

Reflection on the Alienation of Digital Labor under Digital Capitalism: Based on the Analysis of the Economic and Philosophic Manuscripts of 1844

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Abstract:

American scholar Dan Schiller posits that capitalism is undergoing a phase transition, defining the new stage as "digital capitalism." As the world enters the era of the Fourth Industrial Revolution, digital economic development has become an irreversible trend. Against this backdrop, the concept of "digital labor" has emerged as a new paradigm. Under digital capitalism, digital labor persists as a form of labor that embodies Marx's theory of alienated labor from his *Economic & Philosophic Manuscripts of 1844*, with even more concealed exploitation methods and intensified levels of exploitation. Grounded in Marxist theory and referencing the four dimensions of alienated labor theory from the *Economic & Philosophic Manuscripts of 1844*, this paper critically examines the alienation issues in digital labor within contemporary digital capitalism, aiming to ensure that digital labor better serves the majority of workers.

Keywords: Component; Digital capitalism; Digital labor alienation; Theory of alienated labor; Economic & Philosophic Manuscripts of 1844

1. Introduction

Digital labor represents a novel form of work predominantly driven by intellectual and creative activities, utilizing digital technologies and platforms to produce digital products or services within virtual spaces. The alienation of digital labor occurs under digital capitalism, where such labor and its outputs transform into alienating forces exerting dominant control over workers—a phenomenon essentially

extending capital's labor alienation into the digital economy era. By examining Marx's theory of alienated labor (as outlined in the *Economic and Philosophic Manuscripts of 1844*, hereafter "Manuscripts") and its four dimensions: alienation of labor products, alienation of labor activities, alienation of human essence, and alienation of interpersonal relationships, we can reflect on contemporary labor alienation under digital capital. This analysis demonstrates that capitalism's core logic of labor exploitation remains

unchanged, even intensifying with technological advancements. By bridging classical works with modern realities, this study enriches Marxist theories and conceptual frameworks for the new era.

Firstly, this paper rigorously adheres to the fourfold structure of "alienation of labor products—alienation of labor activities—alienation of human essence—alienation of interpersonal relationships" to conduct a systematic "frame-based analysis" of the new forms of labor under digital capitalism, thereby enhancing the theoretical understanding of digital labor alienation through logical coherence. Secondly, in terms of problem orientation, the study highlights how digital technology intensifies the concealment of alienation mechanisms—where alienation no longer manifests as overt forced labor but internalizes as "self-discipline under the guise of freedom," "unpaid production within leisure activities," and "trust substitution mediated by algorithms." This demonstrates that digital labor alienation under contemporary capitalism features more covert forms of exploitation and greater severity. Lastly, in terms of value orientation, the paper integrates Marx's critique of political economy with digital governance perspectives, extending beyond mere exposure of alienation phenomena to advocate for the public ownership of digital production means and equitable distribution of data revenues, thereby bridging theoretical critique with practical constructive approaches.

2. Alienation of Labor Products: Functional Alienation of Digital Products

2.1 The Formation of Data Goods and the Deprivation of Labor Outcomes

Marx pointed out: "The worker becomes all the poorer the more wealth he produces, the more his production increases in power and size. The worker becomes an ever cheaper commodity the more commodities he creates." In the digital age, users' daily behaviors—including clicks, browsing, searches, likes, and comments—consciously generate data products. These datasets form the fundamental elements of social interactions and economic activities, holding immense economic value. Yet digital capitalists leverage their market dominance and users' "voluntary" privacy agreements to skillfully transfer ownership of data products from digital workers to themselves. While users are data producers, they retain no real ownership of these products and instead become subjects of platform analysis

and prediction—a digital manifestation of the principle that "value appreciation in the material world parallels devaluation in the human world." As workers create data value, they simultaneously lose their entitlement to it, with their labor outcomes functioning as alien forces that ultimately dominate them.

2.2 The functions of digital products range from use value to exchange value

User-generated content created with digital tools (e.g., comments, videos, lifestyle records) initially serves social or self-expression purposes. But once on platforms, it's appropriated by capital as "data commodities" with exchange value. Platforms package user data for advertisers or targeted marketing, turning digital products from meeting human needs into tools for capital appreciation. Their original use value is overshadowed by exchange value, and product functions shift from fulfilling human needs to capital accumulation, which is the core of functional alienation in digital products. Also, workers' content can influence their own consumption. As the Manuscript says, "It produces beauty—but for the worker, deformity." It produces intelligence—but for the worker, stupidity, cretinism." When labor products detach from workers, they become tools for capitalists to dominate laborers. As users create "beauty" and "intelligence," they fall into information cocoons and cognitive narrowing, a digital manifestation of product functional alienation as Marx revealed. Labor products should objectify workers' capabilities and meet their needs. However, under digital capitalism, data products are no longer for meeting user demands but are commodities for platforms to profit from.

2.3 Materialization of Attention and Value Exploitation of Workers

Marx pointed out: "It produces palaces—but for the worker, hovels. The more refined and abundant the products of labor become, the more crude and impoverished the workers are. In the "attention economy" era, users' time, attention, and privacy are objectified, with viewing duration quantified and commodified into digital metrics. Platforms extend user engagement through algorithmic recommendations and content delivery, extracting attention resources to generate advertising revenue, while workers' value creation is exploited for profit. User-generated data, through mechanisms like "information cocoons" or "personalized recommendations," becomes a "foreign force" that dominates, manipulates, and induces users.

3. Alienation of Labor Activities: Alienation of Digital Production Process

3.1 The Extrinsic Compulsory Nature of Digital Labor

"Under these economic conditions, this realization of labor appears as a loss of realization for the workers; objectification as loss of the object and bondage to it; appropriation as estrangement, as alienation." Alienated labor deprives workers of autonomy in their work, where labor is governed by external forces rather than the subject's free transformation of the object. Marx pointed out that under capitalism, the labor process of workers becomes an alienating activity: 'The more workers appropriate the external world through labor, the more they lose themselves.' Digital platforms employ algorithms to systematically constrain workers' autonomy: ride-hailing drivers' routes and earnings are predetermined by dispatch algorithms, food delivery riders' schedules are monitored through system optimization algorithms, and content creators' creative directions are dictated by recommendation algorithms. While workers may appear free to accept orders and create content, they are actually subjected to algorithmic conditioning. On social platforms, people transition from active engagement to passive participation. Social media usage, which should inherently facilitate interpersonal interaction, becomes a tool for maintaining social connections or gaining traffic under digital capital dynamics—users are compelled to like, share, and stay online continuously, forfeiting their autonomy. "Social labor" driven by social pressures, algorithmic guidance, or monetization anxiety carries inherent coercive characteristics. Workers become passive implementers of digital technologies and platform rules, unable to freely determine their work methods or rhythms, thereby losing the essential traits of voluntary and conscious labor.

3.2 Blurring of the Boundary between Digital Production and Daily Life

In his *Manuscripts*, Marx categorized workers' labor into "work" and "leisure." In digital labor, the boundary between work and leisure becomes blurred, with digital capital covertly infiltrating the labor process through recreational activities. Workers appear free on the surface but are actually being exploited voluntarily. Marx's description of industrial-era labor presents a new paradox in the digital age: leisure activities are transformed by platforms into unpaid digital labor. Users unconsciously generate

data and create content while "playing," appearing free and happy but essentially engaging in forced labor that creates value for platforms. Labor remains external to workers and does not constitute their essential nature. Consequently, workers experience self-negation, unhappiness, physical torment, and mental breakdowns during labor. This labor alienation stems from its detachment from workers' "essence," as users are driven by algorithmic mechanisms and social pressures rather than self-actualization. They derive fleeting false happiness from "play," only to recognize exploitation as "unhappiness." As Marx observed, when external coercion ceases, people will flee this labor like they would an epidemic.

3.3 "Overwork" and Self-exploitation in Digital Production Process

In the Manuscript, Marx cited Schultz's data, stating: "English cotton workers these have been increased, as a result of the entrepreneurs' mania for profit. Between twelve and sixteen hours a day during the past twenty-five years or so—that is to say, precisely during the period of the introduction of labor-saving machines." The widespread use of digital devices and the immediacy of the internet have enabled labor to transcend traditional spatiotemporal boundaries. Although flexible employment arrangements are adopted, the exploitative nature remains unchanged. "Overproduction fatigue" has become a severe issue in digital labor alienation, sometimes even at the cost of human lives. Digital information permeates all aspects of society, eroding temporal and spatial boundaries, depriving workers of spiritual nourishment from daily life and exacerbating the disconnect between labor subjects and human essence. Marx criticized national economics for using impoverished living standards as measurement criteria, reducing workers to insensate entities devoid of needs, treating them merely as laboring machines provided only with subsistence necessities. In the digital era, smart devices integrate labor into daily routines, keeping workers online 24 hours while prolonging working hours and increasing labor intensity. The piece-rate wage model in the gig economy compels workers to extend working hours for additional income, creating "self-exploitation." Workers are reduced to "labor abstractions," with their senses, needs, and family lives squeezed out, leaving only labor functions. As Marx observed, "Workers are completely like horses," and in the digital age, "digital workers are entirely like non-stop servers," permitted only to receive "feed" for basic survival and sustained labor.

4. The Alienation of Human Class Essence: Subject and Alienation of Class Essence

4.1 The Dissolution of Digital Labor and Creativity

Marx stated: "Conscious life activity distinguishes man immediately from animal life activity. It is just because of this that he is a species-being." "In creating a world of objects by his personal activity, in his work upon inorganic nature, man proves himself a conscious species-being." Humanity's defining trait is "free and conscious activity." While animals can only engage in one-dimensional production, humans possess the capacity to create across multiple dimensions and construct according to "aesthetic principles." Within the digital labor framework of digital capitalism, workers' creative expressions are compelled to conform to traffic algorithms and performance metrics, reducing artistic creation to "digital laborers." In this digital labor system, creativity becomes shackled by algorithmic logic: short video creators cater to algorithmic demands, knowledge bloggers chase trending topics, and programmers write code per specifications-all abandoning their inherent pursuit of authentic human existence. Algorithmic mechanisms dictate personal data collection and processing, fostering blind conformity that deviates from "conscious human agency." Workers' conscious actions degenerate into mechanical compliance with algorithms, while creativity gets reduced to repetitive tasks. Humans cease building according to aesthetic principles and instead produce through algorithmic "traffic algorithms," eroding the fundamental freedom inherent to human nature. When creation becomes passive data response, humans become no different from animals, responding reflexively to external stimuli.

4.2 Instrumentalization of Life Activities and Degradation of Human Subjectivity

Marx pointed out: "Estranged labor reverses the relationship, so that it is just because man is a conscious being that he makes his life activity, his essential being, a mere means to his existence." In the state of alienation, alienated labor separates humans from their essential humanity, reducing free and conscious activities to mere means of sustaining physical survival. Under digital capitalism, workers labor not for subsistence but to continuously produce content for metrics like traffic, likes, and followers, turning life into fuel for platform capital accumulation and reducing individuals from ends to means. Marx criticized national economics for reducing workers to insensate,

needless entities and reducing their activities to pure abstraction. In digital labor, human sensations, needs, and capabilities are abstracted and distorted, losing their richness and wholeness. Workers become trapped in animalistic struggles, deprived of time for reflection and self-realization, becoming superficial and gradually abandoning critical thinking. They are reduced to mere profit-making tools for capital, with their subjectivity forcibly diminished.

4.3 The holistic individual is decomposed into quantifiable data points

In cyberspace, individuals exist as data entities, with their authentic and multifaceted identities being forgotten. Under digital capitalism, humans are reduced to quantifiable data points such as age and gender. Platforms utilize this data to create user profiles and deliver targeted content, simplifying human wholeness and complexity into calculable data combinations. Consequently, the authentic and rich totality of individuals in cyberspace is obliterated. In his manuscripts, Marx observed that humans (workers) only perceive themselves as free agents when engaging in animalistic functions like eating, drinking, and reproduction. When exercising human capacities such as creativity, expression, and social interaction, they feel like mere puppets manipulated by others. Conversely, when employing animalistic functions like basic survival needs, they experience a sense of freedom. This precisely illustrates the phenomenon where 'animal things become human things, and human things become animal things.'

5. Alienation of Human Relationships: Alienation Between Communicating Subjects

5.1 The Alienation of Emotional Relationships and Digitalization

The direct result of a person's alienation from their own labor products, life activities, and species essence is their alienation from others. When a person opposes themselves, they also oppose others. Digital communication platforms such as Facebook and Instagram are supposed to foster interpersonal connections, but under the logic of capital, these connections are digitized and commodified. People "communicate" through likes, comments, and shares, with interactions becoming superficial and lacking deep emotional exchange. Users become addicted to virtual socializing, falling into the trap of emotional detachment and digital capitalism: many friends but few confidants, glamorous social circles but lonely hearts, In-

stagram receiving many likes but little genuine feedback. People no longer pursue authentic emotional connections but instead chase virtual images and social capital, leading to self-contradiction, alienation from others, and social relationships being replaced by data-driven connections.

5.2 Trust Crisis Mediated by Algorithms

Marx repeatedly emphasized the antagonistic relationship between capital and labor in his "Manuscripts." While this opposition has been obscured by algorithmic interventions in the digital economy era, it persists. Within digital platforms, workers such as food delivery riders, ride-hailing drivers, and content creators no longer establish direct trust relationships with consumers. Instead, they are matched and evaluated through algorithmic systems. Algorithms have become the "intermediaries" for task allocation, performance assessment, and income determination, replacing human trust with reliance on algorithmic mechanisms. Consumers trust platform rating systems rather than individual workers, while workers rely on algorithmic dispatch fairness rather than direct contractual agreements. However, this algorithm-driven trust framework is highly vulnerable to collapse-issues like algorithmic black-box operations, data bias, and fake transaction evaluations continue to emerge, triggering trust crises between workers and consumers that may even escalate into antagonism.

5.3 The Stiffening of Labor Community Relations

Digital technologies have shattered traditional labor constraints in both time and space, intensifying competition among digital workers in virtual environments. Big data algorithms fragment workers into isolated entities, lacking effective communication and collaboration mechanisms. Under digital capitalism, digital labor has reshaped class relations between digital capital and workers, with capital employing digital technologies as tools to covertly and comprehensively exploit laborers, exacerbating class conflicts. The Manuscript highlights that while labor promotes capital accumulation and social prosperity, it traps workers in capitalist dependency, intensifies competition, and traps them in overproduction. Today, capital exploits workers through digital platforms to accumulate wealth, evolving digital tools into necessities. Workers' reliance on digital tools has led to neglect of real-world communication, causing rigid and disintegrating community relationships.

6.Summary

6.1 Research Conclusion: Continuation and Intensification of Alienation Logic in Digital Age

This study employs the *Economic and Philosophic Manuscripts of 1844* as its theoretical framework to conduct a systematic four-dimensional reflection on the issue of digital labor alienation under digital capitalism. The research demonstrates that although digital labor has assumed new forms characterized by intellectualization, platformization, and flexibility, its underlying capitalist logic remains unchanged. Instead of mitigating alienation, digital technology has intensified exploitation through more covert means, giving rise to new extreme manifestations of labor alienation in virtual spaces.

6.2 The Core Representation of Alienation across Four Dimensions

Alienation manifests the following structural characteristics: At the level of labor products, user data is free appropriated by platforms and transformed into commodities, with its use-value obscured by exchange value; at the level of labor activities, algorithmic systems enforce precise discipline, subjecting labor to both external coercion and internal self-exploitation, while the boundary between work and leisure becomes increasingly blurred; at the level of human essence, creative activities yield to the logic of traffic, reducing the whole person to calculable data nodes; at the level of interpersonal relationships, communication is mediated by data, emotional connections become estranged, and community bonds grow increasingly rigid amid digital competition.

6.3 Theoretical Value and Practical Implications

This paper demonstrates that Marx's theory of alienated labor is not only far from obsolete in the digital age but has instead gained new interpretive dimensions and critical relevance. Digital capitalism represents merely an extension of capitalism's fundamental contradiction under new technological conditions, leveraging technological means to push alienation to unprecedented extremes.

6.4 The direction set by these standards points toward the future path forward

The examination of digital labor alienation under capitalism does not aim to deny the developmental value of the digital economy, but rather to expose the unjust structures underlying its apparent prosperity and to explore practical pathways for labor to return to its free and conscious essence. From the perspective of Marxist political econ-

omy critique, only by promoting the public ownership of digital means of production, democratic participation in platform governance, and equitable distribution of data revenues can digital labor be liberated from the shackles of alienation and truly serve the comprehensive development and shared well-being of the broad labor force.

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