The Progressive Development Model of Virtual YouTubers in the Perspective of Dramaturgical Theory - An Analysis from the Perspective of Audience

Zihe Xu[1,*]

[1]*Lanzhou University, Lanzhou, China*
Email: zhxu2019@lzu.edu.cn

ABSTRACT

The current development of AI technology, coupled with the outbreak of the COVID-19, has forced people to communicate online, accelerating the migration of the public to the virtual world, and virtual YouTubers have received widespread attention. Looking at the pre-development path of virtual YouTubers, we can see many problems such as slow development process, outdated technical means and unclear character setting. It is more like an attempt for creators to employ new technology and express themselves. However, the essence of virtual YouTuber is a commodity, and it ought to do service to people after all. Therefore, this paper analyzes the audience's demand for virtual YouTubers from the perspective of audience, and further explores the influence of audience demand on the progressive development mode of virtual YouTubers.

Keywords: *Virtual YouTuber, Dramaturgical theory, Audience*

1. INTRODUCTION

Today, with the advent of the era of Internet of Everything and the increasingly rapid development of AI technology, virtual YouTubers capable of simulating, extending and expanding human intelligence have come into being. With the dissolution of the boundary between reality and virtual, virtual YouTubers can be embedded in all aspects of people's daily lives. In some areas, non-real characters have even taken over the original top-stream position of celebrities with huge followings, and audiences' demands for virtual YouTubers are becoming increasingly diverse. American scholar Goffman proposed the dramaturgical theory, which argues that in interpersonal interactions, people strive to present themselves and shape their image in the minds of others in various ways, so that others form a specific perception of themselves and react in accordance with the actor's wishes. This specifically includes impression management, performance field, and self-role reconstruction[1]. From this perspective, this paper finds that audience demand plays a key role in the delivery time, advertising field, and advertising strategy of virtual YouTubers and influences their future development path. Therefore, this paper elaborates the industry development law of virtual YouTubers from three aspects: the current problems, audience expectations, and the influence of audience demand on the virtual YouTubers' industry.

2. LITERATURE REVIEW

The development of virtual YouTubers has gone through a gradual process. The concept of virtual idols was already formed in the UK in the 1980s, when the virtual characters were formed by special effects makeup and hand-painting; In the 1990s, the concept of virtual idols was gradually obsolete due to slow technological development, immature voice synthesis technology and rough CG models; In the early 21st century, Japan's Hatsune Miku and China's Luo Tianyi set off a boom due to their realistic designs and three-dimensional images [2]; Liu Xinwei combed through its technological evolution path from the perspective of media evolution theory and classified its application scenarios as entertainment and recreation, news broadcast, weather forecast, science and education, etc.,so as to bring forth new ideas and shorten the cycle of production and broadcast and promote intelligent development[3].

Yu Guoming affirms the advantages of virtual YouTubers compared to real YouTubers: virtual YouTubers are abundant in variety and highly ornamental, and also provide an emotional connection similar to that of real people. He analyzes the emotional logic and communication value of virtual YouTubers, pointing out that virtual YouTubers establish strong relationships with people through value recognition and achieve the integration and acceptance process through Norman's emotional hierarchy Theory[4]. However, Zhang Ruoyu pointed out the existing shortcomings of virtual YouTubers [5].

Up until now, a large number of studies focus on the development logic of virtual YouTubers, or the refinement of the media technology, and summarize the audience's demands for virtual YouTubers as simply self-catharsis and fulfillment, searching for identity and belonging, without providing empirical evidence for audience acceptance. This study aims to tap into the most genuine demands of audiences, analyze the impact of audience demands on the virtual YouTubers industry from the perspective of dramaturgical theory, and provide some suggestions for the progressive development of virtual YouTubers.

3. METHOD

This paper adopts a quantitative research method to analyze the data through a questionnaire survey. The selected samples are people from first-tier cities who have some knowledge of virtual YouTubers and are familiar with emerging online technologies, with an age span from 10 to 70 years old, and the main sample is focused on youths aged 19-30 years old, with 105 questionnaires collected and 101 of them were valid .

4. RESULT
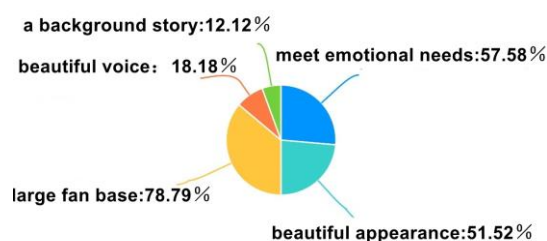
**Figure 1** What kind of virtual YouTubers do audiences prefer?

From the chart,we can see the largest proportion of audiences choose virtual YouTubers whohas large fan base，accounting for 78.79%. 57.58% of the audiences prefer YouTubers who can meet humans' emotional needs,and beautiful appearance,a background

story,beautiful voice take up 51.52%，12.12%,18.18% respectively.
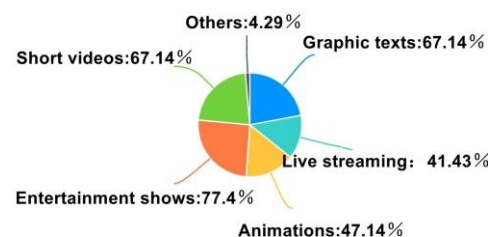
Figure 2 Which format do audiences prefer?

What can be clearly seen in this figure is the dominance of entertainment shows,accounting for 77.4%。And nearly half of the audience(47.14%）prefer animations。67.14% of the audiences also choose short videos and graphiv texts.
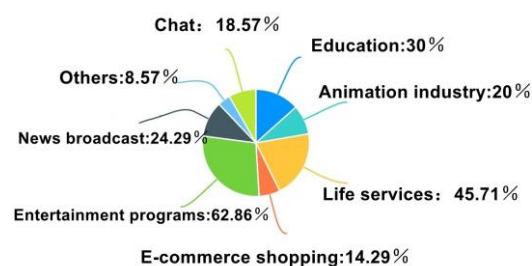
Figure 3 Which industries do audiences think are in greater demand for virtual YouTubers?

According to the chart, those who need entertainment programs accounted for the largest proportion (62.86%) of the total number of audiences surveyed. Moreover, 45.71% and 30% of the participants cared about the life services and education respectively. By contrast, the percentage of the audiences who were concerned with the e-commerce shopping was only 14.29%，the lowest among all the factors.

5. DISCUSSION

5.1. Current Problems

5.1.1. Bionic technology is immature and it is difficult to form emotional resonance with the audience

The typical virtual reality technical tools contain

motion capture, gesture control, expression control, and mouth synchronization components, and also use technologies such as optical motion capture, inertial motion capture, glove capture, and VIVE Tracker[13] . However, considering the limitation of technical factors, it is not an easy task to cultivate a top-stream virtual YouTuber that is up-to-date and has long-term attractiveness value. For example, Hua Zhibing, a virtual student of Tsinghua University, was pointed out by netizens that it was designed by face-swapping technology, which aroused debates in the public. The media technology supporting the virtual YouTuber needs to make them immerse in the same space with the virtual YouTuber, bring the audience a better immersive experience, and truly realize the high connection between virtual and reality, online and offline.

5.1.2. The design is uniform and aesthetically identical

The design of virtual YouTubers is often the same, they are criticized as "modeling face", and there is a disconnect between our life experience and artistic conception. Virtual YouTubers are the extension of people, and we can combine regional characteristics and cultural features to build a vivid image of virtual YouTubers. In the questionnaire survey, many respondents mentioned the new domestic original animation image stage competition class program "2060" launched by Bilibili on Oct. 22, 2021. Based on public demands, the producers are seeking original anime image design works from the whole society and aiming to win the audience's love through artistic performances.

The core idea of "2060" is to create a "Star Ring City", which is parallel to our real world, and it reflects the Chinese elements very well. The Infinity Maiden of Kaiten Studio is based on the traditional Chinese lion dance and cheongsam, decorated with two traditional colors: yellow and red, and the weapon in her hands is in the shape of a brush from the cartoon "Magic Brush". But in the embodiment of Chinese elements, the producers are not completely stuck to the local concept, but boldly combined with futuristic mechanical elements. 2060" strikes a perfect balance between technology and art, making it possible for the avatar to spread more widely.

5.1.3. Long creation cycle and high production costs

At this stage, in China, the production of a single short video of a virtual YouTuber, including music arrangement, modeling, image design, stage plan customization, etc., costs up to 2 million RMB, and the cost of traffic dissemination and other aspects is also quite large. The cost required to invest in the virtual

YouTuber raising stage is more than the real person,.If the dissemination process does not receive good results, it is likely to lead to the situation that the production content can not be realized after investing money.

5.1.4. Audience get indulged in the virtual world raises

Unlike real people who have various shortcomings, the image of virtual YouTubers presented on the Internet often tends to be perfect, and the public tends to blur the line between real and virtual, and becomes dependent on virtual YouTubers, thus creating unrealistic fantasies about the real world and causing serious moral and ethical problems.

5.1.5. Shallow mechanical dialogue, unable to meet the emotional needs of deep communication

In today's society, people are under great pressure, and audiences are eager to express themselves and communicate their emotions by the Internet. Virtual YouTubers provide a new way to solve contemporary people's intimacy dilemma, but due to their lack of intelligence. They can only carry out shallow mechanical conversations and cannot meet the demands of deep communication, and audiences are unable to talk about the pressure they face.

5.2. Audience demands & Expectations

5.2.1. Virtual YouTubers should maintain a basic consistency with their audience in four dimensions: emotional, cognitive, cultural, and value

Although virtual YouTubers have a more perfect persona and appearance, from the perspective of mimesis, they are essentially just performers in front of the stage and are glorified symbols for consumption. According to Ai Media Consulting, the core industry size of China's virtual idols will be 3.46 billion yuan in 2020, up 70.3% year-on-year, and is expected to reach 6.22 billion yuan in 2021. With the comprehensive exploration of commercial value, the industry scale driven by virtual idols is expected to rise from 64.56 billion yuan in 2020 to 107.49 billion yuan in 2021 [6]. The enthusiastic pursuit of virtual hosts once again confirms what McLuhan, a famous Canadian communication scholar, said, "The medium is an extension of the person. This means that the media is the intermediary for people to perceive the external world, and any upgrade of media technology is actually the reengineering of human social relations, that is, the "newness" of the new media essentially lies in whether it provides a new way, a new scale and a new standard for the connection of human society [1]. The gradual

dissolution of the boundary between real and imaginary, reality and illusion may be the essence of consumer society[7].

5.2.2. Break the barrier of circle to achieve multi-level and multi-dimensional linkage

The strong association between virtual idols and otaku culture has led to a solid impression of virtual idols, which are often considered synonymous with otaku culture and have a relatively small audience. With the development of society, the public's acceptance of subculture has increased greatly and virtual idols are less risky than real idols, so virtual idols have started to try to break the subculture barrier and explore multiple fields. With the increased demand for information dissemination, the concept of virtual YouTubers has been widely applied to many fields such as marketing and politics, forming a certain circle-breaking effect and promoting the integration and development of multiple parties, but in the process of application in different fields, it is still necessary to consider its suitability on multiple levels and achieve a better communication effect on the basis of clear purposes and methods.

5.2.3. Construct a cross-media, multi-platform virtual YouTuber matrix

The survey data shows that graphic texts, short videos, live streaming and entertainment shows are all loved by the audience. The advantage of short videos is that it is concise and can quickly attract people's interest, the disadvantage is that the video content is homogeneous and the memory point is not prominent,.The advantage of live broadcast is that The categories are very comprehensive,.There are e-commerce YouTubers, chatting YouTubers, educational YouTubers, etc., which can show the image and personality of the virtual YouTubers more comprehensively,The disadvantage is that the cost is high and the technical difficulty is hard to solve. From short videos further to live streaming and the interaction with audiences, the challenge is how intelligent the action actors and AI programs behind the virtual YouTubers are [8].We should create a cross-media and multi-platform virtual YouTuber matrix.

5.2.4. Different effects in different industries

The results of the questionnaire show that 86.3% of people believe that virtual YouTubers play an important role in the service industry such as live e-commerce and weather broadcasting. More virtual YouTubers can reduce labor costs of the industry and improve the efficiency of the industry development.

However, people have different views on the role of virtual YouTubers in the journalism industry. 12.9% of people believe that virtual YouTubers directly produce news and information through powerful information processing and distribution capabilities, and are visual symbols of deep media integration empowered by digital technology. In the future, with the construction and evolution of the "artificial emotional interaction system", it can become a super presenter of writing, editing and commenting[9], while the remaining 82.1% believe that the virtual YouTuber is only a kind of programmed virtual feedback, and its emotion and expression are more mechanized. The flexibility of different scenarios also needs to be strengthened. "Far from reaching the advanced mind of self-organization, self-adaptation, and self emergence, it is far from the human intelligence degree of autonomous writing, editing, and commenting on the broadcast." [10]

The author believes that the journalism industry has always been characterized by seriousness, rationality, objectivity, and calmness rather than emotionality, and that virtual YouTubers can broadcast the weather and read the news, but they cannot currently replace real hosts as spokespersons for the national position. Making a voice internationally requires comprehensive thinking as well as years of academic precipitation. These are things that virtual YouTubers cannot replace at this stage. To summarize,by allowing virtual YouTubers to play different roles in different industries, they can maximize the use of resources.

5.2.5. Prevention of addiction, the boundary between virtual and real should be clear

In the traditional idol-making mechanism, the right to shape the idol is firmly in the hands of the production company. But in the open model of virtual YouTuber creation, this right is ceded to the audience. The existence and communication practices of virtual YouTubers eliminate the boundary between the real and the virtual. The audience is deeply involved in the shaping of virtual YouTubers. Each technological change brings about a shift in the aesthetic paradigm and lifestyle of human, but we should always be vigilant: there are clear boundaries between technology and art, the real and the virtual. [13]

5.3. The impact of audience demands on the development of virtual YouTuber

5.3.1. The market will evolve multi-level and multi-faceted virtual YouTubers to find more possibilities for user experience enhancement and business value mining.

According to Maslow's hierarchy of needs theory, human needs are divided into physiological needs, security needs, social needs, respect needs, and self-actualization needs. This five-stage model can be

divided into deficiency needs and growth needs. The first four levels are deficiency needs, while the highest level of needs is growth needs. In order to meet these needs, virtual YouTubers will be differentiated into different fields and levels. In the future, there will be public virtual YouTubers that serve the public and private virtual YouTubers that meet individual needs. Of course, the value of virtual YouTubers designed for different needs will be different, and they will be priced according to the market law.

5.3.2. Creators keep up with the times and focus on public impact.

In the digital age, virtual YouTubers are rapidly updated, and audience demands are always changing according to the zeitgeist. Virtual YouTubers are a fluid concept, and their characteristics, meanings, and values are always changing and being constantly negotiated and confirmed [11].

The image of the virtual YouTuber is more tied to the creator team. It goes without saying that the creator team is crucial to the development of the virtual YouTubers. They have to ensure that they keep up with the times and adhere to the right values in front of the public.

5.3.3. The platform will build the laws and digital ethics related to virtual YouTubers

From AR/VR to NFT, the intersection of reality and the virtual has never been more profound. Digital people have started to be integrated into people's social lives. [12] In the long run, virtual YouTubers are an important application of AI technology in the metaverse and an important part of the metaverse ecology. The American psychologist Maslow said that "Man is a creature of constant need, rarely reaching a state of complete satisfaction except for brief periods of time, and after one desire is satisfied, it is often quickly overrun by another." This explains why many people like to seek sensually stimulating and entertaining programs as a way to vent their personal emotions.For example, some time ago Tiktok launched the first virtual YouTuber under the concept of metaverse - Liu Yexi. In order to satisfy voyeurism and vanity, many people sent messages asking it to broadcast all the day; some people used deep simulation technology to steal money and secrets, and even provoke wars. These behaviors go against the original purpose of technology development and are not ethical. As long as we build up the laws and digital ethics related to the virtual YouTuber, we can see a long-term development of our virtual YouTubers.

6. CONCLUSION

This paper explores the audience's real demands for virtual YouTubers, and gives reasonable development suggestions from the perspective of dramaturgical theory to deeply analyze the impact of audience demand on the future development of the virtual YouTubers industry.We should reconstruct the relationship between human and technology, connect media with the world.The continuous development of technology and the continuous evolution of virtual YouTubers are ultimately for the better development of human beings. Studies have found that virtual YouTubers have a role in strengthening self-identity and a sense of belonging, relieving social isolation, and opening up cognitive horizons. In the era of big data, people have been emphasizing digital rationality, but neglecting digital sensibility. Virtual YouTuber is a product which combines digital rationality and digital sensibility.It has both instrumental and emotional value.How to tap the emotional value, humanize the virtual YouTubers, serve the public and advocate mainstream value orientation is worth our deep thinking. In real life, we should not merely focus on interpersonal communication, but also on human-computer interaction, so the study of virtual YouTubers has strong relevance to our social problems.

In this paper, the analysis of audience demands, existing problems and the prediction of the progressive development of virtual YouTubers are all based on the current artificial intelligence technology. With the continuous development of technology, will the future form of the virtual YouTubers change, will virtual YouTubers play more roles in human life, will they be able to have subjective initiative, will there be different development paths for different types of virtual YouTubers, whether virtual YouTubers will fully replace real YouTubers, and whether virtual YouTubers will deepen the gap between different ages and cultures, this paper cannot draw further predictions.

From a comprehensive point of view, virtual YouTubers are not an independent product of a single field, but a comprehensive product of social needs, technological development, individual growth and other multiple factors. There is no doubt that the future world will achieve deep integration with virtualization, and digging more interaction modes with virtual YouTubers will help us better master the boundary between human and artificial intelligence and know how to use virtual technology for the benefit of human beings. When we slowly adapt to the interaction between the virtual image and real people and the interaction between virtual characters, adapt to the life of online and offline intermingling, and really get used to this digital space where virtual character and real people coexist, the development of virtual YouTubers will be better and better.

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