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Data Extraction and Intelligent Analysis of Aesthetic Laws Accepted by VR Digital Media Art on Film Art Based on NVIDIA GPU Hardware

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Abstract:On the premise of analyzing traditional computer VR technology, this paper explores the application value of VR technology based on NVIDIA GPU hardware in the design of digital media systems, and proposes corresponding application measures to further improve the practical application capability of VR technology. These technologies integrate the achievements of modern high-performance computer systems, artificial intelligence, computer graphics, human-machine interfaces, stereoscopic images, stereophonic sound, measurement control, simulation simulation and other technologies. Analytical models and multi-grained formal conceptual analysis.

Keywords: Data Extraction, Intelligent Analysis, Aesthetic Laws, VR Digital Media Art

1. INTRODUCTION

As a comprehensive art, film art has become one of the most popular art forms because it can fully and realistically show the living world of human beings and the ideal of human existence [1]. It is also born, exists and developed because it can meet people's life (aesthetic) needs. From the day of the film's birth, the audience has become the fundamental condition for its survival and development. Without the audience [2], there can be no long-term existence and development of the film. Digital media art is based on digital technology. Digital media technology develops art from the original simple and single media to multimedia [3], transforms the static and peaceful of traditional art to the direction of dynamic synthesis, and expands from the traditional two-dimensional plane to the three-dimensional form. Developing [4].

The emergence and development of VR virtual reality and AR augmented reality technology [5] have had a huge impact on traditional digital media art. China Youth Daily conducted a social questionnaire survey on 2,001 respondents through the questionnaire network in response to the question of "whether the public can accept VR and AR technology [6] to change the traditional way of life". The continuous progress of digital technology and the rapid development of digital media art bring people a new and distinctive visual experience, so that viewers can form a different aesthetic feeling [7] and value orientation from the past traditional art expressions. General Secretary Xi Jinping pointed out when presiding over the 12th collective study of the [8] Political Bureau of the 19th Central Committee of the Communist Party of China: Promoting the integrated development of media and building all media has become an urgent issue facing us [9].

The all-media era not only shows that the media has entered a stage of all-round integration [10], but also highlights the full effectiveness, full-staffing and whole-process nature of the media. In the progress of digital media art design, we can see that a new digital technology-virtual reality technology [12] (VR for short) has been greatly applied. This kind of application not only points to the technical level of VR, but also includes [13] the influence of the "immersion theory" under the surface on the digital media art design and creation, so that the users of the design products can enjoy the pleasure and satisfaction of immersion [14]. Nowadays, the rapid development of science and technology has greatly driven the transformation of media technology, and the design of digital media systems has been widely used, which has significantly promoted the development [15] of the digital media industry. Computer VR technology is a new type of technology that can create a virtual world. It develops with the development of the Internet and information technology [16], and is applied in the design of digital media systems. Because of the artist's aesthetic photos and the aesthetic experience of the natural emotion [17], the crew's calling, but in the open sea of ice, no one answered, they used the oars to lift the filter, which is the sublimation of human's natural emotion, and obtained a certain [18] This kind of universal significance has the aesthetic value of opening the corpse immersed in the sea of ice and trying to find people who are still alive [19].

Therefore, although artistic emotion is rooted in natural emotion, what it contains is that instead of finding it, it opens up a communication [20] that contains a certain rational consciousness of the artist, and has a strong Directivity is a woman who is sensual and emotional. This picture, in the close-up, is shocking, and the audience's soul accepts reason, emotion and reason [21]. Micro film, the English name is MicroFilm, that is, micro film, which refers to small films derived from the combination of film and TV art and new technologies. It has a short play time [22], a complete and compact storyline, and a strong sense of picture. Micro-films have profound educational significance. The purpose of making micro-films is to inspire the audience and to arouse the audience's sympathy [23]. Multi-granularity data analysis is an important topic in the field of big data research. It analyzes and processes data from multiple angles and in depth based on the idea of multi-granularity, so as to solve the problem of knowledge discovery and representation of specific complex data in reality [24]. Multi-granularity data is usually obtained by different granulation of data from multiple aspects, and its distinctive feature is that data can be presented in multiple granular spaces. The characteristic of rough set theory is that it does not need any preliminary or additional data information, such as probability distribution in statistics, basic probability assignment in a theory, or membership degree or probability value in fuzzy set theory.

2. THE PROPOSED METHODOLOGY

2.1 The VR Digital Media Art With NVIDIA GPU Hardware

The emergence and development of VR virtual reality and AR augmented reality technology have had a huge impact on traditional digital media art. China Youth Daily addresses the question of "whether the public can accept VR and AR technology to change the traditional way of life". In the era of omni-media, art and technology are more and more closely connected. With the rapid development of cutting-edge technologies such as 5G technology, big data technology, intelligent algorithm technology, virtual reality technology, blockchain technology, artificial intelligence technology, and Internet of Things technology, the intelligence of the entire society has deepened. The omnimedia era not only means the deepening of the integration of various media forms, but also represents the in-depth integration of society and media. Media no longer exists in the form of traditional information media.

The information conveyed by "immersion" is more continuous. The degree of concentration of people's attention often reflects the degree of continuous acceptance of information. The "immersive" feature of virtual reality technology enables users to participate in the time and degree much higher than other forms of communication. In the design of digital media systems, computer VR technology can perform computer-generated simulations according to the different needs of users, bring users into the virtual environment quickly, and enhance timeliness and operability. In the virtual environment, users can not only get information all the time, but also can control and operate the substances in the virtual environment according to their own needs. Interactivity is an important feature that distinguishes digital media from traditional media. In virtual reality, users and data are not just about controlling and being controlled. And it's not just a causal relationship between "the vibration of a butterfly's wings in South America and a storm thousands of miles away." Because in virtual reality the user will go beyond the physical meaning of input and output and become part of the data.

At present, the cultivation of digital media art talents in my country has always been the problem of emphasizing art over technology, and emphasizing knowledge over ability. Especially in the all-media environment, the development of this major is greatly affected by technological development.

2.2 The Data Extraction of Aesthetic Laws Accepted by Film Art

The lab also integrates cinematic interactive experiences into iPadAR movies. The film can change the speed, angle or perspective according to the tester's requirements, and can also watch other plots that take place in parallel with the main story line at will. VR movies make movies gamified, and the immersive way of watching movies makes the audience become the characters in the plot and participate in the process of story progress and interpretation. However, few colleges and universities have specified the role of science and technology education in the cultivation of art talents in the training goals of digital media art professionals. On the contrary, in order to distinguish it from digital media technology majors, digital media art education often restricts the achievement of goals of corresponding technologies in order to "avoid suspicion" in the goal of talent training.

2.3 The Aesthetic Law Data Extraction and Intelligent Analysis

The development pattern of all-media will subvert the previous forms of media communication, and it will also force a change in the form of talent training. How to cultivate talents with cross-platform and cross-industry compound capabilities while highlighting the advantages of talents' special skills to adapt to the era of all-media The current situation of media socialization and social mediaization is a difficult problem facing the cultivation of digital media art talents. Distributed virtual reality system (distributed VIk), telepresence virtual reality system (telepresence Vlko) The most widely used virtual reality system in the field of digital media art design is desktop virtual reality system, desktop VR system uses computer system to realize three-dimensional simulation, computer Interface or 3D projection equipment as a window for users to participate in virtual environment. The application of VR technology in image core technology.

The application principle of virtual reality technology is to use light to make images, so the key technical problem of computer VR technology is the image problem. In the early stages, people used video recorders and cameras to record images, but these two did not systematically present the external environment of the picture. With the development of computer VR technology, the image processing technology has also become more mature. Make an in-depth study on the preferences of the public on the content of the table. It is a compromise information fusion mode, but which items should be treated as optimistic constraints and others as pessimistic constraints, it needs to be based on Specific problems are analyzed in detail. Concept lattice and its graphs reflect the unity of concept connotation and extension, the relationship between objects and features, and the generalization and instantiation relationship between concepts.

3. CONCLUSIONS

The article first expounds the technical principle of computer VR technology informatization expression, analyzes the application significance of computer VR technology in digital media system design and the current situation of digital media system design, and summarizes the specific application of computer VR technology in digital media system design. Application, radiation trend, reform the existing digital media art talent training model, build a "post-adaptive" talent training concept that combines art and technology, mobilize "government, enterprise, business and school" to jointly build a professional curriculum system.

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