

From “Visibility” to “Computability”: How Algorithms Transform User Labour into Symbolic Capital

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Abstract:

In the era of digital capitalism, social media platforms have transcended their role as communication tools to become mechanisms that convert user activity into commodified data and symbolic value. This paper investigates how recommendation algorithms and platform architectures translate user interactions into symbolic capital, and how this process reshapes user behavior and identity—producing novel forms of alienation. Employing a theoretical-synthetic approach that integrates Marx’s concept of alienation, Bourdieu’s notions of field, habitus and symbolic capital, and illustrative case analysis (notably TikTok algorithmic nichification and Weibo’s Super Topic mechanics), the study traces three linked processes: (1) the encoding of user actions into quantifiable digital metrics, (2) the institutionalization of those metrics as symbolic capital, and (3) the internalization of metrics-by-users as self-evaluation standards. The findings show that voluntary user labor is appropriated and monetized by platforms, while users come to equate personal worth with algorithmic indicators, thereby deepening both labor- and identity-alienation. The paper concludes with the limits of the present study and directions for empirical and comparative follow-up research.

Keywords: digital capitalism, symbolic capital, alienation, user identity, social media

1. Introduction

In the wave of digital capitalism, social media platforms have become an integral part of modern life, reshaping communication, self-expression, and meaning-making. However, beneath the seemingly neutral interfaces lies an increasingly complex algo-

rithmic architecture that governs user experiences. Algorithms, often perceived in computer science as abstract, formalized, and value-free procedures, in reality operate as the invisible architecture that determines what users see, how they behave, and even how they understand themselves in digital spaces [1]. These systems — known as recommendation algo-

rithms — measure, predict, and respond to user preferences, providing highly individualized experiences while also embedding a subtle logic of control and commodification [2, 3]. The demand for the growth of technical efficiency prompted the birth of algorithms. However, even for those who most support that algorithms are completely objective, it cannot be denied that there is a large amount of empirical evidence proving that the existing systemic discrimination and inequality are being exacerbated by algorithmic systems [4]. This tension between technological efficiency and social influence raises important questions: How do algorithms transform the nature of human interaction and identity formation on social media? To what extent can user participation, which appears voluntary and expressive, be understood as a new form of alienation under digital capitalism? These questions are urgent because algorithms are no longer mere technical tools; they mediate human relationships, shape cultural production, and reinforce power structures. This article aims to explore how social media platforms construct new symbolic capital in the virtual space through algorithms and induce individuals to internalize and worship abstract data forms, thereby regenerating new alienation in the digital age. This article will first review Marx’s theory of alienation and Bourdieu’s theory of symbolic capital to construct an integrated analytical framework. Then, through specific cases, specifically analyze how the labor achievements and labor processes of users are alienated. Finally, it critically reveals how this process leads to the occurrence of users’ self-alienation, thereby completing the theoretical explanation of the new ruling logic in the digital age.

2. Theoretical Framework

First, Pierre Bourdieu’s framework of field, habitus, and capital provides a map of how social structures shape behavior through “misrecognized” power. A field refers to a social arena in which power relations are enacted and where specific “rules of the game” operate. Each field possesses its own system of values, norms, and hierarchies that determine what counts as success or legitimacy. Each field therefore requires a distinct habitus — a set of dispositions that individuals must internalize to navigate its structure. Through the development of habitus, people learn how to act, think, and perceive in ways consistent with the field’s internal logic. In Bourdieu’s terms, habitus represents deeply ingrained tendencies and skills that guide how individuals interpret and respond to the social world [5].

Success in a field generates different forms of capital: economic (wealth), social (networks), cultural (skills and knowledge), and symbolic (prestige and honor). Bourdieu notes that symbolic capital is the recognized or legitimized form of these other capitals. For example, wealth (economic capital) becomes prestige when publicly displayed, and expertise (cultural capital) becomes authority when institutionally validated. Crucially, symbolic capital “operates as misrecognized power, disguising the underlying inequalities” that produced it. Symbolic capital gives rise to symbolic violence: a subtle domination maintained through common sense. When the dominant class’s values are taken as the norm, subordinate groups come to accept their lower position as natural [5]. For instance, if middle-class tastes are taught as “legitimate culture,” others internalize a sense that their own preferences are inferior. This process is largely unconscious – as Bourdieu puts it, habitus functions as an “invisible engine” that reproduces social hierarchies. In our context, we will see how platform-derived metrics become symbolic capital, and how users internalize those metrics as the only game that matters.

Second, Marx’s theory of alienation addresses how capitalist production estranges workers from their labor. “Alienation” is one of the most commonly used yet ill-defined concepts in modern sociology [6]. To clarify the discussion, we return to Marx’s argument in the *Economic and Philosophical Manuscripts*: alienation means “loss of the object, his product” and “vitality as a sacrifice of life” [7]. Under capitalism, workers do not control what they produce; instead, products are owned by capitalists, and work becomes a means to survive rather than a fulfilling activity. Marx described alienation from multiple dimensions: workers become alienated from the product of their labor, the labor process itself, and their own species-being (creative potential). We will adapt Marx’s insights to the digital era: although social media users are not paid wage laborers, they still generate value (posts, data, attention) that is expropriated by platforms. Users, like factory workers, lack control over how their output is used and owned. While users may enjoy a sense of agency online, much of their ‘product’ (e.g., posts, data, attention) is captured by opaque algorithms and monetized for advertising revenue. Thus, digital interactions risk producing a new form of alienation: users’ creative efforts and emotional investment become detached from any real control or recognition. By combining these frameworks, we can interpret algorithms as institutionalized fields and habitus-shapers, and see metrics as a new kind of symbolic

capital that feeds alienation.

3. Analysis

3.1 Alienation of the Labor Products

Social media platforms rely on a vast quantity of unpaid user content (text, images, videos, and metadata) for their existence, yet the economic benefits generated by this content are predominantly appropriated by the platforms themselves. This constitutes the core mechanism of capital accumulation for social media—the exploitation of users’ unpaid digital labor. User-generated content and their behaviors are transformed into salable data commodities, and the surplus value they create is appropriated by the platforms without compensation. The FTC report on social media data practices explains that companies’ dependence on targeted advertising means they constantly track users and keep them engaged on the platform[8]. In this process, users’ browsing habits, relationships, and creative posts become the raw material for profit. Studies similarly note that platforms will even require users to watch ads or complete tasks for free service, “turning these interactions into unpaid labor” [9]. This process involves the appropriation of users’ cultural and social capital. Users’ preferences, interaction patterns, and creative content—manifestations of their embodied cultural capital—are converted into quantifiable data commodities for algorithm training or targeted advertising. Similarly, users’ social networks, such as friend lists, which represent structural social capital, are monopolized by platforms and transformed into precise advertising channels, effectively privatizing social capital into economic capital for the platform.

This systematic data collection means that the products of users’ digital labor – their attention, personal expressions, and even social ties – are alienated from them. Users do not own or control these outputs; the platforms do. For example, many platforms repurpose user “performance” data to refine algorithms or create advertising profiles [10]. In practice, a user who posts a creative video or insight may see it “liked” and “shared,” but the ultimate ownership and monetization of that content lie with the platform. Thus the outcome of user effort is lost to an external system. However, users often remain unaware that their labor achievements are being exploited. They equate “free” services with creative freedom, overlooking the fact that they are transferring cultural capital (creative content) and social capital (social relationships) to the platforms. This form of exploitation is more concealed than that in tradi-

tional factory systems—users embrace their exploited fate with pleasure and enthusiasm.

3.2 Alienation of the Labor Process

The alienation of the labor process signifies that labor ceases to be a free and conscious activity of self-realization, instead becoming a compelled activity undertaken merely for subsistence. Fuchs argues that algorithmically directed creative labor, disguised as “enjoyment,” reduces creators to optimizing for abstract metrics (likes, views) rather than self-expression[11].

Platforms wield algorithmic power to dictate visibility, turning user outputs into data commodities. Kirk notes that small algorithmic tweaks on TikTok can “make or tank an entire career” for a content creator[12]. According to Duffy et al., algorithmic platforms “assume a position of economic power while driving creators into economic precarity: creative workers might lose their audience and income whenever a platform alters its curatorial structures”[13]. In fact, algorithms can instantly render a user’s output invisible by simply not distributing it. As noted, platforms are thus “empowered to confer or remove ‘visibility and hence status’ for cultural creators” [12]. Therefore, creators must pay close attention to algorithmic trends, which also means quantitative indicators—views, likes, shares, and followers—become the measure of value on social platforms. Creators, consciously or unconsciously, optimize for these indicators rather than expressing themselves freely. This is how the digital habitus is formed: users develop dispositions aligned with the platform’s symbolic logic, learning to use specific hashtags, sounds, or formats to maximize exposure. A field study on TikTok creators found that algorithmic “nichification” confines creators within narrow thematic ranges; participants reported feeling pressured to replicate more of the same content once a video went viral, thereby losing control over their creative identity [14].

A similar process occurs in the “Super Topic” communities on Sina Weibo, where users earn points through daily check-ins, posts, and comments to boost their idol’s ranking [15]. The points system transforms emotional engagement into quantifiable data, subsuming user behavior into the platform’s temporal rhythm. Fans repeatedly, almost ritualistically, employ the same fixed methods to earn points, which are mechanically converted into quantifiable social influence [16]. Through this repetitive, standardized interaction, fan behavior is molded into a digital habitus, stabilizing the operation of the Super Topic community

field[17]. Within this enclosed digital field, “points”—originally a platform-internal, quantifiable data capital—are, through dissemination across social media, constructed within the fan community as symbolic capital, endowed with legitimate authority and prestige [15]. Ultimately, they replace emotional expression as the new symbol of “fan loyalty.” Although users may derive satisfaction or a sense of community from the labor process, the examples of TikTok and Weibo Super Topics collectively demonstrate that the digital labor process itself is dominated and distorted by social media platforms, and the internal motivations for user labor (creativity, emotion) are supplanted by quantified objectives (traffic, points). Ultimately, users form a specific “digital habitus” through this disciplined labor, becoming actors who uphold the platform’s capitalist order, yet moving farther from the labor’s original, self-defined meaning.

3.3 Self-Alienation

The processes of algorithmic self-alienation and the fetishism of metrics are deeply intertwined, culminating in a state where users consciously participate in their own exploitation. Users are not passively shaped by algorithms; rather, they actively, though not autonomously, fashion their online subjectivity in response to the perceived logic of the platform. This deliberate self-modification, driven by the desire for visibility and recognition, leads to a profound estrangement from their authentic selves. In this process, internalized digital habits cause the dominated to see the world from the perspective of the dominant. Projected on social media, this means users start evaluating themselves through algorithmic approval. People define their own value by the number of likes they receive, as Fuchs observed, where people may come to see themselves as partial objects of data, with their social media persona becoming a robotic surrogate distanced from their true self[17, 18].

Cases such as Cesar and Sheila on Facebook exemplify this dynamic: both users consciously adjusted their political expressions—adopting controversial or even offensive language—to align with what they believed the algorithm would reward [19]. They were fully aware that their actions contradicted their personal ethics, yet they pursued this strategy to achieve the perceived “ethical goal” of being seen and validated. In this way, users become the agents of their own alienation, internalizing the platform’s objectives as their own and performing a curated identity designed for algorithmic consumption.

As users increasingly perceive themselves through the lens of algorithmic metrics—likes, shares, and followers—their intrinsic motivations for creativity, community, and self-expression are supplanted by an external, quantifiable measure of worth. Drawing on Bourdieu’s concept of habitus, individuals begin to see themselves and others through the platform’s symbolic logic, where a high follower count is equated with personal success and a lack of engagement is interpreted as social failure [5, 20]. The outcome is a data-driven persona: a meticulously crafted ‘social media self’ that operates as a robotic substitute, progressively alienated from the user’s genuine identity and human essence. De Castro points out that this is precisely a form of digital fetishism. Users knowingly treat their carefully constructed online identities as genuine sources of validation, even while recognizing their artificiality. They depend on these fabricated selves to obtain a form of recognition that feels unattainable offline. At the same time, quantifiable online interactions—likes, points, verification badges—are treated as meaningful achievements despite their inherently abstract and empty nature. These metrics are fetishized as symbolic capital, imbued with an illusory sense of real value. In this way, the platform’s arbitrary standards are internalized and used reflexively by users to judge their real-world selves. The virtual standard becomes the measure of reality. In pursuing these fetishized symbols of worth, users labor to mold both their online and offline identities to conform to the external environment logic of visibility and reward. They become estranged from their own creative labor, from the meaning of their expressions, and ultimately from their sense of self—willingly participating in a system that offers the hollow promise of recognition in exchange for disciplined self-commodification.

4. Discussion

The above analysis illustrates how social media platforms use algorithms to extend both Marxian and Bourdieusian forms of domination. In Bourdieu’s terms, the platform field redefines what is valuable: followers and likes become the new currency of distinction [5,7]. This new symbolic capital is wielded by platform elites (influencers, verified accounts) to reinforce hierarchy. Symbolic violence is evident as ordinary users accept this status quo as natural. Habitus adaptation becomes “invisible”: people unconsciously calibrate their online self-presentation to please an algorithmic audience, just as workers once internalized factory discipline. Marx’s theory helps clarify the

alienated quality of this digital labor [7]. Users produce data and content under compulsion of platform design, yet they do not control or benefit from it. They lose ownership of the products (posts, personal data) to the platform's economy. Like industrial workers estranged from the fruits of their labor, social media users are cut off from the meaning and value of what they create. In this sense, social media fosters a new alienation: the user's identity and activities are turned into commodities beyond their agency.

It is important to acknowledge limitations. This study is conceptual and relies on secondary examples; ethnographic or quantitative research on actual user experiences would strengthen the claims. Our focus on TikTok and Weibo cases is illustrative but not exhaustive. Algorithms differ by platform, and user experiences vary by culture and demographic; future work should investigate these nuances. We also primarily emphasized negative aspects; in practice, some users do gain empowerment or income online (Bourdieu's social mobility through digital means) [5]. Balancing these perspectives is a further challenge. Future research should empirically examine how users perceive algorithmic influence on their identity. For instance, do people consciously feel pressured by engagement metrics, or is it more latent?

5. Conclusion

This paper has argued that social media algorithms enact a subtle symbolic violence that contributes to a new, digitally-mediated form of alienation, deeply affecting the user's relationship with their own labor and identity. Platforms systematically convert user interactions into data points and symbolic capital, rewarding compliance with algorithmic norms. Through mechanisms like recommendation systems and point schemes, they discipline user behavior, reshaping the digital habitus around the pursuit of quantifiable fame. Users, in turn, often internalize these metrics as markers of personal worth, thereby naturalizing a social hierarchy defined by invisible algorithms. Our theoretical synthesis underscores the continued relevance of Marx and Bourdieu. As Marx foresaw, workers—now the content producers of the online world—become estranged when they labor under conditions they do not control. As Bourdieu observed, power relations become naturalized wherever symbolic capital is at stake. On social media, these dynamics converge: users, in pursuing fetishized symbols of worth, become agents of their own alienation. They consciously craft a datafied self, estranged from

their creative capacities and authentic identity, willingly laboring for an algorithmic authority that offers only the hollow promise of validation.

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