

The Dual Mirrors of Short Videos: A Practical Game Between Information Equality and Echo Chambers: An Analysis Based on the Cognitive Chain of "Acquisition-Discrimination-Practice"

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ABSTRACT

Short videos, as the iconic information carrier of the Internet era, it can spread widely in a short period relying on algorithm recommendation technology, which also endows short videos with a certain degree of information equality value. However, short videos have also been questioned due to some problems such as bad marketing behaviors, induced rewards, and even the production of bad information caused by certain utilitarian purposes. This paper will explore the positive role of short videos in reducing the traditional threshold of information acquisition around the cognitive development chain of "information acquisition - discrimination and absorption - practice transformation", and then interpret the echo chambers and emotional manipulation chaos with cases and data respectively. The study finds that short videos have little impact on users' cognition. It is not the media attributes of short videos themselves that cause negative public opinions among users, but rather the users' existing cognitive level and the lack of external supervision that lead to various negative effects. Therefore, regulation should be carried out from the aspects of technical ethics and platform governance to provide certain help and reference for the development of short videos.

KEYWORDS

Short videos; Echo chambers; Information equality; Internet chaos; Emotional manipulation

1 Introduction

In ancient times, it was quite difficult to overcome cognitive difficulties through "reading". Nowadays, short videos convey information like "reading", which is quite different. The audio-visual and fragmented characteristics of short videos have greatly reduced people's reading threshold, making it easier for the public to access more content. According to the data from China Academy of Information and Communications Technology in 2024, the proportion of short video users aged 10-19 increased from 27.4% to 29.8%, and the proportion of short video users over 50 years old also increased from 27.4% to 29.8%. More and more people are using short videos to learn about the outside world.

However, there are some problems with short videos. The content pushed by algorithms may cause audiences to be exposed to single and homogeneous information for a long time, which leads to the phenomenon that "stupid people are not made stupid by these things, but they are like this in the first place". The proliferation of online marketing accounts and the spread of Internet dregs such as selling anxiety have also triggered debates on whether the spread of short videos impairs people's thinking ability. Previous studies mostly reflected on the problems existing in the spread of short videos or exaggerated the negative impact of short videos on users. In view of this, although short videos have many problems, they should be viewed objectively. Some netizens pointed out from their daily observations: "Stupid people are not made stupid by these things, but they are like this in the first place".

Therefore, this paper objectively examines the two sides of short videos, and based on the new understanding of big data and new theories recently, mainly discusses the following three issues: First, how do short videos promote information equality? Second, what are the real harms of such chaos as echo chambers and over-exposure, and how to deal with them? Third, why do the chaos of emotional manipulation in short videos occur, and how to guide short videos back to the correct path that an information medium should take.

2 The revolution of information equality: the underlying reconstruction of the cognitive Chain by short videos

2.1 From "reading and literacy" to "audio-visual direct access", the threshold of information reception collapses

In the era of printing, "literacy - buying books - reading" constituted obstacles for people to access progressive knowledge, and the common people at the bottom might not have access to these basic reading knowledge in their lives. Short videos have simplified this process, reducing the skill requirements of "literacy - buying books - reading", and requiring few equipment. According to the latest survey on the use of the Internet in rural areas, more than 72% of rural

elderly users learn agricultural technical knowledge such as how to prune fruit trees and grow crops through short videos, while more than 90% of them may not understand the text manuals.

This confirms that the innovation of media technology promotes the diffusion of knowledge. Compared with the hardships of ancient farmers in making a living by farming, the "de-textualization" innovation of short videos has broken the monopoly of educational resources and helped break the information gap caused by class and region. As a relevant comment describes, "Short videos allow people who should be isolated from information all their lives to obtain information, which even makes them great".

2.2 The boundary of equality: who really benefits from information opening?

Information equality does not mean that audiences can obtain the same benefits. According to the 55th "Statistical Report on Internet Development in China" released by China Internet Network Information Center (CNNIC) in early 2025, the proportion of urban teenagers using short videos to learn popular science, history and other knowledge is more than twice that of rural teenagers, and 68% of rural users' use is concentrated on entertainment.

A study on the spread of "health rumors" videos shows that people with basic scientific literacy tend to verify the authenticity of the content, while other users are easy to believe it. It can be seen that although short videos have widened the channels, they cannot ensure that information is effectively absorbed and utilized. Their enabling effect depends more on users' discrimination ability and knowledge reserve, not simply determined by the media form.

2.3 The logic of technical empowerment: an analysis based on cross-cultural communication theory

Short videos can also show the potential of information equality in cross-cultural communication. A scholar said in his article "The Logic of 'Transcendence': The Issue of Short Video Empowerment in Cross-Cultural Communication" that the technical structure of short videos can also bring new rights to communication subjects, such as the right to obtain information, the right to individual expression and the right to action transformation. The "transcendental" connection provides convenience for different cultural groups to contact other cultures, reducing the resource threshold and participation threshold required by traditional cultural communication. However, commercial capital and the technical logic of platforms may form a new layer of barriers, thus affecting the effect of technical empowerment. Therefore, regulation is needed in the process of equality, and a more complex situation should be considered.

3 The truth of cognitive impact: exaggerated "destructive power" and the insufficiency of echo chambers

3.1 The limitation of echo chambers: how do people resist algorithm domestication?

Echo chambers were put forward by Sunstein in his 2001 book "Republic.com". Echo chambers refer to the situation where people begin to limit their lives to a cocoon-like environment, thus only receiving the information they want to see. For example, short video platforms such as Douyin and Kuaishou recommend content based on platform push, pushing similar types of content according to users' browsing habits. However, Yu Xin and Wang Jinpeng found that algorithms may not be effective in 2022 using the TELCE integration model constructed by Zhihu users. Because users' active choices often interfere with the algorithm effect, when the algorithm is used for a longer time, people are more likely to get rid of algorithm push through cross-platform retrieval or active search. Therefore, the algorithm is not the complete dominant. This indicates that the audience is not completely passive, and has the initiative to "break the cocoon".

3.2 An empirical analysis of the "echo chamber" phenomenon on Douyin

Bai Yunxiang and Wang Hang (2020) believe that Douyin's big data algorithm and users' individual information construction habits are easy to consolidate the circle of friends, and over time, echo chambers will emerge. However, according to the analysis of "Exploration of the 'Echo Chamber' Phenomenon of Douyin Short Videos" in 2025, the user's selective psychological factor oriented by interest is the main reason for entering the echo chamber. Through a sample survey of some Douyin users, nearly 40% of users browse content they are not interested in through friends' recommendations or curiosity. It can be seen that the echo chamber is not an absolute technical "cage", but more remains in users' own cognition. In the interaction with friends and family, or when accidental interests arise, they may also access other information channels.

4 Analysis of internet chaos in short videos: emotional control and hype of marketing accounts

4.1 The proliferation of emotional manipulation: selling anxiety and the "attention trap" of algorithms

Short videos are prone to emotional manipulation. The reason behind this is the utilitarian drive of platforms to pursue click rates. Amplifying emotions can arouse people's interest in watching. The study "Research on the 'Emotional Setting Effect' of Health Short Videos from the Perspective of Public Health - An Empirical Analysis Based on Douyin Short Video Samples" found that in Douyin's health-related videos, the negative emotions or even panic caused by deliberately exaggerating the risk of a certain disease get more likes than the correct scientific and rational information. Or negative emotions are more likely to be captured by algorithms, making people fall into the "attention trap". As a result, such content that swears anxiety and conveys panic can spread widely and seriously interfere with the spread of information in the health field.

4.2 Marketing accounts and false information develop through the logic of trust exploitation and traffic arbitrage

Marketing accounts use platforms to engage in "traffic arbitrage", gaining attention by bragging and fraud. In recent years, network governance reports have shown that more than 60% of false health information is spread by small marketing accounts with less than 50,000 fans. They take advantage of the fact that short video users have weak ability to receive information and there are not many regulations, and pretend to be "pseudo-experts" to lie and do harm. Once combined with the echo chamber, the harm is even greater. If an audience in the echo chamber has weak discrimination ability, there will be an unimaginable situation: after the wrong information is input and ruminated, people's cognition will be greatly affected.

5 The governance path of short video chaos and the possibility of healthy development

5.1 Platform technical ethics: the direction and practice of algorithm optimization

Algorithm optimization is the key to solving the problem. In Douyin's 2020 "traffic pool allocation" of "consolidating interests", it was proposed that the problem can be improved by increasing the "information diversity weight", that is, regularly pushing a small amount of non-relevant but highly authoritative content to users to expand their horizons. In 2024, some niche platforms have tried to run the "random exploration module". According to user feedback, 30% of users can accept this part of unfamiliar content, which may become a new idea to balance the algorithm of user preferences and the algorithm of information diversity.

5.2 External supervision and collaborative governance: policies and laws, and improving users' quality

For regulatory authorities, strengthening top-level design and improving external supervision are effective ways to respond to the trend of new business forms. In recent years, the focus of supervision on online rumors has tended to the field of short videos, and special "Qinglang Action" has also been carried out. However, the dynamic spread of short videos is more likely to cause evasion behaviors of the supervised objects. For example, we can learn from the relevant ideas of the EU's "Digital Services Act" to enhance the platform's responsibility for reviewing false information; or start from the user side to carry out user literacy training, establish a community public welfare popular science and school media education consortium, help users improve their ability to identify rumors, and respond from the audience side.

6 Conclusion

Short videos, with the advantage of audio-visual simplification, have spawned a new way of information acceptance, which is highlighted in the information equality in rural knowledge dissemination and cross-cultural communication scenarios, and the logic of technical empowerment has opened up new prospects. The disadvantages such as echo chambers, emotional manipulation and the proliferation of marketing accounts highlight the development deviation caused by the tendency of commercial profit-seeking and the limitation of technical ability. The research found that although the platform algorithm has a certain tendency of information selection and push, it does not affect individuals to choose and weigh the platform's information push results according to their own subjective will and cognition. The quality of audio-visual information reception can be improved by combining factors such as the development of information technology and the social environment.

The future short video ecology requires long-term multi-party investment and optimization: upgrading algorithm

ethics to balance accuracy and diversity; improving administrative penalty measures under regulatory rules with the help of advanced foreign examples; enabling the public to truly enjoy the convenience of information brought by short videos and grow through improving media literacy, rather than being constrained by noise in information. Only through multi-party consultation and governance can the positive role of short videos be better played, making short videos an ideal media form with both equality effect and knowledge.

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