

Digital Media Education and Protection of Cultural Heritage

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Abstract: China is a country with long history and splendid culture. Cultural heritage is the embodiment of the history and civilization of great China, and it plays an important role in China's development and progress; besides, cultural heritage also have important influences on the choice of restoration techniques, display methods and protection methods for unearthed cultural relics, so it is necessary for us to protect them in proper ways. In the current cultural heritage protection measures adopted in China, digital media technology is mainly used as the core to provide guarantee for the security of cultural heritage. However, advanced digital media technology has not introduced in the current protection measures for cultural heritage, resulting in the fact that the protection measures are not scientific and perfect enough. This also leads to that some cultural heritages were damaged and are difficult to be restored effectively.

1. Introduction

In the long history of China, many cultural heritages have been passed down through the generations and have flourished in the long history. As a typical non-renewable resource, cultural heritage is difficult to repair effectively once it is destroyed, so they need effective protection. In recent years, China's economy has been developing at a high speed and it has established increasingly close relationship with international communities. At the same time, with the advancement of science and technology and the support of new policies, digital media has been widely used and already played an effective role in the protection of cultural heritage^[1]. However, as far as the current situation is concerned, the digital media technology has not been applied perfectly in the protection of cultural heritage in China at present. In other words, the application of digital media technology in cultural heritage protection has a certain development space, and it can provide further protecting for cultural heritage^[2].

2. The scientific connotation of the protection of cultural heritage and the application of digital media technology in it

2.1 The scientific connotation of the protection of cultural heritage

The long history and splendid culture have created rich cultural heritages in China. Despite the baptism of time and the looting of war, there are still a huge number of cultural heritages in China. However, in the process of discovering and excavating cultural heritage, if the technical means used are not the most scientific and reasonable ones, it may lead to changes in the original environment of cultural heritages, making them difficult to get good preservation and display effects. It is significant to protect them well because they have important value. In the process of protecting cultural heritage, it is feasible to fully apply digital media technology and take the advantage of computer network to restore cultural heritage restoration and conduct simulation display, thereby protecting cultural heritage and promoting the sustainable development of the value of cultural heritage^[3].

2.2 Application of digital media technology in the protection of cultural heritage

In simple terms, the use of digital media technology in the protection of cultural heritages is to protect them by computer technological means. But this statement is very general. In the practical application of digital media technology, computer technology can perform many functions

(three-dimensional scanning, three-dimensional calculation, three-dimensional output, three-dimensional display, etc.) in the archaeological site, and can form a complete restoration map of the sites and cultural relics. Besides, the generated graphic information can be permanently saved in the computer, so that it can be appreciated and studied again in the future. Digital media technology is a new way in China to protect cultural heritage. It can give cultural heritage more secure and reliable protection and is conducive to the promotion and exhibition of cultural heritage, which is of great significance to the development of archaeological undertakings in China.

3. The application of digital media technology in the protection of cultural heritage

3.1 Restoring cultural relics

The basis of current cultural heritage restoration work is digital media technology. The first step is to establish a relatively moderate environment for cultural heritage restoration. For those long-standing and incomplete cultural heritages, digital restoration technology (namely three-dimensional calculation) is applied to construct the original appearance based on the remnants of the cultural relics.

This technology was used in the restoration of famous Chinese cultural heritage Terracotta Warriors. In addition, this technology can also be widely used in the process of porcelain repair. It should be emphasized that this technology can also play an important role in the cultural heritage restoration by effectively reducing the design patterns and shapes of the pieces on the objects ^[4].

3.2 Performing digital simulation

Digital media technology can also be widely used at the archaeological excavation site. At this time, the main role that it can play is to help field personnel to quickly and accurately grasp the basic information and data of cultural heritage. Because most of the existing cultural heritages are preserved in a natural environment, they are inevitably damaged by natural environments such as oxidation and weathering. Besides, the cultural heritage may be damaged and some of the information may be lost in the process of archaeological study and excavation. Therefore, the adoption of digital media technology can effectively construct the corresponding three-dimensional scenes, thereby restoring the original information data on the site, which is conducive to the improvement of the scientific and accuracy of archaeological work.

3.3 Constructing a digital museum

In the process of protecting cultural heritage, the construction of a digital museum can greatly improve the efficiency of protection work. The establishment of a digital museum must be combined with digital technology and information technology to promote the social functions of traditional museums.

To build a digital museum, the first step is to collect information about cultural heritage. It is feasible to apply three-dimensional scanning on cultural heritage with digital media technology, and then upload the collected sounds, patterns and text information to the Internet. In this way, not only can the cultural heritages be effectively disclosed, but also they can be well protected; Moreover, the relevant staffs also need to regulate the discovered cultural heritages to ensure that they are listed in a certain order, and this will be more conducive to researchers to carry out the work and also facilitate the visitors to browse and appreciate these cultural heritages ^[5].

4. The current problems in the protection of cultural heritage in China

4.1 Lack of responsibility of the relevant staff

The protection methods for cultural heritage in China can be mainly divided into two types, namely, restoration and rescue. These two important tasks can lead to a significant increase in the completeness of cultural heritage. However, to protect cultural heritage in a way more scientific and perfect, it is necessary to formulate a targeted protection plan based on the actual situation.

However, the current protection system for cultural heritage yet needs to be improved. For example, some staff members do not have enough knowledge of digital media technology, and relevant leaders do not attach importance to the application of digital media technology. These have become obstacles to the development of innovation awareness in the protection of cultural heritage, which can lead to the difficulty of effective establishment of standardized systems and the single empirical treatment in the process of protection; in addition, in the process of cultural heritage protection, some staffs are too observant of conventional standards, some of which are superficial and cannot really protect the cultural heritage^[6].

4.2 Imperfections in the cultural heritage protection system

To promote the effectiveness of cultural heritage protection, it is needed to establish a corresponding protection system. However, as far as the current situation is concerned, the relevant management departments have not paid much attention to the establishment of the cultural heritage protection system, which has led to lack of resources in various aspects like the environment, capital, manpower and material resources. And thus the establishment of a cultural heritage protection system has been seriously hindered. In this context, even if a system can constrainedly be established, it is difficult to guarantee its scientificity and rationality.

4.3 Insufficient monitoring of cultural heritage

Powerful monitoring can promote the protection of cultural heritage. Therefore, if the monitoring cannot be strengthened accordingly, the probability of a collapse of the cultural heritage monitoring system will increase relatively. Meanwhile, there will also be a variety of behaviors that do not comply with the cultural heritage protection system. The reason why misbehaviors can occur easily is that some staff members do not lay stress on the protection of cultural heritage, and thus they are not responsible in the process of carrying out their work; at the same time, the cultural heritage protection departments of some areas attach more importance to economic development and they have chosen to sacrifice cultural heritage to some extent for high benefits. It can be seen that it is of great significance to implement the monitoring system for cultural heritage protection and strengthen the monitoring^[7].

4.4 Failure to effectively apply digital media technology

The full application of digital media technology can promote the protection of cultural heritage to obtain more innovative content. Therefore, its application in the protection of cultural heritage can effectively improve the efficiency of related work. The culture in China is becoming more diverse with the economic development and policy support. And the relatively strong spread of western culture in China has led to threat to the development of Chinese traditional culture. Therefore, active speeches and propaganda must be performed for Chinese traditional culture. However, some relevant leaders do not fully understand digital media technology, resulting in the fact that this technology cannot play its functions effectively. This has led to a variety of errors in the process of cultural heritage protection, which is not conducive to the smooth implementation of culture heritage protection.

4.5 Low quality of relevant staff

In the process of cultural heritage protection, some staff members are of low quality and cannot effectively protect cultural heritage, which increases the difficulty of cultural heritage protection.

5. The role of digital media education in the protection of cultural heritage

5.1 To enhance the sense of responsibility of staff

Personnel engaged in cultural heritage protection should understand the importance of their work, actively introduce and learn digital media technology and set the corresponding working system according to the situation of cultural heritage protection in China, so as to promote the perfection of a protection system for cultural heritage.

5.2 To perfect the cultural heritage protection system

To promote the efficiency of cultural heritage protection in China, it is significant to improve various management systems, such as establishing a scientific protection system for cultural heritage, rationally arranging relevant staff and appropriately dividing relevant work content, so that the responsibilities of staff in different departments can be implemented accordingly. Furthermore, it is needed to actively construct a digital museum, so as to promote the protection of cultural heritage and realize the purpose of browsing and appreciating cultural heritage^[8].

5.3 To strengthen the supervision of cultural heritage

Relevant departments should strengthen the supervision of cultural heritage protection, establish a perfect working system for cultural heritage protection and avoid related departments sacrificing cultural heritage for other benefits; at the same time, it is very important to implement the responsibilities of cultural heritage protection accordingly, supervise work of relevant staff members according to the regulations and set up evaluation system, so as to standardize the behavior of relevant staff members and mobilize the enthusiasm and initiative of relevant staff.

5.4 To promote the quality of staff

To a certain extent, the professional quality of the staff plays a decisive role in the protection of cultural heritage. Therefore, it is necessary to strengthen the professional quality of the staff, actively carry out professional training for relevant staff and improve their ability of applying digital media technology, thereby enhancing the protection of cultural heritage; at the same time, it is necessary to carry out professional ethics education for relevant staff members to comply with laws and regulations, and resolutely avoid damage to the national cultural heritage caused by the pursuit of personal or economic interests^[9].

6. Conclusion

Affected by various factors such as economic and technological development, there are more and more means that can be applied in the protection of cultural heritage in China. Therefore, relevant departments need to implement their own responsibilities effectively and improve the application of digital media technology in the protection of cultural heritage, promoting the effectiveness of cultural heritage protection in China.

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