

Algorithmic Curation and Aesthetic Governance: The Dual Impact of Short-Video Platforms on Content Production and Public Aesthetics

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Abstract. Under the Mobile Internet, short-video algorithms are now the primary modes of change for culture creation. The two effects of algorithmic recommendations on the logic of content creation and the public's aesthetic demands are examined here. Based on a review of the literature and case studies, and using the algorithmic transformation of Douyin and Kuaishou in 2016-2017 as examples, this paper finds that algorithms employ metrics such as completion rates to create a "traffic pool competition" mechanism. Although it will increase the distribution efficiency in the short run, there will be a loss of content diversity and depth over time. Algorithms limit the scope of users with "cocoons", lower aesthetic standards, and thus reduce interest. Algorithms enhance the segmentation of aesthetics and social groups. Therefore, this paper proposes a four-dimensional optimization system: rearrangement of algorithm parameters, construction of private-traffic brand moats, strengthening platform-based aesthetic guidance, and promotion of public media literacy. This paper will investigate the cultural changes brought about by the algorithmic era and offer some suggestions for platform management, creator development, etc.

Keywords: Short-video Platforms, Algorithmic Governance, Cultural Production, Aesthetic Stratification, Informational Cocoons

1. Introduction

1.1. Research background

With the spread of mobile Internet, short-video platforms have become a popular source of information and entertainment for the public. The basic algorithm mechanism for extending users' stay, predicting their interests based on behaviour data, and constantly recommending similar content has altered the entire process of content production and consumption [1]. Algorithms are now the "invisible gatekeepers" to content creation, and most editorial and distribution decisions are made automatically based on quantitative indicators such as watch time and interaction rate; therefore, the visibility of content has been declining [2]. Algorithms have constructed an information environment for public aesthetics that is "what is seen is what is desired". Platforms collect, spread and strengthen users' aesthetic demands to build a cycle of similar content

distribution, and viewing habits tend to become more uniform [3]. Films can offset this effect by offering rich stories and art to raise the aesthetic standard of short videos and promote critical thinking among the audience. In fact, the fluctuations are due to a combination of reasons on both sides. Research shows that such interaction implies an all-encompassing adjustment in the logic of cultural production, promoting cross-media integration; however, it also presents a risk of cultural uniformity due to the preferential treatment of high-traffic content.

Regulations and algorithms have been recently introduced to protect the rights of artists and promote cultural diversity [4]. Therefore, to explore how algorithms affect both the creation of culture and the aesthetic sense of the public, research has begun to emerge. This study provides the following references for platform governance, creator strategy, and media literacy education to help promote the stable development of the media environment and aesthetic culture.

1.2. Literature review

Existing literature studies algorithms for recommendation in the intersection of content creation and aesthetic experience. According to the theory of "cultural cocoon", a preference-based algorithm may only present users with similar materials, thus restricting their aesthetic horizons and information sources [5, 6]. Algorithms are the core expressions of platform power; they have replaced cultural judgments with commercial goals and caused creators to alter their production plans according to the performance of parameters [7]. According to the theory of cultural reproduction, algorithmic distribution promotes aesthetic stratification by exposing lower-class users to sensory content and directing knowledge-oriented materials to the elite [8]. Concurrently, real-time feedback mechanisms and emotional labour pressures drive creators toward high-intensity, homogenized outputs, exacerbating aesthetic fatigue and creative burnout [9, 10].

Most existing research has studied the impact of algorithms' recommendations on only one aspect. Some have focused on "the narrowing of audience cognition caused by information cocoons", and others have concentrated on "the distortion of creator behaviour driven by traffic-based logic". On the other hand, relatively few scholars have investigated content creation and public aesthetics in the same analytical system or systematically studied how short-video platform algorithms simultaneously change the creative logic on the supply side and the aesthetic structure of demand on the demand side. Previous research has either attributed the changes in aesthetic taste to a "decline in users' tastes" without considering the active influence of algorithms on this phenomenon or blamed content homogeneity on "a lack of originality among creators" and failed to examine the system of rewards and punishments implemented by algorithms.

1.3. Research framework

At present, most studies focus on the cognitive effects of information cocoons and disregard traffic-driven creator distortions. Few studies have explored the simultaneous reshaping of supply-side creative logic and demand-side aesthetic structures by algorithms through content creation and public aesthetics. Existing research has often attributed the aesthetic change to declining user tastes or reduced creator originality and failed to explore algorithmic penalties on diversity and the closed-loop process of parameter settings, creator adaptation, content homogenization, and audience conditioning. Personalized recommendations, although expanding content diversity compared with random distribution, may also deepen the self-isolation of narrow-interest users; thus, scholars should avoid technological determinism.

2. Case context and industry evolution

Since 2016, the recommendation algorithms of short-video platforms have been changed to avoid the previous system that relied on manual editing and follower distribution. Platforms are collecting behaviour data on how long users watch, like, comment on, share, and scroll past content, etc., to train models that can predict which other content other users will be interested in. The goal of creators has shifted from content creation to "giving the audience what they want", and now clickbait titles and "golden hooks" in the first three seconds, as well as placing emotional climaxes at the beginning, are standard templates. At the level of consumers, a new consumption behaviour has emerged: to like what is displayed in the feed and to be shown more of the same; aesthetic preferences are continually validated and reinforced by algorithms. Current situation: short-video platforms have completed the transition from "social distribution" to "algorithmic distribution", with the content ecosystem characterized by "high adaptability but high homogenization". Public aesthetics are undergoing a structural shift amid sensory stimulation and the narrowing of information exposure, while creators as a group are increasingly caught in the survival dilemma of "without data, there is no traffic; with data-driven content, creative value is diminished" (Table 1).

Table 1. Algorithmic evolution of major short-video platforms (2016–2017)

Year	Platform	Key Update	Algorithmic Logic	Performance
2016	Douyin	Launch; adopted Toutiao's engine	Traffic-pool testing; scaled by completion/engagement	DAU: 1M→10M in 6 mos.
2016	Kuaishou	Shifted to a decentralized model	Gini coefficient capped top-creator traffic (70% to long-tail)	Users >300M.
2017	Douyin	Single-column vertical UI	Deep learning model; completion prioritized, follower weight ~0.1	MAU >100M; 76 mins/day
2017	Kuaishou	Dual-column UI	Improved algorithm. Weighted Score: Completions×5 + Shares×3 + Comments×2.	DAU >70M.

3. Dual impact analysis: mechanisms and challenges

3.1. Positive externalities: efficiency and democratization

3.1.1. Democratization of content distribution channels

In the time of traditional media, editors, producers and platform operators controlled the distribution of content, and it was difficult for grassroots creators to gain attention. Short-video algorithms distribute the recommendation traffic according to the performance of the content, not the creator's reputation. Videos by users without a large number of followers can access the higher-tier traffic pool if they meet the requirements for completion and interaction. Change in the old model of information dissemination, algorithms now help groups such as rural artisans, grassroots musicians and ordinary teachers spread their works to millions online. The democratization of content distribution has also created a platform for folk aesthetics and marginalized forms of culture that have received little attention from mainstream media, thus adding to the diversity of popular culture.

3.1.2. Optimization of information retrieval and consumption efficiency

Algorithms predict users' interests based on their past behaviour, skip irrelevant content, and directly recommend videos that users are likely to enjoy to reduce the cost of information search significantly. Given that modern people have limited leisure time and are in urgent need of entertainment, providing high-quality content upon launching the application will be more convenient for them to enjoy. Precise matching can also reach niche interests, such as woodworking, seal carving and dialect preservation; therefore, they will not be ignored due to a lack of a large mass market for long-tail content. The resulting improvement in consumption efficiency has helped short-video platforms gain attention in the attention economy and become a popular form of daily entertainment for the public.

3.1.3. Data-driven creative iteration and feedback loops

After uploading a video, the creator can see how many people have watched it, when they stopped watching, and which parts were liked by many viewers to learn what people enjoyed and did not enjoy. Data feedback has partially replaced the older models of preview screenings and focus groups to alter the speed, content and form of expression. A fast "publish-observe-adjust" cycle reduces the cost of creative trial and error, and high-quality creators can find their own style and target audience at a lower cost. Such iterative mechanisms are necessary but relatively unknown accelerators to the overall improvement of quality in short-video content.

3.2. Negative externalities: homogenization and aesthetic degradation

3.2.1. Algorithmic incentives and the erosion of creative depth

In order to boost the completion rate, algorithms will frequently add some conflict or suspense in the first few seconds of a video to attract people's attention. When the creators learned that the formula of "clickbait title + climax in the first three seconds + emotional provocation" could draw attention from the public, all sectors in China began to apply this model. Knowledge-based content is now fast-food style, with a "punchline every three seconds"; narrative content has dropped exposition and gone straight to conflict; and in-depth analysis has been condensed to "conclusion first + omitted reasoning". The reward and punishment mechanism of the algorithm will systematically penalize slow-burning content, long-narrative development, and information-dense videos. Such content generally has a lower completion rate and will not be further promoted even if it has a relatively high number of likes. Algorithms have solved the problem of selection by providing entertainment options, and as a result, the ecosystem of content has shifted from depth and complexity to sensory stimulation and emotional impact.

3.2.2. Sensory overload and the shift towards superficial aesthetics

Under algorithmic recommendation, audiences are continuously exposed to content with high levels of sensory stimulation, including rapid editing, strong colour contrasts, sudden sound effects, and exaggerated facial expressions. The brain's response threshold to such stimulation is continually raised. When audiences return to content that requires gradual narrative development, subtle expression, deliberate omission, and sustained reflection, they may experience a physiological sense of "not being able to sit through it". Aesthetic patience can gradually shift from being able to watch an entire documentary to swiping away whenever a video fails to provide a striking moment within

fifteen seconds. More subtly, algorithms do not promote content that requires audiences to think before appreciating it, because such content often generates lower completion rates. As a result, aesthetic capacities may gradually deteriorate in an environment where audiences are rarely challenged. The fundamental problem is that algorithms train aesthetic preferences toward "instant gratification", while the public's capacity to engage with complex forms of art is systematically weakened by the technological mechanism.

3.2.3. Algorithmic cocooning and the entrenchment of aesthetic stratification

Algorithms divide the content into categories according to the behaviour of the users. Users who are interested in knowledge-based content will continue to receive more knowledge-based materials, and those who like sensory stimulation will be repeatedly shown low-information-density content. Therefore, the two groups are in different information environments, and their aesthetic horizons gradually differ. Less privileged users may be exposed to an information system full of suggestive, sensational or prank-oriented content, and as a result, their sense of aesthetics will gradually be altered. The privileged group may be in a state of "information isolation" and therefore fail to gain knowledge or feel empathy about popular culture. Algorithmic recommendation, therefore, creates a perpetual "technological structure" of aesthetic stratification rather than a "social phenomenon". People from different social groups consume different content, and as a result, they may be unable to experience the content enjoyed by other groups; thus, a shared public space for aesthetic dialogue is lost.

3.2.4. Datafication anxiety and the erosion of creative autonomy

Many creators now have to focus on improving their performance indicators daily due to the instability of view counts and changes in engagement rates; as a result, they often lose their original style, copy successful content models, and stop creating content they are passionate about in favour of topics more likely to perform well according to the data. Thus, the internal reasons for creative motivation (such as the desire for self-expression and art) will be replaced by external motivations (such as traffic data and platform rewards/penalties). Data anxiety can also lead to too many posts. Algorithms are favouring active accounts more and more; therefore, some creators have had to post several times a day to remain popular, and as a result, quality has been reduced in favour of quantity. Algorithms have reduced creators to "data workers" by limiting their creative freedom in response to the demands of the platform at the bottom.

4. Strategic interventions and governance mechanisms

4.1. Algorithmic rebalancing through multi-dimensional metrics

Too much emphasis on completion and participation has resulted in a decline of aesthetic depth for some works. Therefore, adjust the weight given to different factors by an algorithm. Add an "Aesthetic Diversity Index" and a "Content Depth Coefficient" to the existing traffic pool competition mechanism. In addition to the above real-time feedback indicators, algorithms should also consider other attributes of quality, such as how many times users have rewatched the material, the proportion of content fully consumed, and how widely different modules of the site are explored. At the same time, the platform can build a "high-quality content pool" and provide an initial traffic incentive for high-cognitive-cost content, such as documentaries, intangible cultural heritage and in-

depth commentary. It can help break the "three-second rule" for retaining viewers and prevent the dissemination of content designed to stimulate the senses at the source, thus creating a space for in-depth creative works to thrive.

4.2. Reclaiming creator agency via brand equity and community building

Algorithmic Fluctuations Restrict Creator Autonomy; Therefore, Emphasis Will Shift from Traffic Maximization to Long-Term Brand Equity Creation. First of all, creators should develop their own style and professional niche, participate in all sorts of fields such as original editing techniques, narrative styles and knowledge-based content creation, build a "brand", and avoid merely imitating the template of viral videos. Second, creators can build their own private traffic pools, such as fan communities and membership programs, to reduce their dependence on algorithmic recommendations in the public traffic pool. Through frequent interaction and co-creation in these private communities, "casual followers" can be turned into "core supporters", and highly engaged social connections can help mitigate the risks of changes in algorithmic traffic. This trust-based connection can help reduce the problem of sacrificing the depth of content for algorithm appeal, and allow creators to return to their original intention of artistic creation.

4.3. Platform accountability and curatorial governance

The platform needs to move beyond profit maximization and develop a model of curation and governance for culture. Platforms can adopt an "editor's pick" model to create an "aesthetic discovery" section that is not based on algorithms, and have professional editorial teams manually select content with artistic value and cultural substance to break the closed loop of cocoons. In addition, the recommendation formula can be improved by increasing the weight of "social connections" moderately, and a model used by Kuaishou in 2017 can be referenced to give more weight to content liked or viewed by friends and followed users. Leverage the trust among strong social networks to enhance the quality of the content. Platforms need to build an open-source explanation mechanism for algorithms, inform creators of the limits and forbidden behaviours, and reduce the creation of "speculative content" due to information asymmetry.

4.4. Cultivating audience reflexivity through media literacy

Prolonged exposure to algorithms may reduce people's sense of the aesthetic and thus requires extensive media literacy education. Educational institutions and media organizations should broadly promote media literacy education to help users, especially adolescents, learn about the limitations of algorithms for recommendations. Such education should cover how to identify "cocoons" created by algorithms, understand the commercial logic behind the data indicators, and develop the patience to enjoy content with delayed gratification. By raising the public's "algorithmic literacy", users can become active "content curators" instead of passive "content consumers", learn to obtain all sorts of information consciously, and deliberately avoid uniform recommendations. Therefore, on the demand side, algorithms and creators will be motivated to produce high-quality, in-depth content, and a virtuous cycle of the cultural ecosystem will be established.

5. Conclusion

5.1. Key findings

This paper presents two forms of alteration by short-video algorithms to content creation and public aesthetic concepts. The original algorithmic division of access to the matching function had certain advantages, but these were not permanent. As a result, the logic became rigid and, to some extent, reduced the freedom of expression for artists. Through the "traffic pool competition" mechanism, the algorithmic reward of sensory stimulation may lack richness due to excessive emphasis on this aspect. At the same time, "cocoons" restrict the public's horizons, and "aesthetic stratification" creates separate "symbolic universes" for different social groups, leading to cultural fragmentation. Data anxiety is also reducing the freedom of creation, and creators are becoming "data workers". In light of the above problems, more algorithm parameters are needed, a creator brand system, a sense of social responsibility, and improved public media literacy.

5.2. Research significance

Theoretically, this study develops a closed-loop framework of "algorithmic parameters–creator strategies–content ecosystem–audience aesthetics" to address the shortcomings of previous research in isolating the supply and demand sides, and offers a new perspective on the logic of cultural production in the digital age. Research has shown that it can promote the development of a fair-play environment for platforms and improve public trust, help creators build private-traffic brand moats to reduce the risk of algorithmic traffic fluctuation, shine a light on the "algorithmic black box", and provide a basis for regulatory policy formulation and media literacy education. Thus, it will be possible to promote the development of a "value-oriented, culture-respecting, and user-friendly" system for the industry.

5.3. Limitations and future study

This study is restricted by the use of secondary data and the absence of primary evidence from questionnaires and interviews. Only the leading platforms of Douyin and Kuaishou have been studied to date, and their generalization and comparison have not been further examined. Future research can quantify the differences in aesthetic perception among different age groups, conduct cross-cultural comparative studies, and further explore the dissemination mechanisms of AI-generated content (AIGC) under algorithmic control and its changing impact on aesthetic preferences.

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