

Platform and Strategies of Virtual Reality Empowering Manchu Dance Cultural Communication in the New Media Era

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Abstract: Virtual reality is the use of computer simulation to create a three-dimensional virtual world, providing simulation of senses such as vision, hearing, and touch, allowing users to experience the environment without restrictions and view the three-dimensional world. It has the characteristics of multi perception, immersion, interactivity, and conceptualization. Virtual reality technology has a wide range of applications in the field of new media. By utilizing virtual reality technology, we can provide richer and more personalized information for the new media era. This article is based on virtual reality technology, starting from the perspective of presenting art through technology, to study the dissemination platform and countermeasures of virtual reality empowering Manchu dance culture in the new media era. Communication platforms include virtual art museum platforms, cultural scenic spot platforms, new media network platforms, and dance education platforms; Communication strategies include extensive participation of folk artists, integration of modern dance elements, leveraging the role of local industries, and innovative development of virtual reality technology.

Keywords: The New Media Era; Virtual Reality; Manchu Dance; Cultural Communication; Communication Platform; Communication Strategies

1. Introduction

The Manchu people are an excellent ethnic group with a very long history among the ethnic minorities in northern China. The history of the Manchu people can be traced back to the pre Qin period, and the development of the Manchu people reached its peak in the late Ming and early Qing dynasties. Manchu dance vividly reflects the thoughts, emotions, customs, life ideals, and aesthetic pursuits of the Manchu people[1]. As one of the traditional art forms of the Manchu people, Manchu dance contains rich cultural attributes[2]. The Manchu population in Liaoning Province accounts for more than half of the country, and Manchu dance has been preserved in Liaoning from the provincial capital to various cities and counties. After reviewing relevant literature, it was found that Manchu dance originated from activities such as fishing and hunting, and the uniqueness of the region is a unique cultural characteristic and connotation symbol of Manchu dance. The backward economic development of Manchu residential areas has led to a large outflow of population, and the population reduction in previously closed Manchu residential areas has become more severe. Many Manchu folk dances have gradually withdrawn from the historical stage; The influence of foreign cultures has had a strong impact on Manchu dance, diverting the attention of the majority of Manchu people; The research and rescue work on Manchu dance in society is relatively lagging behind, leading to the lack of some dance elements and serious challenges in inheritance and development. With the advancement of technology, especially in the fields of motion capture and virtual reality, the protection and dissemination of intangible cultural heritage dance is undergoing a transformation[3]. This research focuses on the Manchu dance culture, with virtual reality technology as the foundation. Starting from the perspective of presenting art through technology, it explores the ways and audio-visual effects of virtual reality technology in presenting Manchu dance culture and art, explores the inherent charm of Manchu dance, broadens the research perspective of ethnic dance culture, and enriches the theoretical basis for the protection and dissemination of ethnic dance culture.

2. Virtual Reality Empowers the Dissemination and Innovation of Manchu Dance Culture in the New Media Era

In the era of new media, virtual reality empowers the dissemination and innovation of Manchu dance culture, which is mainly reflected in four aspects: restoring Manchu painting dance postures, displaying rich dance images, creating profound dance artistic conception, and promoting the spatiotemporal transformation of dance.

2.1 Restored the Dance Movements of Manchu Paintings

The popular Manchu paintings and published Manchu art albums are valuable resources. The dance movements of Manchu paintings are captured through virtual reality technology and recorded through photography. Take photos of the same dance from different angles and use synthesis techniques to piece together the pictures. With basic images and data, it is convenient to repair Manchu dance postures. Finally, the three-dimensional restoration technology of virtual reality can be applied to obtain more accurate data, enabling the complete restoration of Manchu dance postures.

2.2 Presented a Rich Dance Scene

Compared to traditional dance performance, dance art in the era of new media has incomparable advantages. It can largely break free from the limitations of body movements, space, time, and dance beauty, overcome the difficulty of scene replication, and apply advanced virtual reality technology to present more dance factors that traditional dance cannot have in front of the audience, allowing them to intuitively enjoy rich and colorful dance scenes, Create a visual feast for appreciation and viewing.

2.3 Created a Profound Dance Atmosphere

The traditional means of expressing the artistic conception of dance are relatively rigid and rigid, using new media technology to fully express the theme of Manchu dance. All the revealed historical background, development context, and character emotions of the dance are comprehensively organized, presenting an artistic conception that cannot be demonstrated by the actual scene and props on site. This enhances the overall expressive power of Manchu dance, more intuitively showcases the cultural connotation of Manchu dance, and creates a profound and vivid dance artistic conception, Set off the theme and atmosphere of the entire dance.

2.4 Driving the Spatiotemporal Transformation of Dance

Virtual reality technology can freely combine and arrange factors such as dance editing, performance, and scene in its own context, presenting a perfect virtual dance image. This image has transcended a single time and space boundary, achieving rapid presentation effects under new media art, changing the limitations of dance time and space, and providing dance to a larger audience on a larger scale, thereby achieving the effectiveness of related creations, Show the value of Manchu dance culture.

3. Empowering Manchu Dance Culture Communication Platform with Virtual Reality in the New Media Era

The development of modern technology and the widespread utilization of social resources have provided different forms of media for the dissemination of Manchu dance culture. According to the characteristics of different platforms and audience groups, virtual reality empowers the dissemination of Manchu dance culture, and it is necessary to fully utilize diverse communication platforms.

3.1 Virtual Art Museum Platform

In the era of global intelligent digital development, virtual art museums have become the future direction for upgrading and upgrading traditional art museums. The Virtual Art Museum presents the Manchu dance culture and all the information it contains in a digital way on the internet, including the collection, organization, preservation, and display of information. The virtual art museum platform has broken through the boundaries of time and space, providing great convenience for public viewing, and

improving the openness and utilization of Manchu dance cultural resources; The virtual art museum platform provides two-way interaction between the museum and the audience, attracting their attention and achieving a high degree of interaction between Manchu dance culture and the audience. A virtual art museum platform with Manchu dance culture as the theme can be created, or a Manchu dance culture section can be established in existing museums.

3.2 Cultural Scenic Spot Platform

Ethnic cultural tourism is a tourism activity that attracts tourists to experience through its unique ethnic cultural characteristics, production and living conditions, and customs. Liaoning is the birthplace of Manchu culture, with a long history and unique Manchu customs[4]. The tourism industry in Liaoning continues to develop, closely focusing on the rich and colorful Manchu elements hidden in cultural relics and life culture. For many years, efforts have been made to develop ethnic cultural construction, actively carry out Manchu cultural tourism, and make significant progress in the scale of Manchu cultural tourism industry and the construction and promotion of cultural products. Virtual reality dance art works can be added to existing cultural scenic spots, or specialized Manchu dance cultural scenic spots can be built based on virtual reality technology to immerse tourists in virtual Manchu dance cultural scenes.

3.3 New Media Network Platform

Traditional media has limitations in promoting dance culture, usually consisting of dance activities, dance teaching, dance performances, etc. during festivals, with limited channels and time for dissemination. New media platforms provide new opportunities for the dissemination of dance culture, making dance art more popular, online, storytelling, and entertaining. New media technology enables dance performances to overcome the limitations of regional, temporal, and theatrical performances, and has playback capabilities, allowing for better preservation and dissemination of dance works[5]. The combination of new media technology and Manchu dance culture has brought new vitality to Manchu dance culture. Holographic dance and digital dance have advantages over traditional stage performance forms in terms of both breadth and speed of dissemination.

3.4 Dance Education Platform

Virtual reality technology provides new ideas for educational model reform, making educational forms more diverse and flexible. Virtual reality education platforms with interactive and visual characteristics have been continuously put into educational practice. Applying virtual reality technology to Manchu dance teaching, constructing a networked and virtualized learning environment for Manchu dance, and reducing the time and venue constraints for Manchu dance enthusiasts[6]. Firstly, build a scene model and create a 3D model of the scene, objects, and characters for Manchu dance training on the 3D Studio Max tool platform. Import it into the Unity3D platform for virtual reality design; Then, construct a three-dimensional model of human motion, collect human motion information based on Kinect sensory devices, and construct a three-dimensional model. Unlike scene information models, motion models need to describe human motion posture based on the collected sensory information; Finally, the human motion posture is recognized, and the 3D model of human motion is matched with Manchu dance movements based on a multi feature fusion algorithm. Distance and angle feature action recognition scoring methods are used to achieve this.

4. Strategies for Empowering Manchu Dance Culture with Virtual Reality in the New Media Era

Virtual reality technology and Manchu dance culture represent the cultural characteristics of different eras. To achieve an organic combination between the two, it is not only necessary to rely on flexible and scientific artistic communication methods, but also effective communication strategies to maximize the stimulation and arousal of the audience's interest in learning and communication.

4.1 Wide Participation of Folk Artists

Manchu dance originates from life and is extracted from the labor and life of the Manchu people. It is a microcosm of real life and always follows the footsteps of the Manchu people. Each dance work contains rich cultural heritage. Virtual reality empowers a new way of spreading Manchu dance culture,

but it also relies on the extensive participation of folk artists. Artists are people who specialize in the production of art, a special spiritual production. As the main body of artistic creation, it holds an important position in the entire artistic activity. Folk artists join the creation and dissemination of Manchu dance art, utilizing their professional dance skills to deeply explore the traditional cultural connotations of the Manchu people. They use the psychological characteristics of the people to perceive life and the cultural background of contemporary society, and use an artistic perspective to savor the world, conceptualize meaningful scenes discovered in life, and create vivid artistic images. By inheriting and developing traditional Manchu culture through dance as an objective cultural phenomenon, we can solidify the foundation of the nation, deeply rooted in the roots of Chinese culture, and thus unleash strong vitality in Manchu dance works, achieving the protection and inheritance of Manchu dance culture.

4.2 Incorporating Modern Dance Elements

The existence of ethnic dance is not an accidental phenomenon, but an inevitable product of Chinese culture, with traditional Chinese characteristics, and is a cultural phenomenon that cannot be ignored. In the era of new media, a prominent feature of dance art is that more and more dance choreographers tend to integrate modern dance with ethnic dance, resulting in ethnic dance presenting a completely different style from traditional dance styles. This new dance style often focuses on passionate expressions and can usually attract high attention. While Chinese culture flourished and developed, Manchu dance not only did not fall behind, but also showed a thriving trend, highlighting its importance to Chinese culture and demonstrating a unique way of development. The Manchu dance has been passed down to this day due to its continuous integration with different elements of the times, absorption of new elements, fusion of new elements, and innovation[7]. The integration of Manchu dance and modern technological elements has enriched the forms of dance expression, making learning easier. New media technology is used to create stage effects, combining virtual and reality, projecting different scenes onto the stage, enhancing aesthetics and fun, and bringing shock to the audience.

4.3 Play the Role of Local Industries

The dance industry integrates the artistic value contained in dance with the market, expresses artistic value in commercial forms, and obtains economic benefits, which in turn provide support for the development of dance art. The dance industry, as an important part of the development of the cultural industry, has demonstrated innovation and vitality in theoretical breakthroughs, creative accumulation, artistic presentation, social functions, and efficiency output[8]. At present, virtual reality technology does not have a strong driving force for the dance culture industry. It simply transforms the two-dimensional world into a three-dimensional world, without effectively solving the dance experience and learning scenes required by the audience. The lack of innovative dissemination models is easily overshadowed by new industries. In the era of new media, it is necessary to leverage the advantages of local industries to provide audiences with a high-quality experience of Manchu dance. It is not only necessary to cultivate high-quality Manchu dance talents, but also to choose dance types that are suitable for audience acceptance, in order to rapidly develop in media integration[9]. The Manchu dance industry is a hot topic that needs to be paid more attention to in the future development of new media. It deeply penetrates the audience, enhances their aesthetic sense, enhances their love for Manchu culture, and also plays a certain role in promoting social and economic development and material civilization construction.

4.4 Innovative Development of Virtual Reality Technology

The previous forms of stage art, whether it was traditional Chinese quyi or acrobatic art, or foreign opera, dance, and drama art, were to some extent limited by the performance of the "fourth wall" space. Virtual reality technology, due to its unique characteristics of interactivity, imagination, and immersion, breaks the expression constraints of traditional stage art, promotes the evolution and innovation of stage art forms, and opens up new viewing spaces for the audience. The integration and development of virtual reality technology and stage art, through continuous exploration, improvement, and technological updates and iterations, has achieved the transformation from initially serving as an auxiliary and supplementary means of stage art to becoming an important technology widely used in stage art today. The main display method of traditional dance is the stage, and virtual reality technology can achieve an experience in a virtual environment, at any time and place. This not only helps to upgrade the space of dance performances and enhance the attraction to the new generation of audiences,

but also allows for detailed and comprehensive recording of the performance techniques and essence of famous artists through the real performance of dance artists, in the process of action collection and real recording, Facilitate the audience to repeatedly watch and learn, thereby achieving better dissemination of Manchu dance art. Virtual reality technology, based on effectively grasping individuality and creativity, effectively changes traditional communication methods and promotes good communication and exchange between communicators and audiences.

5. Conclusions

The Manchu people have a long history of development and rich cultural heritage, with distinctive ethnic culture. Manchu dance is the crystallization of the art and wisdom of the Manchu people, containing rich artistic value and reflecting the way of life and entertainment of the working people. The most common ones include the East China Sea Mang style of banquets and celebrations, shaman dances for worshipping and praying for blessings, and the popular Tartar Yangge among the people. In the development process of modern history, Manchu dance gradually declined and faded out of people's sight. In the context of the strategy of cultural prosperity and rejuvenation proposed by the new era, Manchu dance has gained new vitality and returned to the stage, becoming an important cultural content of ethnic minorities. Through this research project, we aim to promote the external dissemination of Manchu dance culture, expand the living space of Manchu dance culture, promote the development of Manchu dance culture industry, and assist in the revitalization of Northeast China.

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