Research on the Spread of Embroidery Art and Non-material Culture and Art in the Internet Multimedia Age

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Abstract: With the rapid development of industrialization, traditional handicraft has disappeared silently. Therefore, in the era of rapid development of information technology, it is of great significance to widely disseminate embroidery art of traditional culture through digital technology. This paper expounds the concept of digitalization, and from the thinking dimension of digitalization communication, puts forward the way of embroidery art communication in the Internet multimedia era.

1. Introduction
Cultural heritage consists of material cultural heritage and intangible cultural heritage. Material cultural heritage is a cultural relic of historical, artistic and scientific value. The intangible cultural heritage lays more emphasis on the traditional cultural manifestations which are participated by the masses and created innovatively. Using digital means to maximize the protection of embroidery art, that is, using the form of digital media to integrate and preserve embroidery art resources, and to design and process it into an aesthetic form of digital media, to maximize the display and dissemination, has great necessity and significance.

2. Artistic characteristics and cultural value of embroidery

2.1 Embroidery art style
As intangible cultural heritage resources, embroidery has its own unique artistic style, with bright colors, concise composition, exaggerated shape, original stitching and exquisite embroidery. Embroidery, as an art, develops and evolves with the changes of folk customs in different historical periods in the course of human history. At the same time, as a kind of folk custom, it has formed an embroidery art style with regional cultural characteristics under the rich and colorful folk customs, religious beliefs and folk culture.

2.2 The value system of non-material culture and art of embroidery
Considering the essence of intangible cultural heritage, its value system is multi-level and multi-dimensional, which is embodied in four aspects: historical and cultural value, spiritual and aesthetic value, political and economic value, and scientific and educational value, as shown in Figure 1.
3. **The path of embroidery art communication in internet multimedia age**

In order to carry forward, inherit and re-create intangible cultural heritage better, digital mode should be taken as a targeted choice. It can convert the relevant information such as text and image into digital format and save it. Digital image technology can be used as a means to achieve more timely and effective protection [4]. At the same time, it also forms new means of communication and technical assistance for embroidery production technology and innovation.

### 3.1 Establishment of embroidery information database

The establishment of information database is to use digital technology to carry out reasonable academic classification and information storage, and to establish a data symbol database and material database. Data are classified into five categories: text, image, audio, video and three-dimensional objects [5]. Firstly, the embroidery art is digitalized to store the background, dissemination and inheritance, handicraft process and inheritance programming into the database. Secondly, the database of embroidery is established, and the edition of embroidery film, art picture and image data is saved in hard disk for easy retrieval, fig.2 shows the database construction process.

![Figure 2: Construction of communication database](image)

### 3.2 Establishment of professional websites

Establishing a platform of network coexistence and information sharing provides effective services for domestic and foreign experts and hobbyists of embroidery art, and promotes the exchange, standardized dissemination and mutual penetration of different cultures. Multimedia technology is used to promote the communication and dissemination of folk crafts [6]. The artistic ideas, design ideas and works of art of folk crafts masters and folk artists are made into multimedia courseware, which enriches the resources of professional colleges or institutes and enlarges the channels of communication and dissemination. The prototype of embroidery will be embedded in various digital design games. Through continuous exploration and improvement, new communication channels will be opened up and new influence will be expanded.
4. Construction of embroidery communication in internet multimedia era

Construct the optimal database model and build related application system, effectively store data, so as to meet the different needs of various types of user information requirements and processing requirements. The purpose is to solve the problems of data security, sharing and storage, so as to realize the specific requirements of users for data sharing, and to realize the relevance, security and portability of data on the basis of satisfying users’ data access requirements.

4.1 Design of embroidery resource database

The production of embroidery database mainly includes the collection of digital resources in the early stage, the editing and processing in the middle stage, and the integration of resources and the production of database in the later stage. Through the text, pictures, videos, game interaction and other means of a comprehensive introduction, the main functions are shown in Table 1 below.

| Contents                        | Details                                                                 |
|---------------------------------|-------------------------------------------------------------------------|
| Embroidery Pictures and Texts   | Introduction to the Artistic Style, Craft and Techniques of Embroidery. |
| Embroidery Skills Videos        | Demonstration and process of embroidery technology in the form of real photographs. |
| Interactive Embroidery Game     | Experience the different design artistic conception brought by embroidery art in the form of interaction. |

Figure 3. User privilleges of the embroidery resource database

Considering the security of the system, user privileges should be set. Users who are not logged in or logged in but not authenticated have the functions of registration, login, browsing, search and logout, as shown in Figure 3 (a). The logged-in and authenticated users have the functions of all non-logged-in users except registration, as well as the functions of posting, viewing and modifying personal information, as shown in Figure 3 (b) below.

4.2 Design of embroidery display and communication platform-website

In order to retrieve resources more efficiently and check the specific contents, the database management system is used at the bottom of the system to manage the path, name and category of resources effectively when designing and developing the digital communication system of embroidery resources. At the same time, the website has also established a system menu database table which is easy to expand, so that it can be easily and flexibly completed when resources are expanded in the
future. The construction of embroidery communication platform to carry out specific practical exploration is shown in Figure 4 below.

![Figure 4. Construction process of embroidery communication platform](image)

5. **Conclusions**
In the era of Internet multimedia, embroidery has been developed and displayed in a more vivid way by using the form of network communication. And a set of corresponding schemes and operational processes have been established. This lively and novel way is aimed at the people who know little about embroidery. From a certain dimension, it is the extension of database dissemination, in this vivid way, embroidery from the professional scope to the public.

**Acknowledgement**
Exploration of Effective Teaching Behavior of Teachers in Mathematical Classroom (Project No.:2018GWTSCX049) of the inheritance and application of art form in intangible cultural heritage in Guangdong Province in modern design.

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