

# Analysis of "Anesthesia" Mechanism in Mobile Short Video Applications

Take "Tik Tok" APP as an example

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**Abstract** - The continuous progress of mobile Internet technology has led to many new media products, short video is one of them. Its rapid rise has provided the public with rich and colorful entertainment enjoyment, but also brought about the negative function of "mental anesthesia". By using case analysis method, taking Video Tremolo (also named as Tik Tok) APP as an example, combining with innovation and diffusion, use and satisfaction, information cocoon room, gatekeeper and other theories, this paper explores the mechanism and ways of mobile short video application and its "anesthesia" function to the public. The study found that short video APP focuses on spreading content with "magic" through the utilization of big data and artificial intelligence technology to precisely "anesthetize" the public, and expands its scope of influence under the "social +" model. This paper holds that the public should rationally view the explosive phenomenon of short video. The developers of short video APP should use various technical means to guide and manage users' time control, in order to minimize the impact and harm of short video on public "psycho-anesthesia".

**Key words:** mobile short video applications; short video; psycho-anesthesia; tremble; big data; social media

## I INTRODUCTION

The world has stepped into an era of information popularization and entertainment for all [1]. In August 2018, the 42nd China Internet Development Statistics Report issued by China Internet Information Center showed that in the first half of 2018, the demand for online entertainment market was strong [2]. "Short video applications rose rapidly, 74.1% of netizens used short video to meet the fragmented entertainment needs of netizens" [3].

According to Erie Consulting's interpretation in "China Short Video Research Report 2017", short video refers to the network video which is based on PC and mobile terminals for transmission and plays for less than five minutes. Generally, it has the characteristics of short, simple, rich information, vivid, interesting, flexible and easy.

Mobile short video application is a terminal usage of mobile device that disseminates short video content, also known as short video APP [4]. Tremble (or tremolo, trembler, as commonly called, but with a relative formal name as Tik

Tok), fast hand, Beauty Shot, micro-vision and other mobile short video employing are more popular at present.

Based on the development of mobile Internet technology and the popularity of intelligent terminal devices, short video applications have become one of the main ways of public entertainment and information acquisition. As of June 2018, the number of users synthesizing various popular short video has reached 594 million.

Among many short video APPs, tremolo APP is the fastest growing and has achieved remarkable results. The official microblog "Tremolo Short Video" released "Tremolo Big Data Report 2018" on January 29, 2019: In 2018, the daily active users of Trembler APP exceeded 250 million, and the monthly active users exceeded 500 million.

Not only that, Tremolo APP has rushed out to the world. The overseas version of Tik Tok went online overseas in May 2017. In October 2018, the global short video application Tik Tok surpassed Facebook, Instagram, Snapchat and YouTube, and became the highest monthly download utilization in the United States. Mobile short video applications represented by tremolo APP have become a hot new media of mobile Internet.

However, along with the rapid development of mobile short video usage, the negative problems come up one after another and the "spirit anesthesia" is one of them which brings lots of harmful effects to the public [5].

Lazarsfeld and Merton, famous sociologists, have pointed out that mass media has the function of conferring status and promoting the implementation of social norms, but in addition, they also have the negative affect of narcotic spirit, that is, "providing a large number of new situations to the general reader and audience may play the role of narcotic spirit, rather than inspiring spirit".

Because people spend a lot of time in media contact, and are satisfied with this kind of indirect contact, they no longer actively participate in public affairs, but passive bystanders [6].

Short videos are popular with the public [7]. Although the length of a single video is very short (usually does not exceed 15 seconds), a large amount of content accumulates in a small amount and is constantly superimposed, which will

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unknowingly consume a lot of users' time [8].

There are already jokes on the Internet that "tremble for 5 minutes, one hour in the world"; once trembled into the sea, shaking legs can't be changed; poisoning and addiction have also become the labels of short video APP [9].

In February 2018, Yiguan Big Data showed that "the active period of jitter users lasted for a long time, nearly 30 million people since 9:00, and then they were active until 23:00 p.m., with almost no significant decline. It can be seen that besides sleeping time, people will brush a tremble at any time." When the public cannot extricate themselves from the joy of short video, they don't want to be "injected" with narcotic by short video. This paper tries to take Tremolo APP as an example to explore the mechanism and approach of mobile short video media to achieve "anesthesia" to the public.

## II CONTENT IS KING, DISSEMINATING "DEVIL" SOUND

The concept of "content is king" that traditional mass media adhere to has been impacted in the era of mobile internet [10]. The ideas of "channel is king" and "product is king" are reforming the content production of mass media.

However, in short video APP, "content is king" is still the mainstay of the diversion, which is the key point of short video different from other video forms. Nearly all the functions of short video APP are focused on content production, including instant shooting and sharing, various beauty effects, magical background music, etc. Even simple finger action design such as sliding switch is devised to enable users to watch video content more quickly and conveniently.

From the point of view of usage and satisfaction, short video platform provides users with endless video content to meet users' curiosity psychology and entertainment needs, thus increasing users' stickiness and allowing users to continue to immerse themselves in the pleasant mechanical action of video brushing.

### *A. Good-looking and fun are the magic weapon of short video.*

The slogan of tremolo is "Record a Better Life". Research shows that in the top 100 category of head video clips, "Better Life" accounts for 40%, with an average playback of 120 million times, and "Fun" accounts for 32%, with an average 100 million times playback.

In the modern society where the rhythm of life is speeding up and the pressure of life is magnified, the fun and beauty of a good life can relax the brain and cheer the mind, so that the public can temporarily escape the heavy pressure of real life.

As Kevin Roose, columnist of the New York Times, describes TikTok: About an hour after downloading TikTok, the popular video-sharing APP, I experienced a bizarre sensation, one I haven't felt in a long time while on the internet. The knot in my chest loosened, my head felt injected with helium, and the corners of my mouth crept upward into a smile.

It is precisely because of such a beautiful user experience

that the public will involuntarily and slowly immerse themselves into the mimic Utopia created by tremolo while brushing short videos.

### *B. Brainwashing Divine Comedy promotes viral transmission of content.*

The orientation of tremolo APP is a "music short video APP". Almost all the videos have background music, and a large number of tremolo "magic" songs have been derived, including "Learning Cat Bark", "Buddhist Girl", "Describing feeling on a short paper", "123 I Love You", "My Love Is You", "Take You Travel", so on and so forth, have a very high voice.

In psychology, there is a saying about "sensory afterimage". That is, when the effect of rhythm on the brain stops, the sensation will not disappear completely immediately. It can be retained in the human mind for a period of time and circulated continuously.

The main characteristics of these "magic" divine songs are simple and cheerful rhythm, clear melody, witty and easy lyrics, impressive, easy to form brainwashing effect under the influence of immersion, driving the viral transmission of video content [11].

### *C. Innovation and simulation can spread the influence of short video.*

In the 1960s, American scholar Everett Rogers put forward the theory of innovation diffusion in his book of the same title. In short, it is the process of mass media persuading people to accept new ideas, new things and new products through certain channels and time.

In fact, the content dissemination of tremolo is the embodiment of innovation and diffusion theory [12]. According to statistics, only 9.4% of the Divine Quyi are original works. It is difficult to improve the user's stickiness only by these original works [13]. Therefore, the content production of tremolo is characterized by "de-individualization", which does not advocate originality or emphasize the personality characteristics of users. Instead, it achieves the phenomenon of "demon" Carnival by imitating, duplicating and redistributing music, dance and action with "magic".

Therefore, we can usually see different performers play the same actions in the same music background on tremolo APP, such as seaweed dance, gray dance, Taishan dance and so on. They all brush the screen on tremolo APP.

## III ACCURATE "ANESTHESIA" WITH BIG DATA AND ARTIFICIAL INTELLIGENCE

The theory of "use and satisfaction" points out that the audience is not passive when facing mass media activities. In fact, the audience is actively choosing the media content and information they prefer and need. At present, the development of Internet technology has brought flood-like mass information. The content of each short video platform is extremely rich and varied, which makes people dazzled. Without classified and targeted content, users may lose

patience by pushing all kinds of short videos to users one after another.

Therefore, short video APP introduces big data and artificial intelligence technology to depict user media usage curve, analyze user portraits, and push corresponding video content according to user's own needs and characteristics. For example, when users first registered tremolo APP, the platform collected their basic personal information such as user's age, gender, location, etc. The system has already started to push video content targeted to users, such as gender for women, and push content mainly for cosmetics, fashion, food, handsome men, such as gender for men, while push content focuses on sports, cars, beauty, etc. However, the push at this time cannot be called precise push, but a random choice made by the system according to the stereotype of society. In the process of application, if the user stays in a certain kind of video interface for a long time, or gives praise or share to a certain kind of video, the system will record these usage traces, analyze the user's interests, preferences and usage habits, and then more accurately deliver short videos of interest to the user.

In such a precise propagation mode, users do not need to make content selection, because the short video platform completes this work for users. This kind of intimate and meticulous service enhances the user's experience. When users open APP, they see almost all the content they like. It's easy to indulge in it. They slide and brush videos up and down with their fingers. Each video brings aesthetic pleasure, so they can't stop like "opium smoking". Big data in the precise dissemination of the same time created a precise "anesthesia".

#### A. "Information Cocoon House": Users' Self-willingness to Decline

Big data and artificial intelligence not only capture users' interests and hobbies accurately, but also construct "information cocoon room". Keith Sanstein, a former professor at the University of Chicago, put forward the concept of "information cocoon room": in the field of information, we only listen to what we choose and what pleases us in the field of communication.

This means that the public is only willing to access information in areas of interest, as if shackling themselves in a silkworm cocoon, reducing access to other information from the outside world. Tencent Video, Sohu Video, Youku and other Internet video platforms generally have comprehensive homepages, which show all the content classification, and offer the visitors to click and choose freely.

When you open the tremolo APP, you will see a recommendation page and a full-screen short video, all of which are what the system calculates users are interested in; if users want to see other areas and types of video information, they must search manually.

On the one hand, it isolates the relationship between users and other fields of information, locking users in the "cocoon space"; on the other hand, the information cocoon ensures that users receive "effective" information, so that users are willing to indulge in their own world cannot extricate themselves.

#### B. Setting Personal Agenda -- "Gatekeeper" Creating Head Video

Short video APP is good at playing the function of "gatekeeper". It constructs topics of public discussion and concern through recommendation pages and sets users' personal agenda. Through data detection, the system identifies popular short video types, and then pushes these short videos to unreceived users, thus creating a "phenomenal" header topic.

According to the jitter survey data, as of May 22, 2018, head videos accounted for only 2.7%, but they played 88.3% and received 90.8% praise, covering 97.7% of the total fans on the platform.

In addition, tremolo also holds various challenges to stimulate users' enthusiasm for participation, 16% of the works come from users participating in tremolo-rich challenges; users are willing to praise for their favorite short videos, 19.1% of users have more than 1,000 points of praise.

#### IV THE "SOCIAL PLUS" MODEL MAY AGGRAVATE "POISONING"

Compared with traditional video platform, short video APP has more "social attributes" besides video and audio functions, which not only encourages users to interact with each other within the platform, but also seamlessly connects with other types of social platforms [14].

##### A. "Brushing" Comments

Short video APP creates an interactive community for users, who can praise, leave messages, comment and forward short videos. Comments can be said to be "derivatives" of short video content, which aggravates the "anesthesia" function of short videos. Taking tremolo as an example, the user group of tremolo has the characteristics of younger and higher education. It can create original short video works, and offer open-minded comments at the same time. These comments are usually full of laughter, make people happy and have a lot of jokes. For example, user @Jupiter Ws uploaded a short video about cats: the owner was writing, and the cute cat pressed her hand with her forehead and seemed to keep her from writing. The text of the video matching is: "Speak it out, you may not believe, the biggest obstacle on my way to study is my kitten". As of Jan. 30, 2019, the video had triggered 31,000 comments. Among them, user @ice cream comments in Korea were very popular. She imitated the cat's perspective and said, "Don't write, I have a headache. Come and help me." This commentary is concise, clear and domineering. It reflects the young people's role relationship between "cat owner" and "shit shovel officer", which has aroused 46,000 praises, more than the video commentary.

In the comment area of each video, tremolo will top the comments with strong resonance and heated discussion. The purpose is to stimulate the user's activity, enhance the user's stickiness, and stimulate the user to discuss and participate in the exchange with the post. It can be viewed that users are not only addicted to video content, but also to brushing comments and the interaction of attention, praise and forwarding, which

is another important means of anesthesia spirit.

### B. Shared anesthesia under "social +" mode

The social function of Short Video APP is evidently reflected in the interaction of users in the system, also in the mode of "social +", which seamlessly connects with other network platforms: Weibo, Weixin Friendship Circle, QQ Space, today's headlines, etc. It can be achieved mainly in two ways:

One is shared account, i.e., users can log in to short video APP such as tremolo with the account of social media such as Weibo and Weixin, and can realize forwarding and sharing among different types of social media.

The other is local download or "secondary transmission". Most of the content on short video APP can be downloaded to the local mobile phone. Users can down the short video and upload it to other social media, such as Weixin, Weibo, QQ space, to achieve the secondary transmission of short video.

This "social plus" model breaks through the barriers between social media, enabling short video content to enter different social media through forwarding and sharing functions, thus penetrating into every corner of the social network. Therefore, even if the audience does not download the short video APP such as tremble, fast-hand, etc., it can "poison" through other social media. The speed of transmission of short video is more rapid, and the scope of "narcotic spirit" is constantly spreading.

## V CONCLUSION

The functions of mass media are complex and multifaceted. The various mobile short video applications represented by tremble not only satisfy the fragmented entertainment needs of the public, but also firmly adhere to the masses through various mechanisms and ways, resulting in the negative effect of "anesthetic spirit", making the fragmented entertainment needs become paralyzed and intoxicated time investment. Short video platform provides users with a continuous stream of video content, meets the user's curiosity and entertainment needs, thus increasing the user's viscous, so that users continue to immerse in it, consuming a lot of time, objectively playing the role of "mental anesthesia". In the information age, with the help of big data and artificial intelligence, short video can achieve accurate customer positioning and "anesthesia". At the same time, due to the wide range of information transmission channels, short video may also be transmitted in geometric series.

Faced with such a phenomenon, it is urgent to understand fundamentally the harmfulness of this "mental anesthesia" and "rescue" users from obsession in terms of technology and guidance. Starting from April 2018, the relevant departments such as the State Network Information Office and the State Copyright Administration have rectified the short video platform, which has also led to self-checking and self-correction of the short video platform [15]. Tremolo is adding anti-addiction to the new version of APP.

It is helpful to install a "time lock" in Tremble APP. Users can set their own "trigger time" (30 minutes, 60 minutes, 90 minutes, or 120 minutes). After opening the time lock, the one-day use time is longer than the trigger time, and password input is required to continue to use. But in the actual user experience, this measure did not achieve the desired results. The fact is that after re-entering the password, users can still to brush the video sequentially. To truly achieve sustainable development, short video APP must face up to the "spirit of anesthesia" and other negative issues, strictly regulate itself, adhere to the ethics and core values of the mass media and to the social responsibility of the mass media.

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