

## **Analysis of Barrage Culture and User Analysis in New Media Content in the Chinese Market**

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### **Abstract**

*Barrage is an interactive method based on video, and the video itself is visualized from the viewer's point of view to play people's emotions, and it already has an advantage in communication by attracting people's attention using stories and plays. Advances in digital and mobile technology have enabled video viewing anytime, anywhere. Due to the nature of the barrage site that relies on the same video content or playback to participate in video sharing through computers or mobile clients, a barrage that can express users' feelings and thoughts will be added, breaking down the limit of content acceptance by a single user.*

*Barrage satisfy users' entertainment needs, and their influence is growing. Gradually, they are heading to offline movie theaters and TV from barrage videos on the Internet. Attempts to function as offline ammunition facilitated technological innovation for media convergence by converging mobile media with PCs and screens. At the same time, the trend of media convergence shown by coal screens is also a trend of overall technological development. A barrage is an extension of human communication skills.*

*The properties of the barrage fit well with the need for experiential marketing (via video). It can provide a visual experience and create an atmosphere of "surrounding and watching" and eliminate loneliness. Barrage itself provides a function to comment on videos, which is a trigger point for the reason, and donation adds to the amount of information in the video, adding to the fun of the video. Through the barrage, sarcastic, teasing, and expressing emotions can bring entertainment experiences, and users can produce and communicate their shooting text while consuming the satisfaction brought by the shooting.*

*At the same time, Barrage attaches great importance to the needs of the masses, is more individual and diversified, and has commercial significance in line with the current development trend of the Internet. As a new interactive method, barrage contains huge potential value. However, the impact of the interactive way of barrage should also be viewed from a dialectical point of view, how to solve the difficulties in the development of barrage. The way to solve the difficulties in the development of barrage is worth studying. This research*

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*will analyze the reasons for the development of barrage and the analysis of Chinese barrage websites, the case analysis of barrage videos, the exploration of the characteristics and values of barrage, and the problems in the process of barrage communication. Provide reference for the development of industrial culture.*

**Keywords:** *Barrage, Barrage culture, Digital content, New media content*

## 1. Introduction

With the development of information interaction means, especially Internet interconnection, words such as "virtual community" appeared. In a specific contemporary context, especially in the context of Internet culture, the three aspects of the concept of community have changed significantly, and the specific manifestation is virtual community. Sexual and spiritual transformation:

- (1) The objective and real regionality has become blurred, and virtual regions with different network platforms can also be included.
- (2) Social communication has expanded from reality to virtual interpersonal relationships formed based on Internet and other interconnected means.
- (3) The common bond has returned to become the core element.

As a virtual platform on the Internet, the nature of the barrage video website determines that it is a virtual area itself. From the perspective of positioning and content, the subdivision nature of the barrage video website and the content of the house determine that it attracts and gathers users with specific preferences. Specifically, users who are keen on the house culture have also become the basic unit of the user group of the barrage video website is the primary identity of the user.

There is a natural common bond among the users of the barrage video website, that is, the common value orientation of the house culture; secondly, as a user group based on the production and consumption of the barrage video website, they also have a second common bond, that is, the same Accept or like the narrow comment form of barrage. From the perspective of features and functions, the barrage comment form featured by barrage video websites determines the characteristics of weak radiation of peripheral groups, high stickiness and strong centrality of central users. In the information theory of Claude Elwood Shannon, compared with the traditional video viewing experience, the barrage itself has a certain degree of "noise", and it has its similarities with any public speech platform in information aggregation. The information presented is overflowing and mixed, maintaining a delicate balance between noise and non-noise, which varies from person to person, which determines its individuality and relativity.

For ordinary viewers, under the premise of being accustomed to the "pure" traditional video viewing experience, the barrage may just garbled them, or block the screen, distract them, and even make them feel physically dizzy. In terms of the cultural context of Edward T. Hall, in addition to being full of otaku culture terms, the content of the barrage itself has many barrage culture terms (including some) developed based on specific barrage video sites. Even some nerd culture fans may not be able to participate in this high-context comment form with a pleasant attitude. The exclusivity of the barrage comment form filters out some users and can become loyal users of the barrage website. Of course you need to love and enjoy this form.

The barrage can give the audience an illusion of "real-time interaction". Although the sending time of different barrages is different, they will only appear at a specific point in the video, so the barrages sent at the same time are basically the same. With the same theme, there will be the illusion of commenting at the same time as other viewers when participating in comments. The traditional player commenting system is independent of the player, so most of the commented content revolves around the entire video, which is not topical and does not have the feeling of "real-time interaction". From the content point of view, the barrage

can be divided into the barrage based on video text, the "chat-style" barrage in front of the video text, the "effect-type" barrage without text, and the "empty ear" barrage. The form of barrage has brought about an innovation in the relationship between the sender and the receiver. The barrage is a collective "secondary production" of "transmission and receiver integration", which makes the audience's feedback more timely and targeted. [1]

## 2. Classification of barrage users

The essence of the barrage is the subtitles that are quickly produced when individual viewers watch videos. Because the barrage is extremely time-sensitive, it is difficult for the audience to produce long stories, so they can only express instantaneous fragmented emotions. Therefore, people like to express their personal emotions in the barrage, which is also the most common barrage content in the "Do Not Think" series of barrages.

However, the content expression conveyed by the barrage is obviously not a person's self-movement, it is a group behavior and group culture. There is a word called "enclosure self-promoting", which does not refer to a process of self-satisfaction for the audience in the process of watching. It is derived from fan culture and is a way for people to speak out and find a sense of identity in a circle. From this word, we can more or less perceive one or two of the barrage culture. [2]

The so-called social interaction in the barrage is like standing on a hill. You know someone is on the opposite side, so you shout loudly, because your voice will definitely be heard and even get a reply.

To give the simplest example, in the video of "No Difference", the words "high energy in front" and "barrage shield" are the easiest to see covering the entire screen; another example, before the New Year's Eve, In the live video of the concert, when the time reaches zero, the screen will undoubtedly be occupied by the barrage of "Happy New Year"... [3][4]

For another example, we often see a large number of barrages with different color fonts, which are called barrage fights between different gangs by professional audiences. By choosing their own colors and words, the audience actually chose their own position, and the so-called "Yan Biao Li".

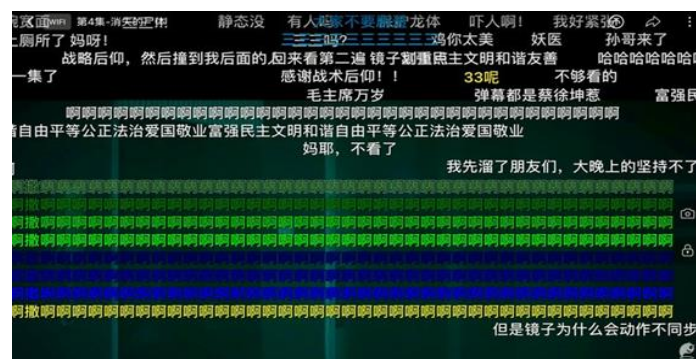


Figure 1. Barrage text fireworks

In such a behavior, the colorful barrage is like a text fireworks. Although most of the time, the audience cannot get any text information in the screen-swiping barrage, and can only see the gorgeous flow that fills the entire screen, but For the audience, I believe they are more like a fireworks carnival with a sense of sociocultural ritual.

These are expressions of the audience looking for a sense of belonging. When the audience sees the "high energy in front" of the full screen, the person who posted the barrage experiences such an identity in real time or in a delayed manner, and the person watching the barrage also participates in it unintentionally. [5]

When the audience sends "Happy New Year" together at 0:00, what they enjoy is the great satisfaction and sense of belonging brought by this kind of real-time. When you are in the ranks of the curtain, what you feel is a sense of connection in different time and space.

This kind of social interaction that is different from reality does not need to consider too many interpersonal relationships, does not need to be embarrassed, and does not need a real name, just to experience a sense of participation and belonging. With the click of a mouse, the audience has completed the process of participating and leaving, which is completely different from the social status of people in daily life. On the contrary, "barrage socialization" makes people effortless, easy, and more relaxed and free. [6]

In the barrage culture, there is no "social animal", no "social fear", and no "adult social interaction".

"Barrage" culture is also "secondary production".

Barrage is both independent and closely related to the content. On the one hand, it is a part of the episode. People expressed their opinions and feedback on the plot, and based on the content, more stalks were laid for the video. The barrage also brought the popularity of many old dramas, and even re-deconstructed the characters



Figure 2. The secondary creation of the barrage in the video

On the other hand, more and more content producers are beginning to pay attention to barrages and observe audience feedback in real time. This interactive barrage culture can also bring some inspiration to the production and marketing of the series.

Content producers can get a sense of accomplishment from the audience's barrage, even if they don't know what identity the opposite group has, in what state, at what time, and in which place. The existence of the barrage, in a sense, also proves that the content of production is paid attention and is cared about. The barrage may be expressing approval or complaining, no matter which kind, content producers can get the most direct feedback and make adjustments based on the feedback.

Judging from the above, the barrage has been developing in a benign direction.

In an unsupervised language space, speakers are more prone to emotional impulses and extremes. Most of the time, the barrage scrolls in an orderly manner, but there are also times when some viewers are incognito and anonymous and do not have to take too much responsibility, so spoilers, abuse, and establishment of war camps. When something starts to grow, it faces more problems.

From the point of view of game science, the application of barrage is more like the application of gamification. Likewise, user usage categories can also be analyzed in a gamological manner. Next, I will analyze the user's behavior from Narratology and Ludology.

## **2.1 Narrative users**

### Narratology

First of all, users who pay attention to the narrative focus on the narrative of the video content itself. This type of user prefers to watch the video content completely, independently, and without external interference, so as to obtain a good personal experience. Such users generally belong to the perspective of use and satisfaction theory. [7]

The production of entertainment programs stems from the audience's demand for entertainment. Everyone has the need to relieve stress, communicate with others and pursue the unknown, and it is these needs that drive the corresponding media consumption. [8]

Use and Satisfaction Theory was put forward by E. Katz in his 1974 book "Personal Use of Mass Communication". Before the "use and satisfaction" theory was put forward, most of the research was from the perspective of the communicator, studying how the communicator affects the audience. The "use and satisfaction" theory serves as a turning point, shifting the perspective to the audience. Different from the traditional theory of active persuasion of communicators and passive acceptance of audiences, the theory of "use and satisfaction" holds that individual audiences with specific needs, driven by their special needs, will actively contact the media and obtain satisfaction from them. The use of barrage can meet the emotional needs of users and express their needs.

Watch the video content in its entirety, without using the barrage function. Or read and watch the barrage content as part of the video content, thereby improving the viewing effect of the overall video content. These are common behaviors of narrative-conscious users.

## **2.2 Interactive users**

### Ludology

Users who focus on interactivity are more inclined to interact with other users while watching video content when using barrage. Whether it is real-time or non-real-time barrage, interacting with other people through the platform's barrage, so as to achieve the purpose of communication, publicity, self-expression, etc., is the characteristic of this type of user. [9]

British scholar Stephenson put forward the game theory of mass communication in 1967. In "The Game Theory of Mass Communication", he pointed out that although most of the communication activities are instrumental and are for the purpose of disseminating information, another part of the communication activities does not have clear information to be transmitted. Such communication activities are the purpose in themselves, because people get happiness from it.

Under his theory, interactive communication has no specific purpose, only to achieve self-satisfaction, often bringing a relaxed and pleasant mood to the participants, which is called "communication-pleasure". In the process of posting barrages, users express themselves and gain pleasure. This is non-utilitarian and purely game-based communication for communication. [10]

When users who focus on interactivity use the barrage, the process of interacting with other users belongs to a participatory culture.

Participatory culture was proposed by American communication scientist Henry Jenkins in his book "Text Poachers: TV Fans and Participatory Culture" in 1992. It is a free, equal, open, inclusive, and shared new media culture style created by actively creating media texts, disseminating media content, and strengthening network communication through a certain identity as the main body. As an open text on the online platform, barrage video is in line with the elements of participatory culture, emphasizing that many netizens spontaneously participate in the creation of barrage text to achieve identity and further feedback on video

creation. It can be seen that the barrage video itself is a typical representative of participatory culture. Fans not only have residues that have been grabbed and borrowed from popular culture, but also have a culture of their own created with the symbolic raw materials (barrage) provided by the media. [11][12]

Users who focus on interactivity generally belong to the perspective of the interactive ritual chain

The core problem to be solved by Collins' interactive ritual chain theory is the action mechanism of interactive rituals. He proposed, "The interactive ritual is a process in which the participants develop a common focus and feel the micro-rhythm and emotion of each other's body accordingly. The barrage does not affect its appearance in the viewer's eyes as a whole. It also gives each participant a sense of ritual satisfaction of "joining the event together." In an interactive ritual, people focus their attention on a common object or activity, and by communicating that focus to each other, they know each other. With the increase of video playback and mutual interaction frequency, people's attention has gradually become more concentrated, and they have begun to be attracted by each other's emotions. The lonely net generation hiding behind the Internet has gained unprecedented emotional resonance. [13]

Barrage comments are an interactive ritual chain of thoughts. When a barrage group watches a certain real situation of a video, it will trigger the viewer's own context chain of the thought sequence formed by the life experience, knowledge reserve, movie viewing experience, speech habits, etc. left by the previous ritual experience. While editing the barrage, the participants will embed the previous situational experience in the interactive ritual chain composed of the barrage to prepare for the next time they participate in watching videos and launching the barrage.

### **3. Psychological characteristics of barrage users**

Why open the barrage to watch the drama? Because they can feel empathy for each other. The poet John Donne once wrote, "No man is an island."

The change of the content of the barrage does not mean anything, because the emptiness of people is the basis for using the barrage, no matter how it changes, the barrage is doing the same thing, creating empathy for the people who use it, The need for empathy is naturally because of non-expression of feelings, which is also the emptiness mentioned above. That is to say, life is empty, confused, and inexpressible. The confirmation of "I" needs to be created by the collective, which is symbiotic. That is to say, the self is manifested through the group, and they pay special attention to their appearance, what others have done, what their parents have done, the evaluation of others, etc., because in their inner feelings, once they are separated from them, they will feel afraid. Doubt and lack of sense of security. It can be seen from this that the barrage is closed inward, and users will inevitably promote the concepts they agree with to others. If they are different, they will be isolated. What shrouds them is their culture (subculture), and this is their identity card, it is their proof, they will use this to distinguish the enemy from the friendly, and this self-identification is the basis of their existence. [14][15]

The essence of the barrage culture is to use the emotional sustenance of the barrage to distinguish groups, and it is a confirmation of "me" and "others". The barrage is just a tool to serve their users. From this point of view, I think the use of barrage, People who love barrage and do the same must have a commonality.

#### **3.1 Empathy users**

Empathy (Empathy), that is, empathy, a psychological concept, also translated as "put yourself in the shoes of understanding", "feeling into". Refers to psychological transposition, heart-to-heart. That is, the cognitive awareness, grasp and understanding of the emotions and emotions of others. It is mainly reflected in the aspects related to emotional intelligence, such as emotional self-control, empathy, listening ability, and expressing

respect.

Because of the group nature of human beings, most people hope that their ideas can be recognized by others. One of the important reasons for opening the barrage is to find a sense of identity. If everyone's thoughts are the same as their own, there will be a sense of psychological satisfaction. When most of the barrages are different from their own thoughts, there may be a mentality to turn off the barrage, but after a while, there will be new ones. The idea is that it will still try to find a sense of identity through the barrage.

American philosopher and sociologist Schutz once pointed out in the study of interpersonal communication that emotional needs are both an emotional and a psychological identity. The social media of barrage video, which has no time and space distance, provides users Provides emotional catharsis and dilutes emotional loneliness. The main audience of the barrage video is the otaku. They are relatively young, most of them are only children, and they are relatively lonely in their daily lives. The appearance of the barrage video has brought great comfort to this audience. The immediacy of the barrage resonates with the audience. It feels as if there are many people watching the video together, and its synchronicity amplifies this movie-watching experience and improves the fun experience of movie-watching.

For empathic users, barrage can bring them a variety of experiences.

**Companionship:** Watching a drama in a lonely house seems to have become a happy moment for friends to chat and watch, and you have the same hobbies and don't need to be accommodated.

**Resonance:** Whether it is my compliments or complaints, I hope to find resonance and get a response.

**Help:** If there are some points that are overlooked or not understood, the barrage is explained by other friends.

**Enhancement:** Netizens often have god comments across time and space. With these witty comments, bad dramas are not bad, tragedies are turned into laughter, and horror movies can be watched by one person.

When empathy users use barrage, a symbolic phenomenon of barrage culture is triggered. There is a saying in China's emerging popular culture: The essence of human beings is a repeater. In this sentence, the repeater describes the herd behavior generated by empathy. When users use the barrage, they will copy and send the same barrage content as other users, and these contents are often obtained through empathy. Views on the content, or classic lines, classic bridges, etc. in the video content. And this type of barrage has a very high proportion in each video website.

### 3.2 Personal thinking user

#### Self-expression user

Different from empathy users, some users like to put themselves in the third-person perspective, or the perspective of God, and evaluate other users' barrage while evaluating the video content. In the process of evaluating and expressing opinions, attracting attention or expressing yourself by way of thinking or conclusions that are different from the public. It is worth noting that there are users in this category of users who achieve their promotional purposes by attracting the attention of other users.

#### Consumer user

In the book "Consumer Society", Baudrillard supplemented the "time building blocks" in Guy Debord's "Scenic Society", and proposed the concept of a grocery store. The whole "art" of the grocery store, he argues, is to play with the ambiguity of commodity symbols, to elevate the status of commodity and utility into a game of "ambience". The barrage video website sells "time building blocks" composed of video, barrage, comments, purchasing animation derivatives and other landscape time. These building blocks enhance its use value, such as audience communication, viewing, etc. kind of "ambience". [16]

It can be said that as a barrage produced by an individual audience, it actually incorporates the audience's own and external things into the content of the barrage, thereby producing a variant of the fusion of the inflated video content and the audience's personal experience, and all these are packaged in the barrage pool and become grocery store merchandise.

Recreational users

Communication as play Stephenson argues that communication as play is "allowing people to immerse themselves in active play". This dictates that it must be a highly subjective activity. The communication activity itself is the purpose, which is manifested in the fact that the communication activity can bring happiness to people and make people immerse themselves in it. Just as people do not bring more new information in the process of posting barrage, but this repeated barrage behavior just makes people feel that they have grasped a certain form of power, and people's psychology is closer to play. In fact, this is also an emotion to relieve tension and depression in life. [17][18]

The fast scrolling mode of the barrage also restricts everyone's expression. In this case, the effective information transmitted by a single barrage is very limited, but with the full screen scrolling barrage, people can obtain some form of pleasure. Therefore, users do not care whether their opinions can bring actual benefits or play a persuasive role. What users care about is that their own barrages can appear on the video and form a full-screen scrolling screen with other people's barrages. A "spectacular" for a "pure play" purpose. [19]

#### **4. Data analysis model**

For the data analysis of users, this paper uses the mediation effect analysis method for analysis, and the analysis model uses Model 1 in SPSS Process for data analysis.

Mediation analysis is widely used in social science research (Wood, Goodman, Beckmann, & Cook, 2008), such as psychology (MacKinnon, Fairchild, & Fritz, 2007; Rucker, Preacher, Tormala, & Petty, 2011), management (Mathieu, DeShon, & Bergh, 2008) and Communication (Hayes, Preacher, & Myers, 2011), etc. (2011) statistical findings published in the *Journal of Personality and Social Psychology (JPSP)* and *Personality and Social Psychology Bulletin (PSPB)* between 2005 and 2009 Mediation tests were used in 59% and 65% of the articles.

The mediating variable is the link connecting the relationship between two variables, and in theory, the mediating variable implies some kind of internal mechanism (MacKinnon, 2008). The change of the independent variable X causes the change of the mediator variable M, and the change of the mediator variable M causes the change of the dependent variable Y. For example, a certain cancer drug (X) needs to pass through a specific enzyme (M) to effectively kill tumor cells (Y), and if this enzyme is lacking in the body, the drug will be ineffective. It can be seen that the mediating variable is an important part of the whole causal process and is indispensable. Because of this, the premise of the mediation effect analysis is that there is a clear (theoretical or factual) causal relationship between variables (Baron & Kenny, 1986; Kenny et al., 1998; MacKinnon et al., 2002), otherwise the results are difficult to interpret.

SPSS is the first statistical software in the world to adopt a graphical menu-driven interface. The SPSS statistical analysis process includes descriptive statistics, mean comparison, general linear model, correlation analysis, regression analysis, log-linear model, cluster analysis, data simplification, and survival analysis. , time series analysis, multiple response and other major categories, each category is divided into several statistical processes, such as regression analysis is divided into linear regression analysis, curve estimation, Logistic regression, Probit regression, weighted estimation, two-stage least squares method, Multiple statistical processes such as nonlinear regression, and each process allows users to choose different methods and



parameters. SPSS also has a special drawing system that can draw various graphs based on data. The model used in this study is Model 1 in SPSS process.

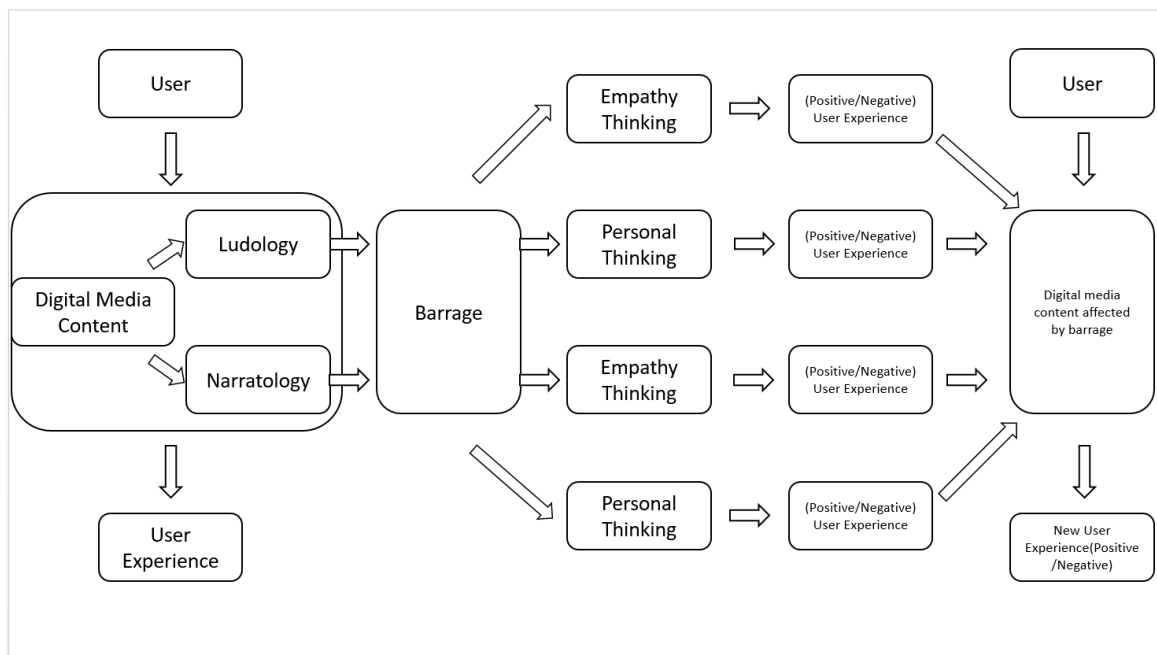
**4.1 Hypothesis of the data analysis model**

Because of the group nature of human beings, most people hope that their ideas can be recognized by others. One of the important reasons for opening the barrage is to find a sense of identity. If everyone thinks the same as you, there will be a sense of psychological satisfaction. Emotional need is a kind of emotional recognition and psychological recognition, which also resonates with the audience, which improves the viewing experience and makes users more willing to use and experience digital content with barrage content and barrage function or products. Therefore we make the following assumptions:

Hypothesis1) When watching digital media content with barrages (interactive/narrative), users who use empathic thinking tend to have a benign experience with content products, and they will get a positive user experience, so they are more willing to use and experience elastic Digital content products with screen content and barrage functions.

On online platforms, some people like to actively show themselves to the outside world by writing text, sharing photos, videos and other information, but at the same time they are not interested in other people's feedback and personal information (to show and not receive) Users like to put themselves in the third-person perspective, or the perspective of God, and evaluate other users' barrages while evaluating the video content. In the process of expressing opinions, use a different way of thinking to make yourself different from the public and attract the attention of others to gain a sense of pleasure. Therefore we make the following assumptions:

Hypothesis2) When watching digital media content with barrages (interactive/narrative), when focusing on the narrative of the content, individual thinking users are more inclined to experience the content independently, and thus are less inclined to use and experience elastic content. Digital content products with screen content and barrage functions. On the other hand, individual thinking users who focus on interactivity are more willing to use and experience digital content products with barrage content and barrage functions.

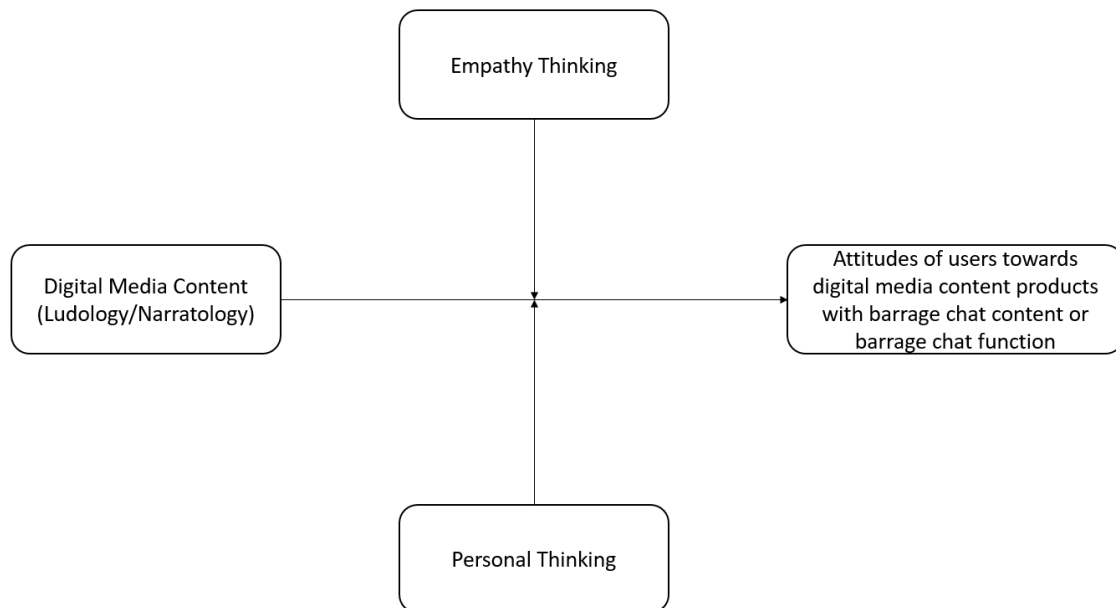


**Figure 3. Hypothesis of the data analysis model**

## 4.2 Data analysis model

By analyzing the characteristics of the barrage and the way of expressing its content, this research explores how the audience conducts "secondary creation" through "barrage" and expresses different views. In this process, how the works are understood and interpreted, hoping to get the audience's opinions. The different states and orientations of expressions require careful analysis. In this study, the model will be analyzed by mediation analysis.

When viewing digital media content with barrages (interactive/narrative), the user experience with the content product using the individual way of thinking produces different results according to the characteristics of the content. In the case of focusing on content narrative, personal thinking users are more inclined to independent content experience and complete plot perception and self-understanding. Personal thinking users who pay attention to interactivity will obtain a benign and positive user experience through self-expression, self-identification, self-elaboration and other behaviors in the interactive process of using the barrage. It is worth mentioning that this kind of user's use of barrages may tend to be positive for their own experience, but when other users watch such barrages, it may cause a negative user experience to other users. Here we only analyze the influence on the behavior subject and the user experience of the behavior subject.



**Figure 4. Data analysis model**

## 4.3 Research methodology

The analysis of users' motivation to use bullet screen is conducted in the form of a questionnaire, which is filled in through Credeamo and sent to users with links or QR codes.

The people who watch videos on the website generally include the users who send the barrage after watching the video, the users who have the barrage function turned on but never launch the barrage while watching the video, and also consider the video resources on the barrage website. There are three types of users who are not interested in the barrage. Combined with the research theme of this paper, these three types of people are taken as the investigation and research objects of this paper.

The respondents' gender, age, education level, and employment status were sorted out to determine users'

identity. The usage of the barrage includes the frequency of the barrage when watching the video, the form of the barrage, the main content of the barrage, the importance of the video and the barrage, the communication with other users, and the degree of expressing one's heart when the barrage is launched. A total of 518 questionnaires were collected. In terms of gender, more women than men used bullets. There were 198 males, or 38.22 percent of the total. There were 320 women, accounting for 61.78%. See Table 3 for the specific gender of the respondents.

**Table 1. Gender characteristics of survey participants**

Gender	Quantity	Proportion
Male	198	38.22
Female	320	61.78%

According to the survey results there were 117 respondents aged 19-25, accounting for 22.59% of the total. There are 117 people aged 31-35, accounting for 22.59% of the total. There is 1 person under the age of 18, accounting for 0.19% of the total. There are 25 people in the 36-40 age group, accounting for 4.83% of the total.

## 5. Analysis of survey data

The analysis Model uses Model 1 of SPSS Process for data analysis. First, the reliability of variables was measured. Reliability refers to the degree of consistency of results when the same object is tested using the same method.

### 5.1 Questionnaire

The reliability analysis was conducted by SPSS Process to verify whether the designed questionnaire was credible, whether there was a good correlation between the questionnaire questions, and whether the answers of the respondents were contradictory and credible. In order to ensure the reliability between dependent variables, the Cronbach's Alpha coefficient was used to verify the internal consistency. The results were as follows: 1(negative)  $\alpha=.726$ , 2(positive)  $\alpha=.705$ . If Cronbach's  $\alpha$  is above 0.6, it is statistically significant, so there is no problem in this experiment.

**Table 2. Reliability analysis results**

Measurement items	Number of items	Cronbach's Alpha
Barrage attitude1	3	.726
Barrage attitude2	3	.705

When Cronbach's  $\alpha$  is 0.8, it represents the high correlation between the two variables; when Cronbach's  $\alpha$  is less than 0.5, it represents the moderate correlation between the two variables. The following conclusions can be drawn from the analysis results. "Barrage enriches video content" has a significant relationship with "I prefer to watch videos with bullet chatter" and "Sending and browsing bullet chatter is fun". "Barrage affects the video viewing experience" and "Whether the barrage function affects" has a significant relationship with "I often feel inconvenience with the content of the barrage".

## 5.2 Results

PROCESS is an observational variable OLS and logistic regression analysis path analysis model tool. This model uses Model 1 of SPSS Process for data analysis.

The following facts can be seen from the analysis results. First of all, this analysis is PROCESS MODEL 1, Y = barrage attitude 2, X = narrative video content, w = personal thinking, Sample size = 518. The model had an R-sq value of 0.233, an F value of 4.0844 in model check 104, 3.0000 for 1 degree of freedom, 513.0000 for 2 degree of freedom, and a p-value of .0070, indicating that the model is statistically beneficial. The adjustment factor (Int\_1 term factor) is -.4318(.1283) and the t value is -3.3646(p=.0008). The Bootstrap test result value of the adjustment variable Int\_1 term does not contain 0 in the range LLCI: -9003, ULCI: -1903, so the adjustment term is statistically beneficial.

Assuming that with narrative as the center, the moderating role of personal thinking in the video content is affirmative, then according to the analysis results through the questionnaire, the moderating role of personal thinking in the video content is particularly prominent with narrative as the center.

**Table 3. PROCESS MODEL1 Verification results of narrative personal thinking model summary**

R	R-sq	MSE	F	df1	df2	p
.1527	.0233	.3205	4.0844	3.0000	513.0000	.0070

**Table 4. PROCESS MODEL1 Verification results of narrative personal thinking model**

	coeff	se	t	p	LLCI	ULCI
constant	3.7596	.1494	25.1605	.0000	3.4661	4.0532
X1J	.8932	.3218	2.7761	.0057	.2611	1.5253
M2	.1711	.0592	2.8905	.0040	.0548	.2874
Int_1	-.4318	.1283	-3.3646	.0008	-.6840	-.1797

This experiment uses PROCESS MODEL1, Y= barrage attitude 2, X= interactive video content, w= personal thinking, Sample size=518. The R-SQ value of this model is.0086, the F value in the model verification is 1.4917, the degree of freedom 1 is 3.0000, and the degree of freedom 2 is 513.0000. The coefficient of regulation (Int\_1 coefficient) is .0265(.1113), t value is .2381(P =.8119). The Bootstrap test results of the adjustment variable Int\_1, LLCI: -1921, ULCI: .2451, contain 0, so the adjustment item is not statistically beneficial.

It is assumed that the moderating effect of individual thinking in the video content is positive if it is centered on interaction. Then, according to the analysis results of questionnaire survey, the moderating effect of individual thinking in the video content centered on interaction is not obvious.

**Table 5. PROCESS MODEL1 Verification results of Interactive personal thinking model summary**

R	R-sq	MSE	F	df1	df2	p
.0930	.0086	.3253	1.4917	3.0000	513.0000	.2159

**Table 6. PROCESS MODEL1 Verification results of Interactive personal thinking model**

	coeff	se	t	p	LLCI	ULCI
constant	4.0760	.1133	35.9705	.0000	3.8533	4.2986
X2J	.1703	.2806	.6067	.5443	-.3811	.7216
M2	-.0179	.0444	-.4027	.6873	-.1050	.0693
Int_1	.0265	.1113	.2381	.8119	-.1921	.2451

This experiment uses PROCESS MODEL1, Y= barrage attitude, X= narrative image content, W = resonance, Sample size=518. The R-sq value of the model is .3859, the F value in the model verification is 17.4546, the DEGREE of freedom 1 is 3.0000, the degree of freedom 2 is 513.0000, and the P value is .0000, which indicates that the model is statistically beneficial. The adjustment coefficient (Int\_1 coefficient) was .1121 (.1669), and the T value was .6716 (P =.5021). Since the Bootstrap test results of Int\_1 contained 0 in the range of LLCI: -.2159 and ULCI: .4401, the adjustment item was not statistically beneficial.

Assuming that the moderating effect of resonance in video content is positive if narrative is the center, then according to the results of questionnaire analysis, the moderating effect of resonance in video content is not obvious if narrative is the center.

**Table 7. PROCESS MODEL1 Verification results of narrative resonance analysis model summary**

R	R-sq	MSE	F	df1	df2	p
.6212	.3859	.215	17.4546	3.0000	513.0000	.0000

**Table 8. PROCESS MODEL1 Verification results of narrative resonance analysis model**

	coeff	se	t	p	LLCI	ULCI
constant	1.8054	.3343	5.4009	.0000	1.1487	2.4621
X1J	-.4941	.6708	-.7366	.4617	-1.8120	.8238
M1J	.5789	.0828	6.9917	.0000	.4163	.7416
Int_1	.1121	.1669	.6716	.5021	-.2159	.4401

This experiment uses PROCESS MODEL1, Y = barrage attitude 2, X = interactive digital media content, w = resonance, Sample size = 518. The R-sq value of this model is .3917, the F value in model validation is 110.0896, the degree of freedom 1 is 3.0000, the degree of freedom 2 is 513.0000, and the p-value is .0000, indicating that the model is statistically beneficial. The adjustment factor (Int\_1 term factor) is -.1562 (.1492) with a t-value of -1.0469 (p=.2956). The Bootstrap test result value of the adjustment variable Int\_1 term contains 0 in the range LLCI: .4494, ULCI: .1369, so the adjustment term is not statistically beneficial.

Assuming that with interaction as the center, the effect of resonance moderation in video content is affirmative, then according to the analysis results through the questionnaire survey, the effect of resonance moderation in image content is not obvious with interaction as the center.

**Table 9. PROCESS MODEL1 Verification results of Interactive resonance analysis model summary**

R	R-sq	MSE	F	df1	df2	p
.6258	.3917	.1996	110.0896	3.0000	513.0000	.0000

**Table 10. PROCESS MODEL1 Verification results of Interactive resonance analysis model**

	coeff	se	t	p	LLCI	ULCI
constant	1.3232	.2432	5.4411	.0000	.8454	1.8010
X2J	.8105	.6024	1.3455	.1791	-.3730	1.9940
M1J	.6792	.0604	11.2497	.0000	.5606	.7978
Int_1	-.1562	.1492	-1.0469	.2956	-.4494	.1369

In the narrative video content, personal thinking will affect the user's attitude towards the bullet screen content and the bullet screen function video content products. But the resonance didn't make much of a difference. In the interactive video content, personal thinking and resonance did not have much influence on the user's attitude towards the bullet screen content and the bullet screen function video content products.

I personally think that in the future, on the basis of barrage changing traditional video audiences, users can have more opportunities for self-expression and be more active. By interacting with the media and other users, expressing oneself more fully is the main driving force for users who are supported and encouraged by other users to use the elastic film.

Content produced by digital media platforms should focus on guiding users to express themselves. By guiding users to express themselves, it can help to use the barrage function and develop the barrage culture. By creating resonance or opinions and guiding users to express themselves, it is helpful for the use of the barrage function and the development of the barrage culture.

## 6. Conclusion

Barrage culture is a form of online comments based on barrage-based information technology by users of barrage video websites. The audience created in the communication of the network community, with the help of the barrage, a means of expression of network culture, builds a relatively independent structure and uses the cultural form of the group through production and consumption activities. Among them, the audience is the core. The form of barrage comments and the users of barrage video websites consolidate and expand the audience's action psychology with their own communication characteristics. Therefore, the cultural production and consumption mode dominated by the audience is creative and vital, and it also has a negative impact on other cultural production and consumption activities. It will be a good reference.

The barrage meets the new needs of users through new forms of interaction, and the stimulation of communication attracts the special attention and interest of the audience. As a new thing, barrage attracts more and more users, and it essentially depends on the value to users.

This research takes entertainment as the main motivation to watch video, the humorous content of the barrage satisfies the entertainment, and the visual experience of the barrage satisfies the resonance. At the same time, in the era of prominent user personality, barrage satisfies the user's desire for self-expression.

I personally think that in the future, on the basis of barrage changing traditional video audiences, users can

have more opportunities for self-expression and take active actions. Through the interaction with the media/other users, it is the main driving force for users who are supported and encouraged by other users to use the elastic film to show themselves more fully.

Content produced by digital media platforms should focus on guiding users to express themselves. By guiding users to express themselves, it can help to use the barrage function and develop the barrage culture. By creating resonance or opinions and guiding users to express themselves, it is helpful for the use of the barrage function and the development of the barrage culture.

The barrage was born from the video content, and a new form of video content was also born. Smartphones, computers and other multimedia devices have changed the behavior patterns of consumers after watching digital media content on the hard disk, the mutual experience brought by the barrage, the collective experience and the reproduction platform of digital media content. The behavior pattern used after the media content.

Barrages are used as subtitles in terms of practical value, which can enrich the information of the video, and sometimes play a role in understanding the video. The impact on digital media content will play a positive role in content planning, content production, user surveys, content experience with multiple visuals, content supplementation and support, and even publicity and diffusion. In addition, it will also play a great role in maintaining the user's stickiness to the video website and the new revenue model of the video website. [20]

In the development of the cultural industry in China's new media era, especially the animation industry, it is difficult to grasp the needs of the audience. Grabbing the hearts of the audience is a long-standing problem.

This research analyzes the barrage, barrage video website, and barrage culture, and at the same time develops the core perspective of behavior and psychology from the most core audience, explains the new options and characteristics of the development of barrage culture in the new media environment, and discusses The value and possibility of the barrage to the development of the video content industry.

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