On the Strategies of Digital Transformation of Shuhan Cultural Relics and Museum Resources During the Three Kingdoms Period in Chengdu

Mei XIE and Qian-ru WEI

Political Science and Public Administration, University of Electronic Science and Technology of China, Chengdu, China

*Corresponding author

Keywords: Shuhan culture, Cultural relics and museum resources, Cultural industry, Digitization, Transformation.

Abstract. As the capital of Shuhan, Chengdu has accumulated rich culture resources of Shuhan, leaving a large number of sites, relics and cultural relics. Nowadays, the continuous development of digital technology, new media and museum industry has been affecting and changing the traditional mode of cultural relics display and culture communication of museum. Therefore, this paper aims at the low degree of digital transformation of Shuhan cultural relics and museum resources during the three kingdoms period in Chengdu area, analyzes the necessity and feasibility of using the digital technology to develop and distribute the resources through literature review and field research, and puts forward methods to enhance the development of cultural relics and museum resources of Shuhan by using digital technology.

Proposal of Question

In AD, Liu Bei declared himself as the emperor in Wu Dan hill, Chengdu and established Shuhan regime. Since then, countless people debut here, countless historical events occurred here, leaving rich cultural resources of Shuhan, and gradually become the cultural gateway to Chengdu. According to statistics, there are cultural sites from the Three Kingdoms period in Chengdu, including the only temple that sacrifice monarch and his subjects in China: Wuhou Temple, and other cultural resources, like sites, relics, former residence, temples, tombs related to Liu Bei, Zhuge Liang, Zhang Fei and other generals of Shuhan, which are scattered in Chengdu and its surrounding counties. The number ranks first in China.

With the development of science, technology and society, the transformation of the cultural relics and museum resources mentioned above has also encountered unprecedented challenges. At present, the transformation and utilization of the cultural resources of Shuhan in Chengdu are still in the traditional protection and development mode, not only not using digital technology to design innovative cultural product, but also less using VR (virtual reality), AR (augmented reality), multimedia and database, even the digital museum website to get the Three Kingdoms culture unified publicity has not been established. Backward display mode and unidirectional communication pattern has been unable to meet the growing cultural needs of the audience. In the digital age, to enhance the core competence of Shuhan cultural relics and museum resources, a revolution on service model and idea of development is necessary. How to make cultural relics reflect history and culture to infect the audience, and to transform the advantages in cultural relics into advantages in culture heritage and communication, is an urgent issue to solve for the transformation of museum.

Analysis on the Necessity and Feasibility of Digitizing the Cultural Relics and Museum Resources of Shuhan during the Three Kingdoms Period

Value and Significance of the Digitization of Shuhan Cultural Relics and Museum Resources

At present, human beings have entered the “digital age” and their spiritual and cultural demands are more extensive, deeper and more diverse than the past, so, museum as the most important cultural
outlet, its educational and economic functions gradually highlighted. From the perspective of inheritance, the appliance of digital technology can spread the existing cultural resources in a broader and deeper way, and accurately restore the traditional and modern cultural spirit contained in the urban external carrier, which enhances the penetration, radiating power and appeal of regional culture and deepen the audience’s understanding of the regional history and culture, and construct the city image of Chengdu, highlight the historical and cultural tastes of the city. From the perspective of industrial development, the digitization of historical and cultural relics and museum resources not only will not destroy the original cultural relics sites, but also can “develop in protection and protect in development” and make the audience more engaged with digital content, to achieve the integrative development of digital industry online and cultural industry offline. The digital development of Shuhan cultural relics and museum resources has important value and significance to balance the contradiction between resource protection and development.

The Basis and Conditions of the Digitization of Shuhan Cultural Relics and Museum Resources

With the promotion of research and development of domestic and foreign scholars, experts, technical personnel in the theory and application, the protection and development of cultural relics and museum resources of Sichuan Province has made some achievements and experience in recent years. In the beginning of , the first APP named “Jin Dian” of cultural relics display established in Chengdu. There are museums of Chengdu and more than, pieces of precious cultural relics on this digital platform which makes the audience appreciate the cultural relics with great significance yet cannot be displayed in long time. In September, in the seventh “Museum and Related Products and Technology Expo” by the State Administration of Cultural Heritage and the People’s Government of Chengdu, Jinsha Museum makes full use of digital technology to hold collections. With three-dimensional modeling technology, the audience can observe the structure, shape, color, etc. of cultural relics in different angles and high-definition. The three-dimensional video “Time Capsule” created by VR (virtual reality) technology makes the audience pass back to years ago through VR glasses to see the sacrificial rites in ancient Jiasha and the archaeological site in early. The successful experience above has supplied broader prospect and referenced scientific ideas for the digital development and utilization of Shuhan cultural relics and museum resources.

On the Transformation and Utilization of Shuhan Cultural Relics and Museum Resources of the Three Kingdoms Period

Digital development and utilization of Shuhan cultural relics and museum resources is the product of digital and cultural developing age. How to make full use of digital technology to preserve cultural relics to maximize the historical connotation and vitality and create economic and cultural value is an urgent proposition need to solve.

Establish Digital Theme Museums to Integrate Resources Effectively

In order to form the social-ecological system centered on Shuhan cultural relics and museum resources and expand the culture influence of the Three Kingdoms, it is necessary to establish the aggregation of the digital museums. According to the general steps of the digital museum construction, collect two-dimensional and three-dimensional information of historic sites in Chengdu area and even Sichuan province, either in the order of historical events, or by historical figures, to establish repository and convey those information to the audience by website or mobile APP. The diversity, novelty, culture and uniqueness of Shuhan cultural relics and museum resources of Chengdu area to attract as much attention of the audience as possible to enhance their influence. For instance, add the headshot, equipment, the sign of political identity and other featured elements of the figure on the page of the website or APP, combining the historical complex and formal freshness, effectively integrating text, graphics, images, audio, video, three-dimensional animation and other information; produce three-dimensional animation or shoot real scene feature film to present how the people of the Three Kingdoms forge iron, farm and manufacture to connect the
existing five theme exhibitions in Wuhou Temple: “The Storm of War”, “A Glance of Agriculture and Sericulture”, “Folk Customs Tour”, “Cream of the Crop” and “Lingering Charm” in series, giving full play to the historical, collectible, aesthetic and educational value of Shuhan cultural relics and museum resources.

Focus on Audience Experience and Emphasize the Participation and Interaction of Exhibition

Donald Norman, an American cognitive psychologist, wrote in the book *Emotional Design*, that user experience can be divided into three levels: intuitive experience, process experience and experiential experience, and only after experiential experience, the experience can reach the reflective layer, so that the users leave an unforgettable emotional memory about the experience. Now, the audience of the museum has shifted from simple message receiver to active group with voice. They are increasingly considering realization of self-inspiration and cognition through the more real interactive experience, which also makes the service mode and development idea of museums change gradually. This offers an idea for Shuhan site museum of the Three Kingdoms period to open up experience-dominated exhibition. Museum can provide more interactive and participatory possibilities for the audience to access to history and culture through VR technology. By VR, situation stimulation, and other technology, the classic historical scenes, like “Be Sworn Brothers”, “Three Visits to the Hut”, “Borrowing Your Enemy’s Arrow”, “Battle of Chibi” and “Verbal Fight with Scholars” are represented virtually, so that the audience can be a bystander, or even a certain figure of historical events through sensor devices, immersive in the interactive historical environment based on computing information which supplies them a real scene experience and role experience. With this, the information communication effect of museum exhibition and the audience’s experience pleasure are improved and the alienation between the exhibits and the audience is removed.

Create Cultural and Creative Products to Promote Audience’s Cultural Consumption Behavior

The cultural service of museum is for audience, so its digital process should be concerned about the experience of the audience before the visit, during the visit, and after the visit. Making full use of CG technology to create cultural creative products and put them in the market, can relatively complement with the audience’s early visit activities, promote their cultural consumption behavior by their own cultural preferences, and expand the historical and cultural space of the audience’s acceptance. In the production of cartoon, animation and game scene, CG technology has unprecedented image performance, and even can accurately reflect the original shape of the image and make the two-dimensional painting turn into three-dimensional. Using CG technology to produce Shuhan theme animation game can adapt to the market heat by greatly shortening the development and production cycle of the product, using super-realistic way to show the amazing scenes of historical scenes, give the audience real experience of time-space shift, and enhance intensity and verisimilitude of their memory on the display and visual psychological feelings. D printing technology of CG technology also plays a pivotal role in the cultural and creative products, especially in character model art. It can greatly improve the accuracy of the production, achieve refined designs of limb, accessories, shape, expression and so on. At the same time, it can reduce production risk. In order to use new technology to activate the historical image, the development of Shuhan cultural products can learn from the foreign successful experience of animation design and production.

Conclusion

In the current social environment of informatization, digitization and cyberization, all kinds of industries are facing with unprecedented challenges and opportunities, including the protection, development and utilization of cultural relics and museum resources. Therefore, based on the trend of culture development and digitization, this paper analyzed the necessity and feasibility of the digital transformation of Shuhan cultural resources during the Three Kingdoms period. According
to the major point of the paper, “currently, using digital technology to develop Shuhan cultural resources is an important way to protect culture relics, spread culture and attract audience”, all these feasible development strategies are based on the experience of the audience, aiming to establish digital theme museum, focusing on the participation and interaction of the exhibition, strengthening the digital management and services, and creating featured cultural products. Digitization is just tool, not purpose. The cultural, historical, beauty-appreciation and spiritual value of cultural resources constitute the core of the museum, so in the process of digitization, the cultural connotation of the cultural resources is the most important not the digital form. We must firmly grasp the “live” and cultural charm of museum to give play to its eternal significance and realistic value of Shuhan cultural resources in inheriting history, spreading civilization and educate the audience.

References


[4] Li Qiuxuan. The Museum Guide information design and audience behavior research [D], Central China Normal University.