

A Study on the Inheritance Form of Intangible Music in Community Cultural Activities based on AI Empowerment

-- Take the Traditional Music of Southern Ganzhou Hakka as an Example

Yijian Zheng

Music and Dance Department, Gannan Normal University, Ganzhou, Jiangxi, 341000, China

Abstract. With the rapid development of artificial intelligence technology, it has brought transformative opportunities for the protection and inheritance of intangible cultural heritage. This article takes Gannan Hakka traditional music as an example. In view of the current real dilemmas such as morphological solidification, intergenerational faults, and insufficient endogenous power under the community inheritance scenario, it explores the innovative path of non-heritage music empowered by AI technology to realize living inheritance at the community level. The study proposes that the intervention of AI can promote the inheritance form to a three-dimensional empowerment model composed of "digital preservation", "innovative expression" and "ecological construction". And in combination with specific community practice cases, analyze how AI technology can effectively activate the endogenous power of the community, attract residents to participate, and reintegrate non-heritage music into contemporary community cultural life, so as to realize real living inheritance.

Keywords: AI Empowerment; Non-heritage Music; Community Cultural Activities; Gannan Hakka Traditional Music.

1. Introduction

Intangible Cultural Heritage (ICH) is an important part of the culture of the Chinese nation. It accumulates a strong historical background and rich cultural connotations. "Liveness" is its essential attribute. The fundamental purpose of intangible cultural heritage protection is to survive the "living inheritance". Heritage must be rooted in the community and the community. [7] Its vitality depends on human participation and creative transformation. And the non-heritage of music, such as the traditional music of the Hakka in southern Gannan, is the most moving note. They are not only the emotional carriers of the thousand-year migration history of the Hakka family, but also an important link between community identity and cultural cohesion. However, like many non-heritage projects, Gannan Hakka music also faces the dilemma of inheritance faults, scene solidification and lack of vitality in contemporary times. For Gannan Hakka traditional music and community music culture, it is difficult to achieve sustainable development without technological empowerment and model innovation.

In recent years, Generative AI technology has developed rapidly, opening up a new path and providing new possibilities for the active inheritance of non-heritage music in community cultural activities. The application of AI technology in the field of music has formed a mature system, which can realize the intelligent depth of traditional music with the accurate excavation of the inherent laws of traditional music by deep learning, the efficient analysis of music texts by natural language processing, and the multiple reconstruction ability of music melodies and performance scenes by multimodal generation technology. Degree analysis, innovative re-creation and wide-area dissemination provide technical empowerment for the living inheritance and modern transformation of traditional music. Through the empowerment of AI technology, it can not only help us better protect and inherit Gannan Hakka traditional music, but also create a new form of music suitable for community life scenes, attract community residents, especially young people, to participate, and inject technical momentum into the active inheritance of Gannan Hakka traditional music in community cultural activities.

This research aims to explore how to deeply integrate non-heritage music into community cultural activities with the help of AI, stimulate the enthusiasm of community residents to participate,

empower non-heritage music to achieve creative transformation and innovative development in the contemporary context, and build a new path of active inheritance supported by technology and based on community.

2. The Current Situation and Difficulties of Inheriting Traditional Hakka Music in Southern Ganzhou in Community Cultural Activities

Gannan Hakka Traditional Music refers to the general term form of music that has been passed down in the Hakka area of Gannan for a long time, created by the Hakka people and carried the cultural genes of their ethnic group. Its formation is deeply bound to the migration history, agricultural life and folk beliefs of the Hakka people, such as Hakka mountain songs, Gannan tea play, lantern music, Hakka minor tune, trumpet, its art The charm is rooted in the dialects, folk customs and life practices in southern Ganzhou. In the communities in southern Ganzhou, folk ceremonies, festivals and oral teaching are the core paths for the inheritance of traditional Hakka music in southern Ganzhou. However, with the impact of the multicultural wave and the changes of contemporary lifestyle, the inheritance of traditional Hakka music in southern Gannan faces many difficulties in community music activities.

2.1 Inheritance Subject: The Characteristics of Aging are Prominent, and Young People Participate in the Fault

The basic age of the core inheritance force of Hakka traditional music in Gannan is generally high. Due to aesthetic differences, the accelerated pace of life, the weakening of the sense of identity with traditional culture, and the disorder of dialect understanding and other factors, the young group generally show a tendency of low willingness to participate and weak inheritance stickiness, resulting in obvious intergenerational faults in the inheritance chain.

This structural dilemma of inheritance directly exacerbates the survival crisis of traditional music. At present, most of the folk artists who can systematically master Hakka music skills are old, and the inheritance of their skills is facing the real risk of "people walking art". Historically, the reason why music forms such as "sitting in the class hall", "singing ancient texts" and "flower drums" have been lost is precisely because there is no successor and the death of old artists one after another. [3] Even non-heritage projects such as Xingguo Mountain Song, which have gained national popularity, also face similar challenges: although since 1986, Xingguo has continuously promoted inheritance and cultivated a group of excellent mountain singers through singing competitions and other forms, as the core inheritance field of the competition, most of the contestants and the audience are middle-aged and elderly. People, the participation rate of young people is low, and there are fewer and fewer artists who really master their complete vocals and improvised singing ability. The aging of the inheritance subject and the young participation fault are one of the challenges facing their living inheritance.

2.2 Scene Solidification: From "Necessities of Life" to "Cultural Embellishment"

In the past, Gannan Hakka traditional music was closely related to the daily life of community residents and was an indispensable part of life. Tea picking horns are created by tea farmers in order to coordinate the rhythm of labor and reduce physical fatigue when working in the tea garden. Its bright rhythm contrasts with the labor scene in the tea garden. Singing love is an important way for young people to socialize and interact. With the help of mountain songs, they can express love and convey emotions.

However, with the development and evolution of society, traditional music has gradually retreated from daily life and become a temporary performance in festivals, becoming a kind of "cultural embellishment". In the modern community, the large-scale tea garden labor scene has gradually decreased, and the tea-picking horn has lost its foundation for survival; the social way of young people has also changed greatly, and the traditional way of singing and talking about love has been replaced by modern social tools. Traditional music is seriously disconnected from modern life scenes. The

performance of traditional music is mostly limited to specific festivals or cultural activities. It lacks deep integration with daily life, and it is difficult to arouse the resonance of community residents, which makes its inheritance and development face serious challenges.

2.3 Support and Guarantee Level: Talent Shortage and Weak Mechanism

From the perspective of support and security, taking Tianxin Community in Anyuan County as an example, it can be seen through field investigation and interviews with the local government that the community's non-heritage living inheritance faces two core dilemmas: talent shortage and weak mechanism, which has become a key bottleneck that restricts the normalization of inheritance activities. Among them, the shortage of talents is reflected in structural gaps and inheritance faults: there is a shortage of professional talents in art at the township level. Take tea-picking opera as an example. Their vocals and body teaching are highly dependent on old artists' "oral teaching", and the urban-rural economic gap has led to the continuous flow of young talents to big cities, and the community can only rely on linkage with colleges and universities and art. Staged external support such as short-term stationing of the group, lack of long-term stationing professional talents; the weak mechanism is manifested in the lack of systematic resident demand research and data analysis support in the organizational planning of the activity, and it is difficult to accurately match the real demands of residents' age structure, interest preferences, participation time, etc., which eventually leads to fluctuations in the participation rate of inheritance activities. Large, affecting its sustainability and influence.

3. Feasibility of AI Technology Empowering Non-heritage Community Inheritance

At present, the maturity of AI technology has long been sufficient to support its deployment and application in the community environment. Its application in the field of music has developed from a simple sequencer to an intelligent system that can create, analyze and interact. It brings not only "preservation", but also "activation" to the inheritance of non-heritage music.

3.1 Technical Feasibility

Cutting-edge AI music technology provides a solid foundation for community applications. First of all, in terms of intelligent creation, the current AI music generation technology has developed from professional tools to popular applications. The existing AI music creation platforms include AIVA, Udio, SunoAI, etc. Take SunoAI as an example. It is a generative AI music creation program that can automatically generate music according to text prompts. Users only need to specify the lyrics and music style to quickly get an original work. This greatly shortens the process from conception to completion of music and lowers the threshold of music production. [9] This low-threshold creative tool is especially suitable for the current situation of uneven musical literacy in the community environment, so that non-professional residents can also participate in music creation.

The latest audio large language model research has improved the ability of AI to understand music. For example, the intelligent evaluation system "Myriad Music Analyzer" uses deep neural networks to evaluate the user's singing and performance works, and builds an accurate evaluation model based on the tone fluctuation range, rhythm stability coefficient, tone purity and other parameters. This technology makes it possible to establish an AI music mentor system in the community environment, which can give real-time feedback and guidance based on residents' singing or performance, and simulate the inheritance process of traditional "tal-to-heart teaching".

3.2 Practical Feasibility

The existing AI-enabled non-heritage community inheritance project has verified the positive effect of community application and provided direct support for practical feasibility. Relying on self-developed technology in the fields of AI voice and music, Guangzhou Quwan Network Technology

Company cooperates with many institutions under the guidance of the Network Public Welfare Working Committee of the China Network Audiovisual Association to promote the "Hometown of AI Music" public welfare project in rural sites in Guangdong. The project brings innovative music enlightenment and technological experience to rural children with the "AI + music" model. With the help of AI tools, teenagers and children can transform local cultural elements such as dragon boat drums and hundred-year-old banyan trees into musical works to stimulate creative expression. At the Donghe Village Station, Sanjiang Town, Nanyao Autonomous County, a team including social workers, volunteers and Hakka mountain song mentors have been set up to promote the deep integration of AI and "Hakka mountain song" non-heritage, help children create works that combine tradition and science and technology, [11] and explore new ways for the modern expression of non-heritage.

3.3 Cultural Feasibility

At the cultural level, AI technology and non-heritage music inheritance are not exclusional, but can form a creative integration. In-depth academic research on non-heritage music has also laid the foundation for the effective intervention of AI technology. For example, the ontological research on the non-heritage music of Gannan ancient rap is analyzed from the key factors that determine the musical style, such as vocal voice, lyrics, tone, melody, instrumental accompaniment rhythm, etc. [5] Similar to this, in-depth academic research provides theoretical guidance and a rich knowledge base for AI models to learn the essential characteristics of non-heritage music, so that the application of AI technology can truly respect and reflect the connotation of traditional music.

4. AI Empowers the Path Construction of the Active Inheritance of the Hakka Traditional Music Community in Southern Ganzhou

After clarifying the real dilemma of Hakka traditional music in southern Ganzhou and the empowerment potential of AI technology, it is urgent to build a concrete, feasible and systematic practical path to transform technological potential into cultural benefits. The empowerment of AI should not only be limited to fragmented technical applications, but should run from the foundation of "digital preservation" to the power source of "innovative expression", and finally realize the complete chain of "ecological construction". The following will focus on these three dimensions to explain the implementation framework of AI-enabled Hakka traditional music community in southern Ganzhou.

4.1 Digital Preservation based on AI

4.1.1 Music Core Feature Extraction and Database Construction

Using AI audio analysis technology, in-depth feature extraction and quantitative analysis of Gannan Hakka traditional music can be carried out. In this process, it is first necessary to systematically collect and preprocess a large number of first-hand materials, such as the live recording of the tea opera, the singing audio of the Hakka mountain song, the MIDI data of Yudu Yanna's "in-laws blowing" and historical sheet music. On this basis, with the help of digital signal processing technology, AI can accurately extract the multi-dimensional characteristics in music: the unique and euphemistic melody lines of the energetic Xingguo mountain song, the rhythm mode of the gong and drum scriptures in the lantern play, and the tone characteristics of the "in-laws blowing", etc., and can also try to capture the more complex emotional expression contained in it. Dahe regional cultural background information. With the training and learning of these high-dimensional features by deep learning models, AI can analyze the inherent structural laws and style associations of Hakka music. Based on these analysis results, the "Gannan Hakka Music Gene Bank" will be established to provide solid data support and a new insight perspective for the inheritance, research and innovative development of Gannan Hakka music.

4.1.2 Intelligent Record of Skills

For the endangered skills in Gannan Hakka traditional music, such as the core parts of "Dwarf Step" and "Fan Flower" of tea-picking, artificial intelligence visual models and their motion capture technology are used for digital preservation. First, use Kinect technology [10] to obtain human skeleton information, obtain human body contours, use deep cameras to capture actors' performances, and obtain human skeleton joint point data and dynamic contours in real time. On this basis, the AI visual model accurately tracks the unique half-squat posture and pace movement in the "short step", as well as the complex wrist rotation and fan trajectory in the "fan flower", and builds a standardized tea-picking body movement model database. Finally, through algorithms such as feature plane similarity matching, the system can convert continuous dance movements into quantifiable motion parameters, and realize real-time comparison and normative analysis of the performer's body movements. This establishes a digital archive for precious non-heritage performing arts, and provides a scientific reference standard for teaching inheritance with the help of data-driven intelligent evaluation.

You can also use AI technology to build a "virtual inheritor community" in combination with the vocal recording of old artists. By learning and simulating the voice characteristics and singing styles of old artists, virtual inheritors can reproduce the vocals and performance styles of old artists. Community residents can use smart devices to interact with virtual inheritors and learn traditional music skills. This intelligent recording method realizes the visual preservation of endangered skills, provides a convenient learning channel for community residents, breaks the limitations of time and space, and allows traditional music skills to be inherited on a wider range.

4.2 Innovative Expression based on AI

4.2.1 AI Music Creation

In order to solve the difficulties faced by Gannan Hakka traditional music in the process of inheritance, such as fixed content and single style, and to re stimulate the creative enthusiasm of community people, AI music creation technology can be used to inject innovative expression vitality into it. An AI music platform dedicated to Gannan Hakka music can be built through AI technology. On the basis of the "Gannan Hakka music gene bank" mentioned above, lightweight AI creation tools can be developed for the community. Users only need to input a theme or a paragraph of text, and AI can generate multiple melodic motivations or lyrics suggestions with both traditional charm and novel listening sense based on the "genes" of Hakka music learned. It has greatly reduced the technical threshold of music creation and allowed ordinary community residents to participate in music creation. Further, we can learn from the successful experience of the "Ai hometown of music" project, and guide participants to use local elements around them, such as local legends and stories, dialect slang, and even environmental sounds such as dragon boat drums and running water, as their creative motivation to perform musically by AI, to produce personalized works that integrate personal feelings and regional culture.

AI is used to assist music creation, help community members to carry out free exploration and improvisation based on a solid cultural foundation, and promote Gannan Hakka music from "digital" preservation to a new stage, that is, a new stage of creative inheritance that is alive and closely related to contemporary aesthetics and individual expression.

4.2.2 Immersive Experience of "AI+VR/AR"

To address the challenge of rigid community music activity formats, the integration of generative AI with VR/AR technologies offers an effective solution while establishing an immersive paradigm for preserving Gannan Hakka traditional music. Through deep learning and creative recombination of traditional melodies like mountain songs and suona, the system generates real-time musical streams that retain cultural essence while introducing innovative elements. VR technology creates virtual cultural settings such as ancestral halls and tea plantations, immersing audiences in 360-degree audiovisual performances. AR overlays virtual performances onto physical spaces, revitalizing

traditional music through contextualized experiences. This immersive approach breaks down generational barriers and spatial limitations in cultural inheritance, transforming Hakka music from exclusive skills of older generations and festival-specific events into an ageless, accessible experience that breathes new life into community cultural activities.

4.3 Community Ecological Construction based on AI

4.3.1 "AI+Virtual Community"

Virtual community, also known as online community, is a social aggregate with specific social relations and cultural identity formed by a group of people with common interests, goals or needs through continuous interaction, communication and cooperation based on the Internet platform. [8] The intrinsic attributes of virtual communities are highly consistent with the needs of community cultural inheritance: virtual communities provide a "socialized" framework for AI tools through their role division, interaction rules and incentive mechanisms, and embed technology into social relations; The continuous interaction of the community provides valuable training and optimization data for the AI model, so that the generated content can more accurately match the aesthetic preferences of the community, so as to realize personalized recommendation and dynamic optimization, and gradually deepen the cognition and demand adaptation of the community; The social trust established by the virtual community through long-term interaction can be effectively transformed into the trust endorsement of AI technology, providing basic support for the penetration of AI technology in the community scene. Especially when the respected successors or core active members in the community take the lead in using and recommending AI tools, its demonstration effect can dispel the strangeness and concerns of other members about technology, and significantly reduce the threshold of technology use. At the same time, the mutual assistance and cooperation of the community can further help members overcome technical operation problems, effectively cross the "digital divide", and ultimately promote the wider popularization and in-depth application of AI technology in the community.

"Ai+virtual community" can build a specific and implementable ecological model for us. Take Gannan Hakka traditional music as an example: first, we can build an organizational framework with the virtual community as the core, establish the common goal of "inheriting and innovating Gannan Hakka music", and form the core cohesion of the community around the "co creation of Hakka music"; Secondly, we designed hierarchical roles and set up roles such as "AI creation master", "cultural auditor" and "activity planner" to lead the practical application of AI music tools, control the cultural authenticity of AI creation works, and coordinate the online and offline interactive activities of AI scenes; Finally, an incentive mechanism can be established to introduce points, badges, works on the list and other mechanisms to effectively enhance the participation and contribution of members.

Virtual communities create social soil and give sustainable impetus to AI technology through its organizational mechanism. As a powerful enabling tool, AI technology in turn stimulates the creative vitality and participation stickiness of communities. The ecosystem constructed by the two can effectively solve the core problems faced by Gannan Hakka traditional music in community inheritance, such as intergenerational fault and scene solidification, and ultimately realize the fundamental transformation from "cultural embellishment" to "community living inheritance".

4.3.2 Multi-party Collaborative Governance Model

In the practice of AI enabling the inheritance of Hakka traditional music in southern Jiangxi, the government, universities, enterprises, communities and other parties need to participate. The government has issued relevant policies, such as providing financial support and site guarantee, to provide policy guarantee for AI enabling the inheritance of Hakka traditional music in southern Jiangxi; Colleges and universities provide technical support for the community by virtue of their own scientific research advantages; The enterprise is responsible for the operation and promotion of the platform, and transforms AI technology into practical application products; As the main body of the

scene, the community organizes residents to participate in music activities and collects residents' feedback.

This multi-party collaborative governance model of "government guidance - university support - enterprise operation - community landing" has built a coherent and self-optimizing enabling closed loop through clear functional positioning and resource complementarity, so as to pool the advantages of all parties in a collaborative ecology and enable the inheritance of intangible cultural heritage music in community cultural activities with AI technology.

5. Reflections and Challenges

With the increasing application of artificial intelligence technology in the field of non-heritage music, it has injected new impetus into the living inheritance of cultural heritages such as traditional Hakka music in southern Gannan at the community level. However, in the process of reshaping the form of community inheritance, it is also accompanied by a series of profound challenges in terms of technology, culture and ethics. Based on the current investigation and research, the core difficulties faced by the current AI-enabled community inheritance are reflected in the following aspects:

5.1 Technical Bottleneck: The Lack of Preservation of Authenticity and Emotional Expression

At present, it is still difficult for AI generation technology to accurately capture and reproduce the "human flavor" and cultural charm rich in non-heritage music. For example, the improvisation of Hakka mountain songs in southern Ganzhou, the special rhyme of dialect singing, and the body charm of the "dwarf step" in the tea-picking performance, etc. These living elements, which are highly dependent on human experience and emotional interaction, are easily simplified or lost under the algorithmic logic of AI, resulting in the generation of "similar but not similar". In order for Hakka folk music to be truly inherited more widely, there must be strong theoretical support. In the protection of non-heritage music, theoretical research needs to be promoted simultaneously. A special project group should be set up with this project as the core. [4] For a long time, music form, cultural connotation, performing arts, relevant history and prospects, and protection and operation mode, etc. Carry out systematic research; and in the future, AI research and development also needs to be supported by such theoretical research and turn to a deep cultural understanding of non-heritage music - by building a more refined "Hakka music gene bank", AI can not only learn the melody and rhythm, but also master the dialect acoustic characteristics, improvised rules and emotional expression patterns behind it. In the end, he became a truly knowledgeable "cultural collaborator".

5.2 Cultural Risks: The Marginalization of the Main Body of Inheritance and the "Thinning" of Traditional Skills

Over-reliance on AI may cause two cultural risks to the inheritance of non-heritage music: on the one hand, it will weaken the role of the main body of community inheritance, such as handing over all music creation to AI, and the core position of old artists relying on "oral transmission" to transmit skills will be shaken; young people in the community may also participate in inheritance from "serious "learning traditional skills" becomes "only operating AI software", losing the opportunity to practice skills in person. On the other hand, it will make traditional skills become "thin". Improper use of the inheritance method of AI technology will make the skills out of the process of practical practice and personal perception, and slowly lose the profound cultural connotation that was originally hidden in the skills, and become only a superficial form. Therefore, in community cultural activities, we should clarify the auxiliary positioning of AI and deepen the collaborative concept of "human-led and AI-assisted".

5.3 Community Barriers: Digital Divide and Uneven Participation

In community practice, the inclusiveness of technology is being tested. For middle-aged and elderly residents who are not familiar with smart devices or families with little digital resources, there

is likely to be a significant "digital divide". If the inclusive participation of residents cannot be realized, AI empowerment is not only difficult to exert its effectiveness, but may also exacerbate the inequality of cultural participation within the community, isolating some groups from the door of new technology inheritance. In response to this situation, we can ensure that the application of technology is fair and inclusive by carrying out community digital literacy training and developing aging-friendly tools, so that all community residents can share the dividends brought by technology.

In general, the ultimate goal of AI empowering the community inheritance of non-heritage music is not to replace tradition with technology, but to build a smart ecology of "technology empowerment, humanistic leadership, and everyone's participation". In the research and application of AI technology, we should adhere to the principle of technology for good and people-oriented, so as to truly empower the protection and inheritance of non-heritage music. In the wave of science and technology, we can not only retain its profound cultural charm, but also develop a new vitality that keeps pace with the times, and realize the real continuation of life in the modern community.

6. Conclusion

Through the systematic analysis of the integration path of AI technology and Gannan Hakka traditional music in the community scene, this research builds a living inheritance path of the trinity of "digital preservation-innovative expression-ecological construction". By extracting characteristic music and building a gene bank, AI technology can realize the accurate survival of non-heritage music. Relying on generative creation and immersive experience, it has broken through the limitations of inherited scenes, and the "multi-party collaborative governance" and "virtual community" mechanisms create a sustainable social environment for community participation.

The empowerment of technology ultimately points to the continuation of culture. The core value of AI in non-genetic inheritance is not substitution, but activation. By lowering the threshold of creation and expanding the dimension of expression, we can rekindle the cultural identity and creative enthusiasm of community members, especially young people, for traditional music. In the future, with the deepening of AI's ability to understand music emotions and cultural contexts, and the further improvement of the "government-university-enterprise-community" coordination model, a new inheritance picture of technology empowerment, humanistic guidance and everyone's participation can be built: let Gannan Hakka traditional music not only have its deep cultural genes, but also it exudes vitality that keeps pace with the times and realizes real living inheritance in the soil of the community.

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References

- [1] Wen, P. (2007) An Introduction to Hakka Music Culture. Shanghai Conservatory of Music Press, Shanghai.
- [2] Yang, H. (2025) Intangible Cultural Heritage + AI: From Digital Preservation to Intelligent Application. China International Radio Press, Beijing.
- [3] Yuan, J. (2004) Preliminary Discussion on the Preservation and Development of Hakka Music in Southern Jiangxi. Journal of Gannan Normal University, (05): 115-116.
- [4] Xiao, Y. P. (2009) Protection of Hakka Music in Southern Jiangxi from the Perspective of Intangible Cultural Heritage. Song Sea, (06): 20-22.
- [5] Zhang, W. Y. (2009) A Study on the Rap Art of Ancient Prose in Southern Jiangxi. Thesis, Jiangxi Normal University.

- [6] Zhang, W. W., Wang, H., Zhu, X. D. (2011) Study on Trust Relationships in Virtual Communities for Collaborative Production of Open Content. *Information Studies: Theory & Application*, 34(10): 78-84.
- [7] Wu, X. Z. (2018) Study on the Living Nature of Intangible Cultural Heritage: Taking the Torch Festival of Dahuajing and Xiahuajing in Chuxiong, Yunnan as an Example. *Guizhou Social Sciences*, (03): 58-63.
- [8] Chen, Q. H., Li, S. Y., Yang, J. S. (2024) Study on Learning Performance of Virtual Community Users and Its Influencing Mechanism: Based on the Self-Determination Motivation Theory. *Adult Education*, 44 (07): 41-49.
- [9] Bai, Q. F. (2025) Study on AI Music Generation Tools and Their Creative Applications. Thesis, Xi'an Conservatory of Music.
- [10] Cheng, L. L., Zhu, T. (2025) Study on Auxiliary Teaching of Group Dance Course in College Sports Dance Based on Motion Capture Technology. *Journal of Chongqing University of Science and Technology (Natural Science Edition)*, 27(04): 60-68.
- [11] Finance. ce. cn. (2025) Quwan Technology's "AI Music Hometown" Enters Rural Areas, Activating New Momentum for Cultural Inheritance with AI Music http://finance.ce.cn/stock/gsgdbd/202509/t20250905_2465801.shtml.