

On the Application of New Media in Museums and Related Issues: A Case Study of the Sichuan Zigong Dinosaur Museum (Postprint)

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Abstract

When discussing museums and new media, it is akin to an encounter between the distant past and the far future—a fusion of the new and the old that stimulates powerful vitality, creates opportunities to bridge past and future, and allows history reflected in the long river of time to reappear before us and be passed down. While new media technology invigorates museums with new vitality and new forms, some applications of new media in museums suffer from the problem of overshadowing the primary content. Based on the current status of new media application at the Zigong Dinosaur Museum in Sichuan, this paper offers a brief discussion on the utilization of new media in museums and related issues, and proposes four approaches to further advance museum construction within the new media environment: prioritizing the highlighting of cultural relics and serving the public; fully utilizing museum resources to improve resource efficiency; leveraging new media to innovate museum content and effectively narrate museum stories; and guiding the transmission from new media to traditional media.

Full Text

A Brief Discussion on the Application of New Media in Museums and Related Issues—A Case Study of the Zigong Dinosaur Museum in Sichuan

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Abstract: When discussing museums and new media, it is akin to an encounter between the distant past and the far future. The fusion of old and new stimulates powerful vitality and creates opportunities to bridge past and future, allowing history reflected in the river of time to reappear before us and be passed down.

While new media technology injects fresh vitality and novel forms into museums, some applications risk overshadowing the very artifacts they aim to showcase. Based on the current application of new media at the Zigong Dinosaur Museum in Sichuan, this paper explores the utilization of new media in museums and related challenges, proposing four approaches to further advance museum development in the new media environment: prioritizing the highlighting of cultural relics and serving the public; maximizing museum resource utilization; leveraging new media to innovate museum content and tell compelling stories; and guiding the transmission from new media back to traditional media.

Keywords: new media; museum; “Internet +”; cultural innovation; new media technology

2. New Media Stimulates New Vitality and Forms in Museums

With the continuous development of internet technology, new media has gradually integrated into every aspect of daily life as an emerging communication format. Seizing the opportunities presented by new media, the “Internet +” museum model has emerged as both inheritance and development. The Zigong Dinosaur Museum in Sichuan, an institution steeped in ancient history, has kept pace with these trends in the new media environment. New media has opened innovative marketing and promotional channels for museums, brought fresh experiences to visits and appreciation, and improved preservation and management methods for cultural relics, collectively stimulating new vitality and forms in museums [1].

2.1 New Media Innovates Museum Marketing and Promotion Channels

2.1.1 Online Multi-Channel Promotion As information and digital technologies continue to evolve, new media platforms have proliferated, diversifying information dissemination. People now primarily obtain information through new media channels such as Weibo, WeChat, short videos, and live streaming. Museums have adapted by shifting their promotional strategies to effectively integrate with new media, employing “graphic-audio-video” 立体 (three-dimensional) communication methods and various platforms to broaden audience reach and enhance social impact. At the Third Sichuan Tourism New Media Marketing Conference held in Zigong with the theme “Cultural-Tourism Integration · Development and Win-Win,” Zigong Dinosaur Museum Director Li Jian stated in an interview that new media technology should be utilized to build an “Internet +” dinosaur museum, polishing the dinosaur brand and elevating the industrial tail to make dinosaur culture a driving force for museum development. The museum employs new media “black technologies” including holographic fog screens, 3D printing, AR (Augmented Reality), and VR (Vir-

tual Reality) to comprehensively display its rich dinosaur fossil resources and profound cultural heritage. These technologies provide greater convenience for visitors and enable more interaction between visitors and artifacts, truly bringing museum culture to life. “Coming to life” means becoming “more human” and “down-to-earth” –no longer cold fossil skeletons, but warm, perceivable, and tangible experiences. However, while new media technology stimulates new vitality and forms, some applications risk overshadowing the main attractions, warranting careful consideration based on the Zigong Dinosaur Museum’s new media application status.

[Figure 3: see original paper] Online Promotion Channels

2.1.2 Offline Multi-Dimensional Activities Previously, museum artifacts were immovable, but the new media era has transformed museums into mobile castles. Through digital technology, people can publish and browse information anytime and anywhere, allowing artifacts to travel to various locations for audiences far and wide to appreciate. The Zigong Dinosaur Museum has conducted exhibitions across different regions, using new media technology to enable remote exploration of its mysteries. The museum has also presented dinosaur culture through diverse events such as the “Zigong International Dinosaur Lantern Festival,” “Dinosaur Kingdom Park,” and “Dinosaur Amusement Park,” creatively embedding dinosaur culture offline in multiple dimensions.

[Figure 4: see original paper] Offline Activity Exhibitions

2.1.3 Cross-Border Cooperation in Cultural and Creative Products In the new media context, internet popularization and development have provided channels for the promotion and sales of cultural and creative products while offering new ideas for product development. Cross-border cooperation with other products and concepts has broadened audience reach for museum culture and injected unprecedented vitality into marketing efforts. The Zigong Dinosaur Museum has developed personalized cultural and creative products for different demographics: puzzles and dolls for children, greeting cards and ornaments for women, playing cards and figurines for men. To date, the museum has developed 12 categories encompassing over 130 types of cultural and creative products, including the animated short “Night at the Dinosaur Museum,” the 4D film “Jurassic Adventure,” and the scientific art album “Illustrated Dinosaurs.”

[Figure 5: see original paper] Cultural and Creative Products WeChat Store

2.2 New Media Brings New Experiences for Museum Visits and Appreciation

New media maximally transcends temporal and spatial limitations, enabling digital preservation of museum artifacts and integrated management of all related data through big data and cloud storage. The Zigong Dinosaur Museum offers

online VR visits through its Baidu Baike page and official website, with zoom functions revealing details often invisible during offline visits.

[Figure 6: see original paper] Online Digital Museum

2.2.2 Offline “Black Tech” Experiences Holographic fog screens, 3D printing, AR, VR, and other new media “black technologies” comprehensively showcase the museum’s rich dinosaur fossil resources and profound cultural heritage. Dinosaur robots serve as intelligent tour guides throughout the facility, 4D dinosaur films screen onsite, and surrounding LED screens create immersive atmospheres.

[Figure 7: see original paper] 4D Dinosaur Film

2.2.3 Experiencing Museum Visits Through Online and Offline Games Presenting museum stories through gaming represents a form of spatial reproduction, offering a novel approach that allows people to experience games in virtual space while simultaneously learning about various dinosaur facts, creating infinite fun and charm.

[Figure 8: see original paper] “Through the Jurassic” Game

2.3 New Media Improves New Methods for Cultural Relic Preservation and Management

New media can maximally transcend temporal and spatial limitations to digitally protect museum artifacts. All related data can be integrated and managed through big data and cloud space. Rather than simply recording artifacts through photography, interviews, and collection, new media enables systematic documentation, preservation, browsing, retrieval, sharing, restoration, simulation, and reproduction. This approach maximally restores and preserves the authentic appearance of artifacts, forming more systematic and organized preservation methods.

3. The Problem of New Media “Stealing the Spotlight”

The rapid development of new media technology continuously transforms traditional communication methods, stimulating the dissemination of museum spiritual culture to a certain extent and altering the ways museums provide social and cultural services. While new media technology brings museums closer to modern audiences, does the excessive presence of digital technology in museums bring negative effects? The profound essence of museums may be better suited for solitary, careful appreciation—contemplating the passage of time and the vastness of the universe, experiencing nature’s mysterious principles. Yet in this fast-paced era, quiet contemplation proves difficult. When digital media technology was less developed, people focused on museum artifacts themselves due to fewer distractions, immersing themselves in genuine experience. However,

with excessive application of new media technology, museums offer more entertaining elements, causing focus to shift and the museum's true "protagonists" to be neglected. This common problem in modern museums warrants reflection on how to employ new media without allowing it to steal the spotlight.

3.1 Taking the Highlighting of Cultural Relics and Serving the Public as the Starting Point

Museums exist to collect and protect cultural relics while conducting social education and scientific research. Therefore, placing these two "protagonists" – cultural relics and the public—at the forefront is essential. New media activities must be based on museum artifacts themselves and serve the public. Since new media is inherently a "people-oriented" medium, we should leverage this characteristic to optimize user experience and increase two-way interaction.

3.2 Making Full Use of Museum Resources to Improve Resource Utilization

New media applications should be multi-point and multi-directional, avoiding concentrated efforts in one area that neglects others. During museum visits, the most crowded areas are often not those with the greatest "value" but those deemed most "interesting." Interesting attractions draw attention without extensive promotion. The challenge lies in integrating and promoting less engaging resources to improve overall resource utilization.

3.3 Using New Media to Innovate New Museum Content and Tell Good Museum Stories

New media museums may suffer from form over content, where glamorous exteriors conceal hollow interiors. While new media formats may attract initial attention, crude content ultimately proves ineffective. In the new media era, everyone is a content producer, and user-generated content represents a viable path for museums. We must utilize new media to innovate museum content and tell compelling museum stories.

[Figure 9: see original paper] Museum Story Collection Activity

3.4 Guiding the Transmission from New Media to Traditional Media

New media's "graphic-audio-video" 立体 (three-dimensional) communication methods quickly capture attention, yet new media also encourages fragmented reading, which is unsuitable for deeply appreciating museum culture. Therefore, guiding transmission from new media to traditional media is essential. Traditional media can produce more professional and authoritative content, combining new media's fragmented reading with traditional media's immersive reading to appreciate museum culture at a deeper level.

In summary, the new media environment presents museums with opportunities for innovative development while simultaneously generating new problems requiring resolution. We must use new media wisely and effectively to promote “Internet +” museum development, enabling more people to participate in museums and share the fruits of knowledge.

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Note: Figure translations are in progress. See original paper for figures.

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