

# A Review of Research on the Development of Intangible Cultural Heritage Activation Based on Service Design Concepts

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**Abstract:** This study, through a systematic literature analysis, conducts an in-depth exploration of the ingenious application of service design thinking and methodologies, aiming to infuse fresh perspectives and innovative pathways into the inheritance and development of intangible cultural heritage (ICH), thereby facilitating the expansion of broader practical dimensions for its protection and transmission. Grounded in a macro framework, this research systematically dissects the unique value and profound significance of service design within the domains of ICH protection and communication. It argues that the integration of this thinking approach not only enriches the theoretical system of ICH protection and provides robust guidance for practical endeavors but also propels ICH to radiate more brilliant splendor amid the tides of the new era.

**Keywords:** Service design; Intangible cultural heritage activation; Living inheritance

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## 1. Introduction

Intangible Cultural Heritage (ICH) constitutes an essential carrier of Chinese civilization's millennia-old traditional cultural evolution, serving as a "living fossil" that preserves national history through its undiminished relevance to contemporary socio-cultural contexts<sup>[1]</sup>. However, the rapid development of society and economic globalization has brought challenges, causing many intangible cultural heritages to be gradually forgotten and lost. For this reason, protecting, inheriting, and innovating intangible cultural heritages have become urgent issues to be addressed in today's society. In recent years, the rise of national trends and styles is a manifestation of the creativity of traditional Chinese culture and also reflects the contemporary value of inheriting intangible cultural heritages<sup>[2]</sup>. In the innovative practice of ICH, designers integrate its cultural essence with modern products' functions and aesthetics, creating works with both heritage and market competitiveness. This commercial value highlights the importance of reinnovation

in ICH development. However, such models are currently limited to university teaching and remain underutilized among professional designers and artisans, leaving much potential untapped. This study applies service design—with its focus on user-centeredness, systematic integration, and whole-process optimization—to enhance ICH dissemination, experiential appeal, and social impact, contributing to its dynamic inheritance and sustainable development. The paper reviews recent domestic research integrating service design into ICH development, distilling theoretical insights and practical experiences to offer scientific, actionable approaches for ICH protection, inheritance, and innovation.

## **2. Introduction of intangible cultural heritage**

### **2.1. Definition of intangible cultural heritage**

Intangible cultural heritage (ICH) refers to the practices, knowledge, skills, and expressions that communities recognize as part of their cultural heritage, along with the tools and spaces associated with them. It embodies human creativity and holds deep cultural, historical, and social value. ICH includes oral traditions, performing arts, rituals, social practices, and craftsmanship—each rich in meaning. As a living expression of cultural diversity, it helps sustain community identity, promote cultural exchange, and strengthen cultural confidence. Preserving ICH protects global cultural diversity and supports the sustainable development of traditional culture, reflecting respect for our shared human heritage. Amidst the flourishing domestic economy, the abundant resources of intangible cultural heritage have become an integral part of the cultural economy, facilitating the integration of traditional craftsmanship into modern life and societal development <sup>[3]</sup>.

### **2.2. The current state of the intangible cultural heritage industry**

In recent years, China has seen growing interest in the industrialization of intangible cultural heritage (ICH), with research expanding into areas such as productive conservation and rural revitalization. The commercialization of ICH crafts is now at a pivotal stage of robust growth, marked by surging innovation and market potential. In 2024, sales of ICH-related products on Taobao and Tmall grew by over 20% year-on-year, while Douyin's e-commerce platform recorded total sales of ¥85 billion. Specialized industries, such as Heqing's silverware in Yunnan, have seen annual revenues exceed ¥4.1 billion through e-commerce channels. The fusion of ICH preservation with business practices has led to a remarkable 549% increase in the number of ICH merchants earning profits on Douyin. Many ICH practitioners are leveraging live streaming to expand their businesses, with a 249% increase in sales volume year-on-year for ICH-related live streams on Douyin, accumulating over 100,000 hours of streaming and attracting more than 250 million viewers. However, this growth is not without challenges. Issues such as a lack of creativity in dissemination and commercialization trends that stray from traditional values are leading to the commodification of ICH products, with prices increasing but buyer interest waning <sup>[4]</sup>.

In the face of the current dilemmas in the industrialization development of intangible cultural heritage (ICH) handicrafts, there is an urgent need to inject new vitality into development, and design is the key force in solving these challenges. Through design empowerment, it is possible to deeply explore the cultural core of ICH, expand the space for value-added products, and accurately meet the diverse needs and aesthetic preferences of modern consumers, seamlessly connecting traditional crafts with contemporary life. Building a channel between handicraft artisans and consumers can not only increase the income of artisans but also promote the transformation of rural revitalization from “blood transfusion” to “blood production”, fostering

innovative development of traditional ICH culture <sup>[5]</sup>.

### **3. Introduction to service design**

#### **3.1. Definition and evolution of service design**

Services are increasingly shaping daily life and redefining experiential logic across various scenarios. Over the past decade, digital technology has driven traditional product design from a functional focus toward an experience-oriented approach. In the economic sector, service design has been widely adopted and deeply integrated. Meanwhile, countries like the UK and Denmark have pioneered their application in public sectors such as healthcare, education, and infrastructure. Through systematic design thinking, they have optimized public service processes and enhanced social welfare, thereby expanding the scope and depth of service design.

In 1991, British scholar Bill Hollins introduced “Service Design” to the design field, establishing a user-centered, interdisciplinary theoretical framework. Since the 21st century, its application has expanded from traditional industries like catering and retail to public sectors such as healthcare, education, and infrastructure, becoming a key tool for improving public service efficiency. In 2008, the British Standards Institution defined service design as the stage of shaping services to meet users’ reasonable needs while using resources efficiently, offering clear guidance for its development and application <sup>[6]</sup>.

In 2012, Chen Qitang proposed that service design, as a model for promoting social harmony, integrates both natural and social sciences in theory and practice. Its inherent contradictions reflect a holistic perspective and the interplay of diverse interests. It draws on methods from engineering, marketing, and management to maximize value, while embracing the pluralism of disciplines such as sociology, anthropology, ethnography, and cultural studies. The goal is to balance the interests of all parties to achieve ideal solutions, adaptively forming an “opportunistic switching mechanism” and behavior. In practical evaluation, a design is considered “service design” only when it meets the demands of all stakeholders and integrates them into a cohesive system <sup>[7]</sup>. Feng Wanting and Zhang Hua view service design as a user-centric design philosophy focused on deeply understanding user needs and experiences to create superior services and experiences. This approach is widely used in the service industry, including catering, retail, and hotels, and can also be applied to other areas such as government, non-profit organizations, education, and the development of intangible cultural heritage <sup>[8]</sup>. Service design is a user-centered, interdisciplinary methodology that integrates personnel, environment, facilities, and information through multi-stakeholder collaboration. It optimizes service models, processes, and touchpoint experiences to enhance service quality, operational efficiency, and core value. With broad adaptability, it applies not only to traditional service sectors like catering, retail, and hospitality but also to public services, education, non-profit operations, and the revitalization of intangible cultural heritage and traditional cultural contexts.

#### **3.2. Methods of service design**

Service design is an innovative approach to planning and designing service experiences to meet user needs and expectations. The methods and processes of service design are constantly evolving. Common service design methods include blueprinting techniques, process chart design, empathic design, and service experience engineering <sup>[9]</sup>.

The service blueprint was introduced by American scholars Shostack and Kingman Brundage in the 1980s, with the aim of illustrating the service system and pinpointing key service touchpoints. This technique

simplifies the intricate and abstract service delivery process by detailing the service flow, customer and employee behaviors, service touchpoints, and evidence, thereby making it more tangible and clear. It serves as a powerful tool for service management <sup>[10]</sup>.

The process chart design method is a key tool in service design for organizing system logic and optimizing service paths. It deconstructs complex service processes into clear, visual nodes, helping designers and stakeholders quickly grasp core logic, identify pain points, and discover optimization opportunities. Particularly in ICH inheritance—whether in skill teaching, cultural product development, or digital platform management—scientific process chart design is essential for simplifying complexity and clarifying ambiguous segments.

As a key user-centered research method, empathic design requires designers to deeply immerse themselves in users' contexts, experiencing their attitudes and feelings to uncover unspoken needs and pain points. This transcends subjective limitations, offering precise direction for design. In ICH inheritance—whether designing experiences for youth or optimizing skill dissemination for inheritors—empathic design builds an emotional bridge between designers and users. Truly understanding inheritors' dedication and struggles, as well as young users' curiosity and distance from ICH, ensures that design outcomes meet real needs and carry cultural warmth, avoiding impractical solutions. This process enables designers to creatively understand users and their lives, providing strong support for design <sup>[11]</sup>.

The service experience engineering method, grounded in service design principles, focuses on optimizing the full user journey through systematic engineering tools. It deconstructs service segments, quantifies experience indicators, and addresses pain points to build a stable, high-quality, and replicable experience system. Unlike empathic design, it emphasizes implementation—translating abstract user needs into concrete processes, touchpoint designs, and standards. This approach is particularly suited to complex systems like ICH inheritance, which involves multiple roles and online–offline scenarios. Whether in ICH workshop experiences, online courses, or cultural product sales, service experience engineering integrates cultural value with engineering precision, ensuring consistent, professional service delivery and preventing instability caused by unclear processes or vague standards.

Although each approach has its own focus, they are complementary and indispensable. Empathic design identifies user needs in ICH inheritance, process chart design plans efficient implementation paths, and service experience engineering builds a stable, sustainable ecosystem. The organic integration of these three enables ICH inheritance to shift from passive protection to active development, and from niche appreciation to mass participation.

## **4. Application of service design thinking in the revitalization and development of intangible cultural heritage**

### **4.1. The significance of introducing service design to intangible cultural heritage**

The significance of service design for ICH development extends beyond cultural packaging—it is a user-centered, scenario-based, systematic innovation. By deconstructing core challenges in ICH inheritance, it transforms cultural essence into service forms suited to modern life, enhancing user engagement and satisfaction while achieving deep cultural dissemination and sustainable economic value. This addresses the dilemmas of ICH being “well-regarded but not well-received” and the lack of successors, activating endogenous motivation for living inheritance.

First, it connects with young audiences, lowering the inheritance barrier. Through user research, it identifies youth interest in trends like “guochao”, interactive experiences, and social sharing. Scenario-based design transforms abstract ICH skills into engaging content—such as integrating Suzhou embroidery into mystery boxes, adapting shadow puppetry into immersive theater, or using AR to demonstrate mortise-and-tenon structures. This approach turns youth from passive observers into active participants and potential inheritors.

Second, it empowers inheritors, enhancing inheritance effectiveness. By optimizing processes, building digital platforms, and supporting operations, service design helps inheritors focus on craftsmanship while solving challenges in dissemination and sales. Tools like short videos, livestreaming, online courses, and cross-brand collaborations expand reach and income, making inheritance a dignified and rewarding career choice.

Third, it systematically protects the ICH ecosystem. Viewing ICH as an integrated whole of skill, culture, people, and context, service design ensures holistic preservation—from raw materials and folk rituals to oral memories—by establishing standardized channels, themed experience bases, cultural databases, and inheritor networks. This prevents fragmented inheritance and sustains ICH’s complete vitality.

## **4.2. Research on the living inheritance and innovative transformation path of intangible cultural heritage handicrafts**

With their rich historical and cultural significance, traditional handicrafts benefit from service design, whose user-centered and systematic approach promotes their living inheritance and industrial upgrading. Empirical research has confirmed the value of integrating service design with ICH handicrafts, yielding a series of practical and innovative solutions:

**Building Digital Service Platforms:** Wang Qibin, focusing on the pain points of intangible cultural heritage (ICH) handicraft dissemination, a special app design concept is proposed<sup>[12]</sup>. By integrating digital services such as skill teaching, cultural interpretation, and work display, it enhances users’ interest and engagement with ICH content, providing an efficient online platform for the inheritance of ICH culture. In response to the narrow sales channels and limited dissemination of the Yunnan Yi embroidery industry, relevant research has constructed an integrated “online + offline” service model. A dedicated online app is designed, integrating product display, custom orders, skill exchange, and other functions, effectively expanding the boundaries of industry services and assisting in the sustainable inheritance of Yi embroidery. Xu Shibo and colleagues, based on practical effectiveness and experience, a more open ICH handicraft activation platform app design is proposed<sup>[4]</sup>. Building on the existing ICH app products that are limited to cultural science popularization and digital protection, a more open commercial platform is constructed, allowing more people from all walks of life to participate in ICH inheritance, enabling multiple stakeholders to develop in the process of ICH inheritance.

**Creating Personalized Experiences and Emotional Connections:** Li Xinyue takes Guangcai porcelain as the research object, integrating personalized customization thinking from service design into practice<sup>[13]</sup>. By allowing users to participate in the design of patterns and the selection of craftsmanship, it strengthens the dual connection between users and ICH products in terms of material use and emotional resonance, opening up a differentiated development path for traditional porcelain art. Chen Jianjia deeply excavated the historical context of ICH lotus lanterns, sorted out the logical relationship between “events” and “objects”, designed interactive experience products, allowing users to perceive the cultural connotations of ICH in participatory

experiences, significantly enhancing the effectiveness of dissemination and cultural identity<sup>[14]</sup>.

Cross-regional industry collaboration and rural empowerment: The Shanghai University team, in its ICH protection practice in Guoluo, Qinghai, uses service design thinking to build a cross-border cooperation model between “ICH inheritors and designers.” By integrating creative design resources from Shanghai with ICH resources from Guoluo, it optimizes the practical functions and aesthetic design of ICH products, creating a series of cultural and creative products that meet modern market demands. At the same time, it builds a cross-regional sales and dissemination platform, which not only increases the income of local inheritors but also promotes the integration of ICH into modern life, achieving coordinated development of cultural inheritance and rural revitalization.

These researches and practices fully demonstrate that service design can inject new vitality into ICH handicrafts from multiple dimensions such as dissemination channels, user experience, and industry ecology. Its core value lies in systematically innovating to bridge the gap between traditional crafts and modern society, adhering to the cultural core of ICH while achieving an organic integration of tradition and modernity through digital, personalized, and collaborative service models, providing practical and feasible implementation paths for ICH protection and inheritance.

## 5. Conclusion

Looking ahead, the living inheritance of ICH requires continued exploration of the dynamic between tradition and innovation. As a vital tool, service design can expand into deeper and broader areas: technically, by integrating AI-generated design and the metaverse to create immersive ICH experiences; industrially, by advancing ICH + culture tourism and ICH + rural revitalization to build cross-regional, full-chain ecosystems; and educationally, by embedding service design thinking into school and community programs to cultivate culturally aware and innovative inheritors.

Cultural inheritance is not static replication but dynamic growth. Service design infuses ICH with both innovative methods and future vitality. By continuously applying design thinking and practical exploration, ICH’s millennia-old civilization can shine more brightly in contemporary society—truly evolving from revival to widespread relevance and contributing lasting spiritual strength to China’s cultural renaissance. This study aims to offer new insights and pathways for ICH inheritance and development, helping its culture radiate renewed brilliance today.

## Disclosure statement

The author declares no conflict of interest.

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