Research on Enhancing the Awareness of the Chinese National Community through Ethnic Music Based on Big Data Technology

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Abstract. Music knows no borders, and ethnic music that goes beyond the mainstream has a cultural dissemination role. It simultaneously promotes cultural confidence and cultural pride among various ethnic groups, stimulates emotional exchanges and cultural integration between ethnic groups, and shapes the awareness of the Chinese national community. This article captures online comment information on ethnic music that has gone beyond the mainstream, employs methods of sentiment analysis and thematic analysis, analyzes the diverse yet integrated characteristics of ethnic music within the Chinese nation, and explores practical paths to help ethnic music go beyond the mainstream. This will be of significant importance for further promoting the dissemination of ethnic cultures.

Keywords: Ethnic Music; Going Beyond the Mainstream; Sentiment Analysis; Dissemination Power.

1   Introduction

China is a unified multi-ethnic country, where the awareness of the Chinese national community serves as the foundation of national unity, the essence of ethnic solidarity, and the soul of spiritual strength. Ethnic music is not only a reflection of the hobbies, cultural traditions, and ideological exchanges of the working people of various ethnic groups in China, but also an essential component of China's outstanding traditional culture. The dissemination and development of ethnic music not only promote the spread of culture with regional and ethnic characteristics, but also effectively enhance the cultural confidence of the Chinese nation.[1]

The current challenges faced by traditional ethnic music culture in the contemporary era and ways to overcome these challenges have been extensively discussed in various studies. Ye Dian argues that under the accelerating backdrop of globalization, it is imperative to strengthen the inheritance and protection of ethnic music to enable it to better adapt to the current world development trends. [2] Yang Zi Shen believes that in the process of developing ethnic music culture, not only should we focus on our own innovation and development, but also on the exchange and integration of different

ethnic cultures. [3] Zhu Sha points out that ethnic music is in a disadvantaged position within popular culture, and innovation is the only development path for ethnic music.[4] Zhai Pei Ting's viewpoint is that traditional music culture of ethnic minorities, as an important component of China's excellent traditional culture, is currently facing many risks and challenges. In the new era, theoretical research on it should be strengthened, and multiple measures should be taken to explore the development path of traditional music culture of ethnic minorities, in order to promote the sustainable development of traditional music culture in China.[5] Liu Yun Xiu believes that ethnic music is an important embodiment of Chinese culture, playing a crucial role in showcasing Chinese excellent culture, strengthening cultural confidence, and fostering a strong sense of the Chinese national community.[6] Liu Jing believes that leveraging high-quality musical and cultural resources to explore the musical history of interaction, exchange, and integration among various ethnic groups, strengthening the construction of a talent pool for outstanding traditional musical and cultural talents, reducing the loss of musical and cultural talents, and establishing a long-term mechanism for national musical culture in forging a strong sense of community among the Chinese nation, will have a positive impact on further excavating and innovating the contemporary value of national musical culture in building the Chinese national community.[7] Building on these previous studies, this paper explores specific measures and methods to promote the dissemination of ethnic music.

2   Ethnic Out-of-the-circle Music Analysis

Utilizing web scraping technology, this study conducted an in-depth analysis of four ethnic songs, "FLY", "Praise of the Tesi River", "Wake" and "Yami" on the NetEase Cloud Music platform. The selection of these songs was based on criteria such as online exposure, their usage as songs for major international events, and the national recognition of the musical groups involved. The data collection period spanned from December 20, 2022, to December 30, 2022, during which 80,000 online comment data were gathered, with 60,000 being deemed valid.

Figure 1 presents a line graph depicting the distribution of comment frequencies for these four ethnic songs on the platform, with the x-axis representing the time of comment posting and the y-axis indicating the number of comments. From this graph, it is evident that "FLY" enjoys the highest popularity, with the largest number of comments and the longest time span. This song reached its peak in 2019 and experienced three subsequent comment surges in 2021 and 2022. "Yami" demonstrated relatively high popularity in 2020, while "Praise of the Tesi River" and "Wake" showed higher popularity in 2022, with relatively stable comment volumes.
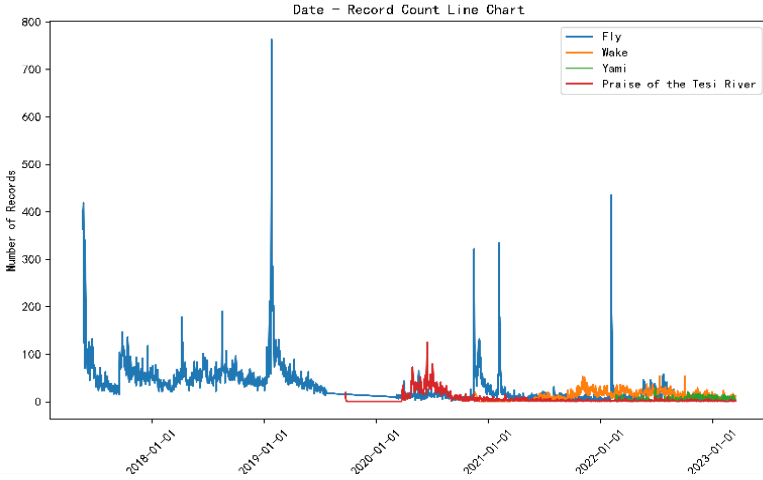
Fig. 1. Analysis of Online Review Quantity

2.1   Word Cloud Analysis

Fig. 2. word cloud map of "FLY ""Tesi River ""Wake" and "Yami"

In terms of sample selection, we have chosen the online comments from the four eth-nic songs, namely "Fly," "Praise of the Tesi River," "Yami," and "Wake" released on

NetEase Cloud Music. Using the "Jieba" tokenizer, we segmented the texts and conducted word frequency analysis on the segmented results. The results are then visualized using "word cloud" to create, as shown in figure 2.

Table 1. Vocabulary analysis table

characteristic	words
top three frequency occurrences	nice, like, encourage
frequency 4th to 5th	Tiktok, NetEase Cloud
common vocabulary	language, nation, China, copyright, singer

In table 1, the words like "nice," "like," and "encourage," we can discern the widespread appreciation for the four songs. These expressions not only demonstrate the public's fondness for the song but also contribute vibrant content to the promotion of a shared community consciousness. These sentiments reflect a deep appreciation for the musical craftsmanship and the emotional resonance of the songs. The word cloud for the songs includes platforms such as "NetEase cloud" and "TikTok", indicating the diverse channels through which this ethnic song has been disseminated. The appearance of words like "language," "nation," and "China" reflects the listeners' pride in this song, the Chinese nation, and China's cultural heritage. These sentiments demonstrate the strong influence of this ethnic music and its effectiveness in promoting a sense of community through musical cultural dissemination. Lastly, the mention of "copyright" and "original singing" underscores the audience's awareness and respect for intellectual property rights.

2.2   Sentiment Analysis

Based on the sentiment analysis of the comments posted on NetEase Cloud Music for the four ethnic songs "FLY," "Wake," "Praise of the Tesi River," and "Yami," the graph displays a positive sentiment trend over time. Taking the picture of "Wake" as an example. From figure 3, the x-axis represents the time of comment publication, while the y-axis indicates the sentiment orientation of the comments. Each dot on the graph represents an individual comment. Comments closer to 1.0 indicate a more positive sentiment, while those closer to 0 indicate a more negative sentiment. Those near 0.5 suggest a neutral sentiment. Overall, the sentiment analysis shows that the majority of comments on these ethnic songs are positive, indicating that listeners have expressed their love and support for these songs. Ethnic music has effectively attracted the attention of people from various regions and ethnic groups, providing both physical and spiritual enjoyment for listeners. It has evoked emotional resonance, integrating the sense of the Chinese national community into musical culture, contributing to strengthening the sense of the Chinese national community, promoting exchanges and integration among different ethnic groups, fostering ethnic unity, and building a harmonious society.
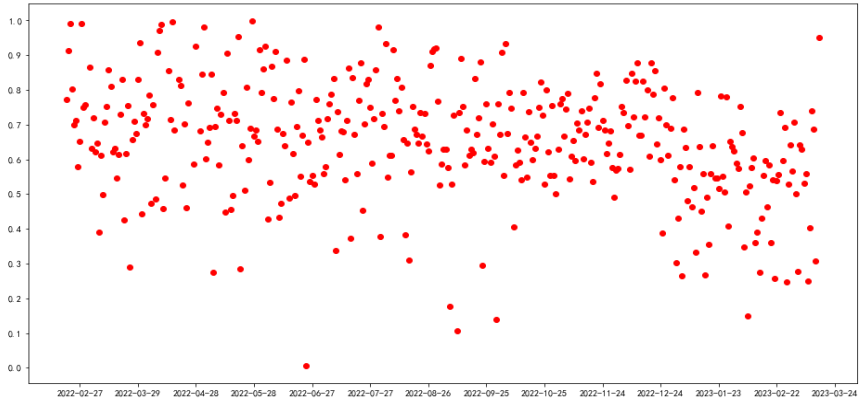
Fig. 3. Emotional analysis chart of wake

3   The practical path to help ethnic music go global

3.1   Innovative integration of modern and ethnic music

With the continuous development of society and the times, popular music is deeply loved by the public, but ethnic music has been neglected. Integrating elements of modern music into ethnic music, adapting ethnic music with personalized creative concepts and popular singing forms such as rock music, electronic music, rap, etc., to present ethnic music elements in a more innovative and interesting way, so that they can retain traditional charm and conform to the aesthetic habits and values of today's society in new works, injecting contemporary connotations into the Great Wall and development of ethnic music culture, and promoting the creative transformation and innovative development of ethnic elements in the new era.[8]

3.2   Expand channels for promoting ethnic music

In the current environment of technological empowerment and media transformation, it is necessary to fully utilize the communication advantages of new media such as the internet, complement and cooperate with traditional media, enhance the dissemination effect of ethnic music, and further promote the development of ethnic music with the times and innovation.[9] The content disseminated through the internet is diverse. Multimedia technology enables network dissemination to utilize flexible and diverse forms such as images, text, audio, video, animation, etc., integrating elements from both the East and the West as well as various art forms, allowing traditional ethnic music to burst out with vitality that is in line with the characteristics of the times, fully showcasing its artistic charm and the beauty of the integration of technology and ethnic music. Online dissemination can bring new opportunities and broader platforms for the dissemination and promotion of ethnic music.[10]

4   Conclusions

In summary, the widespread dissemination of ethnic music is not merely an exchange and sharing of musical art, it also serves as a bridge for emotional communication among members of the Chinese nation, deepening the sense of national cultural identity and self-confidence, and laying a solid foundation for strengthening the consciousness of the Chinese national community.[9] Therefore, we should deeply explore the cultural connotations of folk music, innovatively integrate modern and folk music, emphasize the importance of originality and copyright awareness in folk music, and further facilitate the path of exchange and development between folk music and world music.

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