Interactive Design of Intangible Cultural Heritage Based on Social Sharing —The Digital Revitalization of "Su Embroidery"

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Abstract: *In this paper, based on the predicament and current situation of the communication of subembroider, combined with the characteristics of subembroider in Wu Region, a digital communication platform for the integration and display of Japanese-signed subembroider cultural information for mobile terminals is built. At the same time, it improved the basic design concept and process of the digital communication platform of Su Embroider, and put forward targeted digital content presentation for the digital communication of Su Embroider. I hope to make use of the social network in the digital age, broaden the path of inheritance and protection of Su Embroider, promote the unbounded sharing of Chinese intangible cultural heritage art, and provide reference for the related digital dissemination of traditional fine arts.*

Keywords: *Intangible cultural heritage; Su Embroider; Digital communication; Social sharing.*

1. Introduction

During the Zhengde period, Wang Ao's Gu Su Zhi wrote: "Fine, fine, elegant and clean, called Suzhou embroidery" [1]. Su Embroider, rooted in Wu Yue culture, conveys the artistic conception of Jiangnan. His works contain thousands of works, either reflecting the interests of heavy lakes or hiding from pavilions and pavilions. From time to time, people's eyes are moving and their eyes are full of affection, and there is also a state of flowers competing for the intimacy of birds.

As one of the excellent traditional folk crafts in China, Su embroider is a kind of traditional arts and crafts with various patterns embroidered on the fabric surface with silk thread. It is the first batch of national intangible cultural heritage protection list. It is an excellent carrier and specific presentation of Wu Yue culture communication. However, as far as the development of Su embroider is concerned, the dissemination and inheritance of Su embroider also face some problems.

As a kind of Arts and crafts originated in Suzhou, Su embroider is well-known for its "flat, neat, fine, dense, harmonious, smooth, smooth and even" characteristics. However, the audience's cognition of Su embroider's creation and expression is only a cultural term, which limits the communication bureau of Su embroider to the embroidery industry and leads to a serious lack of influence [2]. The lack of communication means and the backwardness of communication concept also lead to the young audience's insufficient cognition of Su embroider and their low willingness to learn and inherit. Digital communication is not or rarely used in the process of Su embroider's transmission and inheritance.

In order to grasp the new opportunities provided by the digital context for the spread of ancient Su embroider skills, trigger the relatively high-frequency application of Arts and crafts intangible cultural heritage in low-frequency use scenarios, and strengthen the inheritance and protection of intangible cultural heritage in the form of digital. Taking Su embroider as an example, this paper builds a daily signature digital content display and communication platform, carries out interactive design based on the concept of social sharing, and hopes to put forward targeted digital presentation content for Su embroider communication, so as to provide reference for the digital communication of Arts and crafts intangible

cultural heritage.

2. Su embroider digital activation in social sharing

Since modern times, Su Embroider's works are mostly ornamental works. Even the initial manuscript sketching pursues the combination of color and boneless, which is simple and refined. The Qing Dynasty's Local Records of Shanghai records: "Su Embroider's skill is picturesque, and he can't find it anywhere else. ... The method is made of silk, and the needle is as fine as unscathed [3]. " Therefore, as an intangible cultural heritage of Arts and crafts, Su embroider should pay attention to let the audience appreciate the original meaning of intangible cultural heritage culture, such as Su embroider's needling, techniques and Silk Road texture in the process of digital communication.

With the development of 5g and artificial intelligence technology, the integration of intangible cultural heritage resources has been promoted in an all-round, diversified and three-dimensional way from graphics, text, sound and image, realizing the mining and integration of the geographical and historical dimensions of intangible cultural heritage resources, as well as the multi-dimensional mining and integration of audience emotion [4]. According to the 46th statistical report on the development of Internet in China, as of June 2020, the number of instant messaging users in China has reached 931 million, of which 85% are using social applications, wechat circle of friends, 41.6% are using QQ space and 40.4% are using microblog. Social network covers almost all the communication space of human society. Social media's high participation, wide coverage, communication and multilateralism make it possible to interact quickly, conveniently and with high frequency between the intangible cultural heritage and the audience, and also promote the intangible cultural heritage digital communication and sharing. Among them, the concept of "social sharing" not only contains almost most behaviors in social networks, but also becomes one of the core cultural values of social networks [5].

Su Embroider creators often express their will with embroidery, and pursue the connection of "meaning" and "ambition" and "heaven-earth-man" to show Wu and Yue culture. Works are often casual products of "adapting to the situation and imitating nature", which are loose and unsystematic. Social sharing brings the unsystematic Su Embroider works into the virtual space of social network in the form of light, shadow, sound and image. The exhibition and dissemination of Su Embroider through the daily sign images opens up a new way for Su Embroider to spread between daily life and artistic appreciation. This is not only conducive to improving the audience's visual appreciation ability and cultural literacy, but also conducive to helping the audience intuitively understand the materials, needling techniques and the development and changes of the aesthetic realm of Su Embroider.

3. Social self-restraint: social connection in the interaction of functional scenes

Digital dissemination of Su Embroider is not only a platform for audience to display, interact, share and disseminate, but also a digital platform built to help audience retain this abnormal process of inner experience when audience experiences aesthetic objects and takes positive aesthetic photos. The audience's reading of the "image" of Su Embroider is no longer a collection of simple pictures and images, but all visual materials except words and symbols. Simulation technology makes the digital presentation of Su Embroider, which can be read by the audience without restriction, and then receive information, communicate feelings, develop thinking, and produce aesthetic experience and emotional resonance [6].

According to the acculturation theory, the mass media has a slow and cumulative effect. Although it may not directly change the attitude or behavior of the audience, it will shape the audience's cognition and concept [7]. On the digital communication platform of Su Embroider, through social acculturation, intangible cultural heritage is embedded into the audience's life. Although it does not necessarily trigger the audience's sharing behavior immediately, it can infiltrate the sharing concept in the process of audience using the platform, and bring decentralized and fission communication effect [8]. It is an important foundation for non-genetic broadcasting and inheritance to let Su Embroider gradually accumulate popularity and traffic in the digital communication context, and then build multi-level communication power to realize social sharing and cross-domain sharing of Su Embroider's digital communication. The main functional modules of Su Embroider digital platform are divided into two parts: daily anecdote and popular selection, as shown in Figure 1.
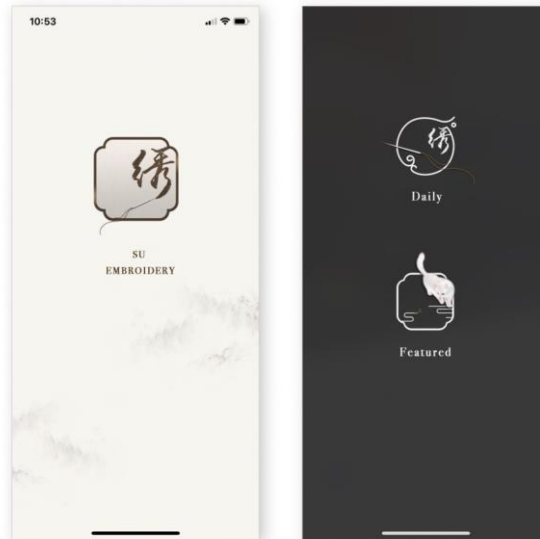
Figure 1 The functional interface design of Su Embroider digital communication platform

(1) Daily anecdotes: subtle light social interaction

Shen Shouzeng, the pioneer of modern embroidery technology education and the founder of simulated embroidery, said that Su Embroider is more like a pictographic encyclopedia, which is an image expression of historical events or folk beliefs or life aesthetics [9]. Therefore, through the perspective and recording of "time", the Su Embroider digital communication platform can visualize and animate the related stories of Su Embroider, collect, store and select a story related to Su Embroider to share with the audience every day.

Record the passage of time in the traditional way, adhere to the minimalist style and the concept of "less is more", and reduce the audience's use steps and choices during the use of the Su Embroider digital platform functional scene. By sharing emotional online content of common interest to audiences, we can strengthen the social connection between audiences, draw closer to each other, and reduce our sense of loneliness and social exclusion [10]. Choose the most outstanding works of Su Embroider, seize the attention of the audience, and facilitate them to share and spread without burden. Daily push, habit cultivation and social acculturation are carried out for the audience, so as to realize and guide the daily and social sharing of Su Embroider by the audience, and gradually form interactive stickiness, so that the audience can touch the scene and feel things in the process of sharing and interaction, and then create a wonderful environment.

Therefore, Su embroider's digital communication platform not only needs to provide the audience with the practical utility of recording dates, but also enables the audience to enhance the diversified links of social networks and learn more about Su embroider's related anecdotes in the process of sharing. The digital platform administrator can add pictures, videos or audio to the daily sign and delete it. The choice of daily anecdotes is Su embroider's story, character and history. From the origin and development of Su embroider, to the process of Su embroider (design, draft drawing, drawing, wiring, embroidery, mounting, etc.), embroidery species (flat embroidery, random stitch embroidery, double-sided embroidery, etc.), needlework (flat embroidery, stripe embroidery, dot embroidery, knitting embroidery, net embroidery, yarn embroidery, random stitch, virtual and real random stitch, etc.), tool materials (frame, stool, stand, hand rest, embroidery needle Scissors, primer, embroidery thread, etc.). The technical architecture and interface design are shown in Figure 2.
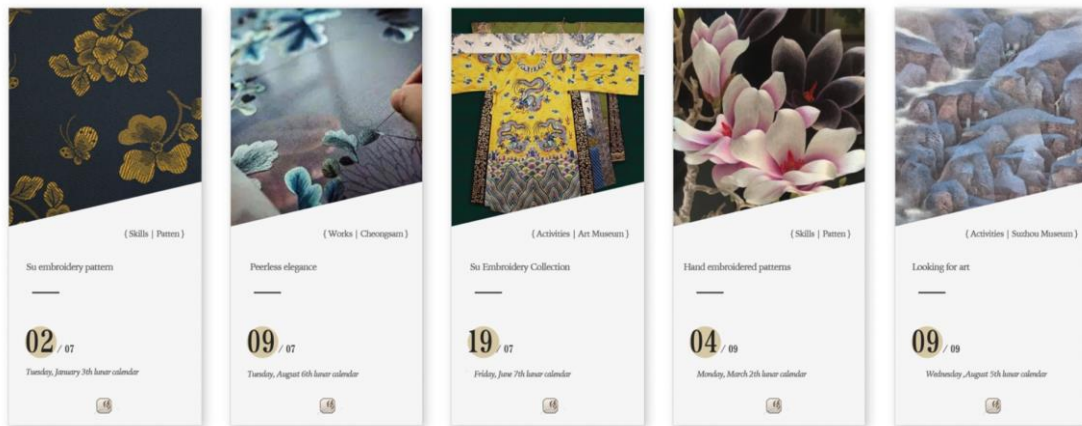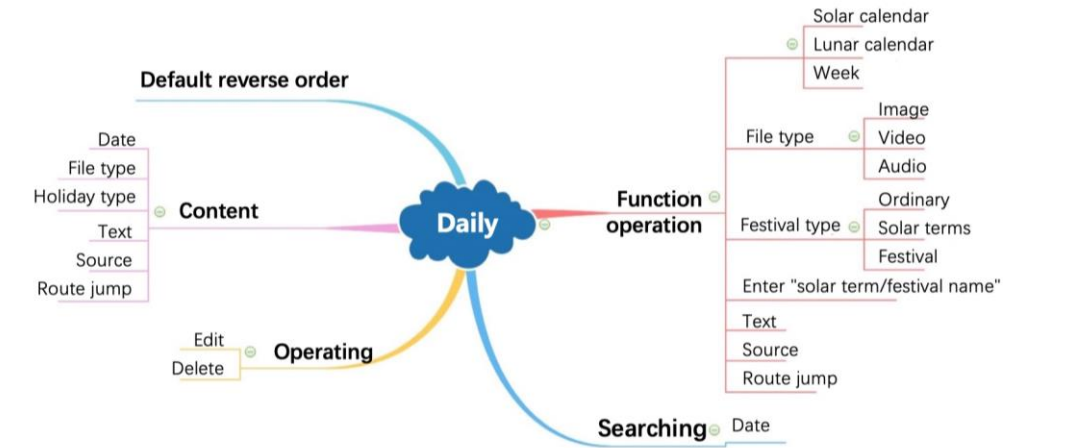
Figure 2 Technical framework of daily anecdote module and Su Embroider daily label (common)

At the same time, the contents of the daily signing will be combined with the twenty-four solar terms and folk festivals which are both right and wrong. The solar calendar, lunar calendar and week will be automatically judged and generated by the background, and will be displayed together as the daily sign time, as shown in Figure 3. For historical news, the audience can search and query directly according to the date, and the daily sign arrangement is arranged in reverse order of time by default (from new to old).
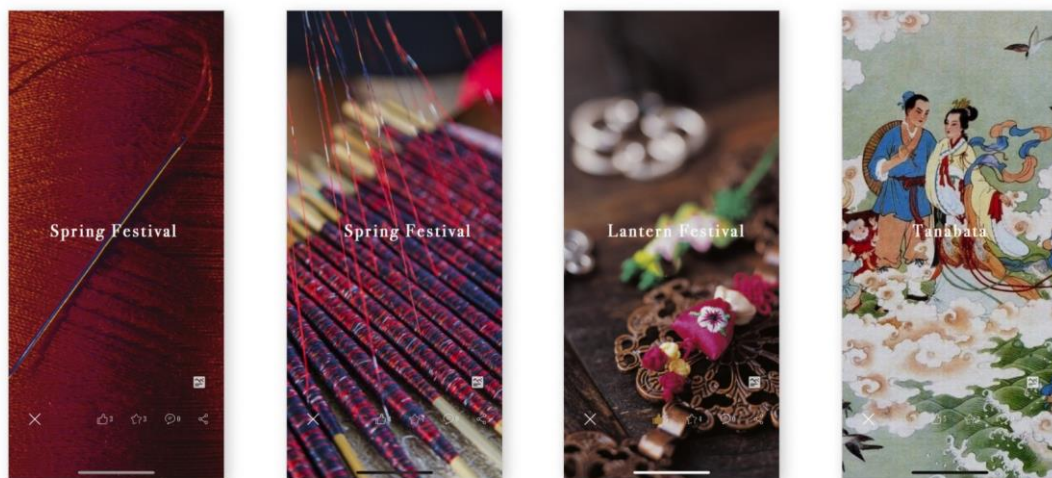

Figure 3 Su Embroider Day Sign (Folk Custom Festival)

(2) Popular selection: the agglomeration effect of digital communication

With needles instead of pens, silk instead of ink, and complicated stitches, embroidery is the essence

of embroidery. Popular selection is the collection of many embroidery essences, which displays the favorite content of the audience.

In digital communication, common enthusiasm, interest and sociality are important reasons for the audience to share online content socially [11]. The audience's willingness to share is influenced by many factors, including sharing value, sharing content, sharing attitude and sharing technology. Sharing value is the revenue that the audience can perceive, which requires the shared content to have certain social value or information and tool value [13].

By using the sharing button, you can hint to the audience and reduce the thinking cost and operation path of audience sharing. We should provide the audience with effective knowledge and information as much as possible, link the audience, and continuously improve the depth and breadth of the dissemination and sharing of intangible digital content, so as to form the agglomeration effect of intangible digital dissemination, and realize the aesthetic circle establishment and multiple circle dissemination of intangible digital content in virtual space. The technical architecture and design of popular selection modules are shown in Figure 4.
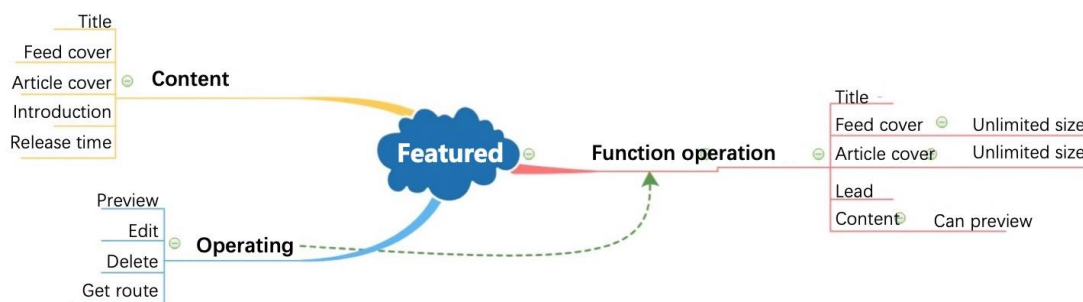

Figure 4 Technical architecture design of popular selected modules

4. Non-legacy Interest Group: Cross-domain Sharing of Subembroider Circle Communication

(1) Cultural information integration in social networks

In the digital era, the concept of "human" inherited by Su embroider is no longer just embroidery girl, but also includes Su embroider's fans and appreciators, and transcends the significance of regional and daily national art. As a digital medium, the essence of cultural heritage digital platform is the integration and transmission of information [14]. Su embroider's digital communication platform is committed to establishing the connection between "people" and "people", and also giving full play to the role of cultural information integration.

The technology supply of social functions such as sharing and comment provides a solid foundation for the audience's information production and the establishment of social networks from the bottom of the platform [15]. In the process of using the platform, the audience can actively share, comment and express their ideas and preferences. Non-genetic inheritors can find inspiration or related subjects here, combine with Su Embroider's art, gather individual thinking and original works, make Su Embroider's content innovate again, and create more popular Su Embroider's works.

Pay attention to the audience's comment and sharing behavior through the time parameters, space parameters, relationship parameters and other related influencing factors set in the background of the platform, analyze the audience's interaction experience and perception with the feedback data of digital communication platform, absorb and misappropriate the audience's emotional expression, and accurately push the intangible content that the audience is interested in, forming a daily sign information flow to display the popular comments and the latest comments. At the same time, because "Su Mao Xiang Hu" enjoys a wide reputation, the platform created its own expression inspired by Su Embroider cat, and the audience can choose to add it freely (as shown in Figure 5). Therefore, the audience can realize the realization of platform traffic on the premise of better understanding the richness and diversity of intangible cultural heritage, and finally improve the communication efficiency of Su Embroider and promote the intangible cultural heritage activation.
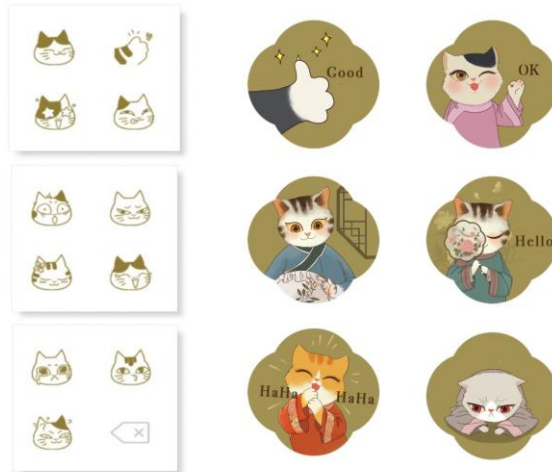
Figure 5 Su Embroider digital communication emoticon package

(2) The establishment of interesting and intangible aesthetic circle

With the development of digital technology, Su Embroider has been provided with changing development opportunities and references, so that the intangible value of arts and crafts can be preserved and circulated in digital form. The emergence of various kinds of self-media has greatly increased the enthusiasm and behavior of young audiences with the characteristics of "sharing", "showing" and "participating", and formed a huge interactive upsurge.

The social network in the digital age not only promotes the unbounded sharing of China's intangible cultural heritage art, but also gathers scattered non-legacy lovers through the network, changing the previous vertical communication mode and pattern, and gradually building a non-legacy communication community. As a metaphor, the concept of "community" has become more explicit, resulting in a "circle" closely related to cultural concepts and artistic aesthetics, showing the characteristics of circle communication.

The "circle culture", which takes social sharing as the connecting node, has gradually replaced the traditional acquaintance social form and become the substantive carrier of cultural communication and exchange. On this basis, taking the intangible value as the core, we gradually formed a community with stable core and close links by layering. The sharing of penetrating social space shaped the relationship connection and emotional expression direction of intangible cultural information, and also promoted the establishment of a large-scale layered aesthetic layer of intangible cultural information, as well as the dissemination and sharing of intangible cultural information.

Although there are individual differences among non-legacy audiences, they have the same attributes and value orientation for the same kind of non-legacy culture. The audiences form different circles with non-legacy values as the core, share the non-legacy information that the circle members need and are interested in, and form a unique "non-legacy interest group". At the same time, the resources inside and outside the platform will be linked, created and shared, and the intangible information will gradually affect a wider audience outside the circle.

After the Su Embroider digital communication platform was officially put into use, users of the platform were invited to conduct a questionnaire survey through the background. Using Likert 5-point scale, this paper evaluates the Su Embroider digital platform from the perspectives of users' perceived usefulness, platform interactivity, satisfaction and willingness to use continuously, and collects 372 valid questionnaires. The statistical results show that (as shown in Figure 6), the age of platform users is mainly under 30 years old (about 60%), and the platform is highly evaluated in terms of interactivity and perceived usefulness. At the same time, because the Su Embroider digital platform is mainly displayed in the form of a daily sign, it is possible to conduct a second return visit to the users who use the platform after an interval of six months to one year, and compare the data of their willingness to use continuously.
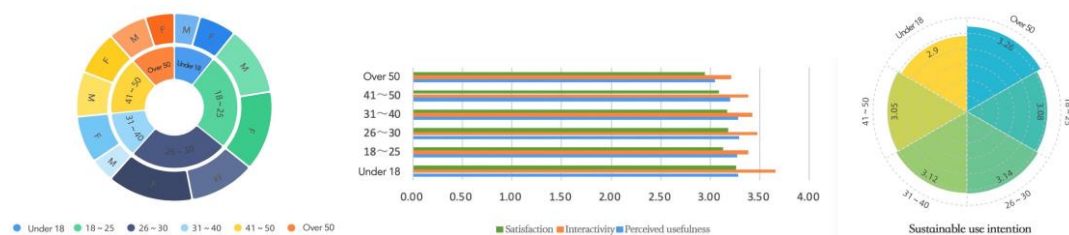
Figure 6 Statistical analysis of user experience of Su Embroider digital communication platform

5. Summary

With the advent of the digital age, the earth has become a village, and the real-time interconnection between all corners has successfully realized the cross-regional blending of culture, and digital communication has also brought about the cross-regional sharing of China's intangible cultural heritage.

On the whole, the digital communication of arts and crafts represented by Su Embroider, including the audience, forms, ways and strategies, has not been discussed in depth. The digital means should be used to protect and inherit Su Embroider, and the overall construction of the digital communication platform should also be comprehensively considered in combination with the specific presentation content.

As a platform for integrating cultural information and providing digital display, Su Embroider digital communication platform can not only promote the digital protection of Su Embroider content, but also provide a storage platform for instant sharing and interaction, attracting more young audiences to participate in the interaction, and subtly enhancing the influence of Su Embroider among young audiences. The social network will also gather scattered Su Embroider lovers through the network, so that more cross-regional audiences, especially young audiences, will have more opportunities to recognize and share Su Embroider's exquisite skills and artistic charm, thus promoting the unbounded sharing of Su Embroider's art and expanding the spread range of Su Embroider.

The construction of digital communication platform of intangible cultural heritage in the digital age needs to take "eye-catching" as the basic point, visual communication as the driving force and sharing as the guidance, and explore the digital communication mode of ancient intangible art. The audience can gain aesthetic pleasure by using the visual characteristics and exquisite skills of Su Embroider, so as to gain the upper hand in the audience's attention game. Only in this way can we break the main barrier of the regional division of intangible cultural heritage and broaden the path of inheritance and protection of intangible cultural heritage such as Su Embroider.

Acknowledgement

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