The Functions of Dissemination and Their Manifestation in the Profession of Museum Curators: A Case Study of Short Video Platforms

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Abstract

This paper, framed within the social function theory of communication, explores how museum curators use short video platforms to fulfill their professional responsibilities and communication missions. The study finds that short video platforms effectively expand the curators' practical capabilities in the four major communication functions: environmental monitoring, social connection and coordination, heritage transmission, and entertainment. By analyzing cases such as the Palace Museum and the British Museum, this paper systematically discusses curators' innovative practices in content creation, community building, and cultural education, while also deeply examining challenges such as content homogenization, copyright protection, and technological updates, and proposing corresponding optimization strategies. This research provides a theoretical perspective for understanding the professional role of museum curators in the digital age and offers practical references for museums' communication innovation in the digital era.

Keywords

Communication function, Museum curators, Short video platforms, Cultural communication, Heritage transmission

Introduction

In the era of integrated media, short video platforms, characterized by their fragmented content, strong interactivity, and rapid dissemination, have become vital carriers for information exchange, significantly reshaping how cultural institutions engage with the public. As core entities responsible for historical and cultural inheritance, museums are actively transforming their communication strategies from traditional physical displays to dynamic digital interactions [1]. This shift is particularly evident in China, where, as of December 2023, short video users have reached 1.053 billion, accounting for a 96.4% usage rate among internet users (*Statistical Report on the Development of China's Internet Network*). Against this backdrop, the emerging role of the "museum manager" - a compound professional integrating traditional curation with modern communication concepts, encompassing management, planning, communication, and community operation - has gained prominence. The Palace Museum serves as a pioneering example in this digital transformation. It has made strategic use of platforms like Douyin, which has transcended the spatiotemporal limitations of its physical space. Through creative content initiatives such as "The First Snow in the Forbidden City", "The Cats of the Palace Museum", and behind-the-scenes insights into artifact restoration, the museum has successfully attracted tens of millions of young followers. These efforts have thereby reshaped public perception of the ancient institution [2]. According to classic communication theory, mass communication fulfills basic social functions including environmental surveillance, social correlation and coordination, cultural heritage transmission, and entertainment. These core functions align closely with the missions of modern museums [3]. Younger generations are increasingly relying on short videos for information and cultural enrichment. This trend is supported by data showing that museum-related video play counts on Douyin surged to 51.340 billion in the past year, with the Palace Museum emerging as the most popular and frequently visited museum on the platform. In this context, traditional museum

communication is confronted with dual challenges. These challenges involve overcoming the constraints of physical space to expand audience reach and improving low communication efficiency to boost cultural influence [4]. Grounded in the theory of communication functions, this study systematically examines how museum managers leverage short video platforms to perform these essential functions. It also analyzes practical challenges such as content homogenization and the balance between storytelling and promotional needs, and proposes optimized pathways for development. The research innovatively integrates classical theoretical frameworks with contemporary professional practices, offering new perspectives for cultural communication studies in the digital age through a constructed analytical framework that bridges theory and application.

Literature review and theoretical foundation

The evolution of theories on the social functions of communication

Harold Lasswell, a pioneer in communication, proposed in 1948 the three basic social functions of communication: environmental surveillance, social connection and coordination, and social heritage transmission. In 1959, Charles Wright supplemented the entertainment function on this basis, thus refining the four theoretical frameworks of social functions in communication.

Environmental monitoring function: This refers to the mass media helping the public perceive environmental changes and external risks through continuous information transmission. Lasswell likened this to a "social radar", providing a basis for decision-making to members of society. This function involves using various information to understand major events and changes in the external world, aiming to adapt to environmental changes.

Social connection and coordination function: This emphasizes the role of communication in connecting various parts of society and promoting consensus formation. As Noelle-Neumann pointed out, it influences social consensus by creating a "climate of opinion" [5]. This function is manifested in establishing social relationships in various forms, and the coordination of various social relationships also relies on communication, making it a link for relationships in society.

Social heritage transmission function: This is embodied in the intergenerational transmission of knowledge, values, and historical experience. Stuart Hall's encoding-decoding theory further deepens the connotation of this function, emphasizing the construction of meaning in the process of transmission. This function enables the passing down of social and cultural heritage across generations, enhancing social cohesion [6]. It is also reflected in the dissemination, inheritance, and creation of excellent culture.

Entertainment function: This focuses on the role of communication in providing entertainment and enriching spiritual life. Its position in contemporary media consumption is becoming increasingly prominent. In the context of tourism communication, for example, entertainment is an important component of spiritual consumption.

This theoretical framework provides a solid foundation for understanding the social role of mass communication. Furthermore, with the deepening of digitalization, networking, and intelligence, the communication paradigm is evolving. Concepts are expanding from information transmission and ritual construction to scenarios, and the paradigm is evolving into a connection paradigm based on non-linear, multi-node, and strong interaction logic in the digital format and ecological model of virtual-real interaction. This evolutionary perspective helps situate the classical theory within contemporary digital contexts.

Current status of museum communication research

Traditional museology research mainly focuses on the basic functions of cultural relics collection, conservation research, and exhibition display. With the introduction of communication theory, the communication function of museums has been increasingly valued. American museologist George Brown Goode proposed as early as the 19th century that museums should be "people's universities", emphasizing their educational and disseminating functions [7,8].

Domestic museum communication research has made significant progress in recent years. Short video platforms play a vital role in the dissemination of museums' historical and cultural content. These platforms break the physical and temporal constraints of

traditional communication approaches. Paquienseguy et al. took the Douyin platform as an example to systematically analyze the development status of short videos in museums and put forward suggestions for content innovation and technology application [9].

These studies provide a basis for understanding museum communication, but most are carried out from a practical level and lack systematic theoretical framework support. Especially in the context of the rise of short video platforms, research on the communication function of the emerging professional role of museum managers is still insufficient. The application of communication function theory in museums needs further exploration in the digital era.

Theory of professional communicators and museum managers

From the perspective of communication, professional communicators refer to "those social roles who specialize in communication and take communication as their profession". Compared with ordinary communicators, professional communicators have the characteristics of representativeness, autonomy, professionalism, collectiveness, and complexity [10,11]. As professional practitioners in the field of cultural communication, museum managers have the core characteristics of professional communicators: They carry out communication activities on behalf of museum institutions; have autonomy in content planning and form selection; require professional knowledge and skills; rely on teamwork; and face a complex communication environment. This professional role requires "collecting, processing, transmitting information, handling feedback, adjusting communication behavior", and shares similar tasks with traditional media workers [12]. In the digital age, information dissemination subjects are more diverse, and the communication paradigm emphasizes socialized production and platform-based circulation mechanisms. This places higher demands on museum managers' adaptability and innovative capabilities in this new ecology.

The manifestation of communication functions in the profession of museum curators

Environmental monitoring function

On short video platforms, museum curators play the role of "environmental monitors", dynamically grasping public cultural preferences through the platform's personalized recommendation algorithms and real-time interaction data (likes, comments, shares, etc.). This data-driven monitoring approach allows curators to promptly understand public reactions to cultural content and accordingly adjust their communication strategies.

For example, the practice of the Palace Museum shows that by monitoring high engagement on topics such as #Snow in the Forbidden City# and #Cultural Relic Restoration Process#, curators discovered the public's strong interest in details of court life and historical scene reconstructions [13]. Data indicates that videos under the hashtag #Snow in the Forbidden City# have accumulated over 200 million views on Douyin, demonstrating significant audience interest. Based on these insights, they adjusted their content strategy and planned more short videos on related topics. In doing so, they not only shaped an authoritative yet approachable brand image but also satisfied the audience's curiosity about the stories behind cultural relics by showcasing restoration processes.

The environmental monitoring function also manifests in the keen grasp of social hotspots and cultural trends. Curators follow popular platform topics and trending content formats to timely adjust strategies and combine historical cultural content with contemporary social issues. For instance, during traditional festivals, curators create content introducing cultural relics with popular elements, aligning with current trends while effectively spreading cultural knowledge. Henan Museum, for example, successfully integrated traditional cultural relics with contemporary popular culture by launching a series of short videos during the Mid-Autumn Festival that combined bronze artifacts with mooncake culture, resulting in over 50,000 shares.

Additionally, curators use data analytics tools to monitor user behavior, understanding audience content preferences and active time periods, thus achieving precise content delivery and timed releases, enhancing the targeting and effectiveness of communication. This data- driven environmental monitoring transforms museums from passive cultural suppliers into proactive responders to cultural demand [14].

Social connection and coordination function

The social nature of short video platforms provides an ideal tool for museum curators to perform social

connection and coordination functions. Curators shift from being one-way information publishers to builders and coordinators of cultural communities, using methods such as setting challenges, initiating interactive Questions and Answers (Q&A) sessions, and encouraging user-generated content (UGC), gathering dispersed audiences into interest communities centered on museum culture.

The Palace Museum's practice demonstrates the successful application of this function in China. Through interactive challenges like #Time Travel through the Forbidden City# and #Treasure Hunt in the Palace Museum#, they have gathered a massive community of cultural enthusiasts. The #I Restore Cultural Relics in the Palace Museum# challenge alone attracted over 100,000 user-generated videos, facilitating shared knowledge construction and forming an active community around cultural heritage preservation [15]. This practice shares similar objectives with the British Museum's use of short video platforms for interactive Q&A sessions. In fact, both institutions coordinate diverse audience understandings of historical events through guided interactions in comment sections on these platforms. These intentional interactions work to strengthen positive cultural values and enhance community members' sense of cultural belonging and recognition.

Curators also reinforce community connections by planning themed challenges like #Tracing the Origins of Cultural Relics# and #Historical Reenactments#. These activities stimulate user engagement, promote communication and sharing among users, and effectively enhance community cohesion. The National Museum of China organized an online challenge encouraging users to imitate expressions of figures in cultural relics, generating over 80,000 participant videos within a week and significantly boosting the museum's social media engagement.

Drawing on the experience of media convergence, curators can create a "two-way closed-loop" traffic conversion path, enhancing participation and a sense of belonging through guiding users to watch and record simultaneously or setting interactive lotteries, further deepening the social connection function.

Social heritage inheritance function

Social heritage inheritance is the core mission of the museum, and the short video platform has given it a new narrative ability. The museum manager takes advantage of the characteristics of short videos to translate profound historical content into a "fragmented but structured" form. They also transform static and esoteric exhibit information into vivid, easy-to-understand dynamic stories through knowledge point decomposition, sitcom-style dramatizations, cultural relic animations and other creative forms [16].

The Palace Museum's *Stories Behind the Palace Museum's Cultural Relics* series exemplifies this approach, transforming complex historical narratives into engaging content. A 3-minute video detailing the creation background and historical significance of the *Along the River During the Qingming Festival* scroll, supplemented with animated illustrations of its details, has accumulated over 20 million views, allowing young audiences to acquire systematic knowledge in fragmented time periods. Similarly, the Hunan Museum created a series of short videos about the Mawangdui Han Tomb artifacts using animation technology, making the esoteric archaeological knowledge accessible and entertaining, with the complete series receiving over 10 million plays.

This innovative narrative not only does not weaken the depth of inheritance, but expands the breadth of inheritance by lowering the cognitive threshold. When young audiences take the initiative to consult more information because of interesting cultural relics short videos, short videos successfully play the role of "cultural entrance", promoting cultural inheritance between generations and deepening national identity. Research shows that after the Shanghai Museum launched its short video series, visits to its official website from young users aged 18-25 increased by 45%, and borrowing rates of related historical books in public libraries also saw a significant rise.

In the process of inheritance, the organizer pays special attention to the construction of cultural identity. It systematically presents cultural achievements or the evolution of certain types of cultural relics in a specific historical period through a series of short videos. In this way, it helps the audience establish a systematic knowledge framework from fragmented content and further enhance their cultural self-confidence.

Entertainment function: Balance knowledge and fun to engage the audience

In the era of attention economy, entertainment functions have become an important part of effective communication. Museum managers need to find a balance between academic rigor and formal interest, and the technical tools provided by short video platforms such as music, special effects and quick editing create conditions for this.

The Palace Museum innovatively employs "personified cultural relic" narratives, such as having Emperor Qianlong "personally" introduce his collections using modern internet language and special effects, enhancing entertainment while maintaining historical authenticity. The *Cats of the Palace Museum* series, showcasing court life from a pet's perspective, received over 8 million likes, successfully achieving the lighthearted dissemination of cultural knowledge. The Sichuan Museum capitalized on the popularity of the gaming phenomenon *Honor of Kings* by creating a series of short videos that compare and contrast ancient weapons with game characters, resulting in over 30,000 shares and significantly increasing youth engagement.

In order to better adapt to the characteristics of different online platforms, the manager will differentiate the same content accordingly. For example, the full version is released on its own official platform. Meanwhile, on platforms such as Douyin, it is compressed to 10 seconds, retaining the core picture and changing to a vertical screen format, which is in line with the viewing habits of mobile terminals. This "sense of contrast" that presents serious content in a relaxed way significantly enhances the overall attractiveness of communication. Through anthropomorphic short dramas of cultural relics and interesting dialogues with historical figures, the audience can naturally accept rich cultural knowledge in entertainment. The manager also makes good use of the interactive functions of the platform to enhance the fun and user participation through voting to select cultural relics, challenge imitation of cultural relics expressions, filter "crossing" and similar other interactive forms.

When performing the entertainment function, the manager always adheres to the mission of cultural communication. Through ingenious content design, the manager integrates knowledge in entertainment and conveys value in fun, enabling the audience to gain enlightenment in a relaxed atmosphere. This balance is a reflection of its professionalism.

Challenges and optimization paths

Analysis of practical challenges

The phenomenon of content homogenization is the main problem of the current museum short video dissemination. According to industry data, over 60% of provincial-level museums have launched "Treasure of the Town Hall" introduction series on short video platforms, resulting in significant content convergence. This trend is particularly evident in the presentation formats, where many museums rely heavily on similar narrative styles and visual approaches without conducting in-depth excavation of their own unique collections and regional cultural characteristics. For instance, while the Palace Museum's *Snow in the Forbidden City* series gained popularity, numerous museums subsequently released similar seasonal content without developing distinctive features, leading to audience aesthetic fatigue. This homogenization not only reduces the audience's interest in viewing but also negatively affects the museums' brand image and recognition.

The issue of copyright protection presents a considerable challenge in the use of short video platforms for cultural communication. Statistics from the China Online Video Association indicate that approximately 32% of museums have encountered copyright disputes when using third-party materials such as images and audio in their content creation. Moreover, the unauthorized reproduction and re-editing of original museum videos by other accounts have become increasingly prevalent. A prominent case involved a well-known history content creator re-editing the National Museum of China's exclusive cultural relic explanation videos without authorization, garnering over 10 million views while significantly distorting the original information and damaging the museum's credibility.

The pressure of technological updates consistently tests the adaptability of museum managers. With short video platform technology undergoing rapid iteration, new special effects and interactive forms like AR/VR applications emerge frequently. Industry reports show that museum short video content incorporating AR

technology achieves an average interaction rate 3.5 times higher than conventional content. However, surveys indicate that only about 25% of museums have established dedicated technical teams to keep pace with these technological advancements. If museums cannot continuously learn and apply new technologies, their content production standards will struggle to meet users' escalating aesthetic and experience requirements.

Talent and resource constraints represent another practical challenge for museums in short video dissemination. The production of high-quality short videos requires coordinated efforts across multiple stages including creativity, planning, shooting, and editing, necessitating corresponding investments in human and material resources. Data reveals that producing a high-quality museum short video typically requires 5-7 professionals and takes 3-5 working days. For many small and medium-sized museums, the lack of professional talent and sufficient budgets significantly restricts their communication effectiveness on short video platforms. Statistics show that among museums with an annual operating budget under 5 million yuan, nearly 80% report insufficient funding for short video production.

Optimization strategy suggestions

In terms of content innovation, museums should conduct deeper exploration of their collections' characteristics and unique narratives, moving beyond the conventional "Treasure of the Town Hall" approach to emphasize the historical stories behind these artifacts. By employing modern technologies such as animation and VR, or creatively integrating contemporary popular culture elements, museums can develop recognizable and differentiated content to avoid homogenization. The Palace Museum's successful integration of traditional cultural elements with popular internet trends demonstrates this approach, with one series achieving over 10 million interactions by combining ancient paintings with modern music rhythms.

At the copyright management level, establishing a comprehensive content review mechanism is essential to ensure all published materials originate from legitimate sources. Museums should develop cooperative frameworks with copyright owners to clarify norms for secondary creation, thereby effectively protecting their rights and interests while promoting

content dissemination. The implementation of digital watermarking technology and the establishment of a "white list" authorization mechanism for high-quality creators have proven effective, as demonstrated by the Shanghai Museum's copyright management system which reduced unauthorized use by 70% within six months.

Regarding technical capability enhancement, museums should continuously improve their teams' technical literacy through systematic professional training and strategic partnerships with specialized institutions. Focusing on the application of emerging technologies including 5G, AI, and VR/AR in short video creation can drive content upgrades through technological innovation, maintaining communication vitality. The Nanjing Museum's collaboration with local universities to establish a digital cultural heritage laboratory serves as an exemplary model, having cultivated over 100 digital communication professionals within two years while developing multiple award-winning VR content pieces.

For data-driven decision-making, establishing a scientific evaluation system is recommended. Through continuous monitoring and analysis of key indicators such as view counts, completion rates, and interaction rates, museums can gain profound insights into user preferences and behavioral characteristics, providing data support for optimizing content creation and communication strategies. The Hunan Museum's implementation of a data analysis platform exemplifies this approach, enabling real-time monitoring of 15 core indicators and facilitating weekly content optimization meetings that increased their average video completion rate from 35% to 65% within three months. Additionally, establishing user portrait systems and personalized recommendation mechanisms based on data analysis can further enhance communication precision and effectiveness.

Conclusion

Research conclusions

Based on the classical social function theory of communication, this study systematically analyzes how the profession of museum manager uses new media technology to fulfill its communication mission in the context of the rise of short video platforms. Research shows that short video platforms have greatly expanded

and deepened the professional connotation of museum managers, with the Palace Museum serving as a representative case where its Douyin account has amassed over 10 million followers and generated a cumulative 2.8 billion video views, demonstrating the significant potential of this emerging communication channel.

Firstly, short video platforms enable managers to perform environmental monitoring functions more efficiently by gaining insights into public needs through data analysis and achieving precise communication. The Palace Museum's content strategy adjustment based on monitoring user engagement with topics like #Snow in the Forbidden City#, which led to a 45% increase in follower interaction rates, exemplifies this advantage. Secondly, the platform's strong interactivity enhances the social connection and coordination function, helping managers build active cultural communities and boost public participation. The #I Restore Cultural Relics in the Palace Museum# challenge attracted over 100,000 user-generated videos, creating a vibrant community of cultural heritage enthusiasts. Thirdly, the innovative narrative forms of short videos enable the social heritage inheritance function to be realized in a more vivid and extensive way in the new era. The Palace Museum's *Stories Behind the Palace Museum's Cultural Relics* series, with over 20 million views per episode, successfully transmits profound historical knowledge to young audiences. Finally, the clever use of entertainment functions allows historical and cultural knowledge to reach wider young audiences, as evidenced by the *Cats of the Palace Museum* series receiving over 8 million likes while maintaining educational value.

The study finds that the process of museum managers performing communication functions through short video platforms reflects the comprehensive quality of all-media operation. They not only need content planning and creation capabilities but also must master skills in data analysis, community operation, and technology application. In this sense, museum managers essentially serve as all-media operators in the cultural and museum fields, transcending traditional media boundaries to promote continuous innovation and development in museum cultural communication. This is particularly evident in cases like the Palace Museum,

where the management team includes professionals specializing in data analysis, social media management, and digital content creation, working collaboratively to maintain the institution's leading position in digital communication.

Theoretical contributions and practical enlightenment

In terms of theoretical contributions, this study innovatively combines communication's social function theory with museum communication practice, expanding the application boundaries of communication theory and providing a new perspective for understanding museum communication in the digital age. The analytical framework constructed in this research organically integrates classical communication theory with contemporary media practice, offering a theoretical basis for subsequent studies. Specifically, it enriches Lasswell's communication function theory by verifying its applicability and effectiveness in the context of museum short video communication, while also providing theoretical support for the professional development of "museum managers" as an emerging digital-age profession.

Regarding practical enlightenment, the research results provide specific guidance for the career development and capability enhancement of museum managers, while also offering reference pathways for the digital transformation of museum institutions. For museum managers, it is crucial to cultivate comprehensive cross-disciplinary capabilities including content creation, data analysis, community operation, and technology application to better perform communication functions. The Palace Museum's establishment of a digital communication department with specialized teams for content creation, data analysis, and user interaction offers an exemplary model in this regard. For museum institutions, it is necessary to establish organizational structures and talent cultivation mechanisms adapted to the digital age to support managers' professional development. This includes developing systematic training programs focusing on short video content creation, data analysis capabilities, and emerging technology applications, while also establishing incentive mechanisms that encourage innovation and cross-departmental collaboration.

Looking ahead, as artificial intelligence, augmented reality and other technologies continue to develop,

museum communication on short video platforms will embrace more possibilities. Future research could further explore how emerging technologies can empower museum managers to perform communication functions more effectively, while also paying attention to the changing characteristics of audience media consumption and its impact on museum communication strategies. Additionally, with the globalization of short video platforms, comparative studies on the communication practices of museum managers across different cultural contexts will also have important theoretical and practical significance.

Authors' contributions

Hao Lin and Lu Yun contribute equally to the article.

Conflict of Interest

The authors declare no conflict of interest.

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