

# *The Current Situation and Prospect of the Digital Technological Application in Museum Social Education*

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**Abstract:** With the arrival of the digital era, the museums are an important carrier of cultural dissemination and social education. Building digital museums by using digital technology can provide better, more efficient and immersive interactive experiences for the public as well as renew traditional culture. The application of digital technology is becoming more and more extensive in museum social education. This paper analyzes the current situation and the prospect of digital technological application in museum social education, further more provides references for the application of digital technology in museums.

## 1. Introduction

With the continuous improvement of people's living standards, their spiritual needs are becoming more and more diverse. With the advent of the internet era, digital technology has a huge impact on traditional culture. Digital technology is very good at converting pictures, words, sounds and images into computer-processable languages, which are applied in various fields of social production and life. Under the new circumstances, the application of digital technology in the social education of museums can not only realize the innovation of the traditional social education field, but also provide it with huge development opportunities. In May 2021, nine departments, including the Publicity Department of the CPC Central Committee, the National Development and Reform Commission, the Ministry of Culture and Tourism, and the State Administration of Cultural Heritage, issued the Guiding Opinions on Promoting the Reform and Development of Museums, pointing out that by 2035, the museum system with Chinese characteristics will be more mature, the social functions of museums will be more perfect, and the museums will basically become a world power level. The development of Chinese museums will contribute Chinese wisdom and Chinese solutions to the development of global museums [1]. This goal reflects the concern and expectation of the Chinese government and general public for the development of museums. It will provide overwhelming support for building a strong cultural country.

## **2. The current situation of the digital technology in museum social education**

### **2.1. Innovative exhibitions based on digital technology**

Museum collections themselves have the function of social education, but due to the disconnection between the time and space of the collections and the modern social life, the information deviation in the dissemination process makes it easy for people to misunderstand them [2]. Museums undertake the function of identifying their historical relics, informing the public of the origin of the collections and serving the public. It can help the public to learn and understand the history and culture of the collection. With the rapid development of the internet and new media, more museums are expanding their social education functions through the use of digital technology, breaking the time and space restrictions of traditional museums [3]. Based on cultural relics, the museums combine multimedia information, 3D projection, AR digital experience, and other forms to bring visitors a more colorful visiting experience. When displaying cultural relics, museums can not only use digital technology to change the traditional way of display, but also combine text, sound and video to display cultural relics in an all-round way. And show the cultural relics on display to visitors in a more vivid image, so as to realize the social education function of museums.

### **2.2. Innovative explanation based on digital technology**

Explanation work is the medium and bridge between the museums and the visitors. As the forefront of social education work in museums, explanation work can better play the social education function of museums [4]. With the rapid development of digital technology, more and more museums choose to use digital tour guide and intelligent voice explanation system. Compared with the traditional explanation mode, digital tour guide explanation has the characteristics of convenient usage and standardized interpretation. Visitors can choose to know the basic information and cultural connotation of cultural relics according to their own interests. Digital technology can display cultural relics to visitors more intuitively and motivate visitors to learn more about the stories behind the relics. Digital tour guided explanation are also available to foreign visitors in different languages [5]. So museums can better spread excellent history and culture.

### **2.3. Innovative forms based on digital technology**

The education function of museums lies in disseminating cultural knowledge to the public and carrying forward excellent traditional culture [6]. In recent years, museums around the world have successively launched a series of cultural and creative products, which are disseminated through the internet, such as popular Tiktok, Weibo, wechat public accounts and other mini programs, etc. Users can browse the museum collection information on the internet without leaving home, and express their opinions in the comment space. Museums and users can learn and communicate with each other on the platform. It can narrow the distance between the public and the museums. At the same time, the cultural and creative products in museums are not limited to offline purchase. With the rise of online stores, the public can buy cultural and creative products online, and then, the museums recreate cultural and creative products according to the public's demands, so that improves the quality and dissemination of products. These products not only allow more people to understand and recognize the cultural knowledge behind historical relics, but also play an important role in the education function of museums.

### **3. The prospect of digital technology in museum social education**

#### **3.1. Training museum professionals based on digital technology**

The application of digital technology is an inevitable trend in museums. In order to carry out better social education, museums should strengthen the cooperation with universities and colleges to enhance their influence continuously[7]. Universities and colleges can offer courses on digital technology and museum for students of relevant majors to provide comprehensive talents for museums. Museum is an interdisciplinary institution, and the development of talents will inevitably affect the development of museums themselves [7]. The museums should constantly strengthen the construction of high-level talents. The museums should reform the relevant employment system, formulate incentive mechanisms, and introduce relevant policies to encourage more high-level young people and social talents to join. At the same time, regular education training and assessment of the staff in the museums will help them to constantly update their knowledge systems, and improve the level of explanation in the museums so that they can better serve the public and implement the educational function.

#### **3.2. Building a smart museum based on digital technology**

The museums should make rational use of new media resources, including the internet, VR and AR. The use of virtual reality technology to explain the stories of cultural relics in museums can allow the public to experience the past and present lives of cultural relics, making the education function of museums more novel and humanized [8]. At the same time, it is necessary to continuously strengthen the construction of the database, collect museum collection data, and build a digital and intelligent platform. 3D image technology is used to store the picture data of the collections, and digital technology is used to display the museum collections in a multi-faceted and multi-angle way. Compared with traditional digital collections, digital technology can store collection data in the computer, which not only reduces the risk of secondary destruction of cultural relics, but also enables visitors to have a more comprehensive understanding of them [9].

#### **3.3. Innovating collection promotion methods based on digital technology**

Most museums pay more attention to the value of cultural collections themselves, and easily neglect to educate the public through visiting and learning, which is one of the reasons why it is difficult for museums to carry out social education. Through the digital interaction technology of the internet, publishers and recipients are involved in realizing the two-way flow of information [10]. The use of digital technology through social media such as Tiktok, Weibo and wechat public accounts to help museums conduct extensive publicity. Museums interact with the public on message boards to publicize cultural relics and collections in a way that is more acceptable and widely disseminated by contemporary people, which is conducive to contemporary people's learning and understanding of Chinese culture. In recent years, more and more cultural and creative products have appeared, museums can recruit student volunteers to explain the stories behind cultural and creative products to visitors, improve the influence of museums, and attract more and more people to learn about the history of collections, which is helpful for the implementation of the education function of museums.

### **4. Conclusions**

In the internet era, with the rapid development of digital technology, museums should keep up

with the trend of The Times, make full use of digital technology tools, constantly open up new models of digital technology development, and speed up the integration of technology and education. Diversified forms of digital technology are used to fulfill the public demand for social education in museums, so as to achieve a new height of cultural inheritance and knowledge education. Historical relics belong not only to current people, but also to future generations [4]. Museums should creatively carry out various cultural immersive experience activities, carry out activities such as "telling cultural stories" and "Doing a good job as the guardian of collections", encourage the public to conduct independent learning and education, enable more and more people to participate in it, so that gives full play to the social education function of museums.

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## References

- [1] Central Publicity Department, National Development and Reform Commission, Ministry of Education, Ministry of Science and Technology, Ministry of Civil Affairs, Ministry of Finance, Ministry of Human Resources and Social Security, Ministry of Culture and Tourism, State Administration of Cultural Heritage issued the Guiding Opinions on Promoting the Reform and Development of Museums [N]. *China Cultural Relics News*, 2021-05-28.
- [2] Zhaoxia Xiong. *Study on the Social Education Function of Museums in Guizhou Province* [D]. Guizhou Minzu University, 2023.
- [3] Yitong Peng. *Research on Social Education Strategies of Museums under the New Media Environment* [J]. *Cultural Relics Identification and Appreciation*, 2020(06): 136-137.
- [4] Xiaojing Fan. *Analysis on Social Education Work of Museums in the New Era* [J]. *Cultural Industry*, 2022(03): 85-87.
- [5] Yan Lin. *Brief Discussion on Museum Education and Related Issues in the Digital Age* [J]. *Intelligence*, 2017(36): 42-43.
- [6] Qi Liang. *Research on the Development Path of "Internet +" Museum Education* [J]. *Century Star -- Communication Edition*, 2022(27): 148-150.
- [7] Xueyan Zhang. *Reflections on Social Education and Communication of Museums in the New Era* [J]. *Publishing Wide Angle*, 2021(13): 65-67.
- [8] Bei Xu. *Application and Development of Virtual Reality Technology in Digital Museum* [J]. *Cultural Relics Identification and Appreciation*, 2023(02): 76-79. (in Chinese)
- [9] Lige Tong. *Multimedia Technology of Digital Museum* [J]. *Journal of Inner Mongolia University for Nationalities (Social Sciences Edition)*, 2023, vol. 49 (2): 120-124.
- [10] Mengqian Qian. *Research on the Financial Media Strategy of Museum Brand Communication* [D]. China Academy of Art, 2023.