

Research on the Diversified Protection Method of Macao Cultural Heritage Based on New Media Technology

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Abstract: The protection of Macao's cultural heritage in Macao is a dynamic process of management and inheritance. The application of new media technology in the protection of Macao's cultural heritage and its advantages in information interaction, digitization, and networking are conducive to improving the public's awareness of Macao's cultural heritage. The awareness of protection promotes the inheritance and promotion of Macao and Macao's cultural heritage. This article analyzes the application path of new media technology in the protection of Macao's cultural heritage. With the development of the times, more and more cultural heritage has faded out of people's vision, and even disappeared permanently. Based on this reality, after summarizing the methods of cultural heritage protection, this article puts forward the strategy of using new media technology to protect cultural heritage, and innovates cultural heritage protection methods and methods to strengthen the protection and inheritance of cultural heritage. At present, there are still many problems in the protection of cultural heritage in Macao. The existing protection methods are not innovative enough to drive, and the traditional protection methods are no longer suitable for the development of the times. This article discusses the current status and development strategies of new media technology for the protection and inheritance of cultural heritage. To give play to the role of new media technology in the protection of Macao's cultural heritage.

1. Introduction

The protection and inheritance of cultural heritage is a long-term topic. So far, feasible protection methods generally include the following: solid-state protection of museums and exhibition halls, protection and support for inheritors, and integration with school education And the development of cultural resources and tourism. Traditional protection methods have played a very good role in the protection and inheritance of Macao's cultural heritage projects, but there are also many problems. The cultural heritage of Macao is the crystallization of human civilization and wisdom, and the embodiment of cultural diversity, including the unique spiritual value and way of thinking of China and the West. In the process of unified and diversified cultural evolution, it has nurtured a rich cultural heritage of Macao and formed a treasure house of national culture [1].

The new media technology herein refers to the process of gathering, processing, transferring and displaying the information online utilizing computers, phones or other tools supported by modern digital communication. This technology applies to technologies relating to the mass communication industry, including new-media information acquisition and output technology (e.g., digital technology), new-media information process and generation technology (e.g., computer image, graphic, and animation technology), new-media information storage, publication and searching technology, new-media communication technology (e.g., network technology and mobile communication technology), new-media information management and security technology, as well as streaming media technology, VR technology (e.g.,)3D panorama technology), IoT technology, cloud computing technology, big data technology, etc. It marks that the new media technology has been extensively used for production and life.

How to apply new media technology to enhance the scientific and technological content of cultural heritage protection, change the current situation of cultural heritage work that emphasizes

resource development and neglects innovation, build a scientific and effective cultural heritage protection inheritance path, and solves the current dilemma is the need for cultural heritage work. Discussion and research issues Under the new media environment, the protection model of Macao's cultural heritage is undergoing major changes. The effective application of new media technology in the protection of Macao's cultural heritage provides a good opportunity for the inheritance and development of Macao's cultural heritage. As one of the centers of excellent traditional culture, Macau has rich cultural heritage resources in its area. At present, with the emphasis on the protection and inheritance of Macao's cultural heritage, the mode of Macao's cultural heritage protection is in urgent need of innovation and adjustment. Under the new media environment, new media technology carriers such as virtual reality technology, augmented reality technology, three-dimensional animation technology, and Internet technology provide a platform for the protection of Macao's cultural heritage. While promoting the inheritance and dissemination of Macao's cultural heritage projects, it also enhances the objective environment for Macao's cultural heritage. The protection of cultural heritage resources [2]. This article combines the mechanism and characteristics of new media technology to analyze the application path of new media technology in the protection of Macao's cultural heritage from multiple dimensions.

2. Important Features and Mechanisms of New Media Technology

2.1 Digitization, Interactivity

New media technology is an innovative form of media based on digital information technology and with interactive communication as its function. From the perspective of the basic mechanism of new media technology, new media technology is an important manifestation of the integration of the Internet and information dissemination, and it is a general term for information dissemination technologies in addition to supporting traditional media technologies. Therefore, this also determines the basic characteristics of digitalization and interactivity of new media technology. In terms of the digitalization of new media technology, the digital information dissemination platform built through information technology can effectively spread the cultural heritage of Macao, so that more people can understand the representative projects of Macao's cultural heritage [3]. For example: through the use of three-dimensional animation technology to build a multi-dimensional integrated digital information dissemination platform to increase the awareness of Macau's old city and historical buildings, and disseminate representative cultural heritage projects of Macau such as parades on each April 8th in the lunar calendar and Naamyam. So that more people can learn about the cultural heritage of Macau, so as to realize the protection of representative items of the cultural heritage of Macau. In terms of the interactivity of new media technology, the information dissemination platform built by Internet technology allows people to learn about Macao's cultural heritage through the Internet and realize real-time communication and interaction.

2.2 Convergence, Dissemination

New media technology is based on information technology, which is an innovation and extension of traditional media technology. The brand-new information dissemination platform built by new media technology, on the one hand, has the dissemination function of traditional media, and on the other hand, it covers interactive functions, information processing functions, information collection functions, etc. [4]. Therefore, starting from the basic characteristics of new media technology, this also determines the integration and communication characteristics of new media technology. First of all, in terms of the integration of new media technology, new media technology itself is the embodiment of the integration of information technology and media. New media mainly includes digital magazines, digital newspapers, digital broadcasting, digital TV, desktop windows, information dissemination platforms, etc.[5]. These new media technology products are an important manifestation of the integration of the Internet and traditional communication technologies. The integration of "Internet + information dissemination" has ushered in a new direction for the protection of Macao's cultural heritage. Secondly, in terms of the dissemination of

new media technologies, in the Internet environment, traffic is a resource, and the speed of media dissemination directly determines the intensity of traffic. Nowadays, various new media platform operations have successively adopted a multi-line communication mode. Compared with the traditional single-line communication mode, the speed has been greatly improved, and it has the characteristics of fast information dissemination and wide coverage.

3. The Current Dilemma of Macao's Cultural Heritage Protection

3.1 The Impact of the Modernization Process

How Macau, the world tourism and leisure center, is supposed to achieve the urban transformation is a challenging project of cultural heritage protection. The development of main urban areas, which locate Macau's cultural heritage protection areas and buffer areas, is bound to make an impact on the landscape of those areas. The buildings of gaming, such as Sofitel at Ponte 16 Macau, Starworld Hotel and other high-rise buildings, are in stark contrast to the historical buildings in the inner harbor, making an impact on and posing a great threat to the landscape of historic houses, lanes and cultural heritages. For example, the NAPE and high-rise buildings in the outer harbor have been controversial because of their negative effect on the visual connections between lighthouses, the sea surface, and other historical buildings; C and D areas of Nam Van Artificial Lake hide the landscape of Penha Hill, all of which are negative results from the modernization, economic growth and urban development.

3.2 Changes in Public Engagement

At the beginning of the 20th century, the former Macau-Portugal Administration implemented the meritocracy system to respond to the slow development of the society, and made little of civic engagement as well as its influence and effect on the cultural heritage protection, leading to the absence of the opportunity and room for citizens to participate in developing the policy of the cultural heritage protection, and thus people less focused on the social conflict arising from the cultural heritage protection. After its return, Macau witnessed a rapid development of economy and society by authorized gaming, followed by increased awareness of public engagement. Macau youth conduct many creative online campaigns of cultural heritage protection which are also driven by the pressure of transnational activists, to force the administration to amend the cultural heritage protection policy. Eventually, the government-centered system has been shocked, and people can engage in the development policies through more channels now. Moreover, developers have also contributed to the improvement of public engagement. With its increasing importance, the issue, reflects the public governance capability of the Macau Administration.

3.3 Weaknesses in Hardware and Software Environments

Macau's cultural heritage protection is mainly based on voluntary and independent researches. There are fewer high-level research platforms for local colleges and institutions to research cultural heritage protection. In addition to facilities, Macau is supposed to improve the research and development capacity, achieve cooperation among people from different fields, industries and departments, and make the best use of its integrated power. Regular and innovative technologies are less developed, and fewer international or regional achievements in scientific research have been reached. Therefore, the related technologies and their support for cultural heritage protection are to be improved. Meanwhile, there is a lack of human resources such as software professionals and scientific & technological talents over the long term. The quality, professional knowledge, creativity and management of talents cannot meet the actual demand so far, which chokes off the sustainable development of cultural heritage protection and inheritance.

4. The Role of New Media Technology in the Inheritance and Protection of Macao's Cultural Heritage

In Macau, the rapid development of new media technology makes a difference to the traditional

lifestyle as well as the cultural heritage ecosystem and the public perception of cultural heritage protection. Compared with traditional media such as newspapers, magazines, and television, new media technologies are more often referred to as the “fifth media.” It uses digital technology and network technology, through the Internet, local area network, wireless communication network and other channels, using computers, mobile phones, digital TV and other terminals to provide users with new forms of information and entertainment services. Nowadays, new media technology has increasingly become an important part of people’s lives [6].

The emergence of new media technology has undoubtedly provided a new opportunity for the protection and inheritance of Macao’s cultural heritage. It can give full play to its own unique advantages. This is mainly reflected in the expansion of new media technology in the protection of Macao’s cultural heritage and its unique media. Attributes can extend the vitality of Macao’s cultural heritage without being restricted by time and space, and can also use new media technology to restore and reproduce partially damaged Macao’s cultural heritage, so that more of Macao’s cultural heritage that is on the verge of disappearing can be effectively protected and inherited. With the help of new media technology, Macao’s cultural heritage can be paid more and more attention and recognized by more and more people. This is a common integration of traditional culture and modern technology, which not only provides a broader space for the protection of Macao’s cultural heritage, but also can be more effective [7]. The development and protection of traditional folk culture and Macao’s cultural heritage have become an important subject of Macao’s cultural development. To some extent, the attention paid to the protection of Macao’s cultural heritage reflects people’s attachment to traditional culture. This is actually a reflection of modern people on modern society after the loss of their spiritual homeland, and an aesthetic reflection of people’s modernity.

5. New Media Technology Innovates the Way of Protection and Inheritance of Macao's Cultural Heritage

We have now entered a new media era. The continuous update and development of new media technology have brought about earth-shaking changes to our lives. New media technology has the characteristics of interactivity and instantaneousness, and the public can participate in it. For example, interactive media forms such as Weibo, Instagram, and Facebook spawned in the Internet age, the public can receive information anytime and anywhere. This also provides a brand-new way for the protection and inheritance of Macao’s cultural heritage [8]. This is mainly manifested in three aspects: First, new media technology has expanded the ways and means of inheriting Macao’s cultural heritage. The inheritors of Macao’s cultural heritage use the Internet or mobile media to pass on, and the public can also understand and master Macao through the same channels and methods. Cultural heritage skills, breaking the previous single inheritance method of oral transmission, and at the same time expanding the inheritance group, allowing more Macao cultural heritage culture to enter people’s vision; second, new media technology has updated the expression of Macao cultural heritage. In the process of inheritance and display of Macao’s cultural heritage, the modern form of new media technology can be used to express the rich cultural skills of Macao’s cultural heritage incisively and vividly, allowing the audience to experience the profoundness of Chinese and Portuguese traditional cultures immersively, and to entertain and teach; 3. New media technology records the process of inheritance of Macao’s cultural heritage and preserves complete visual information. The inheritor can use new media technology to record their own skills in real-time to form fixed image data. Even if time passes, it has been preserved. The visual literature will not disappear with it, but will have a sense of history and heaviness.

Therefore, as a way to preserve images for a long time, new media technology can play a role. It has important historical document recording and preservation functions. We have reason to believe that increasing research on the correlation between new media technology and the protection of Macao’s cultural heritage will surely bring another new opportunity and perspective for the protection of Macao’s cultural heritage.

6. Conclusions

Internet technology and information technology are helpful for the in-depth development, protection and utilization of Macao's cultural heritage. However, the use of new media technology should adhere to a cultural standpoint and focus on expressing the authenticity of Macao's cultural heritage based on a complete record of traditional techniques and processes. People's reliance on new media is gradually increasing. Based on the particularity of the protection and inheritance of Macao's cultural heritage, the application of new media technology has new room for development in this regard. New media technology has enriched the protection and inheritance of Macao's cultural heritage. Whether it is technical support or the birth of protective measures, new media technology has demonstrated its superiority at the relevant level. If you ignore the spiritual pursuit and the concept of survival in the cultural heritage of Macau, especially in the intangible cultural heritage, focus only on the external aesthetics and novel cultural styles, and break the cultural connection between the inheritor and the spiritual core of the cultural heritage of Macau, it will become a copied cultural product and loss of meaning Cultural fragments. New media technology is only a tool and method. It requires technical personnel to work together with cultural heritage experts and inheritors to fully understand the cultural connotation and historical evolution of Macao's cultural heritage, and truly express the cultural value and technical process of Macao's cultural heritage to be scientific. Effectively play the role of new media technology in the protection of Macao's cultural heritage.

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