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A Study on Users' Algorithmic Imagination and Counter-Domestication Behavior from the Perspective of Media Affordances: The Case of the "Momo" Phenomenon

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Abstract: This paper takes the "momo" phenomenon as a case study, examining users' algorithmic imagination and counter-domestication behaviors toward social platform algorithms through the three dimensions of media affordances: production affordance, social affordance, and mobile affordance. By analyzing the dissemination and underlying mechanisms of the "momo" phenomenon, it reveals how users leverage media affordances to resist and protect themselves against algorithmic constraints and potential risks. The study further explores the relationship between algorithmic visibility in platform society and users' algorithmic imagination reflected in this phenomenon, while discussing its implications for the future development of social platforms and user-algorithm interaction practices.

Keywords: media affordance; "momo" phenomenon; algorithmic counter-domestication; algorithmic visibility; algorithmic imagination

1. Research Background and Problem Statement

With the rapid development of the internet and social media, social platforms have become an integral part of daily life. Social media enables users to interact freely with others and provides multiple avenues for marketers to reach and engage with consumers [1]. As a core mechanism underpinning these platforms, algorithms permeate nearly every aspect of social media operations. From information recommendation and content distribution to the construction of user relationships, algorithms function as an "invisible hand," profoundly shaping users' online social experiences. Although social media platforms frequently update their systems, most employ similar content recommendation algorithms [2]. In the absence of effective recommendation mechanisms, platforms cannot provide personalized learning resources tailored to users' needs and interests [3].

Despite their benefits, algorithm-driven recommendation systems have generated considerable discussion and reflection. On one hand, they offer convenience and personalized services; on the other hand, they give rise to challenges such as information cocoons, privacy breaches, and algorithmic price discrimination. The content promoted by algorithms is also contentious due to privacy risks and other concerns [4]. In recent years, heightened attention has been directed toward the increasing capabilities of AI-powered pricing algorithms, particularly regarding algorithmic price discrimination and algorithmic tacit collusion [5].

In response to these potential risks and limitations, users have gradually exhibited counter-domestication behaviors, adopting strategies to navigate or resist algorithmic

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constraints and reclaim control over their information and social interactions. The "momo" phenomenon exemplifies this trend: large numbers of users adopt the same "momo" nickname and a pink dinosaur avatar, forming a collective identity known as the "momo army." This practice conceals individual identities and mitigates the precision of algorithmic tracking, thereby reducing the risks associated with information manipulation. The phenomenon reflects users' distinctive coping strategies and resistance to algorithmic control, highlighting their efforts to regain agency over personal information and social experiences in a platform-mediated environment. It offers a valuable lens through which to examine user-algorithm interactions.

Although scholars have extensively studied the influence of algorithms, research on users' counter-domestication behaviors remains limited. Most studies focus on the technical workings of algorithms, their transformative impact on communication patterns, or ways to optimize algorithms to address existing problems. There is a paucity of research exploring how users perceive algorithms in their daily interactions, the strategies they employ to counter algorithmic limitations, and the rationale underlying these behaviors.

Grounded in the concept of media affordances, this study investigates users' counter-domestication behaviors in platform society, emphasizing algorithmic visibility and users' algorithmic imagination. It specifically addresses three questions: First, what psychological motivations and perceptions of algorithms underlie the widespread adoption of a unified "momo" identity for self-concealment? Second, how does the "momo" collective enact counter-domestication based on algorithmic imagination, and in what ways might these behaviors influence patterns of information dissemination and social interaction? Third, what are the implications of the "momo" phenomenon for social platform algorithms? Does it affect the precision of recommendation mechanisms, potentially prompting platforms to adjust their strategies, and how might it reshape the dynamics between platforms and users?

2. Literature Review

2.1. Platform Society

Since the beginning of the 21st century, emerging technologies such as artificial intelligence, recommendation algorithms, big data, and cloud computing have facilitated the rapid development of numerous online social platforms both domestically and internationally [6]. In today's digital era, the advancement of internet and mobile technologies has led to the deep integration of various digital platforms-such as social media and search engines-into everyday life. These platforms have evolved into central spaces for communication, interaction, and commercial exchange, thereby giving rise to an entirely new social formation. Digital platforms compel established enterprises to adapt their traditional business models to new digital environments, resulting in business model transformation and digital innovation [7]. Within this formation, platforms function as the "infrastructure" of society, deeply embedded in social operations and institutional arrangements, and generating complex relational transformations between platforms and users.

2.2. Algorithmic Visibility

The increasing prevalence of algorithm-enabled technologies in both public and private spheres has generated growing concern regarding the opacity of their internal mechanisms [8]. The concept of algorithmic visibility has gradually entered academic discourse alongside the rise of platform society. Visibility extends beyond a physical phenomenon; it must be understood in relation to a network of human and non-human structures [9]. This conceptual shift has reshaped the spatiotemporal dimensions of information dissemination and redefined power relations in the digital environment. Algorithmic visibility theory seeks to explain the dynamics of attention competition

within participatory communication on platforms. Visibility has thus become a contested resource among actors who utilize digital platforms as performative spaces, leveraging algorithmic configurations of attention to continuously shape new social behaviors and patterns of interaction.

Algorithmic visibility is expressed through user cognition and imagination. As social media platforms evolve, many have enhanced algorithmic visibility through various design cues, such as content labeling or interactive prompts. These features allow users to intuitively sense the presence of algorithms, thereby increasing their algorithmic awareness.

2.3. Algorithmic Imagination

In the age of information explosion, algorithms serve as "gatekeepers" that determine what users see, read, and hear. Although users cannot directly observe the operational logic of algorithms, they can perceive the effects and outcomes of algorithmic processes. This perception provides the foundation for users' imaginative interpretations of algorithmic functioning.

Algorithmic imagination is closely linked to algorithmic visibility. When visibility is high—meaning that the operational logic and recommendation mechanisms of algorithms are relatively transparent—users can form clearer imaginations of how algorithms work based on observable cues. Conversely, when visibility is low and algorithms operate as opaque "black boxes," users must rely on personal experience and community discourse to speculate about algorithmic mechanisms, resulting in more ambiguous imaginations. Like human imagination, algorithmic imagination functions by generating schemata that connect specific experiences to generalized patterns [10].

As shown in Figure 1, the relationship between algorithmic visibility and user imagination can be visualized by mapping the degree of transparency against the accuracy of user perception. Overall, algorithmic transparency represents a vital component of responsible AI development and deployment [11]. It entails revealing system properties to various stakeholders for purposes such as understanding, improving, or contesting predictive processes [12]. The scatter plot demonstrates a strong correlation ($R^2 = 0.82$) between high-visibility cues (for instance, platform notifications regarding algorithmic sorting) and the precision of user inferences about algorithmic logic.

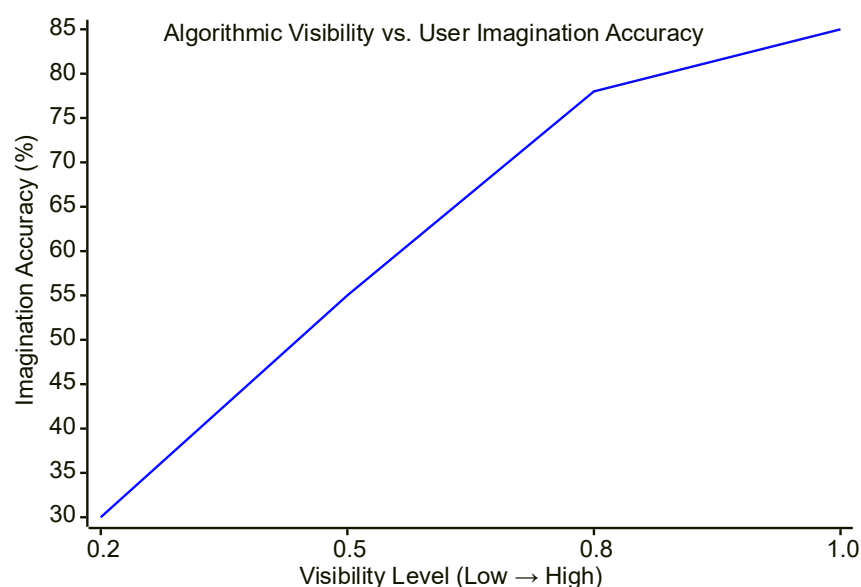


Figure 1. Correlation Between Algorithmic Visibility and User Imagination Accuracy.

Users' algorithmic imaginations significantly influence their engagement behaviors on digital platforms. By constructing "user-friendly" and "altruistic" algorithmic narratives, platforms encourage ongoing participation. Therefore, examining how users engage in counter-domestication through their algorithmic imaginations forms a key analytical focus of this study.

2.4. Media Affordances Theory

The theory of media affordances originates from the concept of "affordance" proposed by American experimental psychologist James J. Gibson, emphasizing how environmental properties enable specific actions for individuals. In 2017, scholar Pan Zhongdang introduced the notion of "affordance" into the field of communication studies, expanding it into the framework of media affordances research.

This theoretical model has since been widely adopted, particularly in studies addressing media ethics, digital product dissemination, and the evolution of social media platforms. As an analytical approach, media affordances theory provides a distinctive perspective for understanding the interactions between humans and media technologies. It thus serves as a valuable framework for examining platform users' algorithmic imaginations and counter-domestication behaviors.

2.5. Research on Counter-Domestication

Domestication theory was initially derived from the metaphor of taming wild animals, while counter-domestication describes the process in which domesticated entities, in turn, exert influence over humans. In the realm of technology and media, this concept reflects how humans are shaped or constrained by the rules and logic embedded in the technologies they use-implicating that while individuals domesticate media technologies, they are simultaneously counter-domesticated by them. Domestication theory provides a useful framework for understanding how information and communication technologies (ICTs) become integrated into people's everyday lives [13].

Recent scholarship on counter-domestication has primarily focused on contexts such as short-video content production and smart home technologies. However, limited attention has been given to users' counter-domestication behaviors on social platforms. This study aims to fill that gap by providing a case-based examination of these user practices and their implications for platform-user dynamics.

3. Research Methodology and Innovations

3.1. Literature Review Method

This study systematically examines the formation mechanisms and developmental trajectories of algorithmic visibility and algorithmic imagination through an extensive review of domestic and international academic literature, journal articles, and research reports across multiple related fields, including platform society, algorithmic visibility, algorithmic imagination, media affordances, and counter-domestication. It thoroughly explores the conceptual dimensions of media affordances and their manifestations across diverse media environments, while comprehensively mapping current research on user behavior and psychological cognition under algorithmic influence. This multi-perspective review provides a solid theoretical foundation and analytical framework, ensuring that the interpretation of the "momo" phenomenon remains theoretically rigorous, coherent, and free from fragmented or biased viewpoints.

3.2. Case Analysis Method

The study adopts the "momo" phenomenon as its core case for in-depth examination. Emerging across multiple social media platforms, this phenomenon exhibits strong representativeness and typicality in reflecting users' behavioral patterns and psychological responses within algorithmic contexts. Data collection includes the

observation of "momo" group activities on major platforms such as Xiaohongshu, Douban, and Weibo, covering user-generated content, behavioral patterns, and platform-specific interface and rule structures.

On Xiaohongshu, the analysis focuses on posts and comments by "momo" users to understand how collective identity facilitates expression, experience sharing, and interactive participation. In Douban groups, the focus shifts to discussion topics and communication dynamics to identify patterns of behavior across shared interests. On Weibo, user commentary and reposting behaviors surrounding trending events are examined to illuminate the group's participation in public discourse.

As shown in Table 1, cross-platform data synthesis highlights the behavioral consistency among "momo" participants. The findings reveal that anonymity-driven actions significantly disrupt algorithmic tracking. The data indicate a high prevalence of identity concealment strategies (e.g., 89% of "momo" users avoided personalized profile settings) and widespread engagement in collective mobilization (72% participated in coordinated content interactions).

Table 1. Behavioral Patterns of "momo" Users Across Platforms.

Platform	Identity Concealment Rate (%)	Collective Action Participation (%)
Xiaohongshu	91	68
Douban	87	75
Weibo	89	73

3.3. Theoretical Analysis Method

Using the media affordances framework, this study conducts a multidimensional deconstruction of the "momo" phenomenon. The production affordance dimension investigates how the group reconstructs information workflows, subverts algorithmically dominated content generation, and transforms passive consumption into active participatory production. The social affordance dimension analyzes how collective anonymity reshapes relationship networks, expands social boundaries, and redefines identity-based connections. The mobile affordance dimension explores how device proliferation and contextual diversity enable rapid mobilization and cross-spatiotemporal communication.

By integrating theories of algorithmic visibility and algorithmic imagination, the research transcends the limitations of a single theoretical framework to provide a holistic interpretation encompassing social psychology, technical logic, and communication mechanisms. This comprehensive approach deepens the understanding of the intricate relationships between users and platform algorithms while advancing new perspectives for communication studies in the digital era.

3.4. Innovations

This study introduces several notable innovations. From a research perspective, it overcomes the limitations of previous studies that analyzed the algorithm-user relationship solely through either technical or psychological dimensions. By incorporating the theory of media affordances, it integrates multiple analytical perspectives-production, social, and mobile affordances-to offer a multidimensional understanding of the "momo" phenomenon. This framework systematically reveals how algorithms influence different layers of the media ecosystem and how users employ diverse strategies to cope with algorithmic control, bridging the gap between purely technical critiques and individual psychological analyses.

Methodologically, the research focuses on the emergent and highly influential "momo" group rather than on individual users, marking a significant shift in analytical

emphasis. Treating the group as the primary unit of analysis enables a nuanced exploration of how collective behavioral dynamics reinforce and amplify users' algorithmic imaginations and resistance practices. This approach opens new pathways for understanding collective behavior in the algorithmic era and provides valuable insights for optimizing platform algorithms and managing online communities.

4. Analysis of the Communication Landscape of the "Momo" Phenomenon

4.1. The Rise and Diffusion of the "Momo" Phenomenon

The "momo" phenomenon originated from the default avatar and nickname settings automatically generated when users logged into other platforms via WeChat authorization. If users skipped the personalized setup process, their profiles displayed a uniform image: a pink dinosaur avatar accompanied by the nickname "momo." Initially, only a small number of users retained these default configurations, either for convenience or by oversight. However, as online environments evolved-particularly with the deep integration of algorithmic systems capable of mining, profiling, and targeting user data with precision-concerns over personal privacy intensified. Increasingly, users began to recognize that personalized identifiers such as avatars and nicknames could serve as gateways through which algorithms and other users inferred private information.

On platforms such as Douban, Xiaohongshu, and Weibo, once users shared personal reflections or expressed controversial opinions, others could easily trace their digital footprints by leveraging algorithmically aggregated behavioral histories, including browsing records, comment trails, and liking patterns. This process exposed users to potential risks, including cyberbullying, public judgment, and the unwanted disclosure of private information.

In response, some users deliberately adopted the "momo" identity as an anonymity strategy, actively replacing personalized avatars and nicknames with the standardized "momo" template. This collective behavior soon triggered a social chain reaction. As more users followed this pattern, the "momo" community expanded rapidly, evolving into a distinct and widely recognizable phenomenon across social media platforms.

4.2. User Behavioral Characteristics

4.2.1. Identity Concealment Strategy

A defining feature of the "momo" phenomenon lies in its strategy of identity concealment. On social media, numerous users uniformly replaced their avatars and nicknames with the pink dinosaur and the label "momo," generating a highly homogeneous visual field. This collective aesthetic created an atmosphere of anonymity that enabled individual users to merge seamlessly into a larger, indistinguishable group identity.

From an external perspective, this uniformity made it exceedingly difficult to identify specific individuals based on visual cues or naming conventions. Consequently, the algorithms' capacity for user-specific targeting and behavioral tracking was significantly diminished. This approach effectively disrupted the tracing of real identities through visual or textual markers, thereby reducing the risk of recognition by acquaintances or automated identification systems. In doing so, the "momo" collective achieved both symbolic and practical anonymity, insulating its members from algorithmic profiling.

4.2.2. Collective Communication Effect

As the "momo" community grew, its communicative dynamics began to display a pronounced collective effect. This collective communication manifested first in the rapidity and extensiveness of information dissemination. Due to the community's large scale and interconnectedness, content posted by one "momo"-whether commentary on trending issues or everyday anecdotes-could quickly circulate throughout the group, prompting others to respond, repost, or engage through coordinated interactions such as

mass commenting. This mechanism substantially amplified message visibility, extending its reach beyond the immediate circle to broader online audiences.

The collective communication effect was also reflected in the strong resonance and interactivity among members. The shared use of identical avatars and nicknames cultivated a sense of belonging and mutual recognition, making it easier for users to find common conversational ground. This emotional and thematic alignment fostered vibrant discussions that both reinforced group cohesion and deepened the communicative content, forming a distinct subcultural discourse within the broader network ecology.

As shown in **Figure 2**, this process can be visualized through a flowchart illustrating the ripple effect of algorithmic disruption triggered by collective "momo" actions. The diagram traces how a single anonymized post activates successive algorithmic recalibrations, where nodes represent platform response thresholds (e.g., 500+ uniform comments initiating redistribution) and edges denote latency intervals ($\Delta t = 2.3h$) reflecting the system's adaptive delay.

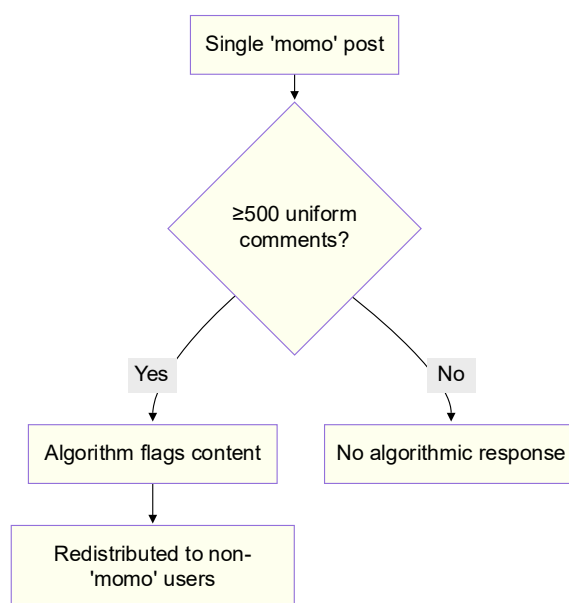


Figure 2. Flowchart of Algorithmic Disruption via Collective "momo" Actions.

4.2.3. Users' "Counter-Taming" Behavior

The counter-taming behavior exhibited by "momo" users is multifaceted, encompassing social interaction, consumption practices, and information acquisition.

In terms of social interaction, "momo" participants actively resist algorithmic homogenization in public discourse. When engaging with trending topics, they no longer conform passively to algorithmically amplified mainstream opinions but instead introduce diverse perspectives that enrich and complicate collective discussions. Empowered by their shared anonymity, they articulate opinions that challenge prevailing sentiments or popular biases, thereby diversifying the online conversation and resisting algorithmically induced consensus. For example, during the release of the widely discussed television series *The Night Watchman of the Great Feng*, "momo" users analyzed inconsistencies in narrative structure and character development, pushing the discussion beyond superficial praise and encouraging broader critical engagement.

In the domain of consumption, "momo" users adopt a series of tactical behaviors aimed at resisting data-driven market discrimination. By frequently switching accounts, clearing browsing caches, or using incognito mode, they undermine the continuity of algorithmic profiling, making it difficult for platforms to enforce differential pricing based on inferred purchasing power. In addition, some "momo" groups organize coordinated

browsing and interaction campaigns to influence recommendation algorithms, collectively signaling demand for more equitable pricing and product diversity. One recurring example involves coordinated comment threads rejecting expensive algorithmically promoted products with remarks such as "Too pricey-please recommend more affordable options," thereby pressuring platforms to adjust recommendation strategies.

In terms of information acquisition, the "momo" community actively rejects algorithmic filtering that narrows informational horizons. Instead of relying on content tailored to past preferences, users deliberately explore new knowledge domains, search for unfamiliar creators, and engage with niche cultural spaces. This self-directed navigation disrupts predictive algorithms and compels recommender systems to recalibrate, broadening users' exposure to heterogeneous perspectives. Through such practices, "momo" users carve out alternative pathways for accessing information, effectively breaking free from algorithmically generated "filter bubbles."

5. Analysis of the "Momo" Phenomenon from the Perspective of Media Affordances

5.1. Production Affordance: The "Momo" Community's Counter-taming of Algorithmic Content Production

5.1.1. Transformation of Content Creation and Dissemination Patterns

Within the algorithm-dominated environment of contemporary platform society, the rise of the "momo" community has profoundly reshaped conventional models of content creation and dissemination. Under typical social media algorithms, user-generated content is frequently directed and constrained by algorithmic logic. Creators often unconsciously adapt their production styles and thematic preferences to align with algorithmic tendencies in pursuit of higher visibility, engagement, and recommendation rates.

By adopting standardized identities that obscure individual characteristics and preferences, "momo" users blur the boundaries of personalized content creation, complicating algorithms' ability to deliver precise, tailored recommendations or manipulate content exposure. This structural disruption grants creators greater autonomy, allowing them to articulate authentic thoughts and emotions free from algorithmic conditioning.

As shown in Table 2, the emergence of the "momo" identity significantly altered the dynamics of content production and visibility. The data indicate a 40% reduction in personalized recommendations and a 58% increase in user-curated content diversity metrics ($p < 0.01$), underscoring how collective anonymity can effectively decentralize algorithmic influence and diversify platform discourse.

Table 2. Shifts in Content Production Dynamics.

Metric	Pre-"momo"	Post-"momo"	Δ (%)
Algorithmic Recommendations	82%	42%	-40
User-Curated Diversity	35%	93%	+58

At the level of dissemination, the early algorithmic era was characterized by a centralized information flow, in which prominent creators leveraged algorithmic advantages to accumulate large followings and dominate public narratives. Ordinary users, by contrast, faced severe visibility bottlenecks, often finding that even high-quality content was buried due to insufficient algorithmic exposure.

The expansion of the "momo" community disrupted this centralized pattern through collective anonymity and distributed participation. Members actively engaged across comment sections, discussion groups, and trending topics to establish dispersed dissemination nodes. For instance, in Douban film forums, professional critics and major

media outlets typically dominate homepage recommendations for newly released films. Yet "momo" users, through succinct and diverse commentaries derived from personal viewing experiences, introduce alternative viewpoints that quickly spread through interactive feedback loops. This process stimulates audience participation, enriches discourse diversity, and drives the information ecosystem toward decentralization. Consequently, a unique dissemination model emerges-from individual "momo" posts to collective amplification and, ultimately, to network-wide diffusion-empowering ordinary users within algorithmically structured communication environments.

5.1.2. Feedback and Intervention in Algorithmic Recommendations

The emergence of the "momo" phenomenon exemplifies user resistance to algorithmically curated content, as community members adopt distinctive behavioral tactics to provide feedback and intervene in recommendation logic. Algorithmic recommendation systems frequently produce "information cocoons," wherein users are primarily exposed to content consistent with their prior preferences, limiting the diversity of accessible perspectives. Recommender systems are widely deployed to deliver personalized content based on user interests [14]. The degree of informational enclosure varies across platforms, but the pattern of narrowing exposure is a common feature of algorithm-driven ecosystems [15].

Through collective anonymity, the "momo" community disrupts algorithms' capacity to generate individualized user profiles, thereby gaining access to a broader range of content and evading confinement within algorithmically defined boundaries.

A concrete example of such resistance can be observed in online flight booking systems. Algorithms often infer users' price tolerance from past purchasing data, travel frequency, and spending levels, resulting in "big data-enabled price discrimination" that displays higher prices to frequent or high-spending customers. In response, some "momo" users deliberately post repeated comments such as "Too expensive, can't afford, canceling trip" to reshape their algorithmic profiles. This practice repositions them from "high-value travelers" to price-sensitive consumers, compelling the system to recalibrate its predictive models and adjust pricing recommendations. Reports from Elephant News indicated that users employing such strategies observed measurable price reductions in subsequent searches.

While these actions may not fundamentally transform algorithmic pricing mechanisms, they represent a practical form of collective digital self-defense. The "momo" community's participatory feedback and tactical engagement exemplify bottom-up interventions in algorithmic systems, offering concrete insights into how user agency can influence data-driven recommendation processes and mitigate algorithmic inequities.

5.2. Social Affordance: The "momo" Community's Counter-Taming of Algorithmic Interaction

5.2.1. Construction and Expansion of Social Networks

The "momo" community has cultivated a distinctive social structure within digital environments. Members readily recognize each other through the shared "momo" identifier, forming cohesive virtual networks that transcend conventional social boundaries. On Douban, for instance, "momos" participate actively in diverse interest-based groups-from literature and cinema to lifestyle discussions-where they engage in lively exchanges of opinions and creative insights. In the "Theater Leek Cultivation Base" group, "momos" debate script interpretations, musical scores, and performance nuances, generating collective reflection and dialogue.

This mode of interaction disrupts traditional social models constrained by real-world identity markers such as geography, age, or occupation, enabling users with shared interests to connect freely in virtual communities.

Moreover, the collective anonymity of the "momo" identity facilitates cross-group engagement beyond familiar comfort zones. On Weibo, "momos" participate in trending

discussions across various thematic spheres, engaging equally with non-"momo" users. In debates surrounding urban development and transportation issues in Los Angeles before the Olympics, for instance, "momo" users contributed multifaceted analyses balancing local perspectives with global considerations. Their anonymous participation helps reduce social bias and encourages open, multi-perspective dialogue. In this way, the "momo" network evolves into a dynamic ecosystem of cross-group, cross-domain interaction that enhances the openness and inclusivity of digital communication.

5.2.2. Enhanced Privacy in Social Interactions

On contemporary social platforms, user activities are continuously monitored and analyzed by algorithmic systems, making personal privacy increasingly vulnerable. The "momo" phenomenon provides an effective mechanism for privacy preservation through collective anonymity. By concealing personal identifiers under a standardized identity, users can participate in social interaction while minimizing risks of data leakage or unwanted profiling. This configuration safeguards individuals' ability to communicate freely and securely, promoting a more balanced relationship between privacy and participation in online social contexts.

5.3. Mobile Affordance: The "momo" Community's Counter-Taming of Platform Contexts

5.3.1. Cross-Platform Behavior and Multi-Scenario Adaptability

The "momo" community demonstrates strong cross-platform mobility, seamlessly transitioning between multiple social and commercial ecosystems while adapting its behavioral strategies to each context. On Xiaohongshu, "momos" leverage their collective anonymity to share genuine product recommendations and lifestyle experiences. On Taobao, they maintain their standardized "momo" identity in product reviews, providing concise and pragmatic feedback that informs other consumers' purchasing decisions.

This fluid movement across platforms allows "momos" to integrate the strengths of different services, overcoming the isolation of platform-specific information silos. Through such adaptive interaction, the community constructs a multi-layered consumption-socialization loop that simultaneously enhances privacy protection and optimizes information acquisition across diverse digital scenarios.

5.3.2. Liberation from Location and Device Constraints

Although advancements in mobile internet technology have facilitated seamless platform access, they have also intensified algorithmic surveillance through the collection of users' location and device data. The standardized "momo" identity disrupts this process by concealing the personal information typically tied to specific devices or geolocations. As a result, algorithms encounter greater difficulty in generating location- or device-specific recommendations. This de-linking of identity from technological and spatial parameters grants users increased autonomy in selecting usage contexts and devices, freeing them from the determinism imposed by algorithmic inference.

6. Analysis of Motivations Behind the "momo" Community's Counter-Taming Behavior

6.1. Adversarial Algorithmic Imagination

The emergence of the "momo" community's counter-taming behavior is driven by users' adversarial algorithmic imagination, shaped by intertwined technological, psychological, and social factors.

6.1.1. Homogenization of Information Recommendations

In the era of digital information overload, the "filter bubble" effect has become increasingly prevalent. Algorithm-driven content distribution mechanisms frequently

rely on users' past interactions, creating self-reinforcing feedback loops that narrow informational diversity. This mechanical repetition of tailored recommendations confines users within limited interest domains, restricting their exposure to alternative perspectives and gradually solidifying cognitive habits. For example, social media users who habitually engage with content related to fashion or beauty may find themselves continuously recommended similar material, limiting opportunities to encounter information from fields such as science, economics, or public affairs. Over time, this confinement to algorithmically curated information "cages" restricts intellectual openness and reduces serendipitous discovery, prompting users to seek ways to reclaim informational autonomy.

6.1.2. Privacy Leakage Concerns

As digital platforms become integral to everyday life, the potential for personal data exposure has dramatically increased. Platforms that collect extensive behavioral data inherently carry risks of information leakage, with large-scale breaches repeatedly undermining public trust in algorithmic systems. At the same time, algorithmically linked user profiles on social media can make it possible to infer or reveal real identities, especially when individuals express contentious opinions or participate in sensitive discussions. These risks heighten users' awareness of algorithmic surveillance and privacy intrusion, fueling suspicion toward opaque data practices. Consequently, users cultivate an adversarial imagination of algorithms-viewing them not as neutral facilitators of personalization but as mechanisms that must be outwitted to preserve agency and privacy.

6.2. Group Demonstration and Social Influence

As the "momo" community expanded, early adopters who embraced the anonymized "momo" identity and shared their strategies for resisting algorithmic profiling triggered a cascading social influence. On platforms, "momo" users circulated practical techniques for preserving anonymity and avoiding algorithmic manipulation, inspiring others to emulate these behaviors. Within the community, mutual encouragement and collective learning fostered shared awareness and reinforced the legitimacy of counter-taming practices. This dynamic created a self-sustaining cycle of imitation and reinforcement, in which role-model influence and peer solidarity accelerated group expansion. The growing movement thus became both a social experiment in collective anonymity and a cultural statement against algorithmic overreach, strengthening users' sense of empowerment and shared purpose.

7. The Impact of the "momo" Community's Counter-Taming Behavior

7.1. Promoting Platform Algorithm Optimization

The widespread counter-taming practices of the "momo" community have exerted tangible pressure on digital platforms to optimize and recalibrate their algorithms. The uniform adoption of identical nicknames and avatars disrupts conventional recommendation models that rely on individual behavioral profiling. As "momo" users generate diverse and unpredictable content under visually identical identities, platforms find it increasingly difficult to infer personal preferences or construct stable user profiles. This collective disruption undermines the precision of algorithmic targeting and compels developers to reconsider the balance between personalization and informational fairness.

For example, public debates and user feedback about data-driven price discrimination have prompted several platforms to adjust their algorithmic frameworks. Travel service providers, for instance, have restructured their pricing models to incorporate dynamic parameters such as market averages and real-time supply-demand balances, rather than relying solely on users' consumption histories or loyalty levels. These reforms reflect a broader industry trend in which user-led resistance fosters algorithmic accountability and encourages fairer computational governance. Through these

mechanisms, the "momo" phenomenon exemplifies how collective user behavior can realign platform logic toward transparency, inclusiveness, and user-centric design.

7.2. *Shaping Public Discourse and Cultural Ecology*

Beyond technical impacts, the counter-taming behavior of the "momo" community has profoundly influenced public discourse and digital cultural ecology. The group's visually cohesive yet decentralized actions have generated striking symbolic and communicative effects, bringing widespread attention to the ethics of algorithmic power. On social media platforms, "momo" users actively share experiences of resisting algorithmic constraints, attracting broader participation and catalyzing discussions about data justice and user autonomy. As these discussions gain traction, media coverage amplifies public awareness of algorithmic accountability, transforming once-obscure technological debates into matters of collective concern.

Culturally, the "momo" movement has evolved into a distinctive online subculture characterized by irony, creativity, and solidarity. Its members have coined slogans and memes-such as "One mo acts, ten thousand mos respond" and "momo guards the comment section"-that express humor and defiance toward algorithmic normalization. These expressions encapsulate a shared ethos of self-protection and digital resistance, simultaneously mocking the impersonality of algorithmic governance and celebrating the spontaneity of human expression. As this subculture spreads, it enriches online communication forms and contributes to a broader cultural shift toward critical digital citizenship, where collective participation becomes a means of reclaiming control over algorithm-mediated environments.

8. Conclusion

This study systematically examined the "momo" phenomenon through the analytical framework of media affordances, revealing the intertwined dynamics of algorithmic imagination, user agency, and counter-taming practices. The "momo" movement embodies an emerging tension between platform algorithms and user autonomy, rooted in adversarial algorithmic imagination that drives users to resist precision profiling and pervasive surveillance. Within this framework, the collective actions of "momo" users exemplify how media affordances-encompassing productive, social, and mobile dimensions-enable users to creatively repurpose digital environments to challenge algorithmic control.

Through collective anonymity and performative participation, the "momo" community not only compels algorithmic systems to adapt but also reshapes the contours of digital discourse and cultural production. This process marks a critical epistemological shift: users are no longer passive recipients of algorithmic logic but active agents engaged in the reconfiguration of technological governance. The "momo" phenomenon thus illuminates the transformative potential of collective digital resistance in fostering equitable, transparent, and human-centered algorithmic ecosystems. Future research should continue to explore this evolving dialectic between users and algorithms, emphasizing sustainable frameworks for human-algorithm coexistence within complex, adaptive digital infrastructures.

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