VR Painting Technology of Theme Creation

Shibing Li’

Department of Art History, Xi'an Academy of Fine Arts, 710065

*Corresponding author e-mail:709855977@qq.com

Abstract. Since the founding of the People's Republic of China, from MAO zedong to xi jinping always adhere to the cultural construction in the important position of national construction, adhere to the leadership of the party for cultural construction, adhere to the guidance of marxism for cultural construction, adhere to the "use of the past for the present" "foreign for the use" construction of new socialist culture. In cultural construction, it is urgent to develop the theme creation related to culture. At the same time, with the gradual development of artificial intelligence, VR (virtual reality) has gradually entered people's vision, and VR has also been combined with innovation in various fields. The purpose of this paper is to study the mechanism of combining VR and painting technology on the premise of subject creation. In this paper, from the perspective of theme creation, with the strategy of "VR +" as the background, combined with the realistic background and the related theoretical research, to promote the development of VR painting technology as the research object, from the possibility and necessity of VR painting technology development two aspects of analysis, combined with literature analysis in VR painting theme creation technology can be from what respect to innovate and improve, on the basis of this puts forward Suggestions of technical innovation and development of VR painting and plan, in the hope of theme creation VR painting technology development to a higher level, for the development of VR broaden the field. The experimental results show that VR painting technology can alleviate some difficulties in theme creation, promote the innovative development of theme creation, realize the new development of cultural construction, and enable more new art forms to sprout in cultural construction.

Keywords: Theme Creation, VR Techniques, Painting Techniques, The fusion of Chinese and western

1. Introduction

As socialism with Chinese characteristics enters a new era, cultural construction plays an increasingly
important role in the country's modernization process. Strengthening cultural confidence and building socialist core value system are related to the prosperity of cultural undertakings. We must stand at the forefront of The Times, size up the situation, take advantage of the situation, vigorously develop the cultural industry, take a holistic approach to explore the way to enhance China's cultural soft power, and develop socialist culture with Chinese characteristics in the new era. With the rapid development of science and technology, the realization of virtual reality technology also opens up a broader space for artistic creation. It has become a new form of creation to control and shape works in VR space and to recreate the layout of space. VR virtual reality painting has greatly broken through the spatial limitations of traditional art, shown magical creativity, broadened the thinking of contemporary art, and brought new ways for artists to create. It satisfies modern people's pursuit of artistic beauty and constantly tries to explore and create new forms of artistic expression with certain consumption power.

Domestic and foreign research hotspots in recent years include the development of VR, the innovative development of VR, etc. Domestic and foreign scholars have studied VR and produced some research results [1]. Foreign scholars use VR paintings to create little mermaid, and apply VR technology to the real estate industry to promote work efficiency and reduce personnel communication costs. In the specific implementation, developers can intercept any picture or video through VR technology to achieve a win-win [2-3]. Domestic scholars focus on the combination of VR and education. By simulating the three-dimensional space world through computers, students can feel the content of courses more truly and improve their teaching level. In addition, VR is used to construct relevant curriculum resource platform to promote the intelligent development of education and teaching. It can be seen from the existing studies that there are few studies on the use of VR for painting, and even fewer studies on VR painting with subject creation as the background, indicating that the current studies on VR in various fields at home and abroad are not comprehensive [4-5].

Therefore, under the impact of the rapid development of VR, this paper analyzes the possibility and necessity of the development of VR painting technology based on subject creation, and then conducts subsequent analysis based on the possibility and necessity [6]. Under the background of vigorously constructing Chinese culture, the entry point for the development of VR painting technology was found to provide feasible Suggestions and schemes for the innovative development of VR painting technology [7]. The research in this paper will expand the research field of VR and strengthen the combined development of VR and painting technology [8]. At the same time of VR painting technique, analysis of the literature review mainly refer to VR painting technology combined with a theme creation of literature, according to these literatures to find VR painting technology and the theme creation combining site, from the combining site, find the innovative development of VR painting technology feasibility, thus provide a new thought of art culture development of our country [9-10].

2. Method

2.1 Study Key Points and Difficulties

The research focus of this paper is to sort out relevant concepts and literature, especially the literature combining theme creation and VR painting technology in recent years. In the process of combing literature, the entry point of theme creation and VR painting technology, the development process of VR painting technology, and the possibility and necessity of its development [11]. The research
difficulty of this paper lies in finding hidden innovation points combining subject creation and VR painting technology according to literature review method and relevant survey data, and proposing the feasibility and possibility of VR painting technology innovation and development, so as to create more new forms of artistic expression [12].

2.2 Research Ideas and Methods

First of all, this paper carries on the concept combing according to the relevant data. These concepts are subject creation and VR painting technology respectively. Subject creation mainly refers to proposition creation, which requires the creation of works centering on a specific theme, while subject refers to the main theme of literary and artistic creation. VR painting technology refers to the creator's VR painting creation based on the virtual reality system. They can walk into the picture and interact with the work in a highly harmonious way, and even become a part of the work themselves. After sorting out relevant concepts, we can find that VR painting technology has digital, interactive, virtual, real-time and hypermedia. These features can help creators better creative creation, stimulate their innovative thinking.

Secondly, relevant literature is sorted out. On baidu academic, literature search was conducted with "theme creation" and "VR painting technology" as keywords, sorted by relevance and set as 2017, and only 56 highly relevant literatures were found. Then the keywords of the literature of the 56 article carding analysis, found the 56 articles including theme creation, VR painting techniques, the documentary creation, art design, and aesthetic value, that the theme of creative painting as the background of the VR technology development not only promoted the development of the painting form more promoted the development of the whole art field, which broadens the application fields of VR, from another aspect also has the possibility and necessity that VR painting technology development. From the 56 literatures, the author finds out the innovative breakthrough point of theme creation and VR animation technology, which paves the way for the subsequent analysis.

Finally, visual analysis is carried out with relevant data, which are derived from questionnaire survey data and statistical yearbook data. Combined with the analysis of visualization, painting in VR technology is digital, interactive, virtual, immediacy and hypermedia, VR painting technology combined with the innovation of the theme composition, according to the current situation of the development of VR painting technology for the innovative development of VR painting technology proposal, and give theme creation and VR technology combined with the innovative development of painting scheme and inspire a new form of theme creation, the theme of writing and VR painting creation provides a new train of thought.

3. Experiment

First, design the questionnaire. Questionnaire data types mainly include VR painting techniques in a digital in painting creation role in promoting (set as strong, medium and weak), VR painting technology, interactive role in painting creation (set as strong, medium and weak), VR painting technology with virtual sex role in painting creation (set to strong, medium and weak), VR painting technology with virtual sex role in painting creation (set to strong, medium and weak), VR painting technique has the immediacy of painting creation of (set to strong, medium and weak), VR paintings have hypermedia technology The promotion effect of sex on painting creation (set as strong, medium
and weak) and the promotion effect of five characteristics of VR painting technology on painting creation (set as strong, medium and weak). Secondly, questionnaires are issued. The subjects of this survey are some creators, new media workers and VR researchers. A total of 350 questionnaires were distributed and 300 were recovered in this experiment, with a high recovery rate. Finally, combined with the statistical yearbook data for visual analysis, the data information use chart display, give a more intuitive feeling. Combined with the results of visual analysis, an innovative development scheme combining subject creation and VR painting technology is presented.

4. Discuss

4.1 Experimental Results Show

Firstly, the objects of the questionnaire survey are analyzed, and the results are shown in table 1. In table 1, we can see that the survey objects are all related to the research content of this paper, indicating that the selection of research objects is meaningful, and the questionnaire answers given by the research objects are also more consistent with the research content of this paper, which is helpful for the research of this paper.

| Type               | Number | Percent |
|--------------------|--------|---------|
| Creator            | 125    | 41.7%   |
| New media practitioner | 95    | 31.7%   |
| VR researchers     | 70     | 26.6%   |

Table 1. Object analysis of the questionnaire

The results of the questionnaire survey are shown in figure 1. In figure 1, we can find that the respondents believe that the five characteristics of VR painting technology have a greater promoting effect on painting creation than a single feature, while the promoting effect of a single feature on painting creation is relatively ordinary.
4.2 Development Proposals

(1) The program is simplified to make the design simple

Tilt Brush is a VR application based on the HTC VIVE. When painting, the creator wears a VR headset and creates in a dark three-dimensional space, the entire virtual space being a palette. The artist can use the position tracking function of the helmet to adjust the Angle, or move the whole painting plane to create art with depth of field. Tilt Brush is simple and easy to use. Both artists and children can learn to use them by feeling in a short time.

(2) Immersive experience makes the design free

The realization of AR technology makes the field of exploring the illusory world infinitely broad. The innovation of drawing software technology makes the visual effect of illustration art form more realistic and mature, and the sense of visual interest can continue, strengthening the authenticity of the picture, and enhancing the interaction and communication. VR is used in the field of artistic creation, so that more people can see the possibility of application. Anyone can be a creator. Under the influence of this environment, the five senses of human beings have been developed. At the same time, aesthetic appreciation will be constantly improved while continuous creation, thus driving the cultural development of the whole society.

(3) Pay attention to the application appropriateness of VR technology

With the rapid development of science and technology, theme creation does not rely on the Internet and digital technology. When using VR for painting, we should pay attention to the fact that digital technology only serves as a means of creation and communication, and the display of individuality should be more embodied in Chinese traditional art, traditional culture, Chinese spirit and power. For the public aesthetic taste, excessive display of the charm of science and technology will only lead to complacency and gradually be eliminated by the aesthetic tendency of the society. But really excellent painting works should be the unity of artistic beauty and technical beauty, we should learn to seek a balance between the two, improve the ability to appreciate beauty.

(4) Pay attention to the inheritance and development of cultural deposits

The creation of the theme of painting should be based on the long history and cultural background. Traditional painting art forms are diversified but single form of expression, containing more cultural accumulation and folk feelings, reflecting local customs and customs and regional customs; In terms of artistic attainments, it is more consistent with the "meaning" and "environment" in Chinese traditional culture. Compared with the digital painting under the new media, the theme of expression is more technology and technological innovation, and more attention is paid to the impact of visual form on the senses. To create an excellent digital painting, the composition, color, subject and artistic conception should be carefully arranged so that it not only has the artistic beauty of traditional painting, but also has the flavor of modern society, which is in line with the public's aesthetic taste in the information age.
5. Conclusion

China's science and technology has been fully developed, showing a good momentum of development, virtual reality technology is the product of this stage, with a distinctive characteristics of The Times. And AR technology has indeed changed the way many digital media are transmitted and produced. Although the technology is still in the experimental and innovative stage, with many shortcomings in hardware and programs, it is still expected to bring more possibilities. According to the research of this paper, it is hoped that VR painting technology can be more mature, improve the creation level, enrich the creative ideas of Chinese creators, and realize the sustainable development of culture.

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