

Craftsmanship and Alienation: Reconstructing Labor Subjectivity from a Marxist Humanist Perspective in the Age of AI

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Abstract. Against the backdrop of rapidly developing industrialization and digitalization, the relationship between the meaning of labor and human subjectivity has once again become a focal point of social concern. Using Marx's theory of "labor alienation" as its core analytical framework, this article examines the manifestations and mechanisms of the "alienation---de-alienation---re-alienation" cycle between industrial production and traditional handicrafts, drawing on four case studies: smartphone manufacturing, Jingdezhen porcelain, Suzhou embroidery, and Zhangqiu iron woks. Employing qualitative comparative analysis, the study, through textual analysis and literature review, reveals the tensions between people, labor, and creativity across different forms of labor. The findings suggest that industrialized production, centered on efficiency and the logic of capital, leads to the comprehensive alienation of workers at the levels of product, process, self, and social relations. On the other hand, handicrafts, through control over the entire production process and emotional engagement, achieve a certain degree of restoration of human subjectivity. However, marketization and technological intervention may also trigger new forms of "re-alienation," particularly in the era of artificial intelligence (AI), where algorithmic production poses a potential risk of "creation without human touch." This article points out that in the future we should advocate "using technology to counter alienation" through digital intangible cultural heritage education, virtual exhibitions and cultural innovation.

Keywords: labor alienation, craftsmanship, artificial intelligence, humanism, intangible cultural heritage

1. Introduction

Industrial modernization has completely transformed the way people work. Machines and mass production have become the primary forces of the economy, and work has become more focused on efficiency, standards, and profitability. This has deprived workers of their own decisions about what to do and how to do it, and human creativity has become separated from the things they produce. In his 1844 Economic and Philosophical Manuscripts, Karl Marx referred to this phenomenon as "alienation," emphasizing that within the capitalist system of production, workers become estranged from their products, from the labor process itself, from their own species-being, and from their

relations with others [1, 2]. This "separation of man" therefore, traditional crafts represent an alternative way of working—one in which thinking, creation, and meaning are all integrated. Artisans create not just for the needs of others but also to improve their skills, express themselves, and realize their own value. Therefore, crafts offer a path to self-realization, allowing people to rediscover creativity and autonomy in a world of machine production. By personally working, feeling the materials, and pursuing beauty, crafts seem to restore what industrial labor has lost: meaning and autonomy in work [3]. This article will compare industrial production and craftsmanship, exploring how traditional crafts interpret, resist, and reinterpret Marx's concept of alienation in modern society through theoretical analysis and case studies. It will first review Marx's four dimensions of alienation and his humanistic interpretation. Furthermore, it will draw on Oliver Assouli's concept of subjectivity in craftsmanship. Together, these perspectives illustrate how different ways of working influence people's thinking and social relationships.

2. Theoretical framework

In his *Economic and Philosophical Manuscripts* of 1844, Karl Marx proposed the concept of "alienated labor" to reveal how capitalist production relations alienate human creative activity into an external, controlled force [1]. Karl Marx's concept of alienation describes how workers become estranged from themselves, or their own human nature, during the process of capitalist production. He believed that work should be a process through which people realize their own value through their creativity. However, in capitalist society, labor is governed by external objectives such as profit, efficiency, and ownership, transforming work into an activity that one has to do rather than wants to do. Workers lose autonomy over their labor and are compelled to follow the dictates of the production system, thereby becoming spiritually estranged from their own humanity. Marx divided alienation into four interrelated dimensions: the product of labor becomes detached from the worker; the labor process is externally imposed rather than self-directed; human essence is suppressed; and individuals become estranged from one another [1].

2.1. Alienation of products

Alienation of products refers to how the product becomes "foreign" to its owner or the worker. When the object produced by the worker becomes separated from the worker, it is no longer an extension of the worker's identity, personality, or will, but an artificial object existing independently under the control of others [4].

In capitalist production, the products created by workers become separated from themselves and transformed into an "external existence." No longer a reflection of the worker's creativity and individuality, the product is owned by the capitalist and transformed into a source of profit. Marx once said, "The worker invests his life in the product, but this life no longer belongs to him, but to the product itself." This separation not only represents a loss of material ownership but also symbolizes a spiritual deprivation. Thus, on the factory assembly line, workers spend countless hours assembling products daily without any ownership or decision-making power over them. Once completed, the product belongs to the company, not the producer. While the goods may generate substantial profits upon sale, this value is not returned to the creator, but is reflected only in a fixed salary. In this process, workers lose both material benefits and the meaning of labor itself.

2.2. Alienation of production process

Marx also believed that alienation exists not only in products, but also in the labor process. According to Marx, alienation also exists in the working process: the act of labor becomes imposed on the worker instead of being self-directed or fulfilling. In modern industrial society, the pace, mode and content of work are all stipulated by external systems, and workers are forced to adapt to the requirements of machines and systems. Labor has transformed from a creative practice into a dominated activity. It is demonstrated by the controlling process of work, where the working rhythm, pace, and method are repetitive and fragmented to comply with efficiency rather than personal expression or mastery. This is precisely what Marx meant by "forced labor", that is, workers cannot realize themselves in the process but merely carry out given orders and complete monotonous repetitive tasks. Foucault extended this idea in "Discipline and Punish". He pointed out that modern factories incorporate individual bodies into the control system through discipline and regular supervision, internalizing the behaviors of workers as "docile bodies" [5]. This precise management of the body and time further intensifies the alienation of the labor process.

2.3. Alienation of the species essence (alienation of the inner self)

In Marx's view, the essence of species-being lies in the ability to transform nature in a free and creative way and to confirm oneself in labor. However, alienation of the inner self is one of the most intimate and profound alienations, which happens due to the alienation of products and production processes. Humans lose connection with their human nature, or "species-being," letting production dominate them [4]. When workers lose control over their labor and products, their creativity and subjectivity are also lost. Workers begin to measure self-worth by productivity rather than creativity. Humans are forced to define their value by output and efficiency, rather than creativity and thought. Fromm called this "man's enslavement by the social forces of his own creation": labor, which should be the confirmation of life, becomes its negation in alienation [6]. Thus, the alienation of the species essence manifests itself as workers no longer being free creators but becoming cogs in the production machine, their "humanity" being functionalized.

2.4. Alienation of interpersonal relationships

In Marx's theory, the alienation of interpersonal relationships describes the process by which social relations between people are objectified. Relationships become competitive and utilitarian exchanges based on economic interest and power [4]. Under the capitalist system, social relations are "materialized" into economic exchange relations. The connection between people is no longer based on cooperation and community, but on competition, interests, and utilitarianism. Workers are forced to compete with each other, and value is measured by output, speed, and efficiency, which weakens collective consciousness and social solidarity. Marx pointed out that this interpersonal alienation causes social relations to be replaced by the logic of capital and the breakdown of individual moral and emotional bonds [1]. Interpersonal relationships are distorted into market relations, and society degenerates from "cooperative symbiosis" to "competitive isolation." Under this structure, human interaction and identity are completely commodified.

3. Case study: industrial production and traditional craftsmanship

3.1. Total alienation in industrial production: the case of smartphone manufacturing

In the modern industrial system, the creative activities of workers have been thoroughly incorporated into the logic of capital. In the assembly line production of smart phones, workers spend countless hours mechanically assembling products, yet they have no say in the design, functionality or ultimate value of the products [6]. These products can be sold for thousands of dollars, bringing huge profits to employers, but workers receive no returns except for their fixed wages. The products created by workers have become a means for others to accumulate capital, rather than an expression of their own creativity.

Furthermore, the alienation of the labor process is particularly pronounced within the factory system. Each worker performs fragmented and repetitive tasks, such as adjusting parts or monitoring machinery, so the product no longer reflects their creativity or purpose. On the assembly line, workers' movements and rhythms are strictly controlled, and their work is broken down into minimal, interchangeable units. Workers become appendages of the machine. The most extreme form of alienation occurs when the product confronts and dominates the worker. The smartphones these workers produce later become tools of surveillance, reinforcing the very system that disciplines them. This phenomenon reveals the paradox of capitalist production: workers use their labor to create objects that control themselves. The factory's disciplinary system and efficiency logic together constitute the typical structure of "modern alienation"—labour produces both material wealth and spiritual poverty.

3.2. The return of subjectivity in craftsmanship

In stark contrast to the industrialized assembly line, traditional handicrafts represent a form of labor that is closer to "non-alienated labor." The products of craftsmen and artisans, on the other hand, are typically not alienated. The craftsman maintains full ownership over the product—from conceptual design to completion. Each work is unique to their philosophy and skill, expressing personal meaning and control. This complete control over the entire process, from design to completion, allows artisans to maintain creative freedom and emotional connection in their work.

3.2.1. Jingdezhen porcelain

Jingdezhen porcelain exemplifies this unity of labor and subjectivity. Jingdezhen porcelain artisans often independently perform shaping, glazing, and firing in family-run workshops. They determine the form, purpose, and decoration of the objects, incorporating aesthetic philosophy into every step of the process [7]. They decide the product's shape, color, and use, embedding their aesthetic philosophy into each piece. Many artists also leave their signatures or unique patterns on their work, making the product a manifestation of their personal experience and judgment. Such labor not only produces material results but also strengthens the worker's connection to themselves and the world. This is precisely the process by which labor becomes a confirmation of humanity, as Marx described "unalienated labor." Therefore, Jingdezhen's handmade porcelain is not only a material product but also a cultural symbol of the union of human spirit and craftsmanship.

3.2.2. Suzhou embroidery

The example of Suzhou embroidery artist Yao Huifen further demonstrates the potential for labor to serve as a means of spiritual self-realization [8]. As Yao Huifen, a national inheritor of Suzhou embroidery, explains, embroidering is "a very natural part" of her life—"as necessary as eating and dressing." She sees embroidery as a natural extension of daily life, not a forced labor. She regards it as entertainment rather than arduous work, feeling relaxed and content throughout months of creative effort. She freely chooses her favorite themes and designs, demonstrating how the craft-making process allows for self-expression and full control over one's work [8]. Labor becomes a combination of freedom and pleasure. Unlike factory workers who "labor for survival," Yao Huifen "labor for expression," embodying the ideal form of humanistic labor: labor is an extension of life, not a drain on it.

3.3. Re-alienation under market logic: the case of Zhangqiu Iron Pot

While handicrafts are inherently satisfying, they are not completely immune to alienation. With the development of globalization and consumer culture, some handicrafts have fallen back into alienation amidst the tide of commercialization. Economic pressures and media influence can shift artisans' attention towards financial gain. Zhangqiu iron woks, renowned for their twelve-step, 36,000-hammer "cold forging" process, exemplify this contradiction. But after the broadcast of the documentary "A Bite of China," market demand for iron woks surged. This surge in demand led to the emergence of counterfeit products and market chaos, with machine-stamped iron woks being sold as handmade [8]. The market's pursuit of profit compresses and even replaces the time and skills of artisans. This pursuit of profit erodes the original craftsmanship, reducing production to fragmented, repetitive, and alienated labor. This shift demonstrates that even the most subjective forms of labor can be "objectified" within the market system. The spiritual value of handicrafts is replaced by the logic of price, and creative freedom once again gives way to external demands.

4. Discussion

The above analysis demonstrates that industrialized production represents the complete alienation of labor, while traditional craftsmanship, to a certain extent, enables a return to human subjectivity. However, in the context of the rapid development of digitalization and artificial intelligence (AI), craftsmanship faces new tensions and challenges. Artificial intelligence and automation have redefined production efficiency and creativity, but they also risk producing a new form of alienation—where technology creates without human touch or emotion. When algorithms can mimic craft designs, replicate patterns, and even generate "handmade" works, the cultural roots and human warmth of craftsmanship are in danger of being diluted. Therefore, the focus in the future should not be on replacing craftsmanship with AI, but on "using technology to counter alienation"—making AI an aid to artisans rather than their master. For example, digital archiving, virtual exhibitions, and intelligent material management can help intangible cultural heritage (ICH) continue to thrive in a modern context while preserving its core humanistic spirit and handcrafted sensibility. Craftsmanship embodies slowness, care, and emotional engagement, and the intervention of AI should amplify these values, not diminish them. To prevent handicrafts from being alienated again under the dual pressures of the market and algorithms, it is necessary to build an ecosystem that takes into account both cultural heritage and technological innovation: through community cooperation, digital intangible cultural heritage education and sustainable brand building, crafts can

become a bridge connecting people, technology and cultural memory, thereby continuing to convey the warmth and meaning of "using human hands to create human hearts" in the intelligent era.

5. Conclusion

This study uses Marx's theory of "labor alienation" as an analytical framework, drawing on case studies from smartphone manufacturing, Jingdezhen porcelain, Suzhou embroidery, and Zhangqiu iron woks to explore the manifestations and evolution of "alienation" and "non-alienation" within different forms of labor. The study finds that industrialized production, centered on efficiency and the logic of capital, represents the complete alienation of labor; workers are deprived of their creativity and subjectivity at the four levels of product, process, self, and social relations. Traditional handicrafts, on the other hand, have, to a certain extent, achieved a return to "humanistic labor." By controlling the entire production process, artisans have re-transformed labor into a process of creativity and spiritual enjoyment. However, with the deepening development of marketization and mediatization, some handicraft practices have fallen back into the dilemma of "re-alienation," their free creativity replaced by commercial demands and consumer symbols. Furthermore, this study suggests that in the age of artificial intelligence and digitalization, the problem of alienation has taken on new forms. The emergence of AI and automation has redefined the boundaries between creativity and efficiency. However, without a humanistic orientation, technology can become "creation without human touch," leading to the further dehumanization of labor. Therefore, future craft practices should strive to "use technology to counter alienation," meaning to make AI an aid to artisans rather than a replacement.

However, the case studies selected in this study primarily focus on traditional crafts within the Chinese cultural context, failing to fully incorporate a cross-cultural comparative perspective. Future research could further analyze the comparative "craft subjectivity" of different cultural traditions within the context of globalization. By integrating philosophical, technological, and sociocultural perspectives across disciplines, future research is expected to provide new theoretical frameworks and practical paths for the "labor humanities in the technological age."

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