

# The Influence of Popular Science Short Video on the Cognitive Construction of Minors in Remote Mountainous Areas in China

Weimin Ma

College of Communication Science and Art, Chengdu University of Technology, Chengdu 610059, China.

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**Abstract:** With the comprehensive advancement of Chinese Internet infrastructure construction, the gap between urban and rural netizens has gradually narrowed, and the penetration of the Internet into minors in remote mountainous areas has gradually increased. In recent years, short video platforms, the number of users, and the number of works have exploded. Popular science videos, as an important branch of short videos, provide young people in remote areas with a window into science, narrowing the "knowledge gap" of urban and rural minors. The supervision and review of the content of short videos cannot be adapted in a timely manner. Under the trend of "flow monetization", people with ulterior motives rely on vulgar and marginal content to win the public's attention, and at the same time, minors in remote mountainous areas cannot correctly judge short videos of popular science. The quality of the content and the lack of timely and appropriate supervision are not conducive to the growth of minors in remote mountainous areas and the shaping of their outlook on life, values, and world outlook. By sorting out and analyzing the cognitive construction of minors in remote mountainous areas through the dissemination of popular science short videos, this paper proposes corresponding solutions from three aspects: society, school and family, and expects to contribute little to the solution of the problem.

**Keywords:** Science Short Video, Knowledge Gap, Cognitive Construction.

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## 1. Introduction

Rural science popularization is an important measure to implement the rural revitalization strategy. During the "13th Five-Year Plan" period, China has built the largest information and communication network in the country. The increasingly complete infrastructure and perfect basic resources have created conditions for the popularization of the Internet, and the gap between urban and rural netizens has gradually increased. As of December 2020, the number of rural netizens reached 309 million, accounting for 31.3% of the total netizens. With the characteristics of "short, flat and fast" short videos, netizens use fragmented time for entertainment. As of December 2020, the number of short video users in China was 873 million, an increase of 100 million from March 2020, accounting for 88.3% of the total netizens. [1] More and more minors in remote mountainous areas have become viewers of short videos, and they have followed suit to publish short videos and are active on various multi-video platforms. As a media form emerging in the new media environment, short popular science videos provide a window for minors in remote mountainous areas to understand the world outside the mountains, while narrowing the "knowledge gap", but also because of its advantages and disadvantages. influences.

## 2. Analysis on the Cognitive Construction of Minor Groups in Remote Mountainous Areas in China by The Dissemination of Popular Science Short Videos

According to the "2019 National Research Report on Internet Use by Minors", the number of minor Internet users in China in 2019 was 175 million, and the Internet penetration

rate among minors in rural areas reached 90.3%. The Internet penetration rates of left-behind and migrant children in China are 77.7% and 83.6% respectively. Due to the lack of supervision and superior entertainment facilities, minors in remote mountainous areas tend to use mobile games and short videos when using the Internet.[2]

### 2.1. To A Certain Extent, The Short Video of Popular Science Narrows The "Knowledge Gap" Caused by The Long-Term Unbalanced Development

On the platforms of Douyin and Kuaishou, popular science knowledge is deeply rooted in the hearts of the people. The infrastructure and entertainment facilities in remote mountainous areas are far less developed than in cities, and there are few recreational activities for minors. Short videos of popular science can bring more freshness. At the same time, minors in remote mountainous areas are accustomed to fast, shallow stimulation, short attention span, and difficulty in concentrating and thinking deeply. In addition, the short-term dissemination of short videos can quickly mobilize the user's vision and hearing, resulting in effective dissemination effects, making it easier for minors in remote mountainous areas to become addicted to browsing short videos. The recommendation mechanism of short video apps depicts "user portraits" and "content portraits" based on big data, and accurately matches the content that users like in the content pool. This will also lead to minors who pay attention to vulgar short videos for a long time. The video platform will continue to recommend according to the relevant content to create a vicious circle. The length of short videos ranges from 15 seconds to 5 minutes, which seems to be very short, but it is often very time-consuming and makes users addicted to the short video content. One of the characteristics of short video products is to stimulate the user's brain in the shortest time to

achieve the effect of excitement. Primary and secondary school is an important period for developing good study habits. Being addicted to short videos not only occupies the time originally used for learning, sports and entertainment, but also reduces interest in other entertainment activities. It also makes minors accustomed to fast learning during such a critical period. The shallow stimulation makes it difficult to concentrate and think deeply.

## **2.2. Short Popular Science Videos Involve Knowledge from Multiple Dimensions Such as Science, Engineering, Literature, History, Medicine, And Agriculture**

Under the wave of short videos, brilliance and risk coexist, and minors in remote mountainous areas blindly follow suit and imitate, resulting in an "imitation tragedy". Driven by the conversion of traffic into economic benefits, "traffic monetization" drives more short video content to break the limit and break the routine, bloggers attract traffic, and videos with curiosity and extremeness such as money worship, hedonism, and consumerism prevail, resulting in the blind imitation of minors, minors have not yet formed a mature three views, consciously distinguish and resist vulgar, violent and other negative content in short videos and have poor ability and willpower. [5] For example, the video of Ono making popcorn with simple devices such as alcohol and cans in the Internet celebrity office was imitated by two underage girls, who did not know that igniting high concentrations of alcohol would cause serious consequences of an explosion. The cruel result of one person being seriously injured and the unfortunate death of one other person. Many tragedies that happen to minors are related to imitation, and the tempting behaviors brought about by the thrilling sensory experience make minors involuntarily put themselves among the imitators of the content, and at the same time the risks are getting closer step by step. For minors, the most terrifying thing may not only be the risk itself, but the unpredictable face of the risk because of their lack of knowledge.

## **2.3. Short Popular Science Videos Involve Knowledge from Multiple Dimensions Such as Science, Engineering, Literature, History, Medicine, And Agriculture**

The absence of family education and the lack of effective and timely supervision by guardians. The obvious characteristics of minors in remote mountainous areas are that the proportion of left-behind children is relatively high, and most of them are raised by intergenerational or previous generation. high. In the mode of intergenerational guardianship, due to their high age, guardians such as grandparents often adopt doting discipline when educating children, giving less spiritual education and behavioral moral restraint and guidance, and more giving Material, life satisfaction and too much tolerance and laissez-faire. In addition, the age gap between grandparents and grandchildren is large, the information received is asymmetric, and the views on emerging foods are also different. The age gap makes it difficult for the two sides to communicate with each other. Under the guardianship model of the previous generation, it was raised by relatives such as uncles, aunts and aunts of the same generation as the father. Since the guardianship object is not one's own son, it is difficult to grasp the proportion of the guardianship process. Compared with

strict discipline, more use is when material satisfaction and satisfaction. Let it grow freely. [3] Minors who grow up under the two guardianship modes have immature cognition and lack of judgment. No one can identify the content of the short video information they accept and provide timely and effective guidance.

## **3. The Dilemma of Solving the Negative Problem of Short Video Dissemination to Minors in Remote Mountainous Areas**

In the context of the development of the convergent media era, the growing popularity of short videos is a symbol of social progress. Every netizen can express himself through the online platform, exercise his rights as a citizen, and actively participate in the construction of society to express his thoughts and opinions on current affairs. View. Short video content leads the trend of the times, and responds to hot social issues in the shortest and fastest time, which not only meets the entertainment needs of the public, but also builds a bridge for the practice of civic responsibility. The content of short videos is becoming more and more homogenized, and there is no new idea to follow the trend of shooting. "Spiritual opium" eats up fragmented time. Due to the particularity of their groups, minors in remote mountainous areas lack the company of their parents, have immature values, and have few daily entertainment activities. It is very easy to over-indulge in short videos. The existing system is not standardized and not unified, and the platform's limited self-regulation ability has led to a dilemma in solving the negative problem caused by short video dissemination to minors in remote mountainous areas.

Minors in remote mountainous areas lack the sense of self-efficacy and value in real life, and are eager to be noticed and recognized and affirmed by parents, teachers and classmates. Minors in remote mountainous areas need attention, lack the direct supervision and education of their parents, teachers have heavy work tasks or lack knowledge and experience in education and care for left-behind children, and minors in remote mountainous areas are in the "unfinished" stage of development. Self-control ability and cognition limited ability. It is often seen through short video platforms that Internet celebrities quickly gain a large number of fans through short videos to gain attention, so as to follow suit in order to gain attention on online platforms. The original innocent minors are gradually fading away the traces of simplicity and innocence raised by the mountains, and the vulgar Internet buzzwords and extreme concepts are increasing day by day. Without the escort of parents, minors will have deviations in their correct understanding of the content. At the same time, minors who are imitating and active on the Internet are easily harmed by the Internet, which has a negative impact on their outlook on life and values, and distorts minors in remote mountainous areas. cognition, ideals and beliefs, and deviate from the core socialist values.

The "juvenile anti-addiction system" system of short videos has little effect. At the request of the Cyberspace Administration of China, the "Youth Anti-Indulgence System" is built into the short video app. When each user opens the short video app for the first time, a pop-up window prompts "Youth Mode". content, and only have access to a youth-only content pool. However, such a mechanism is not mature enough to access more video content through the "tourist

mode", and the algorithm of the system is not mature enough to identify whether the teenagers behind the screen are dressed as adults. There is still no unified industry standard for the youth model, the model is still immature, and there are more iterable mechanisms, such as the "you can only access the content pool exclusive to youth" mentioned by the Cyberspace Administration of China. The difficulty of auditing is relatively high; for example, you can manually close the pop-up window, log in using the tourist identity, etc., which cannot effectively achieve the anti-addiction effect through the product design of the short video platform.

A mature closed-loop regulatory mechanism cannot be formed in the short term. To reduce the negative impact of short video dissemination on minors in remote mountainous areas, it requires the joint efforts of families, schools, platforms, governments and society from multiple dimensions. The self-regulation ability of minors in remote mountainous areas is limited by all aspects of age and geographic location. When the battle against poverty was fully won, Dashan still could not retain a strong labor force, and it was difficult for minors to grow up under the supervision of their parents. The self-supervision ability of short video platforms lags behind, and the self-discipline of actively undertaking social responsibilities is not high. When there is a large amount of illegal content on the short video platform, or other illegal acts occur on the platform, the government, as the "visible hand" in the socialist market economy, does not supervise and guide relevant platforms enough. It is impossible to form a mature closed-loop supervision mechanism in the short term, and minors in remote mountainous areas are exposed to numerous and complicated short video content for a long time, which is not conducive to their ideological and moral construction and growth.

#### **4. Measures to Solve the Negative Problems of Short Video Dissemination on Minors in Remote Mountainous Areas**

The year 2021 is a historic juncture toward the second centenary goal, consolidating and expanding the achievements of poverty alleviation, comprehensively promoting rural revitalization, and the growth of minors in remote mountainous areas is the key to blocking the intergenerational transmission of rural poverty. In this regard, starting from the three aspects of family, platform and social governance, through the analysis of the problem, three solutions are summarized.

Strengthening family-oriented education and effective parental supervision is the last line of defense to prevent short videos from having adverse effects on young people. Pay attention to the online supervision of minors in mountainous areas, and let minors develop the habit of using the Internet before they come into contact with the Internet. Before using mobile terminals for minors, guardians should be aware of the impact of the Internet on minors. In the Internet age, in addition to the daily guardianship offline, online behavior supervision is also an important responsibility. How to effectively perform their supervisory duties and guide children to use the Internet in a controlled manner is the primary issue. The guardianship of children is a process of public governance. It is not enough to rely on government supervision and platform self-discipline. Parents must also

actively cooperate in order to make the Internet become a remote and mountainous area in an online society where there is a lot of fish and a clear cyberspace for minors. A window for minors to understand the world and a platform for learning.

Short video platforms should strengthen industry self-discipline, strengthen their own construction and actively undertake social responsibilities. On the basis of current laws and regulations, relevant platform rules and orders are formulated for the production and dissemination of short video content within the platform, and the review process is refined to clarify the short video review rules. Short video platforms should simultaneously establish a team of auditors with high political quality and strong business ability when polishing their own products. Establish a systematic training mechanism, the number of auditors should match the number of videos on the platform and the number of users, and the platform should supervise itself. Tailor-made positive cultural and life videos for minors, so that the Internet can become a bridge for minors in remote mountainous areas to learn about positive and beautiful things outside the mountains.

Relevant government departments improve relevant laws and regulations and strengthen platform supervision. On the one hand, improve short video content management and related restraint laws and regulations for uploaders of short video content, prevent micro-duplication, and establish an effective punishment mechanism, which has a deterrent effect on producers of bad and vulgar content and illegal content. On the other hand, improve the network protection mechanism for minors, strengthen the supervision of short video platforms, refine management measures, implement management responsibilities, eliminate the production and dissemination of negative content from the source, determine illegal acts in the form of legislation, increase its illegal costs. In addition, the government and education authorities should further improve the network literacy education system of the network literacy education construction system, and do a good job in the education of correctly understanding the Internet and correctly identifying the advantages and disadvantages of the Internet.

#### **5. Conclusion**

The growth of minors in remote mountainous areas is the key to blocking the intergenerational transmission of rural poverty, and is a long-term strategy to hold on to the achievements of poverty alleviation and consolidate and expand the achievements of poverty alleviation. In order to effectively solve the negative problems caused by the current short video dissemination to minors in remote mountainous areas, as the organic cooperation of closely related schools and students' parents, the short video platform and the entire Internet industry earnestly fulfill their social responsibilities, including all sectors of society. Only with joint efforts can we effectively reduce the negative effects of short videos on minors in remote mountainous areas and produce good social effects. The government has strengthened supervision, and short video platforms have done a good job of self-supervision. The strong combination of multiple dimensions provides a good environment for the healthy development of short videos, allowing minors in remote mountainous areas to watch short videos with high quality and positive energy. Grow up healthily in a healthy and orderly Internet environment, become a youth with ability, responsibility and dreams, and devote yourself to the construction of the motherland.

## References

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