Research on Emotional Design and Strategy of VLOG Under the Background of 5G Network

Xiangyu Zhang

South China Institute of Software Engineering, Guangzhou University, Guangzhou, Guangdong, 510990, China

*Corresponding author. Xiangyu Zhang；Email: 122240982@qq.com

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ABSTRACT   5G networks with high bandwidth and low latency will have great impact on network video, and VLOG, which represents personal video diary, will usher in a new opportunity. This paper discusses the characteristics of VLOG from the perspective of emotional design under the background of 5G network, and puts forward the creation strategy of VLOG from three levels: a good audio-visual instinct layer, the multiple interactive viewing experience behavior layer, and the connotative emotional resonance reflection layer, in order to provide new design ideas.

1.INTRODUCTION

1.1 VLOG Overview

VLOG is the abbreviation of Video Blog. It refers to a video blog that can show the daily life of a creator or a certain theme after editing and adding videos, pictures, text and music. The creator of VLOG is called VLOGGER.

Around 2017, Chinese international students filmed the daily study abroad, and posted the videos on domestic Weibo, Bilibili and other social and video websites. After that, stars like Ouyang Nana, Li Yifeng and other stars successively used VLOG to record daily life, and thus VLOG entered the public vision. In 2019, Tiktok, Bilibili, Sina Weibo and other domestic mainstream video platforms have successively launched plans such as the "VLOG Billion Traffic Support Plan" and "VLOG Star Plan". They have supported VLOG with different strengths, giving VLOG more traffic and exposure, and attracting more outstanding creators to join.

Short videos in China have a large number of content producers and audiences due to their low threshold and short time. However, there is also a tendency towards serious content homogeneity and vulgarity. VLOG is more inclined to record life with themes, supplemented by narration, expressing opinions or conveying stories, and the audience can participate as if they were there. VLOG videos are generally 5 to 10 minutes, which can more fully express the theme of ideas, with personalized attributes, which make up for the shortcomings of short videos.

VLOG works in China have a wide range of topics, and most of them do not form a vertical subdivision. Common works are shot from the first perspective to record life. In this way, people can communicate their attitudes and values.

1.2 Development of VLOG in the context of 5G networks

When the network changes from 3G to 4G network background, mobile payment is popularized, and live broadcast is on the rise, which ushers in the boom of short videos. From this we reason that the upcoming 5G network will bring more new opportunities and challenges to the Internet industry.

5G is also known as the fifth generation mobile communication technology. In June 2019, the Ministry of Industry and Information Technology officially issued a 5G commercial license, which marked the official start of 5G commercial uses in China, and the 5G era is coming. The "2019 China Internet Audiovisual Development Research Report" shows that 70% of industry

users 'network application traffic and 80% of network traffic will be video data, which is a good time for VLOG development.

5G networks have the characteristics of "high bandwidth, low latency, and wide connectivity." With the integration of imaging technologies such as drones, panoramic shooting, artificial intelligence, and virtual reality, video forms will be expanded to multi-screen and other application scenarios, and video interaction methods will be designed in various ways. In the context of 5G, how to create VLOG of high-quality content to meet different application scenarios is a challenge for VLOG.

2. Analysis of Emotional Characteristics of VLOG

Donald Arthur Norman is a well-known cognitive psychology, computer engineer, and industrial designer in the United States. He proposed in "Emotional Design": the innate instinct level, the behavior level that controls the daily actions of the body, and the reflective level of brain thinking are the three levels of human brain activity. They play different roles in human functional activities. The above is the hierarchical theory of user emotion, which includes three levels of instinct, behavior and reflection. Based on Norman's theory, the author divides the emotional design of VLOG into three levels: the audiovisual instinct experience, the rich interactive experience during the viewing process, and the reflective experience of reflection on the subject after viewing, as shown in Figure 1.
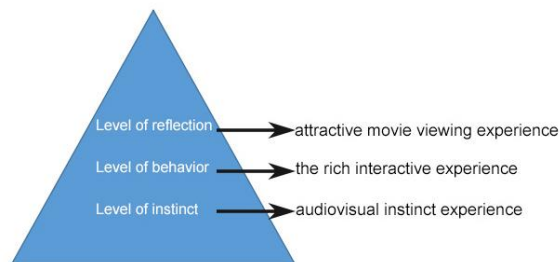

Figure 1 Emotional characteristics of VLOG

2.1 VLOG Instinct Hierarchy Analysis

Instinct hierarchy design is the law of nature. The result of evolution makes us very sensitive to strong emotional signals from the external environment, which naturally forms an instinctual response. This is an inherent physiological characteristic of human beings regardless of race and culture, age or sex [1]. In this level of VLOG creation, physiological characteristics such as vision, sound, and feeling play a leading role.

2.2 Hierarchical Analysis of VLOG Behavior

Behavior level design is related to use. There are four elements of excellent behavior level: function, understandability, usability and feeling. For the behavior level of VLOG design, we can understand how to let the audience smoothly and happily read the VLOG, so that the audience can integrate into the story and emotional clues, and can receive the emotion and story to be conveyed by the video without too much thinking.

2.3 VLOG Reflection Hierarchy Analysis

Reflective hierarchical design covers many areas, which are closely related to the meaning and use of information, culture and products. It determines a person's overall impression of a product [1]. For the viewer, after he / she watches the VLOG video, the meaning, event or something in the video will arouse his / her memory, impressions, etc. These conscious reflections and experiences that are influenced by knowledge, knowledge, and culture belong to the emotions of the reflection layer.

The instinct, behavior and reflection layers are the three levels of human brain information processing. It appears in chronological order. They are not independent and separated, but the three influences, restrict and act on each other.

3. The Strategy of Emotional Design of VLOG in the Context of 5G

With the mutual penetration of technologies such as AR / VR / MR, artificial intelligence, and the Internet of Things with 5G technology, it will bring revolutionary changes to the production and distribution of audiovisual content. How to create excellent VLOG works is a question that people need to consider. The author proposes three design strategies of audiovisual elements, interactive experience, and theme emotion.

3.1 Intuitive Strategies for Beautiful Audiovisual

In 5G environment, VLOG video will also be affected. VLOG works will enhance the expressiveness and appeal of the video from the aspects of shooting and presentation of the video to the design of the interaction in the video viewing. In creation, people can enhance the audience's instinctual level of emotional experience by enriching VLOG's expression forms, professional shooting levels to express beautiful visual pictures, and high-quality sound.

3.1.1 VLOG's rich and innovative expressions.

We first use 4K or above high-definition video shooting, which can further enhance the true content attributes of VLOG, and ultimately enhance the viewing experience of the audience. At the beginning of the video, it has a record property. Authenticity is an indispensable factor for immersing the audience and engaging in emotions. Most shooting devices today support 4K HD quality shooting. The reason we see basically 1K videos is because the 4G network background has insufficient network bandwidth and 4K or higher UHD videos cannot be played smoothly. (Video websites in the 4G era are mostly 720 or 1080 HD or ultra-clear videos). In the 5G high-bandwidth environment, 120 frames per second, 4K or even higher resolution ultra-high-definition video streams, VLOG can create a world that can express more details and higher definition. This will enhance the viewing experience from the level of visual instinct.

Secondly, we integrate AR (Augmented Reality) and VR (Virtual Reality) technologies to provide a virtual experience. AR augmented reality technology brings a rich movie-viewing experience to VLOG audiences and enhances the fun. VR video creates a three-dimensional, 360-degree panoramic virtual environment. With high-quality surround sound and three-dimensional display equipment, this will put the audience in the real scene and produce a strong sense of enveloping in the real three-dimensional space. For example, during the National Two Sessions of the People's Daily in 2019, the People's Daily Weibo launched the "People's Daily New Media Reporters Two Sessions VLOG", making full use of panoramic VR technology to record VLOG videos that reporters see and hear every day. This allows Internet users to "participate" in the two national conferences from a new perspective, and enhances the appreciation of VLOG. Adding VR technology to VLOG allows viewers to immerse themselves in the creator's environment, as if they were in it, and experience it with the creator, watch, feel, and enhance the instinctual experience.

We once again used multi-angle shooting to satisfy the audience's peep. Multi-angle shooting refers to multi-camera shooting of a certain shooting object or multi-angle shooting of a certain thing. For example, when shooting a football game, you can set up multiple shots to shoot distant, close, and close-ups, or set up shooting from the perspective of referees, ordinary viewers, or goalkeepers. Using multi-angle shooting to record real-life VLOG, viewers can choose different perspectives to observe things, so that they can understand the event in all directions. This not only meets the user's peeping needs, but also successfully creates the audience's "presence", vision and feelings through multiple angles to enhance their instinctual emotional experience.

3.1.2 Professional shooting, beautiful visual pictures

Things that love beauty are instinctual emotions of people. Through professional shooting in VLOG, beautiful visual pictures and beautiful sounds are an important way to improve the level of audience instinct. We can start from the three aspects of composition, lens movement and colors.

Composition: When shooting a video, good composition can not only convey emotions more accurately, but also bring beautiful feelings to the audience. The first thing to consider is whether the composition is horizontal or vertical. Before the 4G network was popularized, videos were basically dominated by horizontal composition. This is because at the beginning of the film's birth, it borrowed many aesthetic characteristics of the theater, using horizontal screen as the basic presentation form, and using scene scheduling as a means of expression. At the same time, the horizontal composition is more suitable for the physiological characteristics of the human eye. With the development of 4G networks, people watching a large number of videos on the mobile terminal have become the norm. From "horizontal" equipment and "fixed" scenes such as cinemas, televisions, and movies to "vertical" mobile phone equipment and "mobile" video viewing scenes, a new acceptance relationship between terminals and audiences has formed. All these affect the construction of the aesthetic system of portrait video. The vertical screen composition adapts to the size and usage habits of the mobile phone. It has more immersive characteristics and is more suitable for portraits. Single-person shots, mid-range and close-range scenes, are all features that enhance expression and social intimacy. For video works whose main content is performances, events, dramatic news events, and dramatic melodramas, landscape composition is preferred. Secondly, the composition should reflect the main body, and at the same time, the main and subordinates should be clear and the levels should be clear. There are levels of front, middle, and background in space, and levels of light, dark, and gray in brightness.

Lenses movement: Based on the recording properties of VLOG, a reasonable increase in sports lens will increase the audience's attention and participation. There are several types of sports lens: push, pull, shake, move, and follow. The most commonly used in VLOG are moving and following lens. The so-called moving lenses are shots that move. It is suitable for moving performance shooting objects and sports scenes. The so-called following lenses are to observe and walk with the lens (or VLOGGER). They are more in line with VLOG's journaling. As for what kind of motion lens is used, the shooting plan needs to be determined according to different content and narrative methods. For example, if the structure of the video uses flashback, flat storytelling, or interpolation, it is necessary to set the lens scheme in advance, which is similar to the sub-shots of video creation and considers the relevant shots comprehensively.

Color: Color a kind of visual psychological feeling caused by light shining on objects and reflecting to human eyes. VLOG's color has the role of telling stories, expressing feelings, and rendering the atmosphere. Different colors will give people different reactions. Color has its unique connotation in some contexts, which brings different reactions to people's psychology and emotions. Continuing to VLOG people have a fixed association with the existence of colors. For example, red represents joy and youth. Green represents health and life. Yellow is a symbol of good harvest. Blue represents depression and so on.

3.1.3 Appropriate commentary and moving background music

The radio reception is also very important during the shooting. The high-bandwidth 5G network supports high-fidelity sound. First, the recording of the commentary should be clear. VLOG often requires a lot of commentary. Due to the complexity and noise of the shooting scene, the recording difficulty will increase. Once the recording effect is not good, not only the expression content is affected, but also the viewing experience of the audience is reduced. Therefore, the recording must be clear. Secondly, some environmental sounds should also be included, because the VLOG's recording properties make certain requirements for its authenticity, and the necessary environmental sounds can further increase the authenticity.

Proper commentary: Most VLOGs require a lot of commentary from the creator. How to write the commentary in a clear and interesting way, with a story, test the skills of the creator.

Moving background music: VLOG is an audiovisual synthesis. Back view music plays a role in rendering the atmosphere and enhancing emotions. Reasonable back music can further enhance the expression of emotions and make the audience more empathetic.

3.2 Behavioral Strategies for Engaging Movie Viewing Experiences

3.2.1 Highlight the theme of VLOG through editing to improve movie viewing experience

By portraying social life and shaping the artistic image, the central idea that VLOG can embody is the theme. It embodies VLOGGER's worldview and values, knowledge, attitudes, emotions and aesthetic concepts of things. We highlight the theme of VLOG through editing. First of all, we should understand what the creators try to tell the audience through the content of the video. Secondly, by watching the theme of VLOG and the overall audio-visual image of the video, we can know whether the audience has realized the content that the creator wants to express. That is, to express VLOGGER's intention with audio-visual images.

The theme uses clips to complete content narration, render emotions, and control rhythm. First of all, we need to filter the captured content materials, leave content that is useful for the theme performance, and delete content that is not related to the theme with poor picture quality. Secondly, we complete the content narrative through the montage performance method. Once again, we have to be fascinating in the processing of rhythms, fast and slow. In the end, the connection between the lenses must be smooth, using methods and means such as dynamic movement, static movement, emotional connection, and visual connection. By editing, we can make the story more compact, enhance the visibility, and ultimately attract the attention of the audience.

3.2.2 Enhancing the storyline to enhance the user's viewing experience

How VLOG works can attract viewers into the state of flow and watch, which requires efforts in story-based plots such as structure and rhythm.

First of all, there must be a story structure. VLOGGER organizes and arranges the characters, plots, actions, dialogues, scenes, paragraphs, and events that reflect the theme of the work to form a structure. We organize the above parts into a whole, arrange the time when each part appears, and finally form the beginning, development, and end, interspersed with small confrontations and small reversal story structures.

Second, there must be adjustments to the rhythm. VLOG rhythm can be performed from four aspects: narrative rhythm, image rhythm, sound rhythm and psychological rhythm. Specifically, reasonably arrange the length of the shots and the sequence of the number structure to deal with the speed of the rhythm, such as putting a lot of time together for a short time to speed up the rhythm of the video. The space arrangement of characters and props is loose and tightly contrasted with a harmonious space rhythm. Through the processing of the background music, the rhythm and emotion of the picture are strengthened to achieve the integration of sound and picture.

In short, in VLOG works, the speed of story development is controlled from a large structure through editing. From a single scene, adjust the tempo through the length of the lens, assembling, etc., to achieve suspense, express emotions and other purposes. The good rhythm makes the viewer feel happy, and makes them enter the flow state to perceive the video content.

3.2.3 Use multiple interaction methods to increase the experience during viewing

The current VLOG interaction in real time includes Danmu, like, repost and other interactive methods. With the advent of 5G, the interactive mode of video viewing will also change. The use of multiple interaction methods can increase the fun and authenticity of the viewing process, meet the audience's psychological appeals of intimacy, companionship, and attachment, and improve the emotional experience of the audience's behavioral layer.

Firstly, add interactive content to the content settings, such as asking questions or other methods in multiple links. On the plot, arranging interaction with the audience can increase the amount of barrage launches, thereby increasing their sense of participation and presence.

Secondly, multi-view interaction methods are added. Video platforms such as Bilibili have launched interactive video modules to provide viewers with rich interactive experiences such as branch plots, character switching, and screen information exploration. However, there are also

constraints such as network stalls and inability to transmit multiple angles, and this interaction method and constraints in the 4G era will be resolved in the context of 5G networks. In the context of 5G's high bandwidth, viewers can choose their own content among large-capacity, multi-view video content, and the interactive experience will be enhanced. From an interactive perspective, it further enhances the viewing experience of VLOG.

3.3 Reflection Strategies for Affective Resonance

Reflection-level activities often determine a person's overall impression of a product. The reflection layer refers to the evaluation and reflection of VLOG after the audience retreats. For VLOG viewers, VLOG is an emotional platform. When the creator's theme and the audience's emotions resonate, the value of meeting the audience's emotional needs is realized.

3.3.1 from pan-entertainment to vertical.

LOGVLOG creation should focus on verticalization to avoid pan-entertainment. In recent years, short videos appearing on platforms such as Kuaishou and Tiktok. They have funny, dazzling, and vulgar content in 15 to 30 seconds to give people a strong visual stimulation. However, they generally have problems with vulgarity, pan-entertainment, and high homogeneity, which make the audience fatigued. VLOG, which expresses authenticity and life, meets this part and groups with higher requirements for video quality. VLOG abandons the pursuit of pan-entertainment content, chooses a certain theme, deepens the field through high-quality shooting and editing, pays attention to verticality, tells stories and conveys value concepts in VLOG, and arouses resonance and thinking of viewers.

3.3.2 from record to content and content construction.

VLOG works as a medium bears certain social responsibilities. Pay attention to the moral guidance and educational function of the youth audience, and guide the audience's "positive emotions" and "promote positive energy." Now some VLOG videos have less sense of mission, more singularity and entertainment, more records but fewer records, so we must pay attention to the construction of content and connotation. With the advent of the 5G era, the quality of video is more demanding, and content needs to be more professionally produced. In the setting of content, it is necessary to closely follow the theme and enhance the specific personality charm and attributes of individuals. VLOG video content with positive energy and connotation will become a necessary condition for excellent VLOG. After the audience has seen the work, they will recall and reflect on the work. The sympathetic, positive energy, and content works will continue to provide the audience with spiritual food to meet their emotional needs such as sympathy, empathy, and discrimination, and finally reach the reflective level of emotion.

4. Conclusion

The development of 5G technology will promote the development and changes of VLOG in terms of content production and user interaction. Under the influence of 5G technologies, artificial intelligence, virtual reality and other technologies will be combined with VLOG video to create new forms of VLOG video in terms of shooting, editing, post-action and interaction.

Acknowledgment

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