

The Labor Transformation and Alienation Mechanism of Fan Culture in the Platform Society

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Abstract. This study examines the alienation mechanism of fan cultural practices within the platform society, investigating how the technical architecture and commercial logic of new media platforms transform participatory culture, rooted in emotion and community, into digital labor. Besides, the study explores how this process affects fans' identity, reinforces group cohesion, and triggers social phenomena such as information cocoons and group polarization. Specifically, by reviewing existing literature, this paper analyzes, from the perspectives of the political economy of communication and mediatization theory, how platforms shift the environment of cultural participation towards one of data labor. It examines how algorithmic recommendation, quantitative indicators, and competitive rules constitute the technical mechanism of laborization. Furthermore, it discusses how fans, as active agents, reconstruct their identity and sense of community belonging by internalizing data logic, thereby becoming active labor subjects. The findings indicate that this interactive process fosters highly cohesive yet exclusionary digital communities, leading to collective consequences such as cognitive narrowing and social segmentation.

Keywords: Participatory culture, Digital labor, Platform Society, identity, Mediatization

1. Introduction

The proliferation of digital technologies has expanded the possibilities for cultural participation. Henry Jenkins posited that fans, in their engagement with cultural activities, actively interpret and re-appropriate mainstream cultural content while sharing their creative outputs within communities, thereby achieving cultural empowerment and collaboration in a low-barrier environment [1]. In this process, fans act as creative cultural producers, expressing agency through emotional and practical engagement with commercial culture. However, with the rise of the platform society, this original landscape of participatory culture has undergone significant alienation [2]. Social media platforms have transitioned from spaces of cultural sharing to arenas of capital accumulation, transforming fans' emotional investments, attention, and social relations themselves into means of production that can be systematically utilized. The efforts fans expend in their daily practices out of interest and affection are converted by platform algorithms and quantitative rules into digital labor that generates data traffic and commercial value. This process not only alters the forms and content of fan practices but profoundly reshapes their identity, community relations, and emotional structures. Therefore, this paper focuses on the impact of the technological architecture and commercial logic of the

platform society on fan participatory practices. It explores how emotionally and communally driven participatory culture is systematically converted into digital labor, and how this process reshapes fan identity, reinforces group cohesion, and produces social consequences such as information cocoons and group polarization. Drawing on existing literature, this study follows an analytical path encompassing theoretical framework, platform mechanisms, agentic practice, and social consequences, aiming to construct an integrative framework that reveals the complex interweaving of emotion, labor, and identity in the digital age.

2. Transformation of fan culture and the reconfiguration of platform mechanisms

2.1. The formation of participatory culture and the transformation into digital labor

Fan culture on digital platforms is shaped by the interplay of community interaction, emotional investment, and the structures of idol culture. Specifically, participatory culture emphasizes fans' initiative, creativity, and community collaboration. Fans consume cultural products while engaging in cultural production via appropriation, sharing, and community practices, like creating fan works, producing videos, and organizing offline events. These activities rely on community interaction and emotional investment, and are guided by community norms and platform mechanisms to foster cultural empowerment and collaborative learning [3]. Within the social media environment, such participatory practices are further reinforced as fans gain recognition and a sense of belonging through interaction, while deepening their emotional investment in both idols and the community [4]. Gradually, this participation assumes characteristics of labor under the platform capitalism. Fans' emotions, attention, and social relations become systematically utilizable means of production; their uncompensated contributions generate commercial value, while also reflecting the alienation of participatory culture [5]. Fans' digital literacy and algorithmic awareness enhance their capacity as efficient value creators. Furthermore, mediatization theory posits that platforms, through their technological structures, directly influence users' social interactions and cultural practices. In the platform environments, social media both transmit information and shape interaction and cultural practices. For fans to gain recognition, they must adhere to platform rules, thereby subjecting the forms, content, and objectives of their cultural practices to structural constraints imposed by platforms. Social identity theory further elucidates the psychological and communal motivations behind fan participation: fans derive a sense of belonging and self-worth through identification with idols and the community. Within the platform context, this identification becomes tightly coupled with data-producing behaviors. And actions such as liking, commenting, sharing, and chart ranking serve both as community performances and metrics of loyalty and engagement, illustrating the convergence of identity performance and labor.

2.2. Platform design logic and the generation of data labor

Platforms are not neutral technologies; their architecture embodies specific commercial objectives and value orientations. For instance, platforms such as Douyin and Weibo, through their algorithms and rules, systematically channel fans' emotional investments into quantifiable digital labor, thus integrating individual behaviors into the platforms' commercial logic. Upon closer examination, algorithmic design plays a crucial role in cultivating and directing emotion and attention. The personalized recommendation algorithms of platforms not only respond to user preferences but also actively guide emotional investment. Through a cycle of repeated exposure, emotional activation, and feedback reinforcement, algorithms selectively cultivate and solidify users' focus on specific

idols and related content [6]. Once a user occasionally browses relevant information, the algorithm persistently pushes similar videos, comments, and activity reminders, strengthening emotional bonds while stabilizing both attention and the propensity for labor. Furthermore, interface design implicitly communicates platform values through dynamic quantification, such as displaying fan leader-boards and points, combined with salient identifiers (e.g., badges for likes and chart rankings) and content visibility features (e.g., pinning popular content). This design subtly encourages fans to consciously translate their emotional engagement into measurable digital labor and fosters a psychological motivation for sustained participation [7]. Based upon the algorithm's role in shaping emotion and attention, platform rules further structure fan interactions into quantifiable data, thus establishing explicit benchmarks for labor performance. Moreover, competitive scenarios, such as trending topic lists, popularity charts, and chart-ranking campaigns, generate sustained anxiety, organizing fan labor into an unending competition that drives continuous input. Features like super topic communities, fan groups, and one-click reporting enable dispersed individuals to collaborate efficiently, achieving large-scale data production. Through the dual operation of algorithms and rules, fans' emotions, attention, and social relations are systematically integrated into commercially exploitable digital labor, further intensifying the alienating characteristics of participatory culture.

2.3. Digital labor in fan culture and the mechanism of alienation

On platforms, fans reshape their self-identity through digital labor, a transformation that profoundly influences their behavioral patterns and community relations. Fans are not cultural dupes passively accepting platform logic; rather, they act as agentic subjects actively operating within the platform architecture. Through behaviors such as commenting, chart ranking, and reposting, they not only accomplish self-expression but reconstruct community structures and interaction modes. Research indicates that within fan communities, informal learning systems have emerged adapted to the data labor environment. Within these systems, fans generate diverse forms of vernacular knowledge in response to algorithmic logics [8]. Some fans impart operational techniques through mentor system, assisting new members in mastering methods to support their idols. Others leverage decentralized collaboration to collectively navigate the uncertainties of content distribution within platform recommendation systems. Simultaneously, by sharing data monitoring strategies and coordinating collective chart-ranking and comment-control actions, fans establish practical knowledge networks oriented toward platform algorithms. And these practices enable fans to understand and navigate ever-changing algorithms and content moderation mechanisms, showing high levels of initiative, strategic thinking, and learning capability. However, this agency exhibits a clear paradox. Although fans demonstrate autonomy and strategic intent in their actions, their efforts ultimately reinforce compliance with platforms' data production objectives. Fans become self-driven, calculating data workers, their agency dependent upon the internalization of alienating logic. They proactively study algorithmic rules, optimize data production strategies, and coordinate collective actions, while simultaneously accumulating emotional capital related to idols and community. These agentic practices ultimately serve platforms' data accumulation and commercial monetization, further intensifying the labor and alienating characteristics of participatory culture.

3. The transformation of fans themselves and its social implications

3.1. Identity transformation and the reshaping of data contribution

Fans' need for identification with their idols and community serves as the primary impetus for their participatory practices. This psychological motivation persists within the platform environment, yet its pathway to realization has been systematically reconfigured by quantitative metrics [9]. In traditional participatory culture, identity emerged through community-based qualitative evaluations of texts, opinions, and offline interactions. However, in the platform society, quantitative indicators generated by the algorithm, such as sales figures, vote counts, and trending topic rankings, have become central metrics of fan loyalty and contribution. The underlying logic of this transformation lies in how fans' psychological need for community recognition is captured and reconfigured by the platform's quantitative evaluation system. When metrics guide evaluation and incentives, fans adjust their behavior to meet them and improve their status. This reconstruction of identity from the outside in has catalyzed a systematic transformation in fans' behavioral patterns.

Firstly, emotional expression is converted into calculable performative labor. Consumption shifts from a symbolic act of support to a traceable data contribution, while daily interactions such as commenting and reposting are subsumed under data maintenance and governed by operational norms like comment moderation, chart ranking, and anti-black campaigns [10]. These behaviors share a common feature: their outcomes are quantifiable and comparable, directly convertible into fans' performance points within the community. Secondly, an informal learning system centered on data production has emerged to help fans meet these performance goals. Experienced members instruct newcomers on platform algorithmic rules, strategies for optimizing data production, and the timing and rhythm of coordinating collective actions. This knowledge transfer is no longer solely centered on cultural content itself but is highly focused on how to produce data more effectively. Consequently, fans' identity transformation is not merely a matter of psychological adjustment; by internalizing external quantitative standards as benchmarks, fans comprehensively reshape their daily practices. In this process, fans show agency and strategic intent through studying rules, optimizing methods, and coordinating actions, while paradoxically complying with platforms' data production goals. In their pursuit of identity, fans progressively become self-motivated, calculating data workers. And their emotional investments, community relations, and skill applications are all integrated into a practical system centered on data contribution.

3.2. Group boundaries and the formation of a labor community

The profound interaction between platform mechanisms and fan practices has given rise to a novel form of labor community centered on data production. Within these communities, collective data objectives underpin members' ongoing engagement and structure group identity and norms. As the community's focus gradually shifts from cultural interests to quantifiable task indicators, such as assisting idols in winning competitions, maintaining chart rankings, trending on hot search lists, and optimizing voting efficiency, members' capacity for coordinated division of labor and strategic planning in collective actions is greatly enhanced. Consequently, the shared experience of collective struggle strengthens community cohesion and transforms camaraderie into a stable organizational identity.

In this process, group boundaries are continuously delineated and reinforced. Through internal disciplinary mechanisms, communities ensure that members systematically adhere to operational norms, including the rhythm of chart-ranking activities, methods of comment control, and voting

strategies, thus guaranteeing the efficient achievement of labor objectives. Members showing low participation or dissent are prone to marginalization. To further consolidate internal cohesion, communities construct stark demarcations between insiders and outsiders, categorizing members into groups such as fellow fans of the same idol, those who are less committed, and even fans of rival idols or casual detractors [11]. The establishment of boundaries upholds internal order and strengthens collective coordination and performance in competition. Moreover, the information cocoon effect is continuously amplified within these highly organized communities, as members' information sources and knowledge structures become increasingly homogenized. This fosters heightened group exclusivity and impedes cross-group communication, culminating in a highly structured, goal-oriented labor community [12].

3.3. The alienation of cognition and emotion in digital labor

The development of digital platforms has rendered digital labor a significant component of modern society, yet it has also engendered consequences of alienation. For fans immersed in data-driven labor over extended periods, systematic transformations are occurring in both cognition and emotion. Under the influence of platform algorithms and homogenized community perspectives, the space for individuals to access diverse information is compressed. User attention is subject to the directional constraints of the algorithms, thus solidifying focus on specific content and constraining cognitive horizons. Meanwhile, emotional experience undergoes a profound transformation under the permeation of platform logic. The pleasure originally derived from aesthetic resonance and community interaction is progressively supplanted by data anxiety, the thrill of victory or defeat, and competitive pressure. Emotion is no longer an end in itself but becomes a means to achieve labor objectives: affection for idols is converted into motivation for chart-ranking, the sense of community belonging serves the efficiency of collective action, and cultural resonance is quantified into data metrics. This represents a central feature of digital labor: the formalization of emotion as a productive resource, with fans' unpaid emotional contributions incorporated into the platform's data infrastructure and transformed into commercial value [13].

Within this process, social relations exhibit pronounced tendencies toward instrumentality and factionalization. Fans often classify others as fellow fans, fans of rival idols, or casual detractors, rather than as multifaceted individuals. This categorical perception is a long-term outcome of the competitive rules imposed by platforms. The stress induced by trending topics and popularity rankings turns fan labor into continuous competition, strengthening distinctions between in-groups and out-groups, with discipline and efficiency further amplifying the effect. In chart-ranking activities, members must strictly adhere to voting schedules, operational methods, and data feedback norms; failure to do so may result in criticism or marginalization. Prolonged practice leads individuals to internalize platform logic, binding self-identity closely to community performance metrics, thereby forming a data-worker subjectivity. They proactively study algorithmic rules and optimize data production strategies, yet this agency ultimately reinforces compliance with platform objectives. Furthermore, fan groups are not internally uniform but exhibit identity differentiation, encompassing core fans, occasional participants, and peripheral members inclined toward individualism. Core fans are responsible for organization and knowledge transmission, forming the backbone of data labor; peripheral members, conversely, maintain distance from sustained labor, even contemplating withdrawal or seeking alternative modes of participation. Consequently, the alienation of cognition and emotion not only affects fans' community behavior but also exacerbates group fragmentation and the instrumentalization of relations. Fans progressively become data subjects in the digital labor society, with their emotions, cognition, and behaviors shaped by labor

objectives. This state of alienation reveals the complex relationship among emotion, labor, and identity in the digital age. In their pursuit of identity, fans' emotions and cognition are subsumed into the platform's logic of data production, ultimately becoming an integral part of the platform capitalism value chain

4. Conclusion

This study reveals the process of labor-oriented alienation that fan culture has undergone in the era of platforms. At the mechanism level, algorithmic recommendations and quantitative rules have restructured the space of cultural participation into a domain of data labor. The algorithm gradually cultivates the emotional investment of fans through repeated display and feedback cycles, providing attention resources for the labor. Meanwhile, rules such as rankings and points convert emotions into quantifiable indicators of labor performance. At the individual level, as fans pursue their sense of self-identity and belonging, they actively internalize the logic of labor in their minds; their identification with the idol gradually becomes closely linked to data contribution performance, transforming daily behaviors into regular and restrictive labor activities. This engenders a paradox of subjectivity, wherein fans' agency ultimately facilitate the exploitation of their leisure and emotions by platforms. At the societal level, this interaction gave rise to digital labor communities centered around a common goal of data work. Internally, efficiency was enhanced via strengthening discipline and suppressing dissent, while group polarization was accelerated. Externally, boundaries were consolidated and exclusivity was strengthened by constructing "others," thereby reducing public dialogue. As the duration of participation increased, individuals' cognition gradually became narrower, and their emotional experiences became increasingly tool-oriented. This indicates that the logic of labor profoundly shapes the daily behaviors and social relationships of fans.

However, this study relies mainly on theoretical analysis and literature review, lacking empirical data; consequently, its understanding of fans' psychological motivations and internal community dynamics requires further validation. The analysis focuses predominantly on platforms like Douyin and Weibo, and the applicability of its conclusions to other platforms like Bilibili and Douban, as well as to diverse types of fan practices, remains to be examined. Furthermore, insufficient attention has been paid to internal differentiation among fans, risking the homogenization of diverse groups. Future research could use qualitative methods, such as ethnography or interviews, to compare platforms and fan communities, examining fans' behavior and meaning-making processes. At the same time, inquiry should go beyond a single narrative of exploitation, considering fan diversity and instances of reflection, burnout, and creative resistance. For example, whether some fans develop a critical consciousness regarding data labor or adopt alternative modes of participation that circumvent platform logic. Constructive pathways also merit exploration, such as the potential roles of algorithmic governance and media literacy education in fostering critical and public-oriented forms of digital cultural participation.

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