



Newspaper reports analysis on Chinese Lion Waking Culture from a digital humanity perspective

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Abstract. From a digital humanities perspective, data analysis methods are frequently used to address humanities concerns. Newspaper content has gradually become one of the forms to reflect the degree of attention and survival of non-heritage. In this paper, by using LDA thematic analysis to analyze the data of news reports on Guangdong Lingnan Lion Waking from 1 January 2012 to 31 October 2022, it is found that the Lion Waking reports are mainly composed of the traditional form of the exhibition (23.6%), Digital dissemination of artworks based on IP (25.5%), protection, inheritance, innovation, and development (50.8%), thus analyzing the survival situation and development trend of waking lions and their IP and exploring the communication strategy of waking lions.

Keywords: media coverage; Lion Waking Culture; waking lion IP; dissemination and development; Digital intangible cultural heritage

1 Introduction

As one of the initial projects on the Chinese national intangible cultural heritage list, the Guangdong Lingnan Lion Waking, fusing martial arts, dance, and music, is widespread among overseas Chinese communities¹. In the era of cultural digitization and growing cultural intellectual property significance, intangible cultural heritage (ICH) has found new opportunities. Studying digital protection methods for ICH offers a way to exhibit the genuine essence and conservation of this heritage endeavor². This study uses Latent Dirichlet Allocation (LDA) for analyzing news on the Guangdong Lingnan Lion Waking from January 1, 2012, to October 31, 2022, exploring its survival situation and development trend in the digital age.

2 Literature review

Use of digitized tools and technologies in the development of the cultural heritage has become widespread, art and humanities fields could also benefit from the wide range of digital materials, methodologies, and tools available to researchers³. Within the context of mass communication, the presence and recognition of ICH are intertwined

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with how news reports allocate time and emphasize its importance⁴. People's Republic of China Intangible Culture Heritage Law was carried out in 2011, it mandates news media to promote representative intangible cultural heritage projects and disseminate related knowledge. Consequently, Chinese news media have extensively documented and produced various intangible cultural heritage initiatives⁵. However, there are relatively few studies focusing on news reports related to Guangdong waking lions and their IP. Thus, this study addresses the following questions: (1) What are the main themes that classify the reports on waking lions in traditional media newspapers? (2) How to do a good job in the dissemination of the waking lion's intangible cultural heritage, especially the waking lion IP?

3 Methods

Wisers News is a one-stop solution that integrates news content from major newspapers and magazines in the Greater China region, with more than 30,000,000 news articles in total and more than 500,000 articles updated every month⁶. Therefore, this study uses the Wisers News database as the data source, with the period from 1 January 2012 to 31 October 2022. "Guangdong", "Lion dance" and "Lingnan Lion Waking" were used as keywords to collect samples of news reports related to Guangdong Lingnan Lion Waking, and a total of 658 reports were collected.

In this paper, we adopt the topic modeling approach in machine learning⁷. The LDA model is mainly used to extract the implicit semantics (i.e., topics or concepts) of a given text in an unsupervised manner by mining the intrinsic topic distribution of the text through unsupervised learning⁸. As a qualitative method of scoring coherence, thematic coherence measures the degree of semantic similarity between core keywords related to the topic⁹. As shown in Figure 1, the score of the coherence value is at its highest point when the number of topics is close to 8. Therefore, this study chose $\lambda = 1$ and topic number = 8 for LDA analysis and subsequently obtained the first thirty keywords of the eight groups of topics, and finally generated topic names based on the corresponding keywords. The inter-topic distance is shown in Figure 2.

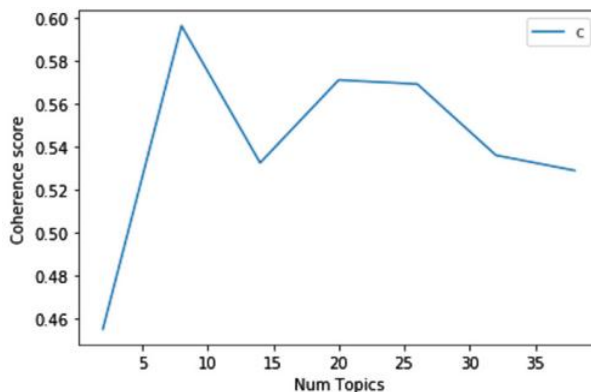


Fig. 1. Consistency scores for different subject numbers

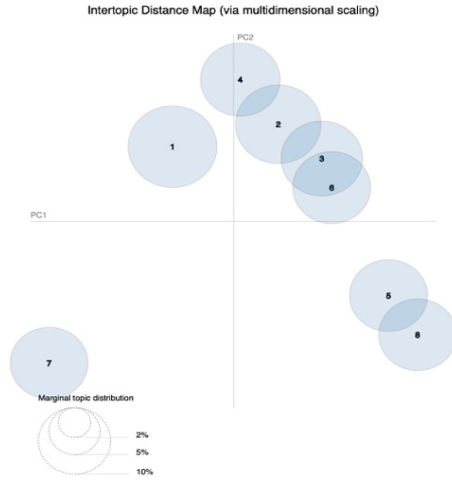


Fig. 2. Topic distribution map

4 Results

The survival status and development trend of the Guangdong Lion show a steady and orderly trend of continuous development, and the media's attention to Guangdong Lion could be summarized into 8 topics, and three themes shown in Table 1.

Table 1. List of theme categories

Theme number	Theme name	Theme percent%	Topic number	Topic name	Topic percent%
1	Competitions and performances in traditional exhibitions	23.6	4	Live performances related to traditional festivals and folk customs	12.1
			8	Local lion waking competitions	11.5
2	Digital dissemination of artworks based on IP	25.5	5	Artistic works of dance	11.6
			2	Film works	13.9
3	Protect, inherit, innovate and develop	50.8	1	Develop, build characteristics and innovate culture	15
			3	Intangible cultural heritage inheritance and protection	12.7
			6	Enterprises and other social forces	11.6
			7	Cross-border cooperation in cultural and tourism fields	11.5

5 Discussion and analysis

For better suggestions on the digital dissemination of Lingnan Lion Waking culture, we have undertaken a comprehensive analysis of the three main topics. The dominant theme comprising 50.8% of the news, “Conservation, Inheritance, and Innovation”, reveals the multi-dimensional facets of Lingnan Lion Waking culture. The protection of ICH emphasizes foundational roots and tradition, while seamlessly integrating innovation to ensure its relevance in modern society. The development of Lingnan Lion Waking has been primarily achieved through industrialization, with enterprises providing technical and financial support. At the same time, the cultural and tourism industries offer avenues for growth, collectively driving the digital dissemination of Lingnan Lion Waking. For example, in 2017, "lion robot" from Guangdong danced in a CCTV special program (as shown in Figure 3), sending auspicious wishes for the New Year to audiences across the country, and harvesting the audience's praise¹⁰.



Fig. 3. Jimu "lion" modeling machine appeared on CCTV

The theme “Digital dissemination of artworks based on IP”underscores modern avenues for sharing Lingnan Lion Waking culture(a total of 25.5%). Using film and television techniques to document and present ICH is an effective means of preservation and inheritance¹¹,the digital proliferation of artworks based on IP has garnered enthusiastic reception from the public, resonating strongly and promoting the inheritance of the lion dance culture among diverse audiences.The animation film "Lion Boy" (as shown in Figure 4) captures the movements of dragon and lion performances with modern technology, highlights the strong resilience of lion dance culture. The dance drama "Waking Lion" is the first dance drama in China with the theme of the national intangible heritage project "Guangdong Lion Awakening"¹², its cIIPs have garnered more than 400,000 views on Internet video platform Bilibili. Digital communication channels fully demonstrates the aesthetic value of the Lingnan lion, and conveys the spirit of resilience, strength, and national awakening.



Fig. 4. The animation film "Lion Boy"

In the theme of “Competition and Performances” (accounting for 23.6%), the enduring charm of Lingnan Lion Waking is showcased through traditional festive events. At the same time, the collective memory established by societal groups about Guangdong Lingnan Lion Waking prompts people to embrace Lingnan Lion Waking from their psychological, attitudinal, and behavioral perspectives. Particularly in recent years, some Lingnan Lion Waking competitions have been held through online showcases, transcending temporal and spatial boundaries and earning widespread acclaim.

6 Conclusion

This study uses machine learning methods to extract three major themes from China's news reports during the decade 2012-2022 and finds the development trend of Guangdong Lingnan Lion Waking culture in the era of digital media. Therefore, the following suggestions are put forward: 1. Innovative product forms, the development of practical, ornamental new lion products in one. 2. Innovate communication content, expand online communication channels, and trigger the audience to take the initiative to carry out secondary communication. 3. Take the lion as the core of creation. In addition to combining with movies、dance dramas and animations, it can also be expanded to new fields such as games and city images to create a diversified IP group.

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