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Artificial intelligence and the question of human essence from the perspective of Marxist-Leninist Philosophy

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Abstract
The rapid development of artificial intelligence (AI), particularly generative AI, is profoundly transforming labour, cognitive activities, and social relations, raising fundamental philosophical questions about human essence, agency, and social existence. Drawing on Marxist-Leninist philosophy, especially Marx's conception of human essence as constituted through social relations, the role of practical activity, and the theory of alienated labour, this article examines the implications of AI for the realization of human essence in contemporary society. Employing qualitative document analysis, synthesis, historical-logical reasoning, and dialectical analysis, the study explores the contradictions between AI's capacity to enhance human capabilities and the risks of technological dependence and alienation. The analysis argues that AI does not automatically transform the social essence of humanity; rather, it reshapes the material conditions, modes of activity, and social relations through which human essence is historically realized. Based on these findings, the article proposes several orientations for strengthening human agency, creativity, and social responsibility in the development and application of AI in Vietnam.

Keywords: Artificial intelligence, human essence, Marxist-Leninist Philosophy, alienated labour, practical activity, human development

Introduction

The development of AI is driving significant shifts across contemporary economic, political, cultural, and social life. From traditional automation systems to generative AI models capable of processing complex language, imagery, and data, technology is becoming increasingly integrated into activities once considered the exclusive domain of human intellect. While previous industrial revolutions primarily expanded humanity's capacity to influence the physical world through machinery, the current evolution of AI introduces the possibility of delegating certain cognitive, analytical, and creative tasks to technical systems. This transformation not only alters modes of production but also influences how humans perceive themselves, their labor, their knowledge, and their place within social life.

The impacts of AI have extended beyond the realm of technological forecasting, becoming a subject of study within economics, sociology, ethics, and philosophy. According to Gmyrek *et al*. (2023), generative AI tends to transform and augment various professional tasks rather than completely automating entire jobs; however, the extent of this impact varies significantly across different industries and groups of workers.[2] Updated research by Merola *et al*. (2026) further indicates that the productivity gains driven by AI are uneven, while concerns regarding inequality, employment opportunities, and worker autonomy warrant careful attention. [6] These findings suggest that the social implications of AI cannot be assessed solely based on technical performance; rather, they must be examined within the broader context of the economic and social relations that this technology helps to shape.

From a philosophical perspective, the development of AI gives rise to several fundamental questions: When machines become capable of performing complex intellectual activities, what distinguishes human beings from technical systems? If a portion of intellectual labor is automated, does the role of labor in the formation and development of human beings retain its original significance? Does the use of AI in cognitive processes and decision-making diminish human subjectivity? And, at a deeper level, does AI transform human nature itself, or does it merely alter the historical and socio-economic conditions through which that nature is realized?

These questions can be approached from various philosophical schools of thought. Marxist-Leninist philosophy, however, provides a system of categories with significant theoretical value for analyzing the relationships between human beings, the instruments of production, practical activity, and the social conditions that shape human development. Unlike perspectives that define human nature as an abstract, immutable attribute or one determined solely by individual biological and psychological traits Karl Marx approaches the human being as a concrete entity that exists and evolves within specific social relations. In his *Theses on Feuerbach* (1845/1888), Marx asserts that the essence of man, in its reality, is the ensemble of all social relations. [4] This thesis offers a framework for viewing AI not as a force entirely independent of humanity, but rather as a historical product of labor, knowledge, and social relations.

Recent studies have begun to apply categories from Marxist philosophy to the analysis of AI. Sun (2022) identifies the risk of AI becoming an external force that governs human activity, thereby raising questions about new forms of alienation within an intelligent society. [8] Such research contributes to extending the theory of alienation from the context of industrial production to that of data and algorithms. However, an analysis that focuses exclusively on the risks of alienation may fail to fully capture AI's potential to enhance human creativity, learning, and

development. Conversely, an approach that focuses solely on technological progress may overlook the socio-economic conditions that determine how the benefits of technology are distributed and who holds control over it.

Therefore, the issue that requires further clarification is not merely asserting whether or not AI alters human nature; rather, it involves identifying the specific aspects affected, the mechanisms of this influence, and the contradictions that arise as humans engage with AI. In particular, it is essential to distinguish human nature from the specific capacities, activities, and historical manifestations of that nature. At the same time, the development of AI must be situated within the interplay between the forces of production, the relations of production, and social life.

On this basis, the article focuses on three key areas: clarifying the fundamental tenets of Marxist-Leninist philosophy regarding human nature; interpreting the impact of AI on labor, cognition, and social relations; and identifying the contradictions between the potential for liberating human labor and the risks of alienation and technological dependency. Drawing from this analysis, the study proposes several orientations for upholding the human subject's role in the development and application of AI in Vietnam. The article employs methods of document analysis and synthesis, integrated with the historical-logical approach, scientific abstraction, and the method of dialectical materialism. As a theoretical study, it does not utilize primary survey data; empirical evidence is instead drawn from previously published research.

The Marxist-Leninist philosophical perspective on human nature

1. Human beings as a unified entity comprising both natural and social dimensions

Throughout the history of philosophy, the question of human nature has consistently held a central position, interpreted through various premises. Some perspectives emphasize the spiritual, rational, or conscious aspects as the defining factors of human existence, while others view human beings primarily as natural entities governed by biological laws. Marxist philosophy marks a significant shift by examining human beings through the unity of natural conditions, practical activity, and concrete social relations**.**

First and foremost, human beings are a part of the natural world; they possess a biological body and depend on the material conditions necessary to sustain life. In his *Economic and Philosophic Manuscripts of 1844*, Karl Marx (1844/1932) emphasized the inseparable connection between humanity and nature. Humans exist through a material exchange with nature, utilizing natural conditions to meet their needs for survival and development. This demonstrates that human beings do not stand outside the natural world, nor can they exist independently of biological limitations and the material environment. [3]

However, human nature cannot be fully explained from a purely naturalistic perspective. What distinguishes human beings is their capacity to transform the conditions of their existence through purposeful activity and various forms of social cooperation. Humans do not merely adapt passively to their environment; rather, they actively create tools, institutions, and new living conditions. It is precisely through this process that human physical, intellectual, emotional, and social capacities are formed and developed.

The unity of the natural and social dimensions is of great significance for our understanding of AI. While AI systems may simulate or perform certain information-processing functions, this does not mean they share the same mode of existence as human beings. Human activity is inextricably linked to a living body, material needs, a personal history, and specific social relations, whereas AI operates on the basis of technical infrastructure, data, and computational structures developed by humans. From the perspective of Marxist philosophy, one cannot equate these two forms of existence simply because they exhibit similarities in the outcomes of their intellectual tasks.

It is also important to avoid the inverse assumption-that any capacity once considered uniquely human cannot be replicated by technology. The development of AI demonstrates that certain intellectual activities can be modeled and automated to a significant degree. However, functional similarity is not sufficient to establish identity in terms of social essence, subjective consciousness, or the conditions of existence. Therefore, defining the relationship between AI and humans requires a comprehensive analysis, rather than a simplistic opposition between natural and artificial intelligence.

2. Labor and practical activity in the formation and development of human beings

A fundamental contribution of Marxist philosophy is the affirmation of the role of practical activity in the process of human formation and development. Practice is not merely an activity aimed at satisfying immediate material needs; it is also a process through which human beings actively engage with the objective world, transforming the conditions of their existence and developing their own capacities. Within this, material productive labor holds a particularly significant position, as it creates the essential conditions for social life.

In the *Economic and Philosophic Manuscripts of 1844*, Karl Marx (1844/1932) analyzes labor as a conscious activity through which human beings realize their capacities within the objective world. Through labor, individuals not only create products but also develop skills, knowledge, the capacity for cooperation, and the ability for self-awareness. The product of labor, therefore, is both the result of material activity and a reflection of the historical stage of human development. [3]

Human labor is inherently social and historical in nature. No single individual can, on their own, create all the material conditions, tools, and knowledge necessary for productive activity. Each generation inherits the achievements of its predecessors, while simultaneously transforming and further developing them within new contexts. Consequently, the evolution of labor tools reflects the cumulative process of society's growing capabilities.

From this perspective, AI can be understood as a crystallization of intellectual labor and social knowledge within a technical system. The development of AI models requires the integration of various activities, including scientific research, algorithm development, hardware design, data curation, infrastructure organization, and system operation. The capabilities exhibited by AI do not emerge independently of the history of social development; rather, they are rooted in the cumulative achievements of science, technology, and human labor.

It is important to emphasize that the transfer of certain labor functions to machines does not necessarily diminish the role of labor in human development. On the contrary, the advancement of tools can enable labor to shift from repetitive tasks toward activities that require higher levels of organization, creativity, and responsibility. However, this potential can only be realized if workers have access to technology, opportunities to develop their capabilities, and a role in overseeing changes within the organization of production.

Therefore, it is necessary to distinguish between the replacement of specific labor tasks and the loss of the role of practical activity in human life. While AI can undertake certain computational, analytical, or content-creation tasks, the processes of defining social purposes, evaluating consequences, and organizing practical activities continue to require the capabilities, responsibilities, and interpersonal relationships inherent to human agents.

3. Human nature as the sum of all social relations

A thesis of particular methodological significance, formulated by Karl Marx, is presented in his sixth thesis on Feuerbach. According to this view, human nature is not an abstract, inherent attribute of an isolated individual; rather, in its reality, it is formed and manifested through the sum of all social relations (Marx, 1845/1888). [2]

This perspective, first and foremost, overcomes an approach that views the human being as an individual existing in isolation from history and society. Real, living human beings are always embedded in specific relations-those within production, the family, the community, politics, law, culture, and various other forms of social interaction. These relations not only provide an external environment for individual development but also play a role in shaping human needs, capacities, value systems, and modes of action.

In *The German Ideology*, Karl Marx and Friedrich Engels emphasize the intrinsic link between material life, productive activity, and various forms of social consciousness. Human development must be examined in light of actual living conditions and the historical transformation of social life (Marx & Engels, 1845-1846/1932). [5] This demonstrates that the social nature of human beings is not an immutable category-divorced from history-but one that is realized within social conditions and relations that are in a constant state of flux.

The development of AI is directly impacting these relationships. In the realm of labor, AI alters the division of tasks and the dynamics between workers and employers. In education, it influences the relationships among educators, learners, and knowledge. In media, algorithmic systems participate in the selection, organization, and distribution of information, thereby shaping public opinion and social communication. In governance, decision-support systems can transform the relationships between individuals, organizations, and public institutions.

However, AI does not inherently create a new social reality entirely separate from humanity. It is the underlying relations of ownership, management, distribution, and usage of technology that determine whether AI serves as a tool to expand human capabilities or as a mechanism that increases dependency. Therefore, any study on the impact of AI on human nature cannot focus solely on the technical capabilities of these systems; it must also examine the social conditions that govern the development, control, and distribution of the benefits derived from such technology.

Based on the three aspects mentioned above, it can be affirmed that the approach of Marxist-Leninist philosophy allows for an examination of the relationship between AI and humanity in its totality. Human beings are simultaneously natural entities and subjects of practical activity, while also existing and developing within historically situated social relations. AI influences human development by transforming material conditions, modes of activity, and the structure of social relations. This provides a theoretical foundation for further analyzing the specific impacts of technology on the process of realizing human essence.

The Impact of AI on the realization of human nature

1. AI and the transformation of creative labor

Labor is one of the areas that most clearly demonstrates the impact of AI on human life. With its capacity to process large-scale data, identify patterns, and assist in content creation, AI is now integrated into various stages of the production process. Tasks that once demanded significant time and human effort-such as synthesizing information, verifying data, programming, or processing text-can now be supported by intelligent systems.

From the perspective of Marxist philosophy, this transformation reflects a new stage in the development of the productive forces. Tools of labor are increasingly taking on complex functions, thereby expanding humanity's capacity to exert influence upon the objective world. If organized appropriately, AI can help alleviate monotonous labor, save time, and enable workers to focus on creative endeavors, research, and the resolution of multifaceted, complex problems.

Research by Gmyrek *et al* (2023) indicates that the impact of generative AI on employment should be analyzed at the level of specific tasks, rather than equating the automation of certain tasks with the complete replacement of an entire profession.[2] This approach is significant as it allows for the identification of potential synergy between human workers and technology. AI can handle information-processing operations, while humans continue to carry out tasks such as defining objectives, organizing activities, evaluating outcomes, and assuming responsibility for decisions.

However, the development of productive forces does not automatically guarantee a corresponding advancement in the capabilities and living conditions of all workers. If the adoption of AI is driven primarily by cost-cutting-without mechanisms for retraining, career transition, or the equitable distribution of benefits-some workers may face the risk of job loss, skill degradation, or limited access to high-value tasks. In such a scenario, technology could widen the gap between society's productive capacity and the developmental opportunities available to individuals.

Another significant issue concerns the transformation of the creative dimension of labor. Creativity is not merely measured by the novelty of a final product; it also encompasses the ability to identify problems, define objectives, organize the execution process, and evaluate the social significance of the outcomes. When AI generates a text, an image, or a technical solution, the human role may shift from executing every step directly to defining requirements, selecting options, and overseeing quality. This could represent a new stage in the evolution of intellectual

labor, provided that humans retain their capacity for agency and a deep understanding of the production process.

Conversely, when workers merely perform tasks dictated by a system-without a clear understanding of its underlying principles, limitations, and operational purpose-AI may diminish their professional autonomy. Therefore, the criteria for evaluating the impact of AI on creative labor should extend beyond productivity or the degree of automation; they must also encompass the extent to which the technology fosters the development of human capabilities, independence, and the conditions necessary for creative work.

2. AI and the issues raised regarding human consciousness and cognition

One of the prominent philosophical questions of the AI era concerns the relationship between the information-processing capabilities of machines and human consciousness and cognitive activity. Advancements in natural language processing and machine learning have enabled AI systems to generate structured responses, solve problems, and assist with a wide range of intellectual tasks. This has complicated the boundaries between the capabilities once considered unique to human intelligence and the functions performed by machines.

From the perspective of dialectical materialism, human consciousness is linked to the activity of the brain and is, at the same time, formed and developed through labor, language, and social relations. In *The German Ideology*, Karl Marx and Friedrich Engels examine consciousness in relation to actual living conditions, emphasizing that it cannot be explained in isolation from material life and social history (Marx & Engels, 1845-1846/1932). [5]

Applying this approach reveals a need to distinguish between the processing and representation of information, on the one hand, and consciousness-viewed as a phenomenon tied to a living subject and social life-on the other. While AI is capable of leveraging statistical relationships, generating linguistic expressions, and supporting reasoning under specific conditions, these functional abilities are insufficient to demonstrate that AI possesses subjective experience or a form of consciousness comparable to that of humans. Furthermore, the question of whether AI can possess consciousness remains a subject of debate within the philosophy of mind and cognitive science; consequently, it cannot be resolved solely through the observation of a system's external behavior.

A more significant impact on current practice is the increasingly deep integration of AI into human cognitive processes. Rather than carrying out every step of searching for, analyzing, and synthesizing information themselves, individuals can utilize intelligent systems as a form of support. This can accelerate access to knowledge, broaden learning capabilities, and enable engagement with subjects that lie beyond the user's original area of expertise.

However, such cognitive support can also lead to new forms of dependency. When users accept AI-generated results without verifying sources, evaluating underlying assumptions, or understanding how the answers were derived, there is a risk that critical thinking may decline. This dependency does not necessarily stem from an individual's limited capacity; rather, it is also linked to how technology is designed, the environment in which it is used, and the mechanisms that prioritize speed and convenience over cognitive depth.

From the perspective of Marxist-Leninist philosophy, cognition and practice exist in a dialectical relationship. Cognition is not merely the reception of information; it is a process in which human beings apply knowledge to practice, test the validity of their understanding, and adjust their actions accordingly. Therefore, the application of AI must be situated within a cognitive cycle in which humans retain the roles of defining problems, engaging in critical reflection, verifying results, and assuming responsibility for the outcomes. While AI can expand access to knowledge, it cannot replace the necessity for the cognitive subject to remain proactive.

3. AI and the Transformation of Social Relations

According to Karl Marx, the social nature of human beings is formed and manifested through real-world relationships. Consequently, the impact of AI on human life extends beyond changes in individual capabilities; it also manifests in the restructuring of relationships among individuals, organizations, and communities.

In production, AI transforms the division of labor, management, and coordination among various stakeholders. Algorithmic platforms can be used to allocate tasks, monitor performance, and evaluate workers. On the positive side, these systems have the potential to improve production organization, reduce errors, and support the distribution of resources. However, when evaluation criteria lack transparency or workers have no mechanism for providing feedback, control over the labor process may become concentrated in the hands of the few entities that own and operate the technology.

In the field of education, AI expands access to knowledge and facilitates the personalization of learning. Learners can utilize tools that provide explanations, guidance, and feedback tailored to their specific needs. However, the educational relationship cannot be reduced to a mere process of information transmission. Teaching and learning are also deeply connected to the formation of character, the development of independent thinking, the capacity for collaboration, and the cultivation of social responsibility. Consequently, the expanded use of AI must be balanced with the preservation of the human role in education and the maintenance of essential forms of social interaction.

In the realms of media and community life, AI increasingly plays a role in organizing and distributing information. While content recommendation systems can help individuals access relevant information, they may also contribute to the creation of biased information environments if mechanisms ensuring diversity and transparency are lacking. As social relations become increasingly mediated by digital platforms, control over data and algorithms emerges as a significant factor influencing the ability of various actors to participate on an equal footing.

Notably, AI not only alters the relationship between humans and machines but can also indirectly affect relationships between humans themselves. When decisions regarding hiring, resource allocation, or individual performance evaluation are supported by algorithms, the outcomes generated by these systems can influence the opportunities and social status of the individuals involved. Consequently, the study of the relationship between AI and human nature

must shift from asking what machines are capable of doing to examining how power, responsibility, and benefits are distributed within social relationships that involve AI.

4. AI and the question of human subjectivity

Subjectivity is manifested in the human capacity to perceive the conditions of one's existence, define goals, select courses of action, and exert an influence back upon one's circumstances through practical activity. In Marxist philosophy, human beings are not merely products of their social circumstances; rather, they also participate in transforming those circumstances through conscious action. Consequently, human development is inextricably linked to the degree to which individuals are able to master the objective conditions of their lives.

AI creates new conditions for the expansion of human agency. Through tools that facilitate analysis and simulation, individuals gain access to courses of action that were previously difficult to conceive or required significant resources to execute. In fields such as scientific research, management, and production, AI can assist people in evaluating complex options, thereby enhancing their capacity to act proactively when addressing real-world challenges.

However, human agency may be diminished if the decision-making process shifts from humans to systems that lack transparency and effective oversight mechanisms. The core issue is not merely whether a system produces accurate results, but whether users have the capacity to understand, critically evaluate, reject, or adjust those outcomes. A decision supported by AI may still lack true autonomy if human involvement is reduced to a mere formal approval, devoid of any substantive capacity for evaluation.

From a dialectical perspective, human agency does not require individuals to personally execute every stage of an activity. The evolution of tools has always entailed the delegation of certain functions to external means. What remains decisive is whether humans retain the ability to define objectives, control the means employed, and assume responsibility for the social consequences of their actions.

Thus, AI does not inevitably diminish human agency, nor does it automatically guarantee its enhancement. Whether agency is expanded or constrained depends on technological design, the proficiency of users, and the social relations that govern access, decision-making authority, and responsibility regarding the system.

Dialectical contradictions between ai and human development

1. The contradiction between the potential to emancipate labor and the risk of alienation

The development of AI exhibits a prominent contradiction between the capacity to expand productive forces and the risk of increasing human dependence on conditions created by humans themselves. On the one hand, technology can replace strenuous, dangerous, or repetitive tasks, creating conditions to reduce necessary labor time and expand creative capabilities. On the other hand, under certain conditions of production organization, AI can be used to intensify control and surveillance, thereby diminishing workers' autonomy.

To comprehend this contradiction, Karl Marx's theory of alienated labor can be applied. In the Economic and Philosophic Manuscripts of 1844, Marx analyzed the condition wherein workers are separated from their products, their labor activities, their species-being, and their social relations with other humans. Products created by labor can become an opposing power to the producers within defined social relations (Marx, 1844/1932). [3]

Applying this to the context of AI requires distinguishing between objectification and alienation. The transfer of human knowledge, skills, and operational capacities into machines is a form of objectifying human power, which does not inherently carry a negative meaning. Conversely, alienation emerges when these achievements, within specific social relations, become a dominating force that limits human mastery and autonomy.

Sun (2022) argues that AI is generating new risks of alienation as intelligent systems become deeply involved in social organization and have the potential to become an external power over the individual. [8] This argument suggests the possibility of expanding the category of alienation from the industrial labor environment to the digital environment, where data, algorithms, and intelligent infrastructure play an increasingly crucial role.

In practice, the risk of alienation can manifest through phenomena such as workers being constantly monitored by algorithms, professional capabilities being reduced to software-dependent operations, or the results of intellectual labor being exploited through systems where the subjects creating the data and knowledge lack proportionate control. However, not all forms of automation or data analysis constitute alienation. Determining the extent of alienation must be based on the subject's right to control, voluntariness, working conditions, and capacity for substantial development.

Therefore, the contradiction between the emancipation of labor and the risk of alienation is not purely a contradiction between humans and machines. In its social essence, it is also a contradiction between increasingly developing productive forces and the mechanisms of organization, ownership, management, and distribution that may not yet ensure workers can proportionately benefit from technological achievements. Resolving this contradiction requires not only technical improvements but also the perfection of social conditions to promote human mastery and self-determination.

2. The contradiction between the expansion of cognitive capacity and dependence on algorithms

AI has the capability to increase human capacity for information processing and access, but simultaneously creates the risk of dependence on processing systems that users do not fully understand. This is a contradiction of particular significance for intellectual development and the independence of the cognitive subject.

First, AI contributes to expanding access to knowledge, assisting users in analyzing data and formulating problem-solving alternatives. These tools can create conditions for individuals to access fields of knowledge outside their initial expertise, while simultaneously shortening the time required to perform technical tasks. In this sense, AI becomes a supplementary means for cognitive and practical activities.

However, the expansion of information processing capacity is not identical to the development of independent thinking capacity. If the process of learning and working focuses solely on acquiring ready-made results, users may reduce their participation in analytical, critical, and self-verifying

activities. In such an environment, the convenience of technology has the potential to create a form of cognitive dependence, where individuals evaluate their intellectual capacity through the ability to receive quick answers rather than the ability to comprehend and explain a problem.

From a philosophical perspective, this contradiction demonstrates the need to distinguish between the expansion of cognitive means and the substantive development of the cognitive subject. Technology only exerts a positive impact on humanity when integrated into the process of forming thinking capacity, wherein the user maintains an active, self-determined role regarding the purpose, method, and verification of knowledge.

Another aspect is the lack of transparency in some AI systems. In domains with significant impacts on human life, the formulation of decisions based on inexplicable algorithms can create a gap between the ability to use technology and the ability to control it. Consequently, users may achieve immediate efficiency but suffer from a limited capacity to self-evaluate the very decisions that affect their own lives.

The above contradiction cannot be resolved by eliminating AI from the cognitive process. On the contrary, the imperative is to develop digital competence, critical thinking, an understanding of technological limitations, and appropriate verification mechanisms. Dialectically, the mastery of technology must be perceived as a process of simultaneously developing both technical capacity and human subjective capacity.

3. The contradiction between the socialization of knowledge and the centralization of technological control

AI is a highly cumulative and socialized achievement. The development of intelligent systems relies on the accomplishments of multiple scientific disciplines, diverse data sources, and the collaboration of various actors across different historical periods. However, control over computing infrastructure, models, data, and commercial exploitation can become concentrated within a few highly resourced organizations.

From the perspective of Marxist political economy, this phenomenon must be analyzed through the relationship between the social nature of the knowledge creation process and the forms of ownership, appropriation, and distribution of benefits derived from the application of knowledge. The socialization of the technological innovation process does not inevitably lead to an equitable distribution of access rights and benefits.

It is noteworthy that the centralization of control over AI can recursively impact the conditions for human development. Individuals and organizations with access to the necessary infrastructure, data, and skills will have greater opportunities to enhance productivity and expand their capacities. Meanwhile, under-resourced groups may face difficulties in accessing and benefiting from technology, thereby widening the developmental gap.

This polarization can also affect the right to participate in defining the operational rules of technology. As AI systems impact education, labor, information, or public services, the lack of participatory and supervisory mechanisms can diminish transparency and accountability.

Therefore, the contradiction between the socialization of knowledge and the centralization of technological control necessitates the development of appropriate governance institutions. The objective is not only to expand the capacity to use AI but also to ensure the conditions under which social subjects can participate in, oversee, and reap the benefits of technology.

4. The dialectical significance of the contradictions for the question of human nature

The aforementioned contradictions demonstrate that AI cannot be evaluated one-dimensionally as a strictly inevitable means of either emancipating or alienating humanity. Within the same process of technological development, positive potentials and negative risks can coexist, interact, and transform into one another depending on economic, social, and institutional conditions.

From a theoretical perspective, this allows for the distinction between the development of society's technical capacity and the comprehensive development of human beings. Society's possession of more intelligent tools does not automatically equate to better developmental conditions for every individual. Human development further depends on access to knowledge, mastery over one's activities, the quality of social relations, and the conditions that guarantee the free development of the individual.

From the perspective of Marxist-Leninist philosophy, the resolution of these contradictions cannot rely solely on technological progress but requires a corresponding transformation of social conditions. AI can only become a means of promoting human development when technological achievements are organized and utilized in a manner that expands creative capacities, conditions for social participation, and genuine human mastery.

Therefore, the core issue lies not in how many isolated human functions AI can replace, but rather in how the development of AI is transforming the conditions under which humans engage in conscious activity, participate in social relations, and cultivate their own capacities. This constitutes the foundation for considering the trajectories of AI development and application from a human-centric perspective.

Orientations to promote human agency in the age of ai: a marxist-leninist philosophical approach and practical implications for vietnam

1. Establishing human development as the objective of ai application

From the perspective of Marxist-Leninist philosophy, the development of productive forces must be examined in relation to human development and social relations. This necessitates distinguishing technological progress from social progress. An AI system may achieve high processing efficiency but will not necessarily generate corresponding social benefits if it exacerbates inequality, diminishes autonomy, or restricts the developmental opportunities of a segment of the population.

Therefore, the first orientation is to establish human development as the central goal in the research, deployment, and evaluation of AI applications. Technological efficacy must be measured not only by productivity, processing speed, or cost-efficiency, but also evaluated through its impacts on employment quality, access to knowledge, privacy, autonomy, and social participation.

This approach resonates with the principles established by UNESCO (2021) in its *Recommendation on the Ethics of*

Artificial Intelligence, wherein human dignity, human rights, fairness, transparency, and human oversight hold pivotal roles.[9] Although the UNESCO framework and Marxist-Leninist philosophy originate from distinct theoretical foundations, both provide essential rationales for deliberating social responsibility in technological development.

For Vietnam, this human-centric orientation must be concretized in digital transformation and AI development programs. The evaluation of technological projects requires attention to extra-technical impacts, particularly their effects on vulnerable labor groups, individuals with limited technological access, and communities directly impacted by automated decisions.

2. Developing the capacity for technological mastery in conjunction with education and training

The capacity to master AI is determined not only by the prevalence of the tools but also depends on each individual's capacity to perceive, utilize, and control the technology. Therefore, education and training play a crucial role in transforming AI into a means for developing human capacities.

First and foremost, it is necessary to develop digital competence and fundamental AI literacy, including the ability to identify the functions, limitations, biases, and risks inherent in the outputs generated by these systems. Users must be equipped with methodologies to evaluate information reliability, verify sources, and determine accountability for decisions involving the use of AI.

Furthermore, education must focus on cultivating competencies that cannot be evaluated solely through information processing speed, such as critical thinking, problem-posing abilities, collaborative skills, ethical judgment, and creativity in practical situations. As AI increasingly assists with numerous academic and professional operations, educational objectives must shift decisively from information retention to the development of capacities for application, critique, and knowledge creation.

In Vietnamese higher education, the use of AI should be integrated with clear requirements regarding academic responsibility and integrity. Learners can use AI to seek suggestions, support analysis, or verify argumentative structures, but they must clearly distinguish between tool-assisted products and their own intellectual contributions. Forms of assessment and evaluation must also prioritize the ability to explain, apply knowledge to real-world situations, and defend arguments, rather than solely evaluating the final written product.

For the workforce, the imperatives of reskilling and upskilling must be situated within a comprehensive human resource development policy. The process of technological transition must be accompanied by appropriate support programs to ensure that workers are not excluded from the labor market simply due to a lack of conditions to adapt to new modes of production.

3. Refining AI governance mechanisms to ensure human agency and social responsibility

One of the issues raised by the theory of alienation is the possibility that human-created products may evolve into a force that exerts control back over the actions of their creators. To mitigate this risk within the context of AI, it is essential to establish governance mechanisms that ensure human control, oversight capabilities, and accountability.

First, AI systems used in areas that significantly affect individuals' rights and interests must be subject to appropriate risk management mechanisms. When AI is employed to support recruitment, evaluate learners, provide public services, or facilitate decision-making in sensitive domains, it is essential to ensure that those affected have the opportunity to receive explanations, provide feedback, and request a review when necessary.

Second, the accountability of organizations that develop and deploy AI must be strengthened. Risks related to personal data, algorithmic bias, or inaccurate information cannot be shifted entirely onto end-users. Responsibility must be clearly defined based on the specific role each entity plays in the design, provision, management, and use of these systems.

Third, greater emphasis must be placed on the right of affected groups to participate. Policy development and the deployment of technology are not merely technical matters for experts; they also concern the interests of workers, learners, communities, and various social groups. Mechanisms such as public consultation, impact assessment, and social oversight can help mitigate the imbalance between technological power and human agency.

These orientations are significant in the context of Vietnam’s ongoing efforts to promote the research and application of AI . On January 26, 2021, Decision No. 127/QĐ-TTg was issued, establishing the National Strategy for Research, Development, and Application of Artificial Intelligence through 2030.[7] Subsequently, Resolution No. 57-NQ/TW, adopted by the Politburo on December 22, 2024, set forth breakthrough directions for science, technology, innovation, and national digital transformation. [1] These policy directives provide a vital framework for the development of AI, while also emphasizing the need to align technological advancement with the quality of human resources, governance capacity, and broader social benefits.

4. Aligning AI development with ensuring equity in access to and enjoyment of technological achievements

The development of AI has the potential to create new opportunities, but it can also exacerbate disparities among social groups if technological benefits are unevenly distributed. Therefore, from the perspective of Marxist-Leninist philosophy, the issue of equity in access to and enjoyment of technological achievements must be considered as an aspect of human development.

First, it is necessary to narrow the gap in infrastructure and skills across different regions, professions, and demographic groups. As services are increasingly provided through digital platforms and AI, technological accessibility becomes a condition that directly affects opportunities for education, employment, and participation in social life.

Furthermore, AI development policies must prioritize employment quality and working conditions. Technological transformation is not merely a process of tool substitution; it alters the division of labor, skill requirements, and mechanisms of income distribution. Supporting reskilling and upskilling, protecting the legitimate rights and interests of workers, and promoting opportunities to participate in high-value activities are imperatives that demand significant attention.

Simultaneously, it is essential to encourage AI applications capable of generating broad social value, particularly in education, healthcare, public administration, and support for groups with limited access to services. These applications must be evaluated based on their practical efficacy and capacity to serve the public, rather than solely on the quantity of deployed systems.

Thus, human-centric AI development is not merely about supplementing technology with ethical principles; it intricately involves organizing social conditions so that citizens are capable of accessing, mastering, and benefiting from scientific and technological progress. This is an imperative of enduring significance for the objective of human development within Vietnam's digital transformation process.

Conclusion

The development of artificial intelligence is precipitating significant transformations in modes of labor, cognitive activities, and the structure of social relations, while simultaneously necessitating a re-examination of several traditional conceptions regarding human capacity and position within the technological world. From the perspective of Marxist-Leninist philosophy, the study of these transformations must proceed from the conception of the human being as a natural-social entity, the subject of practical activity, and simultaneously the product and the subject of historically specific social relations.

The analytical results demonstrate that AI, considered as an achievement of social labor and knowledge, does not automatically alter the social essence of human beings. However, this technology is profoundly impacting the conditions and modalities through which human essence is actualized. In labor, AI expands productive and creative capacities but concurrently gives rise to the risk of diminished professional autonomy. In cognitive activity, AI contributes to increasing the capacity to process and access knowledge, but also poses the risk of dependency on algorithmic outputs. In social life, AI creates new forms of connection and operational organization, while potentially exacerbating the centralization of control over data, technology, and decision-making processes.

The aforementioned impacts reflect dialectical contradictions between the developmental potential of productive forces and the social conditions that determine the actualization of that potential. Therefore, the impact of AI on humanity cannot be evaluated solely on the basis of technological sophistication or economic efficiency. The decisive factor also lies in the modalities of organizing, owning, managing, and distributing technological benefits within specific social relations.

For Vietnam, the development of AI must be intrinsically linked with the objectives of human development, enhancing the capacity for technological mastery, ensuring social responsibility, and broadening opportunities to access scientific and technological achievements. Promoting the subjective role of human beings does not imply restricting the development of AI, but rather establishing the conditions for technology to become a means of expanding freedom, creative capacity, and social participation.

Hence, it can be affirmed that the fundamental philosophical problem posed by AI is not merely the boundary between human intelligence and machine intelligence, but rather the capacity of human beings to continue mastering the material and social conditions of their own making. Resolving this problem requires integrating scientific and technological progress with the development of human capacities and the perfection of social relations. This also constitutes a crucial methodological value of Marxist-Leninist philosophy for comprehending and orienting the development of AI in modern society.

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