



The 16<sup>th</sup> National and International Conference  
"Global Goals, Local Actions: Looking Back and Moving Forward 2024"  
20 March, 2024

---

## The Development of Computer Music Technology in Guangxi Folk Songs

Xinghong Pan

Email: s62584947004@ssru.ac.th

Graduate student in the Doctoral of Fine Arts program, Majoring in Performing Arts,  
Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University  
Chutima Maneewattana

Email: chutima.ma@ssru.ac.th

Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University

### Abstract

This study focuses on the use of computer music technology to develop Guangxi folk songs, the purpose of the study is 1. in order to study the application of computer music technology in preserving and reproducing the traditional characteristics of Guangxi folk songs, and 2. in order to study how to innovate Guangxi folk songs through computer technology to enhance their attractiveness and dissemination effect in modern society. The study first analyzes the historical background of Guangxi folk songs, their musical characteristics and their cultural values, and then explores the application of computer music technology in recording, editing, disseminating and innovating Guangxi folk songs. Through a hybrid study, the paper demonstrates how computer technology can help restore and optimize traditional folk song recordings, and how algorithms and software tools can enhance the dissemination and interactivity of folk songs. The results of the study show that computer music technology can not only effectively preserve and reproduce the traditional flavor of Guangxi folk songs, but also bring new forms of creation and expression to them, and promote the development and circulation of this traditional art form in modern society.

**Keywords:** Guangxi folk songs, Computer music technology, Music innovation

### Introduction

Guangxi is known as the "Sea of Songs" (Xu Enxuan, 2013). As one of China's colorful folk music heritage, Guangxi folk songs carry unique regional culture and historical information. This form of music not only has profound ethnic and regional characteristics, but also shows unique artistic beauty in melody, rhythm and lyrics. However, in the wave of modernization and globalization, traditional Guangxi folk songs are facing challenges to their inheritance and





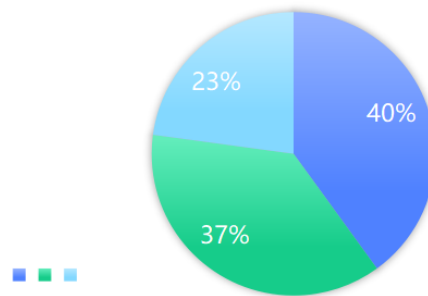


The 16<sup>th</sup> National and International Conference  
"Global Goals, Local Actions: Looking Back and Moving Forward 2024"  
20 March, 2024

## Research results

### 1. Results of quantitative data analysis:

#### Analysis result



Source: Pan Xinghong (2023)

The survey showed that more than 70% of the respondents believed that computerized music technology was essential for the protection and transmission of Guangxi folk songs, and about 65% of the respondents said that Guangxi folk songs improved by computerized technology were more likely to attract young listeners, and that overall interest in Guangxi folk songs increased by about 40% after the adoption of computerized music technology.

### 2. Qualitative data analysis results:

Artists and music producers emphasized the importance of computer technology in improving the quality of recordings, audio editing, and innovative musical expressions. Technologists, on the other hand, highlighted the potential of computer technology for music analysis, automatic accompaniment generation, and music recommendation systems. The interviews also reflected the importance of maintaining the traditional elements of Guangxi folk songs and concerns about over-commercialization.

The results point out that computer music technology not only enhances the performance and dissemination of Guangxi folk songs on a technical level, but also gives them new vitality on a cultural level. By combining traditional music with modern technology, Guangxi folk songs are better able to adapt to modern society while retaining their unique cultural values. This is crucial for its long-term survival and development. Computer music technology offers remarkable opportunities in developing Guangxi folk songs, but it also brings



The 16<sup>th</sup> National and International Conference  
"Global Goals, Local Actions: Looking Back and Moving Forward 2024"  
20 March, 2024

challenges. Studies have shown that through proper application of technology, the modern appeal of Guangxi folk songs can be enhanced while retaining their traditional charm, realizing a harmonious blend of tradition and modernity.

### Discussion

The results of the data analysis in this study reveal the important role and potential of computer music technology in the development of Guangxi folk songs. A discussion of the key findings follows:

The dual role of technology in inheritance and innovation Over 70% of the respondents believed that computer music technology is crucial in preserving and inheriting Guangxi folk songs, which demonstrates the importance of computer technology in preserving traditional music. At the same time, this technology provides a platform for the innovation and modernization of Guangxi folk songs. In particular, the application of computer music technology has proved effective in attracting young listeners, which is important for the long-term survival and development of traditional culture.

Increasing audience interest and acceptance, the survey revealed that the adoption of computer music technology increased overall interest in Guangxi folk songs by about 40%. This finding highlights the potential of technology in promoting traditional music and expanding its audience base. The use of computer technology to innovate and reshape Guangxi folk songs not only helps to preserve their traditional characteristics, but also to present them in a way that is more in line with modern aesthetics, thus appealing to a wider audience.

Maintaining Traditional Elements and Facing the Challenges of Commercialization Although the application of technology has brought new opportunities for Guangxi folk songs, the interviews also reflected concerns about the importance of maintaining traditional elements and about over-commercialization. This suggests the need for caution when using computerized music technology to ensure that the core values and cultural significance of Guangxi folk songs are not destroyed. While pursuing modernization and market acceptance, it is crucial to maintain respect for and protection of traditional culture.



The 16<sup>th</sup> National and International Conference  
"Global Goals, Local Actions: Looking Back and Moving Forward 2024"  
20 March, 2024

Reference

- Feng, Yi. (2001). The development of computerized music technology and its conception of teaching practice. *Symphony - Journal of Xi'an Conservatory of Music*.
- Liu, Jian. (2011). The role of computerized music technology in mass culture. *Qunlun Tiandi*, (4), 2.
- Shi Yan. (2007). *Research on the application of computerized music technology in music composition*. (Doctoral dissertation). Northeast Normal University.
- Wang, Ruinian. (2003). An overview of the development of contemporary computerized music technology. *Chinese Musicology*, (4), 6.
- Xu, Enxuan. (2013). The inheritance and development of Guangxi folk songs. *Popular Literature and Art*, (01), 141-142.
- Zhao Lin. (2009). Inheritance and development of Guangxi Zhuang folk songs in the context of the new era. *Academic Forum*, (5), 3.