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Research on the Development Path of Cultural and Creative Products of Heilongjiang Provincial Museum from the Perspective of New Media

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Abstract
Constructing the development strategy of cultural and creative products of Heilongjiang Museum under the concept of new media development can enrich and supplement the development theory of cultural and creative industry of Heilongjiang Province, and guide the design practice and future development direction of cultural and creative products of the museum. From the perspective of new media, this paper sorts out the development modes of cultural and creative products of museums at home and abroad, and combines the cultural relics resources collected by Heilongjiang Provincial Museum to discuss from three aspects of "developing film and television variety shows, creating digital exhibition space, and developing museum culture IP suitable for new media communication". The research shows that the spread and development of new media and new technology is an important motivation to promote the development and promotion of museum cultural and creative products, and is also an important field for the future development of museum cultural and creative industry.

Keywords
New media; Cultural and creative products; Digitization; IP

Introduction

With the development of new technologies such as new media, big data, artificial intelligence, cloud computing, virtual reality and augmented reality, the development of cultural and creative

works in museums has integrated new ideas and concepts of digital development. The development and design of cultural and creative products in major museums in China have successively started the digital mode and achieved some achievements. However, the development of cultural and creative works in museums is not balanced. The Heilongjiang Provincial Museum has also been exploring the process of digitalization in recent years, but the development and design of cultural and creative products in the direction of new media is still in the preliminary stage of exploration. "Cultural Creative Products" mentioned in the article mainly refer to cultural creative products produced by the integration and development of new media and museum cultural resources, including traditional tangible cultural creative products and new intangible cultural creative products. This article will start from the cultural resources of Heilongjiang Provincial Museum, from the three directions of "development of film and television variety shows, construction of museum digital space, and creation of museum cultural IP suitable for new media communication", and elaborate the development strategy of Heilongjiang Provincial Museum's cultural and creative products in the new media era., to promote the design practice of cultural and creative products and the development of cultural and cultural events. At the same time, we can have a deep understanding and grasp of the path and trend of the integration development of domestic and foreign cultural creative products and new media.

Museum Cultural Creation in the New Media Environment

Compared with traditional media, new media has a wide range of connotations and denotations, and features such as timeliness, immediacy, interactivity, digitalization, virtualization and nonlinearity. The mass media communication is one-to-many and one-way, while the new media communication is many-to-many, and the communication mode is personalized and two-way interaction (Wei, 2018). New media applies big data and network technology to summarize and integrate network information such as computer information, radio communication and satellite technology system, and finally presents information to the public through terminal devices such as mobile phones, tablet computers and TV screens (Mao, 2021).

The Relationship between New Media and the Development of Museum Cultural and Creative Products

Museum cultural and creative works are sold in stores or online platforms. It is a collection of modeling, function, artistic design, production technology in one of the special goods, with ornamental, practical and commemorative. In a narrow sense, museum cultural and creative products refer to tangible cultural and creative products sold in museum stores, e-commerce platforms or exhibitions, such as publications, copies of cultural relics and various products with dual functional and cultural values. For example, on the online sales platform of the British Museum, the cultural and

creative products are divided into seven categories: reproductions, jewelry, fashion, books, printing, household products and children's products, all of which are traditional tangible cultural and creative products.

With the development of new media and high technology, museum cultural and creative industry presents a diversified development trend, resulting in a large number of digital products. Museums develop many broad cultural and creative products around the collection resources and cultural IP, such as the digital collection resources released by the museum, the museum film and television programs, the museum digital experience, the museum APP, the museum animation games, the museum digital education activities, and so on. At present, the number of museum cultural and creative products in the broad sense is far less than that in the narrow sense. However, from the perspective of future digital development trend, generalized museum cultural and creative products have great development space and will become the future development direction (Chen, 2019). For example, the Smithsonian Institution in the United States has released 2.8 million high-resolution images on an open online platform, encouraging the public to view and recreate the content. In 2017, the Met made 375,000 images of works of art available to the public for free, and anyone can download them from the museum's website as well as from the museum's partner sites like Wikipedia. These shared digital collection resources are museum cultural and creative products in a broad sense.

Development Status of Museum Cultural and Creative Products in the Era of New Media

Apart from China, the development, design, production and sales of museum literary works have formed a mature industrial chain with the intervention of new media. The income generated by the cultural and creative works of some large museums accounts for a large proportion of the national economy. Therefore, the government encourages museums to develop cultural and creative industries, and supports the connection between new media and museums' industries. Museums, international airports, and large commercial spaces have added museum stores, as well as online sales platforms (Zhou, He & Yuan, 2020). The integration of the development of cultural and creative works in foreign museums with new media has promoted the economic growth of regions and countries and enhanced the soft power of the whole country.

In recent years, museum cultural and creative products have been more and more popular with the domestic public. The Museum of China is committed to exploring the path of integration between traditional cultural and creative industries and new media. The development of cultural and creative products has achieved good results so far, among which the development of cultural and creative products in the Forbidden City is particularly noticeable. In addition, the Suzhou Museum, Shanghai Museum and other museums have also achieved great achievements. For example, Suzhou AR Museum intelligent viewing platform, based on augmented reality technology, provides the public

with a new digital exhibition viewing experience.

Development Status of Cultural and Creative Products in Heilongjiang Provincial Museums

Heilongjiang Provincial Museum is a national first-class museum, which is a comprehensive museum for collecting, protecting, researching and displaying the history and culture, natural resources and artworks of Heilongjiang Province.

Overview of Collection Resources of Heilongjiang Provincial Museum

Heilongjiang Provincial Museum has more than 620,000 pieces of various collections, including four series of history, nature, art and documents and 52 categories, among which 12,754 pieces are first-grade national items, 6,725 pieces are second-grade items and 14,604 pieces are third-grade items, all of which have typical local characteristics. Among the more than 70,000 historical relics collected in the museum are the fossil skull of Jalai Nur people, the bone carving eagle head, the small pottery pig, the triplet jade and so on, all of which are of great significance for historical research.

National treasures, such as the bronze sitting dragon, the landscape human objective lens, stone carvings and other treasures of Jin Dynasty, show the cultural integration and development of the multi-ethnic, multi-regional and multi-civilization Chinese nation. The silk garments with the characteristics of northern nomads excavated from the tomb of King Jin Qi filled the blank of the costume history of the Jin Dynasty in China. In addition, there are calligraphy inscriptions, gold and silver ware, Buddha statues, snuff bottles and other categories of collections: the Tang Bohai Heavenly Gate Army Seal, the Tang Bohai Small Golden Buddha, the Southern Song “Silkworm Weaving Map”, the Southern Song “Orchid Pavilion Preface” scroll, the Southern Song “Bucket Oar Map”, the Qing Dynasty “Western Regions Map”.

The Heilongjiang Provincial Museum has more than 130,000 pieces of various natural collections, such as Quaternary woolly rhinoceros skeleton fossils, flat-headed hadrosauron skeleton fossils, mammoth skeleton fossils, and Northeast bison skeleton fossils. Among other series of specimens such as minerals, soils, plants, amphibians, birds, mammals, etc., more than 90 species are national class I and class II key protected animals and specimens of rare animals and plants.

Heilongjiang Provincial Museum also has a large collection of modern and contemporary art works, the most representative of which are the paintings and calligraphy of Qi Baishi, Xu Beihong and Pan Tianshou, as well as the calligraphy and seal cutting and color prints of Beidahuang by Deng

Sanmu. Most of the works created by the art master Deng Sanmu are now collected in Heilongjiang Provincial Museum. In addition, there are many precious documents and materials in Heilongjiang Provincial Museum, including nearly 370,000 pieces of Chinese, Russian, Japanese, English, German, French and other documents, including books, periodicals and newspapers. Among them, the original "Middle East Railway Pictorial Albums" is the most precious, which provides important materials for the study of the century-old history and culture of Harbin.

Development Status of Cultural and Creative Products in Heilongjiang Provincial Museums

The cultural and creative products of Heilongjiang Provincial Museum are mainly publications, which are the collection of cultural relics and picture albums and related academic research results. Among them, "The Complete Works of Deng Sanmu" is by far the most valuable cultural and creative works in the museum. The paper books and e-books of the Museum of Russian Overseas Chinese are a combination of traditional media and new media. The content is the same, with electronic media adding interaction, background music and audio explanations. Heilongjiang Provincial Museum also has its official website, WeChat, Weibo and other social media platforms. During the epidemic prevention and control period, the WeChat platform launched a 360° "Panoramic Tour". Among them, there are nearly 30 exhibitions in the museum, such as "Yu Zhixue Art Museum", "Ice Print Art Exhibition", "Paleontology of Ice Age" and so on. In general, Heilongjiang Museums still has great room for improvement in the development of new media cultural and creative products and the application of new media technology.

Development Path of Cultural and Creative Products of Heilongjiang Provincial Museum from the Perspective of New Media

With the advancement of new media and information technology, the Heilongjiang Provincial Museum has released some new digital cultural and creative products, including video documentaries, virtual exhibition halls and online exhibitions. As the preliminary practice of digital cultural and creative products in museums, the diversified development of cultural and creative products should be carried out from the three perspectives of "participating in the production of film and television variety shows, building digital exhibition space, and shaping cultural IP adapted to new media and multiple media".

Develop Film and Television Shows

Movies made with the museum and its cultural relics, stories and characters as elements have already begun operations in Europe and the United States. In 2006, a fantasy film "Night at the Museum" produced by 20th Century Fox Film Corporation was produced by the film company in coop-

eration with the American Museum of Natural History. The third part of the Smithsonian Museum and the British Museum participated in the shooting. The global popularity of the film has increased the visibility of the museum and expanded the spread of museum culture. The domestic film and television variety shows of related museums have attracted widespread public attention starting from "National Treasure", which is also a classic cooperation of Chinese museums in the field of film and television programs. 2016 "Masters in the Forbidden City" received a warm welcome from the audience. It narrated from the perspective of cultural relic restorer and attracted a large number of young audiences. It was selected as one of the top ten most influential documentaries in China in 2016. In 2018, "If the National Treasure Can Speak" each episode tells about a cultural relic in 5 minutes, introduces the Chinese spirit, Chinese aesthetics and Chinese values behind it, and leads the audience to understand Chinese culture. The exquisite short video documentary is suitable for fragmented reading in the Internet age, and provides an opportunity and platform for young people to learn about museum culture. These documentaries brought the stories of museum collections and museum people into the public eye. Compared with traditional museum cultural and creative products, these documentaries have the characteristics of strong influence and wide dissemination.



Figure 1. The documentary "Masters in the Forbidden City"

The Heilongjiang Provincial Museum has successively launched the "Heilongjiang Museum Collection" series of documentaries in 2017, which has received good response. The narrators showed the regional culture and cultural relics of Heilongjiang in the form of audio. Since its launch, this program has been released for more than 200 issues. The development of the Heilongjiang Museum in film and television programs also needs to combine more media forces and social platforms, use new media technology to enhance the fun of the form and the innovation of content, and attract more audiences of different ages.



Figure 2. The documentary "Heilongjiang Museum Collection"

Build Digital Museum Space

With the continuous development of information technology, digital museums, virtual reality, augmented reality, big data analysis and 3D printing technology have become opportunities for the development of museum cultural and creative products. Museums in developed countries took the lead in digital innovation in the 1990s, building digital applications such as collection information databases and virtual museums. Nowadays, new media technology has expanded to the field of interaction between exhibitions and the public, and museums around the world are opening up the development trend of digital communication with a high-speed and diversified model. Google started to implement the "Art Project" in 2011, and cooperated with museums around the world to use Google Street View technology to photograph the actual scenes inside the museums, realizing cultural sharing. 2020 is the 150th anniversary of the founding of the Metropolitan Museum of Art in New York, USA. Under the influence of the epidemic, the 150th anniversary celebration will also be moved online. Its interactive online exhibition projects include "5,000 Years of Art", "Metropolis 360° Project", "Explore Museum at Home" and audio guides.

The Chinese Museum has a huge collection of resources, and the types and numbers of cultural relics are extremely rich. In particular, some small museums in remote locations have profound cultural heritage and precious cultural relics, but their cultural dissemination is still restricted (Wang, 2020). In addition, it is difficult for many domestic citizens to visit the exhibition across regions, which also affects the spread of traditional culture and high-quality culture. Therefore, digital exhibitions have become important museum cultural products, which can be interactively shared and experienced across time and space in real time. The Palace Museum is one of the earliest museums in China that opened virtual exhibitions. Since 2013, the Forbidden City has successively developed boutique mobile apps such as "Yinzhen Beauty Figure", "Daily Forbidden City", "Han Xizai Night Banquet" and other fine mobile apps. This APP integrates historical knowledge, creative design and fun interaction, and has gained a high number of downloads by users.

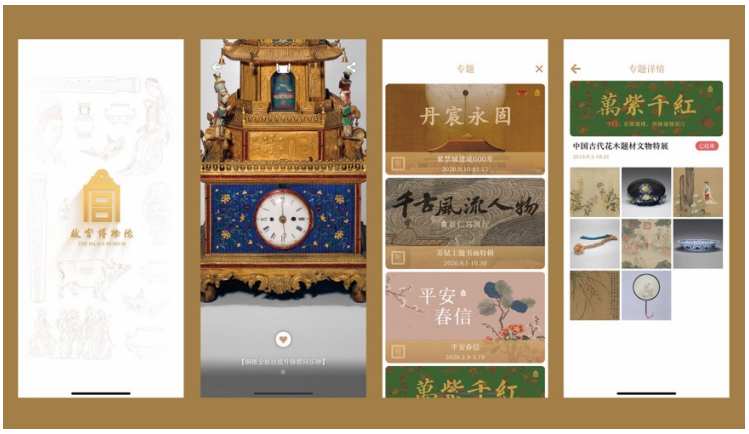


Figure 3. The interface design of the "Daily Forbidden City" App

During the Spring Festival of 2021, the Heilongjiang Provincial Museum will launch an online exhibition, using Pan Tianshou's works, Cheng Shifa's works, and Beidahuang prints as basic materials, and through page display technology, to achieve the interactive experience needs of the works and the audience. The online exhibition is based on 6 cultural relics, and uses a combination of video + commentary + cultural relics 3D model as a technical means to meet the audience's needs for listening, watching and appreciating the exhibition. The Heilongjiang Provincial Museum still has a large number of collections, cultural relic stories, and research results that have not yet been developed. In the future, a large number of formal collections, cultural relic stories and research results will bring more colorful online exhibitions to the public through virtual reality and other technologies.

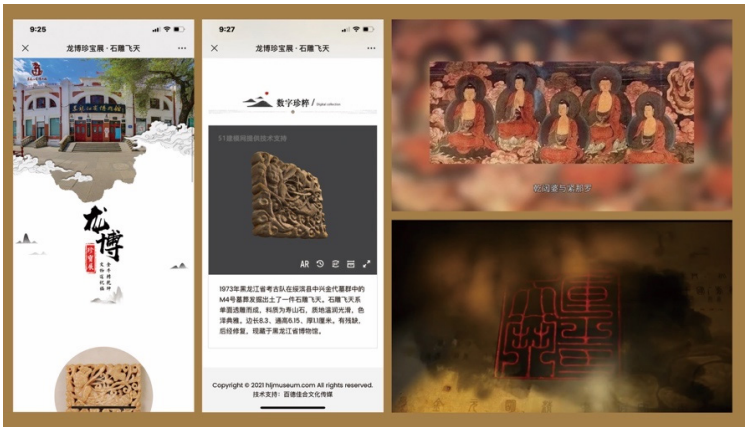


Figure 4. Online exhibition of Heilongjiang Provincial Museum Collection

Create Museum Cultural IP Suitable for New Media

In 2007, the World Intellectual Property Organization (WIPO) proposed in the Guide to the Management of Museums' Intellectual Property Rights that there are five kinds of intellectual property

rights of museums, including copyright, trademark, patent, network domain name and industrial design (Han, 2014). At present, the scope of museum IP has been extensively expanded, such as games, animation, film and television, etc., and digital cultural and creative products with cross-boundary cooperation advantages applicable to multiple media have been produced. Large-scale museums in Europe and the United States have built their own industrial chain from research and development, design, production, sales and other links in the development of such cultural and creative product IP. For example, the British Museum, its collection of cultural relics resources, the British Museum itself and London, where the museum is located, have all become the source of inspiration for IP development. Its cultural connotation, cultural stories, regional characteristics and local customs are also the soul of IP. In 2018, the British Museum Mobile Experience Pavilion was held at the LCM Cihui Plaza in Shanghai, where you can enjoy the cross-border cooperation between the super heavyweight IP of the British Museum and Chinese enterprises. The public will be able to experience looking for cultural relics in the virtual reality IP character, so that they will buy the museum's IP cultural and creative works.



Figure 5. British Museum Mobile Experience Hall

In terms of IP shaping and promotion, a typical case is Guanfu Museum. The Guanfu Museum has created a "Guanfu Cat" that is deeply loved by the public, and has opened an official website column and social media accounts. At the same time, the new media platform is used for multi-channel promotion to expand the and generate revenue for the museum (Liu, Jia & Zhao, 2020). In the field of cultural IP development, Heilongjiang Museum still needs to be discussed in depth. For example, the rich collections, artworks, natural and historical resources, cultural relic stories, customs, etc. in the museum are all sources of inspiration for the creation of the museum's IP.

Conclusion

Under the trend of applying new media and new technology to develop museum culture at home and abroad, this paper constructs the concept of museum cultural and creative product develop-

ment, and theoretically analyzes the influence of new media on museum cultural and creative product design and the future development trend. Studies have shown that, in the context of new media, the development of cultural and creative products in Heilongjiang Museum requires in-depth discussions in three directions: first, the development of film and television variety shows, second, the creation of a museum digital space, and finally, the design and development of new media communication Museum cultural IP. This article systematically expounds the integrated development concept of new media and cultural and creative product design from an academic perspective, and discusses how Heilongjiang Provincial Museum uses new media as an opportunity to develop cultural and creative products from a practical perspective. The research conclusions have established the direction for the development of the museum's cultural and creative industry, and have inspiring significance for museum practitioners, scientific researchers, designers, and related courses and competitions of cultural and creative products in colleges and universities.

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