

# Research on Interactive Ritual Chain Model in Barrage Video

## —A Case Study of Bilibili

Chenlei Zhang \*

*School of Economics and Management, Beijing Jiaotong University, Beijing, China*

\* Corresponding author. Email: [freedom135@163.com](mailto:freedom135@163.com).

### ABSTRACT

This paper takes user interaction as the entry point and studies the interactive ceremony and the chain model of interactive ceremony against the background of barrage video. Taking Bilibili barrage as an example, based on the interactive ceremony chain theory, this paper explores the conditions, process and results of the evolution of interactive ceremony in barrage video, and puts forward the interactive ceremony chain model in barrage video in combination with Collins interactive ceremony chain model, so as to provide Suggestions for the sustainable development of barrage video websites.

**Keywords:** *Barrage, Interaction ritual, Interaction ritual chain.*

## 1. INTRODUCTION

In 2019, the number of online video users reached 729 million. In order to consolidate the old users and attract new users, the platform launched a variety of policies. Among them, barrage was widely spread by a small circle and gradually popularized, which was received and loved by users. As the largest professional bullet-screen community in China, Station B opens a new development situation for the development of barrage video and the expansion of barrage operators. However, domestic researches on the theory of barrage more from the barrage of culture and audience's psychology and behavior Angle, discusses the barrage of cultural form, propagation and characteristics, audience's psychological motivation and influence factors, such as the research object is the barrage itself more or a single audience, few literature from the perspective of interaction, the barrage users as an interactive group for research.

Based on the interactive ritual chain theory, this paper will explore the conditions, process and results of the formation of user interactive rituals, and put forward the interactive ritual chain model in barrage video in combination with Collins model. In addition, this paper not only enriches the theoretical research, but also has certain practical significance. It hopes to provide Suggestions on how to optimize the bullet screen

management and realize the bullet screen profit model for B station and other bullet screen video websites.

## 2. THEORETICAL BACKGROUND

### 2.1. Interactive Ritual Chain Theory

"Interactive ritual chain theory" was proposed by American sociologist Randall Collins, who believed that any interaction between audiences was a kind of ritual. A high degree of mutual concern is the core mechanism of interactive service chain theory, namely the high degree of emotional joint and a high degree of mutual subjectivity, the combination of participants by stimulating the nervous system excitement, etc. In order to form a sense of membership, the emotional energy for interaction ritual participants accumulated, prompting each participant for more attention in the sort of thing they agree. Collins believes that emotional energy is the core concept of interactive ritual chain theory, which is not only the constituent element of interactive ritual, but also the result. Emotional energy, he argues, is a long-term social emotion that can be explained by a continuum of self-perception: from positive-confident enthusiasm, to bland, to negative-less initiative.

Collins proposed four prerequisites for the formation of an interactive ritual :(1) at least two people gathered

in the same place; (2) Set boundaries for outsiders, and participants understand participants and those excluded; (3) People focus on the same objects and activities, and convey the focus of attention; (4) People share common emotions or emotional experiences.

The results of the interactive ceremony include four aspects : (1) group unity, namely the sense of membership; (2) Individual emotional energy: participants will be more confident and enthusiastic when taking actions; (3) Group symbols: make participants feel they exist in the collective and are related to the collective; (4) Moral sense: Participants consciously protect the group.

## ***2.2. The Origin and Development of Bullet Screen***

Bullet screen refers to the text that is brushed from the screen like a bullet. It was first used as a military term, but later it was widely used in games. In 2006, Japanese online video sharing site NICONICO launched a video app that allows users to comment on current events. It allows users to post comments on the video interface, and the subtitles move from right to left of the screen and fade away. NOCINOCI is called "bullet screen" because when the subtitle moves across the screen, it looks like bullets are constantly fired. NOCINOCI has also become the birthplace of the widespread bullet screen.

In 2007, the domestic part of the ACG (Anime Comics Games) influenced by foreign barrage culture, create developed their own barrage video station "pig net", in 2008, the main Anime series Acfun website will barrage of culture into their websites, and spread widely in the circle of ACG, in 2010, Bilibili gradually developed, relying on his drama serial, characteristics of user-generated attracted a large number of users, as of December 2019, B station monthly active users and mobile end month to live up to have more than 100 million people, It has become the largest 2-d barrage community in China.

## ***2.3. The Characteristics of Barrage***

### ***2.3.1. Social Content***

Compared with ordinary video websites, Danmu of B station has strong social characteristics. As mentioned above, due to the particularity of video types and user groups in B station, there exists a phenomenon of echoing each other in bullet screen. For example, in video clips, people often write in bullet screen: ask for BGM (background music), and then users will respond to the name of background music and the name of the singer in bullet screen. The interaction of the bullet screen is a key factor for establishing the interactive ceremony and forming the ritual chain in the bullet

screen videos. Frequent emotional communication lays a foundation for participants to form collective excitement and obtain emotional energy.

### ***2.3.2. User Creativity***

As mentioned above, "empty ears", "2K curved screen" and "AWSL", many bullet screens are created by users according to the characteristics of B stations. After spreading, they become widely popular network terms. Some are even no longer limited to B stations, but will spread to other social media. Therefore, in fact, the videos seen by users are bullet screen videos created by other users through bullet screen on the basis of the original video. Such videos can arouse users' enthusiasm for participation, improve users' identification with the video content, and stimulate users' desire for re-creation.

### ***2.3.3. Immediacy of Comments***

The most distinctive feature of bullet screens is their immediacy, that is, users can express their thoughts and opinions anytime and anywhere. The traditional comment function of video websites is lagging behind, while the instant bullet screen is similar to interpersonal communication in real life, allowing users to express their current thoughts and express their emotions more freely and smoothly. Therefore, compared with the traditional comment function, the process of users sharing emotional experience in bullet screen videos is without thinking, and it is easier to reach the exciting point. Such a short emotional experience is an important prerequisite for users to obtain long-term emotional energy.

### ***2.3.4. Text Niche***

The language of B station is different from that of general bullet screen video websites and social media, mainly reflected in its specificity and foreignness. As the largest gathering community of ACG enthusiasts in China, The language of B station is influenced by foreign cultures and has formed its own unique language. For example, "Bilibili Cheers" is transliterated from Japanese, "Airborne Command" means that users can jump directly to the positive part according to the instructions of the bullet screen, since B station does not provide the function of skipping the beginning and end of the film. Unique B station terminology is the identity label and group symbol of each B station user, which is the key factor for users to form group solidarity.

### 3. INTERACTIVE CEREMONY IN BULLET SCREEN VIDEO

#### 3.1. Beginning of the Ceremony

In Station B, the interactive ceremony begins with two or more participants converging through computers or mobile terminals to complete the virtual simultaneous physical presence. The affection or curiosity of each participant for the live video has become one of the factors stimulating the initiation of the interactive ceremony.

Starting at the beginning of the ceremony, the participants to focus remaining doubt each other, and in the process of the ceremony, because everyone is self expression through the barrage, along with the increase in number of barrage, information and emotion is passed, the participants began to share each other's emotional experience, the sharing mechanism can make participants climb up emotions, even when reach to a certain extent can reverse the participants' cognitive, cognitive by emotions.

#### 3.2. Emotional Resonance

Frequent emotional communication and focus transfer lead to emotional resonance. The ideal state of interaction is that when participants participate in interactive rituals, they will gain emotional energy from the group, be infected and dominated by the group's emotions, and resonate with other participants. For example, in a video on a subject, when the participants unanimously praise the merits of the video, an occasional barrage criticizing the nature of the accusation will appear inappropriate and be attacked by a crowd, reported or suppressed. When participants hold the same and similar views, the content and semantics of the bullet screen are also relatively close, emotions

resonate and transmit, and emotions of participants are responded and affirmed, thus refresh phenomenon occurs.

#### 3.3. Ritual Exclusiveness

The exclusiveness of ritual is embodied in the unity of group members' beliefs, namely, group unity. Each member is aware of the focal points and symbols of each other's attention. These group symbols are not familiar to outsiders, so outsiders will be excluded in the interactive ceremony. This exclusivity to maintain the purity of culture, the group for B station users, small to each barrage video, to stand the access mechanism of B (ordinary users must be completed within an hour, 100 predominantly ACG culture subject to become a full member and send the barrage), to keep the B stand cultural purity and maintenance responsibility of collective honor players all played a significant positive effect.

### 4. THE RESULTS OF THE BARRAGE VIDEO INTERACTIVE CEREMONY

#### 4.1. Emotional Energy

Collins pointed out that the process of acquiring emotional energy is long-term and is formed by the accumulation and transformation of transient emotional experiences. Long-term emotional energy is mainly reflected in the extremely high enthusiasm and enthusiasm of participants, and a strong sense of community belonging. To be specific, participants of barrage videos have clear recognition of their choices, generate collective excitement in the process of expressing their opinions and emotional resonance, obtain stronger identity recognition and satisfaction, and are willing to continue to interact. Such satisfaction and group belonging are emotional energy.

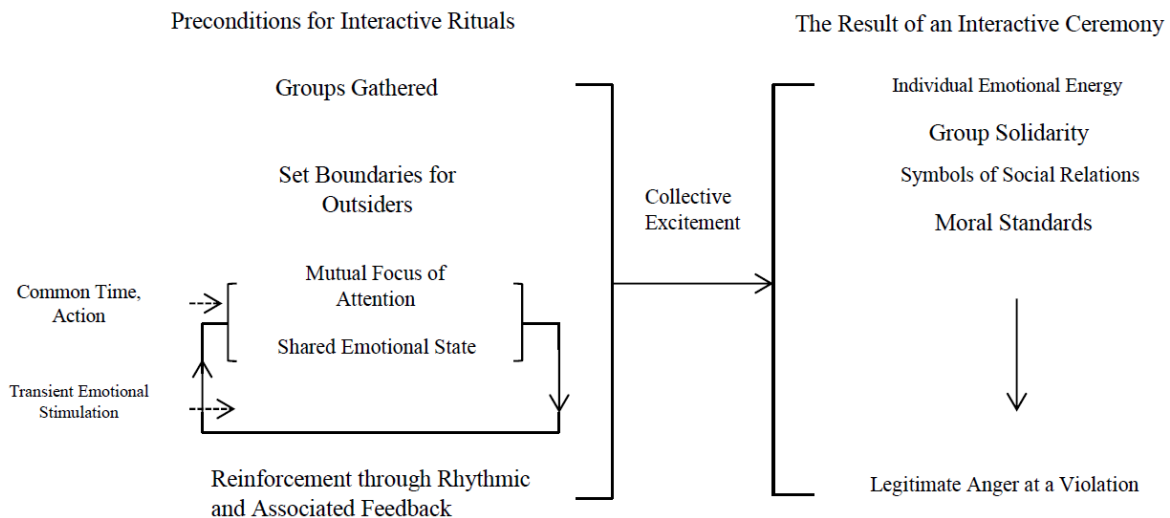


Figure 1 Collins interactive ritual chain

Emotional energy can make participants continue to pay, at the same time in the positive interaction of spend more cost for interactive rituals, this explains well barrage in the video up master, popular comments and advanced the cause of barrage: because individuals have different conditions, each participant in the group the differences of emotional energy, eventually in layered state, resulting in interactive ceremony participants in the group's position also show differences. Among them, those who get the most emotional energy are in the core position. These people have similar characteristics, such as strong group identity, strong sense of identification and maintenance of group symbols and culture, prominent social skills, popularity, strong persuasion ability, and relatively more investment cost. They have high expectations for thumb up amount, collection amount, forwarding amount and coin amount of the video. They pay attention to the content of bullet screens and comments, and sometimes participate in the interaction, reply and thumb up popular comments and bullet screens. On the other hand, marginal users with low emotional energy have a relatively low enthusiasm for participation. They may only watch videos, make no comments or send barrage, but they may also increase their enthusiasm for participation in order to get closer to the core, such as becoming a member by answering questions

#### ***4.2. Group Symbols and Group Solidarity***

In the interactive ceremony, the focus of the participants' common attention is the group symbol, which is a symbol of membership and can prolong the group unity. In bullet screen videos, emotional experience and emotional energy are abstract, while bullet screen is concrete. Users express their emotions through bullet screen in the form of words, expressions, symbols and so on. Therefore, bullet screen is essentially a group symbol of interactive ceremony.

Group symbols make users feel that they are related to the group, enhance their sense of membership, and play a positive role in extending group unity. For example, some up hosts place their own contributed video links of the same theme in the barrage and comment areas to attract users to watch them, and the interactive ceremony is extended to another location. Therefore, users participating in the comments of the same UP host series of videos often overlap.

In addition, the higher the group solidarity, the stronger the participants' willingness to maintain the group symbol. Barrage etiquette reflects how the group symbols in barrage videos function as sacred objects in interactive rituals and are maintained by participants. Users with the help of a barrage to express themselves, conveys emotion, produce positive effects on video the barrage of support, to keep out of the screen long barrage, revealed the plot barrage, vulgar barrage, fuze-

warhead barrage and refresh barrage to report, "banned, both to protect users of divergence and the second creation, help the user to gain higher emotional energy in interaction ritual, and purify the barrage video environment. Accordingly, the niche and exclusiveness of barrage language in B station and the reason why ACG culture took root and developed rapidly in B station are also well explained.

## **5. LIVE VIDEO INTERACTIVE CEREMONY CHAIN**

### ***5.1. The Formation of an Interactive Ritual Chain***

Collins argues that the interaction between the participants in the ceremony are willing to invest money, or even spend more energy and cost to obtain a higher emotional energy, at the same time, due to the emotional energy is the long-term social emotion, if participants after watching a barrage video again after a period of time did not participate in other interactive ceremony, is the last time the interaction ritual will gradually accumulate emotional energy is consumed, the participants feel from the state began to actively into passive. So participants invest emotional energy needs to get a response and supplement, in order to keep the emotional energy and look forward to join the next interaction ritual for group solidarity, so they will be sent through high-profile senior barrage, forward video, clip similar content such as video reserves and obtain continuous emotional energy, will support the interaction of the ceremony after constant emotional energy into long-term repeated interaction ritual chain.

### ***5.2. Live Video Interactive Ceremony Chain***

B station users to watch a barrage video can be seen as a interactive service, the user interaction ritual of emotional energy, have a sense of membership, more and more recognition and love B standing culture, by ordinary users to become a member of the standing B, B stand to watch as a result of long-term repeated barrage video, interactive ceremony into a service chain. For B station, in order to enable users to obtain higher emotional energy and improve user loyalty, the platform conducts packaging and processing of bullet screen, making the delivery location, speed and style of bullet screen more convenient for users to communicate and communicate, which conforms to users' needs, optimizes the use experience, and creates conditions for the interactive ceremony.

Now barrage culture has gradually spread to other video sites, each video website has its own unique barrage culture, users in the barrage of different for different interaction ritual in video, get emotional energy, propaganda shell act etiquette, will be in

violation of the regulations regarding the use of the barrage of barrage to report to the administrator, the barrage language be received in a broader base is established.

### 5.3. The Negative Impact of Barrage Interaction

Although bullet screen videos satisfy users' needs for self-expression and enable them to obtain happiness and even knowledge, there is no denying that bullet screen videos also have some disadvantages. First of all, due to the immediacy of bullet screens, bullet screens are free of speech, have a large number and move quickly across the screen, which makes them more difficult to manage than ordinary comment bullet screens and brings difficulties to the development of the

Platform's bullet screen management. Secondly, inappropriate comments in bullet screens have a great impact on the viewer's perception. For example, some users brush other content in a video, such as refresh, and low level bullet screens block subtitles in foreign-language videos, disturbing other users' watching and affecting user experience. Finally, the delivery of barrage requires the suspension of video, which to some extent interrupts the user's immersion process and affects the user's experience in the context.

In order to effectively reduce the negative impact of bullet screen video, we need to make efforts. First, relevant departments can formulate laws and policies to clarify the scope of civilized barrage speech, standardize and improve the order of the industry, and create a good market environment. Secondly, the platform should strengthen technical management, use technical means to effectively screen bullet screen content, screen sensitive words, properly monitor video environment, and optimize user experience. Finally, the user is a barrage of video terminals, is the key factor of barrage

environment, so the user should improve their own quality, keep in mind the barrage manners, not sending improper barrage, at the same time, in his own right and the quality of supervision within the scope of other barrage, reasonable use of banned reporting.

For example, users have the right to optimize the environment of the barrage and contribute to create a good environment for the play screen video of his own strength.

## 6. RESEARCH CONCLUSIONS AND LIMITATIONS

### 6.1. Research Conclusion

Based on interactive service chain theory as the basis, through methods such as literature analysis, summarized the B stand at ACG culture and the main characteristics of the barrage, think B stand barrage language has its particularity and is the important foundation of forming interaction ritual, which analyzes the barrage video interaction ritual in the condition that the initial user intends to present complete gathered, after passing the focus of attention, and send a barrage and comments and achieve emotional resonance, eventually produce exclusivity, maintenance of interaction ritual; At the same time, the output results are analyzed, and it is believed that the generation of group unity is the sense of group belonging, the group symbol is the bullet screen, and the acquisition of emotional energy and moral sense are the main four aspects.

Finally, this paper analyzes the interactive ceremony is transformed into an interactive ceremony chain through the continuous support of emotional energy, and puts forward the problems existing in the platform of danmu video, as well as the reference and Suggestions to solve them.

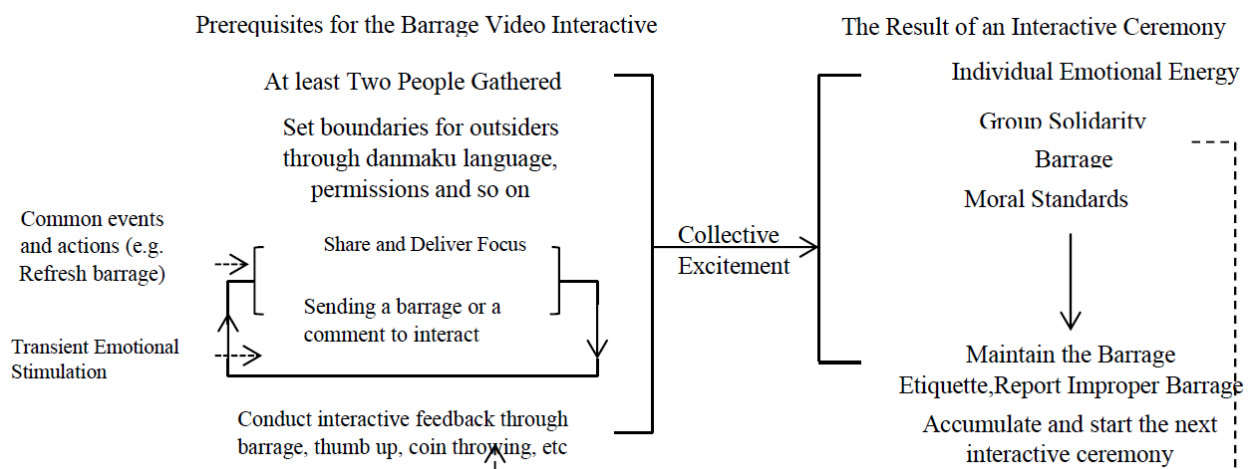


Figure 2 Barrage video interactive ritual chain

## 6.2. Research Limitations

In this paper, interactive ritual chain is taken as the theoretical basis to study the formation and influence of interactive ritual chain and interactive ritual chain in bullet screen videos, focusing on the component elements and output results in the theory. However, Collins' theory also includes internalized symbols and other contents, so this paper has some defects in theoretical application. In addition, this paper mainly takes the bullet screen of B station as the research object, and does not comprehensively consider whether the research conclusions in other bullet screen websites have applicability, so it is deficient in comprehensiveness.

## REFERENCES

- [1] R. Collins, *Interactive Ritual Chain* [M]. Commercial Press, 2008.
- [2] L.L. Liu, A. Suh, C. Wagner. Watching online videos interactively: the impact of media capabilities in Chinese Danmaku video sites[J]. Chinese Journal of
- Communication, 2016, pp. 283-303. doi: 10.1080/17544750.2016.1202853.
- [3] D. Goss, "Reconsidering Schumpeterian opportunities: the contribution of interaction ritual chain theory"[J], *International Journal of Entrepreneurial Behavior & Research*, 2007, pp. 3-18. doi.org/10.1108/13552550710725156.
- [4] M. D. Griffiths, I. Dancaster. The effect of type a personality on physiological arousal while playing computer games [J]. *Addictive Behaviors*, 1995, vol.20, pp.543-548.
- [5] Dholakia U M, Bagozzi R P, Pearo L K . A Social Influence Model of Consumer Participation in Network- and Small-Group-Based Virtual Communities [J]. *Social Science Electronic Publishing*, 2004.
- [6] N. B. Ellison, C. Steinfield, C. Lampe. The Benefits of Facebook "Friends:" Social Capital and College Students' Use of Online Social Network Sites [J]. *Journal of Computer-Mediated Communication*, 2007, vol.12, pp.1143-1168. DOI: 10.1111/j.1083-6101.2007.00367.x.