

Wealth Distribution and Class Reconstruction in the Context of Artificial Intelligence

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doi:10.56397/JWE.2025.04.05

Abstract

The rapid development of artificial intelligence technology is reshaping the global production system with unprecedented strength. In this process, the phenomena of imbalance in wealth distribution and class restructuring triggered by the technology have gradually exceeded the scope of explanation of traditional economics. In order to deeply understand this phenomenon, this paper adopts historical materialism as an analytic tool, aiming to reveal the deep mechanism of technological alienation in the era of artificial intelligence. It explores how the intelligence revolution has systematically reconfigured the labor value pattern, capital accumulation mode and social power structure, and these changes are profoundly affecting the logic of socioeconomic operation. On this basis, this paper further proposes a social governance path that conforms to the laws of technological civilization evolution, aiming at balancing technological development and social equity, ensuring that technological progress can benefit a wider range of social groups, and promoting the construction of a more harmonious and sustainable pattern of social development.

Keywords: artificial intelligence, technological alienation, wealth distribution, class change

1. Introduction

In the long practice of industrial economy, the distribution of wealth and social class structure have always followed the basic logic of capital and labor, and the balance between them has been maintained through a series of institutions and market mechanisms. However, in recent years, this balance is being strongly impacted by artificial intelligence technology. Huge leaps in technology, especially the popularization of AI, have changed the role of factors of production, with far-reaching effects on wealth distribution and social mobility. The demand for high-skilled labor has risen with the adoption of AI technology, and conversely, middle-skill jobs

have gradually declined. This trend has allowed individuals with high skills to rapidly accumulate wealth and form a new elite, while less-skilled laborers face stagnant incomes and unemployment. Changes in social mobility are equally significant. Digital opportunities have opened up new avenues of upward mobility for individuals with specific skills, but at the same time, the close integration of technology and capital has exacerbated social inequality, created new barriers and increased the concentration of opportunities in the hands of a few. In order to understand this phenomenon in depth, this paper adopts theoretical tools such as the labor theory of value, the theory of surplus value, and

class analysis to analyze how AI technology affects the distribution of wealth and the structure of social classes. Through this analysis, the paper attempts to reveal the internal logic of social stratification, provides strategic references to address the challenges posed by technological change, and provides theoretical support for the development of fairer welfare policies.

2. A Review of the Revolution in the Means of Production

2.1 The Inherent Mechanism of Technological Innovation and Change of Social Formations

Marx profoundly pointed out that the progress of productive forces, especially the innovation of the means of production, is the precondition for the change of production relations. Technology, as the core driving force of the productive forces, its iterative upgrading constantly challenges and breaks through the boundaries of the established relations of production by enhancing labor efficiency and expanding the scale of production. The birth of the steam engine prompted the leap from handmade workshops to mechanized production, giving birth to the germination of capitalist relations of production; and the widespread penetration of digital technology has broken the time and space constraints of traditional industrial society, accelerating the process of reconstruction of the global value chain. This series of changes not only reshaped the relations of production, but also profoundly affected the mode of social labor, the mode of surplus value creation and the class structure, and ultimately led to a profound transformation of the social form. Marx's thesis in *Capital* accurately captures this process: "The change in the mode of production centered on labor in the age of workshop handicrafts, while in the age of big industry it began with the means of labor." (Karl Marx, 1976) At present, artificial intelligence systems with deep neural networks and big data algorithms at their core are leading the leap of labor tools from "extension of the human body" to "intelligent agents," a shift that not only revolutionizes the specific form of labor, but also re-configures the material basis of social and productive relations at a profound level, vividly capturing this process: "In the era of workshop handicrafts, labor was the center of production, while in the era of big industry, the means of labor was the starting point." (Karl Marx, 1867) This transformation has not only revolutionized the specific form of labor, but also reconstructed the material basis of social

relations of production at a deeper level, which vividly explains the dialectical interaction between technology and society within the framework of "productive forces — relations of production — superstructure". In this process, technology, as "the power of materialization of knowledge", has become the fulcrum for prying up the old system and constructing the new order. At the same time, Marx also warned us that when the contradiction between the productive forces and the relations of production intensified to the point of being irreconcilable, social revolution would emerge. From the first industrial revolution, which gave birth to the capitalist system, to the current technological revolution in artificial intelligence and renewable energy, which has revealed the deep crisis of capitalist private ownership, the process of technological iteration and social change has been full of twists and turns and non-itineraries. Capitalism has eased the contradictions through technological adaptation (e.g. welfare state system, green capitalism, etc.), while socialist countries are seeking breakthroughs under the dual pressure of technological innovation and global competition for capital. The complexity of this transitional period requires us to build a systematic strategy for the synergistic evolution of "technology-institution-culture".

2.2 The Dual Character of Intelligent Productive Forces and the Critique of Capital Logic

Technological development has always been accompanied by a profound dual nature: while it is a powerful force that pushes human beings to break free from material constraints and broaden the boundaries of freedom, it is also alienated into a means of capital multiplication under capitalist relations of production, exacerbating labor exploitation and social alienation. The root of this contradiction lies in the fundamental opposition between the social attributes of technological development and the dominance of the logic of capital, whose dialectical relationship has profoundly influenced the evolutionary trajectory of modern society. As a concentrated manifestation of the contemporary conflict between productive forces and relations of production, AI systems display unique dual attributes: as a means of labor, they transform human knowledge systems into efficient and reproducible digital productive forces through algorithmic models; and as a new carrier of capital, the process of

data collection and algorithmic optimization reproduces new exploitative relations. The logic of capital alienates technology as a dominant force, but at the same time it also provides a material basis for it to transcend the logic of capital and achieve a higher level of social change. This contradiction is particularly pronounced in the platform economy, as in the case of Uber drivers whose labor is fragmented into data collection units, and whose surplus value is monopolized by the platform in the form of data assets. However, AI and renewable energy technologies contain the same enormous potential to unleash the creative potential of humanity and promote the democratization of energy. The key lies in the comprehensive practice of class struggle, institutional innovation and cultural critique to liberate technology from the shackles of capital and return it to the ultimate value of “promoting the free and comprehensive development of human beings”. This is not only a contemporary interpretation of Marx’s dialectic of “alienation and liberation”, but also a path of self-redemption for mankind in the era of technological civilization.

3. Exploration of Wealth Creation and Value Distribution Mechanism of Intelligent Capitalism

3.1 Analysis of the Paradox of Data Factor Value Proliferation

Examined from the perspective of the surplus value theory of Marxist political economy, the paradox of value proliferation of data elements under intelligent capitalism is rooted in the nature of exploitation of labor by capital in the capitalist mode of production. In the field of digital production, the unconscious behavior of social media users continuously generates data resources, which, as a new type of means of production, are transformed into commercial value under the processing of algorithms. This process breaks through the time and space limitations and provides powerful information support and analysis basis for production, decision-making, innovation and other activities, greatly promoting the optimization and efficiency of economic activities. However, with their advanced data collection, storage and analysis technologies, data enterprises transform users’ data labor (although this labor is often unconscious and hidden) into a source of surplus value. While enjoying Internet products and services, users’ behavioral data are collected

by platforms as “free resources”, and after processing and commercial application by enterprises, huge economic value is created. However, the original producer of the data, the user, has not been able to obtain the corresponding value compensation. Measuring the value of data is particularly difficult due to the complexity and ambiguity of its generation and processing. The generation of data involves a variety of subjects and complex forms of labor, from the original data contribution of the user to the value-added data processing of the enterprise. This makes the definition of the amount of labor and labor time ambiguous, further exacerbating the paradox of value addition to data elements. In this value-added process, most of the gains are appropriated by capitalists, and users, as the original providers of data, are in an exploitative position, unable to fairly share the benefits brought about by the value-added data. This exploitative relationship is hidden behind the complex digital technology and business model, making the paradox of value increase of data elements a seemingly reasonable but contradictory phenomenon, forming a new type of “digital enclosure movement” and exploitative patterns. (Fuchs, Christian, 2020)

3.2 Deepening Analysis of Algorithmic Power and Wealth Polarization

In Capital, Marx profoundly revealed that the essence of capital lies in “constantly multiplying itself”. In the era of digital capitalism, algorithms have become an important tool for realizing the “hidden exploitation” of surplus value, which is an extension and reconstruction of the logic of capital in the digital era. Through data capture, behavior prediction and precise control, algorithms transform all traces of human digital life into quantifiable factors of production, thus realizing capital accumulation. Internet platforms use algorithms to collect users’ social data, consumption preferences, location information, etc., transforming them into “data capital” and realizing traffic cash flow through precise advertisement pushing and algorithmic recommendation. The world’s top ten technology companies control a large number of AI core patents, and this technology monopoly has given rise to new forms of power such as algorithmic pricing power and traffic distribution power. These algorithmic powers have led to exponential growth in capital accumulation, while ordinary laborers have

fallen into systematic weakness in bargaining power. Algorithms and data have replaced the means of production in traditional capitalism, exacerbating the concentration of wealth and the inherent contradiction of capitalism's distribution of wealth through the "winner-takes-all" effect. On the one hand, a handful of technological giants, by virtue of their monopolization of algorithms and data, have brought social relations into the orbit of capital accumulation, forming a "digital enclosure movement" and a "digital oligarchy". On the other hand, ordinary workers are trapped in the predicament of "dematerialization" and "unpaidness" under the discipline of algorithms. Through algorithmic scheduling, the platform economy has downgraded laborers to "data people", and content creation and social interaction are packaged by algorithms as "free choices", but in fact become "free raw materials" for capital appreciation. This kind of alienation not only deprives workers of their rights, but also makes them more vulnerable. This alienation not only deprives workers of their surplus value, but also dissolves their subjectivity, reducing them to "data nodes" in the algorithm system. The labor time, labor intensity and even emotional expression of Internet users are all quantitatively controlled by algorithms, leading to the alienation of labor from the field of material production to the field of digital life. This polarization phenomenon deeply confirms Marx's "general law of capital accumulation" — the fruits of technological progress are monopolized by a few, and the impoverishment of the masses intensifies in a more insidious form. Under the wave of intelligent capitalism, we must reflect deeply and seek solutions to achieve a fairer and more reasonable distribution of wealth and sharing of values.

4. Class Mapping Reconstruction in the Age of Artificial Intelligence

4.1 The Rise of a New Type of Profit-Eating Class

With the booming development of artificial intelligence technology, the connotation of means of production has undergone profound changes. Intangible assets such as data, algorithms and intellectual property rights have gradually replaced traditional tangible assets as the new means of production. These intangible assets have a high degree of monopoly and exclusivity, which enables enterprises and capitalists who master core technologies to

realize absolute control over the production process by controlling these resources, and then dominate the economic system to form a new type of profit-eating class. There are significant differences between the new profit-taking class and the profit-taking class of the traditional economy. First, the source of its wealth is more hidden and complex. In the era of artificial intelligence, the acquisition of surplus value relies more on technological monopoly and data control. By collecting and analyzing user data, tech giants achieve precision marketing and product optimization, thus obtaining high profits. This "digital rent" has become an important source of wealth for the new profiteering class. Secondly, the rise of the new profiteering class is closely related to globalized capital flows. The global application of artificial intelligence technology enables capital to cross borders and capture surplus value globally through the output of data and algorithms. Multinational technology companies utilize their advantages in technology and data to deploy AI services in different countries and regions to capture data and market revenues from local users, further exacerbating the gap between rich and poor. Finally, the formation of a new profit-eating class cannot be separated from the support of national policies and legal environments. Legal frameworks such as intellectual property protection, data privacy regulations, and antitrust policies play a key role in the monopolization of capital and technology. Some countries and regions have encouraged technology companies to patent and monopolize data and algorithms through lax intellectual property protection policies, providing institutional safeguards for the rise of a new type of profit-eating class.

4.2 The Birth of the Digital Proletariat

In the contemporary context of the fundamental reconfiguration of traditional production relations by AI technology, an unprecedented class of workers, the digital proletariat, has quietly emerged within the capitalist system. They have abandoned the roar of machine tools and the rhythm of assembly lines in the old era, and have instead devoted themselves to the precise weaving of codes, the deep mining of data and the innovative construction of algorithmic systems. This transformation not only marks a historic leap in the mode of production, but also heralds a profound change in the identity and form of labor. However,

although the digital proletariat seems to enjoy the freedom of “flexible employment” on the stage of the platform economy, it is in fact embedded in a complex network woven by algorithmic surveillance and capital exploitation. Platform companies use sophisticated algorithms and monitoring systems to manage workers in real time, making the labor process more transparent and controllable than ever before. This highly supervised labor model improves productivity in the short term, but it also invariably intensifies the alienation of workers, gradually reducing them to tiny components of a huge digital machine. What is even more worrying is that the fruits of the digital proletariat’s labor — those valuable data that condense wisdom and sweat — are often seized by platform enterprises in an almost gratuitous manner and transformed into a rich source of commercial interests. The rights and dignity of workers are seriously neglected, and the value of their labor is ruthlessly deprived and exploited. In addition, the digital proletariat faces profound exploitation at the cognitive level. Social media platforms use personalized recommendation algorithms to imprison workers in an “information cocoon” within a narrow information space, not only restricting the expansion of their horizons and dispersion of their thinking, but also silently colonizing their valuable attention resources. This kind of cognitive exploitation undoubtedly further exacerbates the disadvantaged position of laborers, making them even more powerless and vulnerable in the face of the power of capital.

4.3 The Shift in Global Class Contradiction

With the breakthroughs in artificial intelligence technology, human society is undergoing an unprecedented transformation of its economic base. This change has not only reshaped the mode of production and economic structure, but also profoundly reconfigured the spatial and temporal coordinates of class contradictions in the context of globalization. The rise of intelligent colonialism has become a key factor in reshaping global class contradictions. With their technological advantages, developed countries have constructed unattainable technological barriers, thus solidifying their dominant position at the top of the global value chain. Meanwhile, developing countries are mercilessly locked at the end of the intelligent industrial chain, facing challenges such as technological backwardness and difficulties in

industrial upgrading. This huge technological gap has undoubtedly exacerbated inequality on a global scale, making the problem of dependent development more and more prominent. Within developed countries, the phenomenon of digital stratification has become increasingly significant, giving rise to a whole new spectrum of contradictions. The group of engineers mastering core technologies, with their unique technological expertise and innovation ability, enjoys high labor remuneration and the rich rewards brought by technological monopoly. However, in developing countries, there are millions of “digital laborers” who are forced to provide training data for algorithmic systems at very low prices, living in difficult conditions and with little space for survival. This stark contrast undoubtedly exacerbates the global gap between rich and poor, making class conflicts more and more acute. Therefore, the breakthrough progress of AI technology is profoundly affecting the evolutionary trend of global class conflicts. The rise of intelligent colonialism and the intensification of digital stratification have made inequality on a global scale more serious and the problem of dependent development more prominent.

5. Practical Exploration of the Road to Socialism

5.1 Change in the Ownership of the Means of Production

Marx once pointed out that when the development of the material productive forces reaches a specific stage, it will contradict the established relations of production. In the digital age, this law has been given new expression. Data elements have become the core means of production at an astonishing average annual growth rate, while block-chain technology is revolutionizing the way property rights are recognized, together driving a profound change in traditional ownership relations. The rise of intelligent technologies has further blurred the boundaries of traditional ownership, and the distributed ledger nature of block-chain makes the confirmation of the right to the means of production more dependent on algorithmic consensus rather than centralized institutions. For example, the DeFi protocol on the Ethereum intelligent contract platform has created huge amounts of on-chain financial assets, a new form of “code is law” that challenges the traditional ownership system and replicates, to some extent, the exploitative logic of finance capital. In

addition, the separation of access and ownership is becoming more and more significant, such as Tesla's transformation of automobile software functions into subscription services. On the eve of technological revolutions such as quantum computing and brain-computer interfaces, the transformation of ownership of the means of production has become key to understanding the evolution of social formations. Contemporary capitalism exacerbates alienation through the privatization of data, while the practice of socialist communal ownership in the digital economy reveals new possibilities. Marx's conception of "reconstructing individual ownership" has found a new contemporary connotation in innovations such as the social sharing of data elements and the public governance of smart means of production. In the face of the contemporary proposition of transforming the ownership system, we must not only follow the basic law that the socialization of production and the form of appropriation of the means of production are compatible, but also creatively develop the forms of realization of public ownership. This is the inevitable way for mankind to transcend the logic of capital and move towards an association of free men. In this process, the exploration of a mode of ownership that meets the characteristics of the times will have a profound impact on the future evolution of social formations.

5.2 Distribution System Innovation

Artificial intelligence, as the core force of the current technological revolution, is reshaping the global mode of production and distribution pattern at an unprecedented speed. Under the framework of capitalism, the rapid development of AI technology has not only exacerbated the contradiction between capital and labor, but also led to a series of new problems, such as structural unemployment, increased polarization between rich and poor, and data monopoly. (Srnicsek, Nick, 2023) Marx profoundly pointed out in *Capital* that the distribution system is a direct reflection of the relations of production. As the productive forces continue to leap forward, the relations of production are bound to face adjustments. Just as the industrial revolution gave birth to the factory system and wage labor system, the AI revolution is pushing the labor form to evolve in the direction of intelligent collaboration, which undoubtedly poses new challenges to the existing distribution system. It needs to actively

explore the possibility of universal ownership of data resources, taking into account the Marxist principle of "socialization of the means of production". Through the implementation of measures such as data tax and revenue sharing, we can ensure the collective sharing of data, so that more people can benefit from the value of data. A good example is the EU's Data Governance Act, which requires enterprises to open up non-personal data to the public sector, providing institutional safeguards for the public utilization of data. In terms of distribution principles, the concepts of "adjusting according to demand" and "sharing according to contribution" should be introduced on the basis of "distribution according to labor". For example, an AI development fund can be set up to transform the dividends of technology into basic services for all people, so as to improve their quality of life. At the same time, we should also pay attention to the right to survival of replaced workers, such as Finland's pilot "universal basic income" is a useful attempt. In addition, the establishment of a mechanism for the participation of data elements in the distribution is also an important part of the innovative distribution system. The Chengdu Big Data Exchange Center allows personal data to be traded on a rights basis, which not only protects personal privacy, but also allows individuals to gain benefits from their own data.

5.3 Path to Comprehensive Human Development

Engels once emphasized that "the essence of man is the sum of all social relations." In the age of intelligence, we are faced with the new challenge of rebuilding the dialectical relationship of "human-technology-society". We need to free technology from the constraints of capital, so that it can truly become a bridge and link to expand the power of human nature. Taking China as an example, the significant increase in the density of industrial robots and the continuous progress of manufacturing automation level have greatly improved the production efficiency and created favorable conditions for shortening labor time. The four-day work system piloted in Sweden and the lifelong skills account established in Singapore are positive responses to the changes in employment patterns brought about by automation, aiming to support the career transition and personal development of workers. Against this backdrop, the shape of labor has also made a step-wise leap from manual labor to

mental labor to innovative labor. This requires us to restructure our education system to meet the needs of the new era. Finland has included AI ethics in the compulsory curriculum of primary and secondary schools, and China's 14th Five-Year Plan has clearly proposed to cultivate 2 million "AI + Industry" composite talents, all of which are important practices of educational innovation. As a matter of fact, AI is not an obstacle to the comprehensive development of human beings, but a "historical tool" to push human beings towards freedom and emancipation. The key lies in how to detach it from the logic of capital and embed it in the process of reconstructing socialist production relations. In order to do so, it needs to promote the development of a socially owned economy and focus on fostering a new type of worker with a critical consciousness and creative ability. Only in this way will we be able to truly realize what Marx described as "man's appropriation of his own comprehensive nature in a comprehensive way" in the era of intelligent civilization, opening a new chapter in human emancipation.

6. Conclusions

The artificial intelligence technology revolution is reshaping the socioeconomic structure at an unprecedented rate, with far-reaching and complex implications. In this process, if algorithms are over-commercialized and used as a tool for simply pursuing capital appreciation, they may exacerbate social inequality and class division, which to some extent reflects the risk of technological alienation. However, when technology is able to return to serving the overall well-being of society, intelligent machines are expected to become an important force in promoting labor efficiency and overall human development. Observing the practice of socialism with Chinese characteristics in the new era, as well as the strategies of other Western countries in dealing with the technological revolution, it can be found that through a series of innovative policies and practices, such as the optimization of the ownership structure of the means of production, the innovation of the distribution system, and the emphasis on the building of human capacity, society is actively exploring how to effectively manage and make use of the "double-edged sword" effect of the technological revolution. The society is actively exploring how to effectively manage and utilize the "double-edged sword" effect of the

technological revolution. These efforts are aimed at balancing technological progress with social equity and ensuring social stability and sustainable development in a rapidly changing technological environment. These practices not only validate, to a certain extent, the insights of the principles of Marxist political economy on the relationship between technological progress and society, but also provide insights into how to actively respond to the challenges posed by technological change while grasping the opportunities it brings in the context of a new era through institutional innovation and strategic adjustments. Together, they promote the formation and development of a new form of human civilization and provide valuable experience for exploring a more equitable and sustainable development path. To summarize, the AI technology revolution has brought unprecedented challenges as well as nurtured great opportunities. The key lies in how we guide and shape the development path of the technology to ensure that it serves the common well-being and long-term interests of all humankind.

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