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Alienation Analysis of Artificial Intelligence Based on the Theory of Alienated Labor

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Abstract. The alienation of artificial intelligence is not a natural product of technology, but a structural upgrade of labor alienation under capital logic in the digital era. Different from the physical discipline in the machine age, artificial intelligence has brought crises in both subjectivity and sociality: through algorithm recommendations, performance scoring, and behavior prediction, it has achieved "mental governance" over cognition, emotion, and even the meaning of existence, shifting alienation from "painful labor" to "unneeded unemployment," constituting a qualitative change from exploitative alienation to existential alienation. Its root does not lie in computing power or data, but in the fact that technology under private ownership serves capital proliferation rather than the all-round development of human beings. Therefore, the fundamental way to dissolve the alienation of artificial intelligence lies in sublating private ownership, so that the means of production serve the common interests of society; at the same time, specific paths such as labor force transformation, supplementary industrial upgrading, legal checks and balances on capital, and global collaboration are needed to make technology return from an alien force dominating people to a collaborative tool liberating people.

Keywords: Marx, alienated labor, artificial intelligence

1. Introduction

At the end of 2022, with the birth of the artificial intelligence model ChatGPT from the American artificial intelligence laboratory OpenAI, it sparked widespread discussion around the world. At that time, it coincided with the successful convening of the 20th National Congress of the Communist Party of China. In the report of the 20th National Congress, General Secretary Xi Jinping clearly stated the need to "improve the scientific and technological innovation system" and "accelerate the implementation of the innovation-driven development strategy," and scientific and technological innovation should "adhere to facing the world's scientific and technological frontiers" [1]. As the forefront of contemporary scientific and technological development, artificial intelligence technology is naturally an important object of China's implementation of the scientific and technological innovation strategy. However, every scientific and technological innovation will always bring profound changes to social structure. Artificial intelligence is no exception in bringing opportunities and challenges to our society. Initially, due to the limitations of machine computing power, exhaustive artificial intelligence only replaced humans at the level of simple choices.

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However, with the development of convolutional neural network technology and adversarial generation methods in recent years, artificial intelligence technology has demonstrated astonishing creativity at the level of intelligent production, which has also brought related challenges, especially forming widespread discussion on the issue of the relationship between humans and artificial intelligence. Whether artificial intelligence is the "Promethean fire" that saves humanity or a "Pandora's box" that destroys humanity, the topic of the alienation crisis caused by artificial intelligence has attracted even more attention. In addition, social problems such as data leaks and employment displacement caused by artificial intelligence in recent years have further created social panic about technological development. In the current context where non-traditional national security factors are increasingly expanding in influence, understanding what kind of security risks artificial intelligence technology can bring is also of great significance to overall social security. On April 28, 2023, the Political Bureau of the Central Committee held a meeting specifically pointing out the need to attach importance to the development of general artificial intelligence, create an innovation ecosystem, and emphasize risk prevention. At the same time, as China actively explores the path of Chinese-style modernization, it is even more important to use Marxist theory to provide contemporary answers to the various problems caused by artificial intelligence. In October 2023, General Secretary Xi Jinping personally proposed the *Global Artificial Intelligence Governance Initiative* at the opening ceremony of the third Belt and Road Forum for International Cooperation, providing ideological guidance and principle guidance for the global joint response to the opportunities and challenges brought by artificial intelligence technology, promoting the building of a community of shared future for mankind in the artificial intelligence era, and advancing new developments in human civilization. In the era when humanity transitioned to large-scale machine production, facing the contradictions between humans and machines and labor contradictions under capitalist conditions, Marx proposed the "alienated labor" theory. This paradigm of alienated labor theory still holds important value to this day, especially in the current moment when artificial intelligence technology development has led to an artificial intelligence alienation crisis in society, it can provide us with a more scientific and comprehensive perspective of historical materialism and offer reliable ideas for dissolving the artificial intelligence crisis.

2. Artificial intelligence alienation: an "all-round" phenomenon of labor alienation

The development of artificial intelligence technology originated from the research of British scientist Turing and American scientist Shannon in the 20th century, aiming to simulate human computing and thinking abilities through machines. At the Dartmouth Conference in 1956, the concept of "Artificial Intelligence" was formally proposed, and the construction idea of artificial intelligence was pointed out: to build a program capable of solving abstract problems. It can be seen that the proposal and development of artificial intelligence technology have a relatively long history. After the layered development of the symbolic school, the behaviorist school, and the connectionist school, artificial intelligence technology achieved a breakthrough from a single exhaustive search mode to a deep learning mode, realized the goal of stepping out of the laboratory, and formed a wide influence in modern society. Nowadays, technology companies such as Google and Microsoft regard artificial intelligence technology as an important investment focus, actively developing artificial intelligence products involving industrial production, transportation, family life, media, and many other fields, profoundly influencing all aspects of human life in recent years. In recent years, rapidly developing artificial intelligence systems such as ChatGPT and Sora have on the one hand brought more convenient services to our lives, but on the other hand have also brought serious social crises and panic to human society. Behind the development of artificial intelligence technology is

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scientists' exploration of the deep thinking logic of simulating human behavior, which is both the driving force for the development of artificial intelligence technology, but also in turn forms many challenges to humanity.

The impact of the development of production technology on people is not a new topic. At the beginning of capitalist development, social movements represented by Luddism already demonstrated the conflict between technology and people. After conducting in-depth research on the national economies of Europe, Marx discovered that behind this seemingly "human-technology" contradiction, there is hidden a systemic logic of alienation: on the one hand, the producer forms an oppositional relationship with the product he creates. "The object produced by labor, that is, the product of labor, as an alien being, as a power independent of the producer, stands in opposition to labor. ... The realization of labor is its objectification. In the actual situation of the national economy, this realization of labor appears as the de-realization of the worker, objectification as the loss of the object and enslavement by the object, and appropriation as alienation, externalization" [2]. At the same time, the activity of production also becomes an alien force: "The product is only the summary of the activity, of production. Therefore... in the alienation of the labor object is only summarized the alienation and externalization of labor activity itself" [2]. And such "alienation of things" reveals the "self-alienation" of the person himself. Human beings' production activity of transforming the world becomes an external, dependent means of livelihood; labor is no longer a way of proving existence, but a means of maintaining existence, and thus people split with people into two sides: those bearing the pain of alienated labor and those enjoying the pleasures brought by alienated labor. The alienated labor proposed by Marx refers to the estrangement of the laborer from his own labor product, labor activity, species essence, and others under capitalism. Under this structural alienation, the more wealth the laborer creates, the cheaper he himself becomes. "The more wealth the worker produces, the greater the influence and scale of his production, the poorer he becomes. The more commodities the worker creates, the more he himself becomes a cheap commodity. The appreciation of the world of things is in direct proportion to the devaluation of the world of men" [2]. Artificial intelligence alienation inherits this core logic, but is more concealed and thorough. Artificial intelligence itself exists as a labor product of human science and technology, but at the same time possesses the dual attributes of both labor tool and labor process. Therefore, the alienation relations that were discussed separately in the capitalist large-scale machine production process are integrated in the context of artificial intelligence, making the alienation relations particularly prominent. Taking the labor process as an example, traditional alienation is achieved through external coercion such as factory discipline and assembly line rhythm. The alienation of artificial intelligence, however, achieves "mental governance" through algorithm recommendations, performance scoring, and behavior prediction. In the past, capitalists needed to manage the labor process; now artificial intelligence directly takes over scheduling, evaluation, and even decision-making. "Algorithmic management" changes laborers from "being driven by machines" to "being optimized by data," with labor intensity and mental pressure rising simultaneously. The premise of previous labor alienation was that people were the labor subjects—although labor was distorted, people remained the executors of actions. The danger of artificial intelligence alienation lies in the possibility that people may be completely excluded from the production process. When general artificial intelligence gradually replaces cognitive laborers such as white-collar workers, lawyers, and doctors, alienation is no longer manifested as "painful work," but may become "unneeded unemployment." This is a leap from "exploitative alienation" to "existential alienation."

In addition, from the perspective of the antagonistic nature of alienation, previous labor alienation still had resistance subjects. Workers could fight for rights through strikes and negotiations. But

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when confronting artificial intelligence alienation, laborers cannot even find a clear opponent; everyone is confronting an omnipresent but intangible "logic." Artificial intelligence alienation is not a negation of labor alienation, but its self-upgrade in the digital era—from controlling people's "muscles" to controlling people's "choices"; from depriving the labor process to possibly depriving labor itself.

3. The crisis manifestations of contemporary artificial intelligence alienation

Currently, among the many discussions on the issue of artificial intelligence alienation, the most focused is on the impact of artificial intelligence on economic activities: machines replacing positions, algorithms monitoring the labor process, and the marginalization of knowledge workers. This is undoubtedly an urgent real challenge, but if it remains only at the level of industrial economic activities, it easily obscures the deeper structural aspects of the alienation crisis. According to Marx's theory of alienated labor, alienation is not only the estrangement of laborers from labor products and the labor process; its essence is the rupture between people and their own species essence and the opposition between people and others. In other words, technological alienation occurs not only between people and technology or technological products, but more profoundly between people and themselves, and between individuals and society. As a powerful contemporary technological form, artificial intelligence precisely amplifies this dual problem.

From the perspective of subjectivity, artificial intelligence profoundly interferes with individual cognition and thinking. Intelligence is an important foundation for humans to obtain subjective cognition. Through personalized algorithms and data analysis, artificial intelligence can predict and even influence people's desires and decisions. Social media pushes shape our preferences, and search engine results frame our horizons, challenging the boundaries and authenticity of the self. Artificial intelligence-generated content further blurs the real and the fictional, shaking the foundation for individuals as subjects to confirm their identity by distinguishing internal and external experiences. In the past, individuals could independently understand the world through reason and experience. Artificial intelligence, however, often has a black-box decision logic, and its output results are also influenced by underlying interests and biases. This makes individuals' relationship with artificial intelligence no longer neutral tool use, but an unconscious acceptance akin to faith. More critically, artificial intelligence systems form an information layer that humans cannot directly understand. This dependence is shifting from "auxiliary cognition" to "replacing judgment," weakening individuals' ability to independently acquire real knowledge. In addition, the use of artificial intelligence also seriously affects the moral responsibility judgment of behavior. Individuals should bear moral responsibility for their own actions, which presupposes the predictability and controllability of behavior. But in complex human-machine collaboration scenarios, this boundary of responsibility becomes blurred. For example, in emergency decisions of autonomous driving vehicles or misjudgments in artificial intelligence-assisted diagnosis, responsibility may be dispersed among developers, users, and the artificial intelligence system. This directly threatens the foundation of individuals as moral subjects—the boundary of responsibility becomes uncertain. The impact brought by artificial intelligence is not a complete negation of the individual, but reveals that: in an era of widespread dependence on intelligent systems, the ideal of the "independent, self-sufficient, clearly responsible individual" is becoming unrealistic.

From the social level, the challenges brought by artificial intelligence are even more extensive, with its core lying in its reshaping of human-human relationships, social structures, and the foundations of public life. First is labor alienation and the loss of human social value. Marx's theory of alienated labor describes the separation of workers from labor products. In the artificial

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intelligence era, not only physical labor but also parts of mental labor may be replaced by automation and intelligent agents. This may not only lead to large-scale structural unemployment, but more profoundly, when the traditional chain of "work-value-identity" is severed, people may lose the coordinates for defining their self-worth at the social level, falling into the confusion and loss of dignity of the "useless class." Then there is the alienation of emotional connections and relations of recognition. Honneth's theory of recognition points out that healthy self-identity requires social recognition. Artificial intelligence companions and virtual social interactions may bring "pseudo-recognition," which is a one-way satisfaction that can be shaped by algorithms. Long-term dependence on such relationships may weaken people's ability to establish real emotional connections, handle conflicts, and vulnerability, leading to social atomization, and making human interactions instrumentalized [3].

Again, there is the crisis of public rationality and deliberative politics. Habermas believes that modern society relies on intersubjective communicative action and rational deliberation, but artificial intelligence-driven information cocoons and algorithm recommendations cause the public sphere to be occupied by fragmented information and emotional content [4]. People may no longer approach truth through rational discussion, but fall into endless disputes, making it difficult to form social consensus. At the same time, artificial intelligence may replicate and even amplify existing social discrimination through data biases in areas such as credit, recruitment, and justice. When algorithm decisions classify, score, and rank people, it may form technological social control, limiting individuals' opportunities for upward mobility, replacing "self-shaping" with "digital destiny," and undermining the moral foundation of social mobility.

Finally, technological governance and democratic participation under the background of artificial intelligence also face structural imbalances. When artificial intelligence systems are used for social governance, it may form a kind of algorithmic discipline. This governance is efficient, but the decision-making process is opaque, making it difficult for people to understand, appeal, or participate in formulating rules. The result is that citizens' status as social subjects is downgraded to objects being managed and optimized, weakening the democratic foundation of society.

Current artificial intelligence is still in the stage of weak artificial intelligence, but the speed of technological iteration is astonishing. It can be assumed that in the future it will inevitably come closer to human rational thinking and response patterns. With the birth of artificial intelligence tools with complete machine thinking and transcending the physical body, under capital logic, both tool-like humans who emphasize instrumental rationality and the personification of capital will face threats, thereby constituting the struggle of the entire human race with the perfect tools it has built, and all humanity faces the total crisis of becoming the substantive "slaves" of artificial intelligence. At this point, only by changing the capital logic can humanity's total crisis be resolved and the sublation of intelligent alienation achieved.

4. Realistic paths to dissolve the artificial intelligence crisis

The alienation of artificial intelligence is not the inevitable destiny of technological development, but the product of technological application under capital logic. Marx pointed out in *Capital*: "Technology only manifests man's active relation to nature, manifests his direct process of life production, and thus also manifests his social relations of life and the cultural representations arising from them" [5]. The social crises brought by artificial intelligence have their roots not in the technical elements such as algorithms, computing power, or data themselves, but in the social relations and institutional frameworks in which the technology is embedded. In the capitalist system dominated by private ownership, the development and application of artificial intelligence always

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obey the logic of capital proliferation—pursuing maximum efficiency, minimum cost, and optimal control, rather than serving the all-round development of human beings. Under the capitalist system, people are no longer freely laboring humans, but instrumental humans; artificial intelligence will not crowd out a comprehensively and freely developing person. The instrumentalization and objectification of people is precisely the overall root of artificial intelligence alienation: the technological system created by humans in turn serves capital and thereby dominates people. Therefore, to dissolve the alienation of artificial intelligence, fundamentally it is necessary to change the capital logic on the basis of private ownership, realize the sublation of private ownership, and establish an ownership form oriented toward the common interests of society. This is not simply returning to a planned economy or nationalization, but in a higher social formation, making the means of production truly serve the common needs of social members: when the use of artificial intelligence is no longer solely aimed at maximizing shareholders' interests, but oriented toward reducing labor intensity, shortening necessary labor time, and expanding the space for human free development, the direction of algorithm optimization will shift from "extracting attention" to "liberating time." Under private ownership conditions, the training objectives, decision logic, and data usage permissions of artificial intelligence are controlled by a minority of capital parties. In a society dominated by public ownership, relevant decision-making mechanisms need to incorporate the participation and supervision of multiple subjects such as laborers, users, and communities, so that technological logic and social logic are reunified. At that time, the huge productive forces created by artificial intelligence will, through social sharing and fair distribution mechanisms, transform technological dividends into social welfare, educational opportunities, and leisure time shared by all, thereby dissolving the survival panic of "people being replaced by technology."

Admittedly, it must be acknowledged that the sublation of private ownership is a long-term and complex process of institutional evolution that cannot be accomplished overnight. It requires both fundamental institutional changes and multi-dimensional, multi-level specific practical paths. Therefore, in the transitional stage toward fundamental change, a series of specific paths are needed to alleviate, confront, and gradually dissolve artificial intelligence alienation. First, the most direct victims of artificial intelligence alienation are laborers facing replacement risks. The primary task of dissolving alienation is to transform laborers from "objects dominated by algorithms" to "subjects capable of mastering technology." For example, promote the orderly transformation of backward technical labor forces. Those positions directly impacted by automation and intelligence should not simply allow laborers to become unemployed, but society and enterprises should jointly bear the costs of training and transition. At the same time, from primary and secondary schools to vocational education and adult education, systematically incorporate content such as artificial intelligence principles, data ethics, and algorithmic thinking. The core of education is not to cultivate programmers, but to enable every citizen to understand the basic logic, boundaries, and risks of artificial intelligence, thereby possessing the basic literacy to judge "when to trust algorithms and when to question the system." Only on this basis can we build new capabilities for "human-machine collaboration," focusing on cultivating laborers' critical thinking, cross-domain communication, ethical judgment, and other abilities that artificial intelligence has difficulty replacing, so that laborers maintain their subject position in collaboration with intelligent systems.

Second, from the perspective of overall industrial layout, dissolving alienation requires better creation of new business formats and high-quality employment; reasonable industrial upgrading can open up new development space for replaced labor forces. On the one hand, actively expand employment space in emerging industries and promote full employment and circulation of the labor

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force; on the other hand, promote the development of "supplementary" industries for artificial intelligence, directing policy-guided funds to those artificial intelligence fields that enhance human capabilities rather than simply replace humans. For example, auxiliary diagnosis systems make doctors more efficient rather than replacing doctors; intelligent education platforms assist teachers in teaching according to individual aptitude rather than replacing teachers. At the same time, actively support new occupations that require human judgment, emotional communication, and creative integration, such as algorithm auditors, data ethics consultants, human-machine interaction designers, and artificial intelligence trainers. These positions not only create employment but also constitute reflective and corrective forces on artificial intelligence systems themselves.

From the national perspective, institutional checks and balances are a necessary condition for promoting the sound and reliable development of artificial intelligence. As a socialist country, we must constrain capital logic through legalization and constrain the abuse of artificial intelligence by capital through strong legal systems. This is the most realistic and urgent path to dissolution. For citizens and laborers, clarify the property rights ownership and usage boundaries of user data, and prohibit algorithms from conducting opaque monitoring and scoring of laborers. For example, for groups such as delivery riders and ride-hailing drivers who highly rely on algorithm scheduling, legislate to protect their rights to information, appeal, and offline access. At the same time, improve relevant laws and regulations in industry management, establish systems for algorithm filing, algorithm auditing, and algorithm impact assessment, and clarify corporate legal responsibility for damages to laborers' rights and interests caused by algorithm errors. In addition, the state also needs to strengthen global collaboration and promote joint governance of artificial intelligence that transcends national borders. In the internet context, no single country can dissolve artificial intelligence alienation alone. Capital will flow to regulatory lowlands, and algorithm systems can cross borders to manipulate user behavior. Therefore, it is necessary to promote common governance based on international cooperation, establish transnational artificial intelligence ethics and governance frameworks, share technical transformation experiences and resources, and establish global algorithm supervision and dispute resolution mechanisms.

5. Conclusion

Artificial intelligence technology was born into the world as a tool serving humanity. While it brings efficient and convenient services to humanity, it also creates systemic social crises for human society. The approach of blindly regarding artificial intelligence as just one of the many tools in human history is clearly inadvisable, but it must also be recognized that the social impact brought by artificial intelligence fundamentally does not lie in artificial intelligence technology itself, but in our social mode of production. The alienation crisis brought by artificial intelligence has formed a systematic structural threat from the two dimensions of human subjectivity and sociality. The dissolution of artificial intelligence alienation is not a task that can be accomplished by a single policy or one technological upgrade. It is the dialectical unity of institutional change and practical construction: without the sublation of private ownership, specific paths may degenerate into reparative "digital Keynesianism"; but without the accumulation of specific paths, institutional change also lacks realistic social momentum. In any case, the most fundamental direction is always clear: to make artificial intelligence return from an "alien force dominating people" to a "collaborative tool serving people." This requires us not only to optimize algorithms at the technical level, but also to reconstruct rights relations at the social level. When the wealth created by artificial intelligence is truly used to shorten labor time, expand creative space, and safeguard the all-round

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development of human beings, alienation can be substantively dissolved—at that time, we will no longer be appendages of intelligent systems, but the true masters of technology and destiny.

References

[1] Xi, J. P. (2025). *The governance of China (Vol. 5)*. Foreign Languages Press.
[2] Marx, K., & Engels, F. (2002). *Complete works of Marx and Engels (Vol. 3)*. People's Publishing House.
[3] Honneth, A. (2021). *The struggle for recognition: The moral grammar of social conflicts* (J. H. Hu, Trans.). Shanghai People's Publishing House. (Original work published 1992)
[4] Habermas, J. (2018). *The theory of communicative action (Vol. 1)* (W. D. Cao, Trans.). Shanghai People's Publishing House. (Original work published 1981)
[5] Marx, K., & Engels, F. (2001). *Complete works of Marx and Engels (Vol. 44)*. People's Publishing House.