

Application Research of Digital Technology in Inheritance and Development of Jiangxi Local Opera: Taking Gannan Tea Picking as an Example

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Abstract: Gannan tea-picking opera is a traditional form of opera in Jiangxi, but with the development of science and technology, people are more curious about new things, so the inheritance of today's Gannan tea-picking opera has become an important issue in the development of Jiangxi. Digital technology can bring more efficient and interesting development models to many fields. In order to expand the influence of Gannan tea-picking opera, the Internet is used as a medium to inherit and develop Jiangxi opera. This paper deeply investigates the role that digital technology can play in the development of local western districts, and attempts to build a tea-picking opera system based on propaganda purposes, which can provide young people with a channel to understand tea-picking opera.

1 INTRODUCTION

The tea-picking drama in southern Gansu is relatively unfamiliar to many people. The key to developing the tea-picking drama in southern Gansu today is how to make everyone aware of the tea-picking drama in southern Gannan. As a regional characteristic drama, the tea-picking opera in southern Gansu has a relatively small distribution range, so it will encounter some difficulties in its dissemination. The current popularity of the Internet enables people to browse the landscapes of different regions and countries through mobile phones or computers. In order to expand the spread of Gannan tea-picking opera, digital technology can be used to let people get to know Gannan tea-picking opera initially through the Internet. In the development of tea picking, digital technology can also be applied to design crafts. In the past, handicrafts were designed through hand-drawn drawings. This design method is less efficient and requires higher requirements for designers. Use digital technology to design handicrafts, integrate traditional tea-picking culture, update design methods, and improve design efficiency.

2 DIGITAL TECHNOLOGY

After the advent of computers, digital technology also appeared. Digital technology refers to the technology that uses certain equipment to convert pictures, text, sound, video and other information into binary numbers "0" and "1" that can be recognized by electronic computers, and then performs operations, processing, storage, transmission, dissemination, and restoration (Wang, 2022). Digital technology uses computers to encode, compress, and decode information in operations, storage, and other links (Chen, 2021).

Digital technology generally uses binary, so the two stable states of the component can be used to represent binary (Du, 2021). The basic large-scale warm circuit of digital technology is simple, and the accuracy requirements of each component of the circuit are not strict, and a large dispersion of component parameters can be allowed, as long as two completely different states can be distinguished. The integration of digital circuits can take advantage of this feature of digital technology (Bai, 2021). Digital technology has strong interference ability and high precision. Digital technology transmits,

processes and processes binary information, and it is not easy to receive external interference, so it has strong anti-interference ability (Liu, 2021). Digital technology can also improve precision by increasing the number of digits in a binary number. Digital signals generated by digital technology are convenient for long-term storage, and a large number of precious information resources can be stored for a long time through digital technology (Che, 2021). The confidentiality of digital technology is better, and the use of encryption processing can make information resources not easy to be stolen. The versatility of digital technology is strong, and standardized logic components can form a variety of digital systems (Liu, 2021).

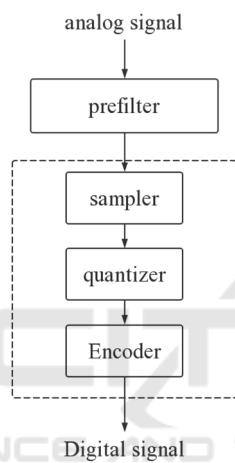


Figure 1: Using digital technology to simulate signals.

3 DIGITAL HANDICRAFT DESIGN

Digitizing the design process of handicrafts can improve the efficiency of product design and facilitate the characteristic development of tea-picking opera handicrafts. Digital design handicrafts can help designers analyze and scrutinize design themes and other related elements, functional requirements, environmental impact, design styles and other aspects according to design intent (Liang, 2021). Designers can modify, add, delete, enlarge and reduce the design draft at any time in the design software, and perform precise calculations in the software to determine the processing cost of handicrafts. The design software can simulate the real spatial relationship, material, lighting, etc. of the handicraft to ensure the result of the handicraft design, so that the handicraft can

obtain an ideal space display effect after production (Ren, 2021).

Digital handicraft design can design the shape and decoration of handicrafts through AoutCAD, Illustrator, Photoshop, CorelDRAW, Freehand and other design software, and realize virtual reproduction within the software. Designers can make models by drawing effects in 3D drawing software such as Zbrush and 3DSMAX, and can achieve the expected design effects in these softwares (Liao, 2021).

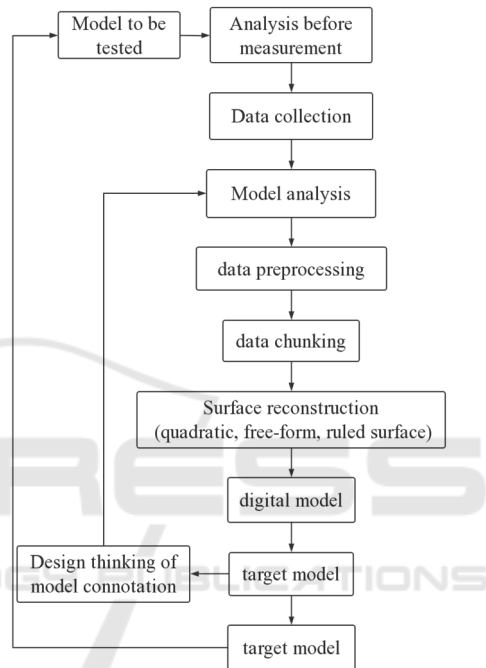


Figure 2: Digital Design Process.

4 DIGITAL EXPERIENCE PLATFORM

The development of digital technology has changed the way of education and the concept of education (Yang, Wu, 2021). If you want to expand the influence of Gannan tea picking drama, you must first start with young people. Teenagers have strong curiosity and are able to accept new things. Through the Internet platform and excellent cultural communication methods, they can attract their attention. This paper proposes a platform for the inheritance and education of Gannan tea picking opera based on digital technology (Yang, 2021). The strong interactivity of this platform can make young people like Gannan tea picking opera in an interesting way.

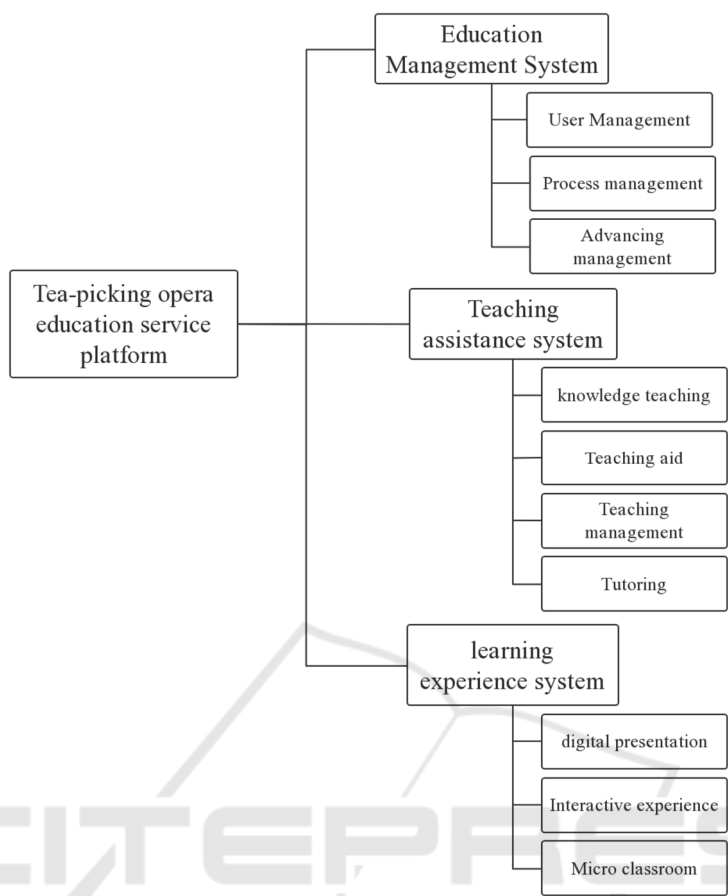


Figure 3: System Functions.

The education platform constructed in this paper mainly consists of three modules: management system, teaching assistance, and experiential learning. In different modules, users can choose modules according to their own needs to contact Gannan Tea Picking Opera (Jiang, 2021).

The three main system functions are functions that users can implement through the mobile client. The management system includes three modules: user management, process management and promotion management. In the user management module, users register, the registration information will be transmitted to the database, and the database will analyze the information, so that the system administrator can clearly understand the promotion scope of Gannan Tea Picking Opera and the acceptance of users (Wei, 2020). The process management module is to evaluate and monitor the various activities launched by the platform. The process management module can supervise, evaluate and manage all aspects of the activity, and feedback the problem to the activity organizer in order to improve the activity. The promotion management

module is a supplement to each activity, and in this module, managers can further guarantee various management conditions for their work (Gan, 2020).

The teaching assistant function design includes knowledge teaching module, teaching management module, teaching assistant module and extracurricular tutoring module. The knowledge teaching module is a preliminary explanation of Gannan tea picking opera, so that users can understand the connotation of Gannan tea picking opera. Teaching assistance is to provide a richer channel for students to understand the tea-picking opera in southern Gannan through interactive technology and various materials. In the teaching auxiliary module, there are video materials, pictures and text materials of Gannan tea picking opera, as well as small games related to Gannan tea picking opera to arouse the interest of users. The teaching management module is to introduce the recent activities related to Gannan tea picking to users. There are also user evaluation and feedback channels in this module. A discussion area is established in the teaching tutorial module, and users

can communicate in this module.

The experiential learning system has a digital display and explanation module, an interactive experience module and a micro-classroom module. In the digital display module, there is a dynamic explanation of the tea-picking show in southern Gannan. By clicking, users can learn about the characteristics, skills, costumes, etc. of the tea-picking show. The interactive experience module is the characteristic function of this platform. The system will perform portrait recognition through the mobile phone camera, retrieve pre-designed models from the database in real time, and integrate virtual materials such as pictures, videos, and sounds with the real world. Users can freely observe their own shapes on the screen through interactive operations, and feel the charm of Gannan tea picking more realistically.

5 CONCLUSION

The tea-picking opera in southern Gansu is a distinctive art form in southern Jiangxi. In order to inherit and develop the tea-picking opera in southern Gansu, modern digital technology is needed to realize the integration of art and technology, and to provide a more efficient way for the development of traditional culture. Digital technology plays an important role in the product design and dissemination of Gannan Tea Picking Opera. The development of the digital education service platform is in line with the current demand for popularizing opera education, and the addition of virtual reality technology in the interactive experience method is more interesting and real for young people. In order to enhance the publicity effect of Gannan tea picking opera, the system still needs to be further improved. Next, platform development needs to arouse students' interest in a more lively and interesting way. This platform will bring a richer experience to students.

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REFERENCES

- Bai Hongyuan. Research on the Communication Strategy of Chinese Traditional Culture under the Internet Background [J]. *Cultural Industry*, 2021(35):163-165.
- Chen Bei. Research report on the development of tea picking opera in southern Gansu [J]. *Comparative Research on Cultural Innovation*, 2021,5(36):36-40.
- Che Shenglong. Challenges and inheritance paths of traditional Chinese culture under the background of artificial intelligence [J]. *Comparative Research on Cultural Innovation*, 2021,5(35):119-122.
- Du Jingjing, Li Ning. Path analysis of college students' innovation ability improvement under the background of traditional culture inheritance [J]. *Comparative Research on Cultural Innovation*, 2021, 5(36): 93-96.
- Gan Hongli, Lei Xiang, Liu Shiquan. Discussion on the Refinement of Cultural Symbols in the Artistic Characteristics of Tea Picking Opera in Southern Gansu [J]. *Drama Home*, 2020(13): 19+21.
- Jiang Haiying. Design ideas and implementation paths of traditional culture education in colleges and universities [J]. *Reference for Middle School Political Teaching*, 2021(21):82.
- Liu Shaohui. Creation of Beijing subway murals in the context of the inheritance and development of Chinese excellent traditional culture [J]. *Art Work*, 2021(06):111-114.
- Liu Yixin. Inheritance and development of traditional culture in the era of new media [J]. *Cultural Industry*, 2021(33): 25-27.
- Liang Liang. The influence of digital media art on the inheritance of traditional culture [J]. *Beauty and the Times* (Part 1), 2021(11): 28-29. DOI:10.16129/j.cnki.mysds.2021.11.009.
- Liao Ying. The role of huqin accompaniment on the singing of tea picking opera in southern Gansu and its style discussion [J]. *Fujian Tea*, 2021, 43(10): 108-109.
- Ren Min. Innovative methods of cultural product design in the context of the Internet—Comment on "Internet Product Design" [J]. *China Science and Technology Papers*, 2021, 16(11): 1273.
- Wang Yao, Wang Lei, Li Xutong. Traditional Culture Inheritance and Innovation in Rural Culture Construction: Taking Heilongjiang Province as an Example [J]. *Rural. Agriculture. Peasants (Version B)*, 2022(01):57-58.
- Wei Xi. Cultural and creative product design of tea picking opera in southern Gansu [J]. *Packaging Engineering*, 2020, 41(20): 246-249+258. DOI: 10.19554/j.cnki.1001-3563.2020.20.040.
- Yang Guo, Wu Zengli. The essence, practice review and connection path of Chinese excellent traditional culture in the era of "Internet +" [J]. *Journal of Hunan University (Social Science Edition)*, 2021, 35(05): 7-12. DOI: 10.16339/j.cnki.hdxbskb.2021.05.002.
- Yang Yang. "Internet +" Development and Inheritance of the Voice Art of Tea Picking Opera in Southern Gansu [J]. *Cultural Industry*, 2021(22): 63-64.