

Research on User Interaction in TikTok

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Abstract. In recent years, because the content of short videos has been refined and short, enabling the public to obtain the content they need in a fragmented time, it has been loved by the public and has developed rapidly. This article summarizes the development status of short videos, takes the interactive ritual chain as the theoretical basis, analyzes the motivation, formation process, and results of the interactive ritual chain on TikTok, and proposes an optimization strategy for the problems of user interaction in TikTok.

Keywords: Short Video; Tiktok; Interaction Ritual Chains; User Interaction.

1. Introduction

Short videos refer to video content that is short in length and can be viewed by the public in a short period of time [1]. With the development of the Internet, short video has become the focus of competition among major Internet companies, according to the 2018-2022 Statistical Report on the Development of China's Internet Network, In December 2018, the scale of China's short video users reached 648 million. In March 2020, the scale of China's short video users rose by 125 million, and the user scale reached 773 million. In October 2020, the user scale of short videos rose to 818 million. In June 2021, the scale of short video users was 888 million. In December 2021, the scale of short video users was 934 million, with a usage rate of 90.5% [2]. It can be seen that the number of short video users showed explosive growth, and the short video platform developed most rapidly with Tik Tok and kwai, with an average daily active user of kwai from January to June 2022 of 346 million, and more than 400 million daily active users of TikTok [3]. This kind of interactive way of using the fragmented time to create and imitate through short video Apps, and to like, comment, share and forward short videos, not only meets the social needs of users but also realizes the sharing of emotions. From the perspective of communication, the communication form of mobile short video has the characteristics of instant interactivity, fast communication, and easy sharing. Due to the limitations of short videos on shooting time, the duration of short videos is relatively short, which makes short video content go straight to the theme, highlight the key points, seize the fragmented time and distracting attention of users, and spread in a short period of time, shortening the delay in time. The combination of pictures, sounds, and words of short videos has a strong impact, which can bring users a real, intuitive and comprehensive viewing experience, trigger user emotional resonance, and thus produce greater topical and social repercussions. It satisfies the user's psychology in the form of audio-visual combination, and fully mobilizes the user's attention, at the same time, the short video relies on the algorithm to mine the user's behavior characteristics for personalized push, this personalized algorithm recommended way, is conducive to the formation of interactive rituals. Based on the theory of interactive rituals, this paper analyzes the problems of user interaction in Tik Tok by studying the motivation of user interaction behavior and the formation process of interactive behavior and proposes relevant strategies.

Interaction rituals refer to meaningful, procedural activities. It is a repetitive, fixed, and procedural act of communication by human beings [4]. Interaction ritual between netizens and short videos, netizens and netizens, such as forwarding, commenting and sharing. Such as some skill-based short videos, which users will collect, save, and practice in life. The interaction ritual chains refer to the emotional resonance of users in the process of participating in the ceremony, promoting the integration of group and individual emotional energy, and forming inherent emotional symbols and moral standards within the group. Participants in interaction rituals generate a shared emotional experience and identity in the emotional interconnection, forming a new social positioning and image [5]. The interaction ritual chain contains the following elements: 1. two or more people gather in the

same place; 2. set boundaries for outsiders; 3. people focus their attention on common objects or activities; 4. people share common emotions or emotional experiences [6].

At present, scholars have studied short videos and user interactions more. Zhou Lu (2021) analyzed the interaction between the operational content of Tik Tok and the user and took Sichuan Observation as a case to analyze the ability of short videos to interact with users through emotion, interesting content, and practicality, and to improve user stickiness [7]. From Ma Shengnan's research, it can be found that the difference between short videos and traditional media lies in the real-time feedback of users. The article conducted a comparative study of the official accounts of People's Daily, Guangming Daily, and China Youth Daily, showing that users can participate more fully in the discussion of current affairs under the transmission of short videos, and compared with traditional media, short videos can promote netizens to "personally participate" in the dissemination of information from the perspective of parties [8]. Research by Wang Chaoyang (2021), Chen Huixian (2021) and others shows that the communication between short videos and users lies in the fact that users can find what they are interested in hot topics and different types of short videos [9]. Different forms of interaction behavior of users will have positive and negative social impacts, in terms of positive impact, users can search for favorite video types and content, can pay attention to and contact video publishers, form fan groups and social circles, expand the user's communication scope and information dissemination channels, stimulate the user's social desire and needs, so that users in social content and form of more interactive. The interactive behavior of short video users can enhance the role of supervision, effectively exert the public's right to supervise, and enable the public to participate in urban governance and government work. For example, some anchors eat precious wild animals in short videos and cause users to talk about it, which has attracted the attention of law enforcement departments. But public comments are prone to online violence, and bad short video content can affect the values of teenagers. Therefore, this paper studies the problems existing in the user interaction of TikTok optimizes the interaction results, and form a positive and healthy social atmosphere and network environment.

2. User Behavior Analysis based on Interaction Ritual Chain Theory

This article is based on the theory of interaction ritual chains, discussing the conditions for Tik Tok users to participate in the interaction. First, the generation of interaction ritual chains requires two or more people to gather in the same place, TikTok is a virtual network space with 1 billion users, Tik Tok is used nearly 2,000 minutes per person per month, users watching videos or live streaming at noon or in the evening, which has a clear group aggregation effect [1]. Users obtain a virtual identity by registering a TikTok account, and when they use the virtual identity to watch a short video, they can express their views, opinions, and attitudes. Communication can be achieved by passing text, pictures, and audio. A large number of users can watch videos at any time, and comment, share, forward, and like, enhancing the user's sense of participation. When the user watches the live streaming, the registered account represents the identity of the user in TikTok, each user coexists with the creator in an anonymous way in the live room, at this time, the live room is the user's place in real life, and a new type of network field and gathering space, the user can form an interactive and social group by joining the fan group, sending bullet screens, sending comments, sending gifts to the anchor and other functions. It can be seen that the close connection built by the interactivity and sharing of the Internet can prompt the virtual presence of users.

Secondly, the formation process of TikTok user interaction is discussed. When users enter Tik Tok, they can watch various types of short videos, with the accumulation of use time, the types of videos watched are concentrated in the types that users like, this is because TikTok captures the behavior data such as the length of time, likes, comments, and other behavior data of the user watching the video, with the help of the content recommendation algorithm, judges the type of video that the user likes, and makes personalized recommendations for the user. For favorite videos, users can double-click the screen to like and favorite. Without setting permissions, each user can enter the page

of other users to view the published video works, and browse their favorite videos, so that different users can find the focus of common interests or attention, adding possibilities for subsequent interactions, videos, related hot topics, the creator is the user to watch and participate in the interaction of the common object of concern. TikTok uses video to create a focus of attention and attract the attention of users, which is the starting point for interaction rituals. For example, On TikTok, videos related to certain topics are posted to gain traffic support which is to use the topic to stimulate the user's interactive behavior. Users in an anonymous state can express attitudes, express opinions, and express emotions. Users get the content they need through the home page of the hot video and the dynamic page of friends. Users can like and comment on their favorite videos after logging in to their accounts. TikTok set up live streaming. Live streaming is a kind of online space that can provide users with viewing, interaction, and communication, willing to share themselves on the network, and show themselves on the network are creators, the creators as a participant in the interactive ceremony chain, through interaction and communication with users will build the atmosphere between live streaming. Users can interact with the creators in the form of bullet screens and tips. Users express their views by sending bullet screens and having a dialogue with the creators. The interaction between the creators and the user is to use the account number as a virtual character to participate in the live streaming. The common concern between users, the interaction between users and creators, so that this group has joy, excitement, sadness, and other emotions, such as tens of millions of people watching the live streaming of Pelosi's visits to Taiwan, users in the live streaming room comment, attention and forwarding, and the user's comments can cause other users to like a large number of people, showing Chinese patriotic feelings. The live streaming of "Crazy Yang" has won the love of users with its funny and nonsensical live streaming method, and in his live room, fans can ask "can washing powder be eaten?" "Crazy Yang" exaggerated performance caused users to laugh so that users gained a happy mood and made users look forward to the next live streaming. In the live room, there are also outsiders. For example, users need to log in to their personal account and pay attention to a creator before they can send private messages to the creator an unlimited number of times, or join some fan groups in order to achieve in-depth communication or offline activities with the creator. And users who don't pay attention to the creator are outsiders. Because users like a certain video or a certain creator, they form a fan group and culture circle, and they will form the communication symbols and language unique to this group. For example, in the live streaming, the creator will call the fan "Laotie", or other unique titles, which is like a "secret code" between the creator and the fan, forming a unique symbol of this group, and the interaction between the fan and the creator is more casual. The difference between ordinary users and fans is formed, just like setting up an outsider.

The short video provides a venue for interaction ritual, which connects the creator and the user, and triggers the user's emotional energy through the creator. There is an interaction ritual chain between TikTok creators and users. Every time user watches a video or live streaming, it is an interaction ritual. And this interaction ritual has been integrated into people's daily lives. After the end of the live streaming, the emotional energy harvested by users and creators will gradually weaken with the passage of time, to maintain and improve emotional stickiness, users and creators use the emotional energy and membership that have been obtained so far, to create new objects of attention, and initiate interaction ritual again and again, for a long time, this cycle of interaction rituals has formed a complete interaction ritual chains with long duration and high user stickiness.

3. Problems in the Interaction of Tiktok

3.1 The Duration of the Video Affects the User's Participation in the Interaction Ritual Chains

With the development of short videos, users will also use short videos for entertainment in their leisure time. As a result, the playback time of the TikTok video has grown from a few seconds to 30 minutes. However, according to the data, users have a high degree of acceptance of videos within 8 minutes, which shows that the short video duration setting will affect the construction of the

interaction ritual. Especially for the same type of short video, the user can accept the duration of 3-5 minutes. Users are the key participants in the interaction ritual, and realizing the needs of users can enable TikTok to achieve better development, so TikTok should understand the user's acceptance of the video duration and the user's needs.

3.2 The Lack of Review Standard Affects the Construction of Interaction Ritual Chains

The homogenization of short video content is serious, such as the "tape sticky door" video caused by the imitation of TikTok users, and a large number of identical videos are continuously pushed for users in a short time, causing aesthetic fatigue of users, and such videos will also cause children's imitation behavior. TikTok is a place of communication in interactive ceremonies, in which users pay attention to video content or creators and form emotional resonance. Therefore, for TikTok, the content of short videos and live broadcast content is the key. Due to the lack of review of short video content and the continuous push of big data, there is a serious phenomenon of video homogenization.

3.3 Big Data Push Leads to the "Matthew Effect" of Information Dissemination

In TikTok, the user's preference for a certain video is calculated by the time the user stays on a short video, and a similar video is pushed to the user, to increase the user's time to use TikTok and cultivate the user's brand loyalty. For users who love this type of video, big data helps the formation of interaction rituals, and for users who just watch and are curious about video content, big data push is easy to trigger user disgust. This article believes that only the use of viewing time to analyze user behavior, push user preferences of the video, this data algorithm selection factor is relatively single, eventually lead to the user to obtain more and more single information, but also easy to lead to the user's aesthetic fatigue, reduce the user's emotional energy to participate in interaction ritual chains, resulting in the interaction ritual chains is disintegrated. For example, the recent frequent occurrence of the topic of "this background is false" is caused by many imitations, this imitation behavior is to edit and modify the original video, resulting in a large number of homogeneous videos, these videos are also frequently pushed to users, resulting in users cannot obtain more diversified information, resulting in a serious imbalance in the information structure obtained by users. On the one hand, the video content is monotonous, on the other hand, vulgar videos are constantly pushed. In addition, some high-quality short videos are constantly imitated, and even in similar situations, the occurrence of this phenomenon is also a kind of harm to the original author of the short video.

4. Suggestions for Optimizing the Interactive Effect of Tiktok

4.1 Set Different Video Durations According to Different Requirements

To meet the diverse needs of users, such as watching movies, news, etc. TikTok needs to analyze user needs, and increase the video duration. Longer videos can render the user's emotions, stimulate the user's emotional changes, and then cause emotional resonance between users and videos. Therefore, the duration of the video is related to whether a larger interactive ritual can be generated.

4.2 Support High-Quality Anchors, and High-Quality Video Content, and Improve the Review System of TikTok

This article found that after a period of development, TikTok has been strengthening its review system. Because the audience age of short videos is getting lower and lower, it is easy to trigger children's imitation behavior, but TikTok cannot control children's behavior, so TikTok not only needs to increase the intensity of review, but also needs to find potential high-quality anchors and original videos, and give traffic support to high-quality creators and originals, high-quality videos. Specifically, Douyin can set up a "hunter" team or hold creator growth competitions and original video competitions to discover high-quality creators and original video producers. By setting rewards to increase the stickiness between TikTok and creators. Not only attract the viewers of short videos,

but also the producers of short videos. In terms of review, users can be invited to participate in the review of short videos, so that users can better communicate with TikTok, promote the production of offline interaction ritual chains, and make the interaction ritual chains more solid.

4.3 Reduce the Proportion of Big Data Pushes

After the creator publishes the creative and high-quality video, TikTok will guide ordinary users to imitate through traffic to attract ordinary users to participate. At the same time, TikTok can post topics to guide users to create. This method promotes the generation of interactive behavior, easy to form emotional resonance and influence in a short period, but once the push time is longer, it will hurt users, for example, users in the first video to publish their views, the next similar video will produce boring emotions, reduce the user's emotional catharsis of short video content, cannot form interaction ritual chains. Therefore, the frequency of big data push should be limited, the push of similar videos should be reduced, the repetition rate of the disseminated content should be ensured to be low, the communication desire and emotional resonance of users should be stimulated, and the production and development of interaction ritual chains should be promoted.

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