligence is in the ascendant. The World Economic Forum and China's White Paper on artificial Intelligence Standardization 2018 clearly position artificial intelligence as the cornerstone of the fourth Science and Technology Revolution (4 IR). As the core driving force of a new round of industrial transformation, artificial intelligence technology will bring unprecedented challenges to the production and life style of human society. The major scientific and technological innovation countries in the world have issued artificial intelligence strategic plans to promote the technological innovation and landing application of artificial intelligence in order to further enhance the comprehensive national strength and influence.

2. THE POSITIVE ROLE OF ARTIFICIAL INTELLIGENCE IN THE DEVELOPMENT OF HUMAN SOCIETY

Science and technology are the first productive forces. The application of artificial intelligence in agriculture, industry and service industry can effectively improve social productivity and play an important role in the transformation of human social survival and life style, which greatly promotes the free and comprehensive development of human beings [1].

2.1. Artificial intelligence promotes the development of social productive forces

Marxism believes that science and technology are the permeable elements of productive forces, which can be integrated into all elements of productive forces and then transformed into realistic productive capacity. Artificial intelligence as a kind of technology, the existence of tools, is a new science and technology, can greatly improve social productivity.

2.1.1. The development of artificial intelligence effectively promotes the transformation of production tools

The application of artificial intelligence technology provides people with intelligent production tools, changes the traditional way of obtaining means of production and living, and greatly improves labor productivity. Artificial intelligence technology is adopted in agricultural production, which can adapt to different crops and different working environments, carry out targeted soil analysis, structure optimization, precision cultivation and other measures for crop planting, and further promote the construction of digital agriculture rural areas [2]. Industry is more widely used, artificial intelligence in the production process can achieve data visualization, machine self-diagnosis and predictive maintenance, to achieve the automation of production links, so as to improve the economic benefits of enterprises. The difference between various economic times lies not in what to produce, but in how to produce and what means of labor to produce. The development of artificial intelligence makes human society enter a new era of intelligent economy.

2.1.2. The development of artificial intelligence can effectively improve the comprehensive quality of workers

The development of artificial intelligence gave birth to the era of intelligence. With the popularization of automation and intelligent equipment, higher requirements are put forward for the improvement of workers' skills. Laborer is the most active factor in productivity, can apply the scientific knowledge that oneself grasps to the actual production process, thus raise productivity. The degree of human wisdom and ability development determines the breadth and depth of the development of the material world. In the era of intelligent economy, higher requirements have been put forward for mental workers, which will inevitably produce more unknown new problems. And new problems derive new needs. Once there is a technical need in society, it will push science forward more than ten universities. New needs will certainly encourage workers to maintain a lasting spirit of exploration, in the process of solving problems and pursuing truth, constantly enterprising, constantly improving technology, so as to promote the development of intelligent economy to a certain extent.

2.1.3. The development of artificial intelligence effectively improves management efficiency

The development of artificial intelligence can effectively improve the efficiency of production and management. Establish a special data platform in agricultural production, through timely and effective monitoring of planting area, output and price, strengthen the analysis and early warning of the production, circulation and price trend of agricultural and sideline products, provide farmers with accurate market supply and demand information, and guide them to arrange production according to market needs. In the struggle against the epidemic situation of new crown pneumonia, artificial intelligence technology has been widely used in the field of human body temperature measurement system, pneumonia image recognition, intelligent service robot, epidemic situation monitoring and analysis, which has greatly improved the efficiency of epidemic prevention and control and resumed production, and has become a powerful pillar force in the very period of anti-epidemic.

2.2. Artificial intelligence has caused changes in social production and life style

With AlphaGo defeating chess masters, AI girl Xiao Bing published a collection of poems "Sunshine lost Glass window ", as well as the landing application of various artificial intelligence products such as human body temperature measurement during anti-epidemic period, artificial intelligence has gradually penetrated into all fields of social production and life.

2.2.1. The development of artificial intelligence causes the transformation of human life style

Artificial intelligence promotes the intelligent development of human life style and greatly enriches the material means of life of human society. In the fight against the new crown epidemic, artificial intelligence technology in the medical field of deep integration trend highlights (see figure 1).
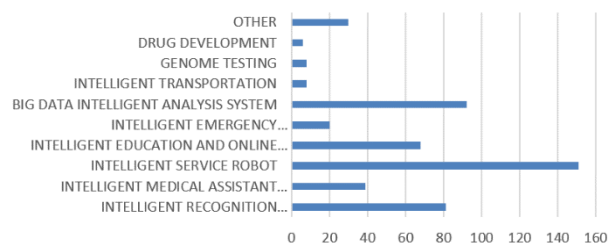

Figure 1　Distribution of AI against the New Crown Virus (Source: China Artificial Intelligence Industry Development Alliance)

Relying on the exploration and application of artificial intelligence technology in the fields of medical imaging and pathological auxiliary diagnosis, drug mining, personnel and material control, medical service and management, it can effectively improve the efficiency of medical diagnosis, treatment and service,

and comprehensively help to fight the epidemic situation, thus promoting the construction of human health destiny community. In addition, smart home equipment is also constantly innovating, sweeping robots, home control systems to enable people to liberate from the heavy housework [3]. The application of intelligent air conditioning control system and smart phone has penetrated into all aspects of people's study, work and life, and has become the standard to lead the new fashion of life to some extent.

2.2.2. *Artificial intelligence drives changes in human consumption patterns*

Enterprises use big data platform, using information memory, image recognition, intelligent search and other ways to master more accurate consumer demand information and consumption trajectory, for social enterprises production decisions, product design and after-sales service and other links to provide material basis in line with objective facts, greatly promote the intelligent development of consumption patterns. For example, the application of artificial intelligence to service positions can reduce the cost of manpower and material resources, and the placement of intelligent vending machines in public areas and places can expand sales channels. In large logistics transportation ports, artificial intelligence is used to optimize the goods as a whole, intelligent distribution, in transportation, loading, warehousing and other links to achieve unmanned operation, greatly improve the efficiency of work.

2.3. *Artificial intelligence promotes human freedom and all-round development*

Marx believed that natural science increasingly entered human life through industry, reformed human life, and prepared for liberation. The development of artificial intelligence provides technical premise and guarantee for human liberation.

2.3.1. *Artificial intelligence provides more free time for all-round development*

Before the technology was underdeveloped, people worked hard for their livelihood, and few individuals had free time. With the continuous development of science and technology, especially the wide application of artificial intelligence, the traditional manual labor is replaced by machines, which further realizes intelligence and automation, so that human beings can be liberated from the heavy alienated labor and win more free time [4]. In addition, the development of science and technology has also improved the way people work, people can work online, telecommuting, can choose to go out at home or other places, can also solve work problems in a timely manner, further enhance the flexibility and productivity efficiency of work, but also support for

people to spend more free time, open up new ways to improve their own ability, and effectively promote the overall development of people.

2.3.2. *Artificial intelligence has expanded the space for human development*

The wide and deep application of artificial intelligence technology makes the human labor object more and more broad. In the traditional manual labor, the need for human survival is confined in the heavy and limited labor environment. With the development and wide application of artificial intelligence technology, people can develop more unknown and challenging labor types and expand the breadth and depth of labor scope. For example, artificial intelligence devices can replace human exploration in unknown space areas, can dive into the deep sea for scientific research, collect and transmit more useful information and data. It is because of the innovation and development of artificial intelligence technology that people have more labor choices, expand the field of labor, and further promote the innovation and development of social productive forces [5].

3. THE CHALLENGE OF ARTIFICIAL IN-TELLIGENCE TO THE DEVELOPMENT OF HUMAN SOCIETY

The application and popularization of artificial intelligence has brought earth-shaking changes to human society. On the one hand, it has brought some challenges while promoting social progress, and needs to face up to the employment crisis and other problems.

3.1. *Human overreliance on artificial intelligence*

With the wide application of artificial intelligence in human society, people have a highly dependent psychology. For example, some people are more used to using software to socialize than face-to-face communication. In the face of uncertain things, some people do not first think, but directly rely on intelligent search for answers. In addition, the problems of self-driving, cooking utensils, intelligent robots, intelligent decision-making in management and management are becoming more and more prominent. Excessive dependence on artificial intelligence will eventually lead to the degradation of human species.

3.2. *The development of artificial intelligence will lead to the problem of information leakage*

The application of artificial intelligence technology has penetrated into many fields, such as production management, space technology, daily life and so on. People enjoy the convenience and service brought by artificial intelligence, but also inevitably bring personal

information leakage and other problems. Big data is the first prerequisite for the development and application of artificial intelligence. The higher the degree of intelligence, the more detailed personal data need to be stored and analyzed. This will inevitably lead to personal information data to a certain extent facing the risk of exposure. For example, when people shop online and search for their intended goods, backstage big data will record individual consumption trends and types, and then analyze individual consumption levels to recommend more similar goods. Intelligent navigation can clearly plan routes for people, help avoid congested sections, and record search travel information. In addition, the hospital information, artificial intelligence development for patient service to bring convenience, but also recorded patient information, disease types, drug purchases, and even personal health privacy data and other detailed information [6]. Thus, artificial intelligence brings benefits to mankind, but also will cause information leakage security risks.

3.3. Employment crisis brought about by the development of artificial intelligence

The rapid development of artificial intelligence will bring about profound changes in social production. On the one hand, it can not only replace human physical labor and liberate people from alienated labor; on the other hand, To some extent, it can even replace human mental labor, bringing risks and challenges to traditional employment. The progress of artificial intelligence technology can change the production mode, change the traditional employment mode from labor-intensive to technology-intensive, and reduce the labor demand of low-end service industry and low-end manufacturing industry. For example, automatic production lines will lead to a large number of workers unemployed, unattended supermarkets, the popularity of intelligent payment will directly endanger the jobs of salespeople, cashiers, and bring a large-scale impact on the labor market [7]. In addition, artificial intelligence will further refine the social division of labor and create more jobs in emerging industries. These new posts will also put forward higher requirements for the quality of workers, which will stimulate the training and management mechanism of high-quality and high-skilled personnel in society.

4. THE RESPONSE OF ARTIFICIAL IN-TELLIGENCE TO THE DEEP CHANGE OF HUMAN SOCIETY

As the core driving force of the fourth scientific and technological revolution, artificial intelligence technology has penetrated into all fields of society, which brings opportunities and challenges to the development of human society.

4.1. Increasing the Research and Development of Artificial Intelligence Technology

Nowadays, China's artificial intelligence technology has ranked first in the international community, but compared with developed countries, there is still a big gap, especially in the field of basic R & D lack of voice. Therefore, on the one hand, we should step up efforts to promote basic research and development, build a research platform for industry, education and research, promote in-depth learning, improve innovation ability, and solve artificial smart card neck technology. On the other hand, it is necessary to strengthen the penetration and popularization of artificial intelligence technology in all sectors of society. It is necessary to carry on the technological innovation to the traditional industry, take the demand as the traction force, take the application as the driving force, gradually realize the traditional industry digitization, the intelligence, eliminates the backward production capacity, diligently realizes the industrial structure optimization and upgrading [8]. At the same time, we should make good use of media guidance to create a good environment of technical public opinion, train artificial intelligence technology reserve military personnel, do a good job of offline popularization of education, and improve the level of mass technology practice.

4.2. Speed up the improvement of the system and co-governance of supervision

Artificial intelligence technology promotes the development of human society at the same time, followed by hidden risks behind it. In the face of the governance problems brought by artificial intelligence, on the one hand, it is necessary to gradually improve the management system and mechanism, delineate the red line of law, strengthen law enforcement and discipline, strengthen industry supervision and management, strengthen the security protection of artificial intelligence data, and promote coordinated management at the source. On the other hand, it is necessary to speed up technology research and development, improve the ability of artificial intelligence identification and countercontrol, innovate propaganda methods, expand propaganda ideas, increase the popularization and application of artificial intelligence technology, and further enhance the awareness of public prevention and safety.

5. CONCLUSION

The development of artificial intelligence has improved the social productive forces, refined the social division of labor, brought profound changes to the production and life of human society, and greatly improved the social and economic development and management benefits. Promote the rapid development of human society towards the direction of intelligence.

However, science and technology is a double-edged sword. Behind the development of artificial intelligence, it also brings some labor pain to human society, hidden the lack of institutional mechanism and the risk of technology out of control. While looking forward to the bright future of artificial intelligence development, we should make good plans ahead of time, actively deal with it, insight into the development trend of artificial intelligence, and actively use the advantages of artificial intelligence technology to promote the new development of human society and benefit human society by adopting perfect system and scientific guidance. The title "Conclusion" should be in all caps and should be placed above the reference.

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