

The Opportunity and Challenge of the Development of Artificial Intelligence to Human Labor Liberation

Ruixin Zhang^{1*}, Chunyu Zhao²

¹Ruixin Zhang(1988-), female, born in Songyuan, Jilin, postgraduate student of Ideological and Political Education of Qinghai Normal University, China

²Chunyu Zhao(1992-), male, born in Linyi, Shandong, PhD student of Sinicization of Marxism of Shandong University, China

Abstract: With the development and application of artificial intelligence (AI) technology, it has promoted the upgrading and development of the industry. However, AI also brings intangible impact to the actual survival of human beings. Stephen·Hawking, the renowned physicist, has repeatedly warned, making it all the more urgent to reflect on the negative effects of artificial intelligence. Therefore, the review of AI should consider from the perspective of historical development, scientifically explain its changes in the way of human labor and social life, as well as the great significance of such changes to the liberation of human labor.

Key words: Artificial Intelligence; Human liberation; Labor liberation

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* **Corresponding author:** Ruixin Zhang,
Tina.Zhang616@outlook.com

1 Introduction

With the development and application of AI, it is undeniable that it has greatly improved the production efficiency, and greatly reduced the production cost. At the same time, it also enables human beings to liberate themselves from repetitive and complicated labor, and gain more leisure time and freedom. However, there are two sides to every question. As Heidegger had long pondered, what is the fate of human beings in the coming age of technology? From the research on the development of AI at home and abroad, Atle Mikkola

Kjoson(2017) believes that the strong AI of the future would at first most likely function like the weak AI of today, i.e. as a machine and a means for reducing necessary labour-time and cheapening commodities^[1]. (P4) Luca De Ambroggi (2018) believes that in talking about the social impact of AI: it will affect not only industry and finance, but also society as a whole, especially in the areas of privacy and data security, labour and ethics, especially in data processing and autonomous learning robots. Jian Lin(2019)believes that from the perspective of technology, with the development of AI and intelligent robots, there is no need to worry about the occurrence of robots surpassing, opposing, dominating and enslaving humans^[2]. (P23) To sum up, many experts have expressed numerous forward looking views on the future development of AI, from the comparison with human intelligence, and the fields involves and concerns about the ethics of AI. However, these researches about the philosophical research of AI is far from enough. This paper aims to expound the opportunities and challenges brought by AI to human labor liberation from the perspective of history.

2 The inevitable trend of the development of contemporary artificial intelligence

When the human history into the second decade of the 21st century, under the global financial crisis triggered by U.S. Sub-loan crisis and the economic crisis after the blow of the world, especially some of the world economic development has the important influence of countries, for their own future industry development to a certain degree of adjustment and thinking. Although

these countries have different stages of economic development, their economic strength and influence on world economic development are different, and their economic characteristics and competitive advantages are also different. However, there is an important key point where almost all routes and solutions are similar, that is, the focus on the new achievements of modern technological development represented by Cloud Computing, Big Data, 5G and Intelligent Robots. Among them, AI is the most prominent. Many countries have invested a lot of human, material and financial resources in this field in order to gain a competitive advantage in the future era of AI. AI in the U.S. policy focus is to maintain the development of AI has the initiative and foresight, the important field of AI, such as chips, operating systems, and such as computers, financial, military and energy, to keep the world's leading position. Made in China 2025 puts AI at the forefront of national development, emphasizes the in-depth integration of AI with the real economy to promote industrial and scientific research cooperation. Japan hopes to build an 'AI-ready society' that can make AI effective and safe. As the research and academic center of AI, the UK relies on universities such as The University of Oxford and The University of Cambridge to enhance its overall strength through the advantages of AI in scientific research and innovation. The concept of AI was first proposed by scientists such as John McCarthy at the Dartmouth Conference in 1956 and defined as 'enabling machines to understand, think, and learn like humans, and simulate human intelligence with computers'^[3]. (P2647) From the perspective of the historical development of science and technology, the material basis and scientific and technological support of artificial intelligence are the results of the development of information science and technology with computer as the core since the 1950s. The Internet, the Internet of Things, Cloud Computing, Big Data, Intelligent Robots and Sensors are both important achievements and forms of AI. In recent years, the influence of AI is growing, not only appearing in the industrial planning and industrial policies of governments of various countries, but also appearing in the daily discourse of media and citizens at a high frequency. Such as unmanned ticket and unmanned charge, unmanned sales and unmanned shops, unmanned workshops and unmanned factories, unmanned aircraft and unmanned vehicles not only involve industry, agriculture, transportation and other industrial fields, but also penetrate into human social production, social interaction and social life. Obviously, the industry based on artificial intelligence is still in its infancy, and there is still a long way to go to reach

the future of strong AI. However, the trend of artificial intelligence is clear and irreversible.

3 Reasons for choosing to develop AI

First of all, the development of AI is closely related to the financial and economic crisis that broke out in 2008. The timing of AI's plans and plans, which were released in the wake of the economic crisis, cannot be regarded as a purely accidental phenomenon with no internal connection. It can be said that the development of AI is a human response to the crisis and out of trouble. For after every major cyclical economic crisis, the replacement of old forms of productivity with new forms of productivity is a routine way of dealing with and emerging from recessions in a commodity economy. Secondly, the development of AI is the inevitable result of economic globalization and the development of modern science and technology. The traditional way of economic growth mainly depends on the input of natural resources and human resources. However, the focus of scientific and technological development is to improve the efficiency and efficiency mentioned above. In the era of non-economic globalization, countries with leading economic development can gain the competitive advantage of economic development by virtue of their scientific and technological advantages. However, in the context of economic globalization, some post-developmental countries have entered the ranks of developing countries. Although the overall level of scientific and technological development of developing countries is lower than that of developed countries, they have become the competitors of developed countries due to the abundant and low cost of resources and labor. This has forced rich countries to look for new forms of productivity. At the same time, rising labour costs in developing countries are forcing them to wean themselves off old-fashioned forms of productivity. Finally, from the perspective of history, the development of AI is the inevitable result of the development of productivity. From manual labor to machine labor, from machine system to automation of production process, this is the logic of productivity development. Adam· Smith and Marx both predicted this logical relationship. It can be inferred that with the automation of the production process, human beings must be separated from the production process. The development of AI is just a form of production automation.

4 The liberation of AI from human labor

Develop AI, realize the intellectualization of the

production process, replace the recognized production operation with intelligent robot, and manage and control the production process, so that the production process becomes automatic and unmanned. The significance of these technological advances lies not only in the saving of human resources and the improvement of production efficiency, but also in the withdrawal of workers from the production process. When human beings withdraw from the production process and manage and monitor the whole production process outside the production process, it not only changes the labor mode of laborers, but also changes the nature of labor in a deeper sense. For as soon as human beings withdraw from the production process and become managed and monitored in the process, it means the liberation of human beings from machines and machine systems, and the establishment of human beings' real subject position in social production. This will be not only a profound industrial revolution, but also a liberation of human labour.

In Marx's view of history and scientific socialist theory, the liberation of human labor constitutes the liberation of human beings. The development of AI separates human beings from social production, service and family labor. Another important significance is that it also creates objective conditions for human freedom and all-round development. The improvement of social production efficiency and the saving of human resources, as well as the change of human life style, have promoted the shortening and reduction of social necessary labor time and the extension and increase of social leisure time, or free time. In Marx's view, free time is the labor of human beings to develop their essential power, rather than the time or means to make a living. Although the time spent on making a living cannot approach zero, the shortening of the time spent on making a living is an irreversible trend. Human free time is of great significance and value to the change of the nature of human labor, to the freedom and overall development of human beings, and even to the liberation of human beings from the control of nature's necessity. For without adequate free time, the free and all-round development of mankind is impossible to achieve. Although the people of AI is not unconditional lead to the development of the free and full development of the ultimate value pursuit, however, one thing is for certain, that is it objectively creates this goal the realization of the material basis and conditions, and show the human to realize the possibility of human freedom and comprehensive development and bright future.

5 The negative impact of the development of

AI at the current stage

The application of AI has freed human beings from the production process, but at the same time, it has put them into new difficulties, such as unemployment and reduced income. The replacement of human labor by intelligent robots makes human lose the source of income and the basis of material life, which may lead to the risk and crisis of human destiny. Heidegger, who was revealed that as early as in phenomenological spirit, Hegel had already found out the nature of modern metaphysics of labor. In Hegel's view, labor is the self-setting process of the unconditional manufacturing, namely the process of the objectification of the real thing by the person whose experience is the subjectivity^[4]. (P401) The essential force of man's objectification, in the form of perceptual, alien and useful objects, is presented before us in the form of alienation^[5]. (P88-89) That is to say, AI is likely to increase the power of capital to enslave workers, weaken their power to resist capital rule, and make their social status worse and their living conditions worse.

AI also faces ethical challenges. For Marx, labor is, without exception, an exclusively human enterprise^[6]. (P283) AI, however, seems to fundamentally test the bounds of this presumption. at present, 'artificial general intelligence' (AGI), the speculatively stepped-up iteration of narrow-AI, a longstanding technological moonshot which transcends human intellectual facility, further challenging received wisdom. As Nick Bostrom argues, relative to humans, AGI would effectively have superpowers and would not only be capable of doing the things that human beings can do better, faster and more accurately, an individual AGI would also have a greater capacity to labour than its individual human counterparts^[7]. (P110) In addition, In October 2017, Saudi Arabia granted citizenship to Sophia, a robot produced by Hanson robotics, an American company, this was the world's first robot who was obtained a citizenship. Therefore, we have to consider, as intelligent robots acquire citizenship, gain human experience and wisdom, and replace some human labor. In this sense, whether AI will enslave or even replace humans in the future. This is a question which will continue to research in the future.

6 Conclusion

The development of AI, as a manifestation of the development of science and technology and productivity, is not the same thing as the practical application of AI in social production and other fields. From the point

of view of the development of AI itself, it does not necessarily lead to the slavery of human beings by AI and the unemployment of laborers. The reason for this negative effect is that AI is controlled and dominated by capital. From the perspective of historical development, Marx once said that the contradictory development of a historical form of production is the only historical road to the disintegration and transformation of this form. When AI demands the transformation of social production relations, the liberation of human labor will not be too far away.

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