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UTILIZING SERVICE DESIGN APPROACH TO IMPROVE THE
DISSEMINATION OF CHINESE SHADOW PUPPETRY ON WE-
MEDIA: THE CASE OF HUAXIAN, SHAANXI PROVINCE

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Utilizing service design approach to improve the dissemination of
Chinese shadow puppetry on we-media: The case of Huaxian, Shaanxi
Province

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A thesis submitted in partial fulfilment of the requirements for the
degree of Doctor of Philosophy

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Abstract

Chinese shadow puppetry is a unique art variety produced by the ingenious combination of folk arts and crafts with traditional Chinese opera. This aspect represents a vital component of China's Intangible cultural heritage and has global significance. The advent of 5G technology marks China's entry into a new era of thriving we-media. We-media presents an opportunity for traditional culture to re-emerge in a modern and trendy manner. This occurs because of low entry barriers, rapid dissemination, and varied forms of expression. Researchers begin to pay attention to the support that we-media can provide for Chinese shadow puppetry inheritance and protection. However, most of the existing studies are more focused on exploring challenges in the integrated development of Chinese shadow puppetry and we-media instead of proposing optimization strategies based on the cultural functions of Chinese shadow puppetry and the characteristics of different we-media types. Huaxian shadow puppetry in Shaanxi Province is chosen as the primary object of this research because of its exquisite shadow puppet carving craftsmanship, melodious singing voice, and superb shadow puppetry performance skills. Huaxian shadow puppetry is enough to represent the artistic value of Chinese shadow puppetry.

This research adopts an interdisciplinary approach and proposes a conceptual framework that ‘uses sociology theory to find problems, use communication theory to analyze problems, use design theory to solve problems.’ Specifically, this research first analyzes the development dilemmas and cultural functions of Huaxian shadow puppetry based on ‘Cultural Function Theory.’ Given the problems, this research then utilizes the ‘Uses and Gratifications Theory’ to investigate how to ‘identify, extract, innovate, reconstruct and display’ the cultural functions of Huaxian shadow puppetry in the process of we-media to meet the needs of contemporary society. After that, this research constructs a service design model to guide Huaxian shadow puppetry we-media creators in creating digital content that effectively meets the needs of audiences. This research uses mixed research methods, including expert interviews, questionnaires, case studies, and data mining. The researcher conducted 15 in-depth interviews to comprehensively understand the fundamental dilemmas and cultural functions of Huaxian shadow puppetry in contemporary society. The researcher gathered 509 valid questionnaires and these data enabled the analysis of user motivations and interaction preferences. Furthermore, the researcher collected approximately

2,100 videos and network data, concentrating on the dissemination patterns of Chinese shadow puppetry-related digital content across we-media platforms.

Through the matching analysis of the characteristics of we-media platforms and Huaxian shadow puppetry inheritance needs, the researcher finds that the short video we-media platform is the most beneficial we-media type for Huaxian shadow puppetry dissemination. And among the various short video we-media platforms, TikTok is screened out due to its vast user base and the highest market share.

This research develops a service design model aimed at enhancing users' experiences in watching and interacting with Huaxian shadow puppetry digital content on TikTok. Through its findings, this research expects to provide a theoretical and research methodological reference for the practical application of digital technologies in Chinese shadow puppetry dissemination from other regions, even other types of Intangible cultural heritage and to aid in the safeguarding of Intangible cultural heritage.

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Abbreviations

ICH	Intangible cultural heritage
UGC	User-generated Content
PAR	Participatory Action Research
UI	User Interface
UGT	Uses and Gratifications Theory
VR	Virtual Reality
3D	Three dimensional
CNNIC	China Internet Network Information Centre
PGC	Professionally-generated Content
OGC	Occupationally-generated Content
PUGC	Professional User Generated Content
MGC	Machine Generated Content
UNESCO	United Nations Educational, Scientific and Cultural Organization
LPS	Like per Second
Apps	Applications
CSICH	Convention for the Protection of the Intangible Cultural Heritage
CJM	Customer Journey Map
PCs	Personal Computers
AI	Artificial Intelligence
MCN	Multi-channel network
DAU	Daily active users
MAU	Month active users
GIF	Graphic Interchange Format
PiP	Picture-in-Picture

1.0 INTRODUCTION

1.1 Research Background

1.1.1 Chinese shadow puppetry in modern society

Shadow puppetry is one of the earliest types of opera produced in China, and it is a unique art form that is a perfect fusion of different disciplines of art such as opera, folk arts and crafts (Xu, 2015). In the context of traditional agrarian civilization, shadow puppetry is very popular in the vast countryside. Shadow puppetry is used to pay tribute and make wishes to the gods, ward off evil spirits, as well as for customs activities such as childbirth, marriage, birthday celebrations, and ancestral worship (Zhang, 2013). In the realm of folklore, shadow puppetry is performed as religious ritual or in accordance with specific folk beliefs that possess religious characteristics, thereby facilitating spiritual redemption for individuals while simultaneously providing aesthetic pleasure to the wider social audience. The dissemination of shadow puppetry in traditional society is based on the folk culture ecology, the frequency of dissemination is low, but the audience group and the time of acceptance are concentrated and stable (Xu, 2015). Most of the artists who performed shadow puppetry were farmers themselves. The audience and the actors share a common aesthetic interest, and the plot of shadow puppetry is closely linked to the audience's emotions and lives. In traditional agricultural societies where entertainment activities were scarce, shadow puppetry, with its comprehensive artistic features, could arouse the enthusiasm of the people; the people also had enough time to complete the artistic appreciation of a narrative performance.

In the modern information ecology, the types of entertainment, forms of viewing and media of dissemination are becoming more diversified. Coupled with the demystification of the public's mindset, shadow puppetry has been unable to satisfy contemporary people's demands for culture in the context of modern lifestyle and modern aesthetic psychology. With the diversification of art consumption, people are inclined to choose comprehensive narrative art with high technological content, strong interactivity, strong sensory stimulation, condensed plots, and flexible ways of appreciation. The rapid advancement of contemporary digital technology not only furnishes novel forms of expression for shadow puppetry but also pioneers new routes for its inheritance and development. The introduction of virtual reality (VR) technologies allows audiences to acquire an

in-depth comprehension of the cultural connotations of shadow puppetry through immersive experience (Zhou, 2024). Artificial intelligence (AI) technology is also gradually being applied in the automated production and performance of shadow puppetry. Through machine learning and deep learning algorithms, the automated generation and performance of shadow puppetry can be realized, reducing production costs and enhancing production efficiency (Luo, 2022). In terms of dissemination, the swift development of we-media offers new opportunities for the global promotion of shadow puppetry. Through short video platforms, live streaming, and we-media interaction, shadow puppetry can break through geographical limitations and attract the attention of global audiences. The rapid development of digital technology has provided diverse application scenarios for shadow puppetry in modern society, but the value of culture is ultimately determined by its audience. Therefore, it is imperative for the preservation and advancement of shadow puppetry to create innovative performances and cultural content that resonate with contemporary audiences' cultural aesthetic needs.

1.1.2 Attempt to re-express shadow puppetry on we-media platforms

The practice of shadow puppetry has strayed from modern social and cultural contexts, yet it still retains the momentum and circumstances necessary for its continuation. Chinese society is undergoing unprecedented rapid changes, including demographic restructuring, accelerated urbanization and diversification of values. These changes have led to a diversification of the public's information needs, as they not only pay attention to traditional news, but also take a keen interest in entertainment, lifestyle, science and technology, and other areas. We-media meets these emerging needs well with its flexibility and diversity. We-media has brought users closer together, reshaping the culture of modern society and the way it perceives others. The decentralized interactive architecture of we-media has made individuals the main body of recorded information, and individuals are no longer passive users of the media and passive recipients of information but have become more of producers or even protagonists of content. We-media has a large user base, fast dissemination speed, low dissemination cost, real-time interaction, no geographical restrictions on the scope of dissemination, low threshold for creation.

The categories of we-media exhibit significant diversity. Influential formats encompass blogs, Weibo, WeChat official accounts, podcasts, and various short video platforms, notably TikTok and Bilibili (Zhang, 2014). The diverse we-media platforms allow shadow puppetry to be vividly

presented in video, audio, and graphic forms, which enhances the artistic impact. In addition, the algorithmic recommendation mechanism of we-media platforms can achieve personalized content pushing according to users' interests and behavioral habits, which improves the dissemination effect and reduces the dissemination cost. We-media's functions such as commenting, liking and sharing make it possible for the audience to directly participate in the feedback of the content, forming a good interactive atmosphere. We-media platforms encourage original content, and shadow puppetry practitioners can combine modern aesthetics and social hotspots to create works that are more in line with the aesthetic needs of modern audiences. By incorporating shadow puppetry into the realm of we-media and blending it with modern cultural elements, we-media users can create a harmonious balance that appeals to the audience. This novel method of artistic expression seeks to elevate the cultural competitiveness of the market and guide the public toward a deeper appreciation of the arts.

1.1.3 Service design empowers shadow puppetry innovation

As China completes the transition to the era of tertiary industry, service design is detached from the traditional design and the focus of design shifts from objects to behaviors and then to experiences (Ma, 2022). In the process of service design, human needs serve as the starting point, value innovation acts as the goal of design research, and user experience remains the main focus. The design strategy for transforming Intangible cultural heritage (ICH) into cultural services aims to convert the public's demand for culture into experiential value. Experiential value, in turn, facilitates the inheritance and innovation of ICH. Therefore, the application of service design theory in the inheritance and innovation of ICH can create greater service value while exploring diversified ways to protect ICH (Zhang, 2017).

With the systematic and user-centered concept, service design provides an innovative route for the dynamic inheritance of ICH. By integrating resources from multiple stakeholders, the application scenarios of service design in the field of ICH include digital dissemination platforms (Cai, 2023; Xiong et al., 2023), immersive experience design (Xia, 2023), cultural and creative product development (Xiong et al., 2023), as well as research and study tourism service system (Xia, 2023). These practices, through optimizing user journeys, promoting community co-creation and policy synergy, drive ICH from "static protection" to "dynamic inheritance", facilitate the transformation

of cultural value into economic value, and inject vitality into the sustainable development of ICH in contemporary society.

The service design strategy can improve the participation and experience of shadow puppetry inheritance, offering users a more anticipated interactive cultural experience. Service design can also customize inheritance methods to cater to the diverse needs of various groups. It designs approaches that align more closely with their daily lives and are easier to embrace, thus enhancing the accessibility and appeal of shadow puppetry inheritance.

1.2 Conceptual Definitions

The cultural function theory takes the satisfaction of an individual's basic needs as the anchor point of functional analysis. Cultural function theory emphasizes that any culture or social phenomenon has its existence and indispensable role (Tang, 2018), and the function of culture is to satisfy the individual's three different levels of needs i.e. basic needs, derived needs and comprehensive needs (Hui, 2015). The existence of culture holds functional significance, and the inheritance and safeguarding of ICH can be elucidated from the perspective of cultural functionality. The fundamental criterion for the successful inheritance of traditional culture lies in its ability to continue meeting specific needs and fulfilling its cultural functions.

Uses and gratifications theory (UGT) is an important theoretical framework in the field of dissemination. 'Uses' stands for users' engagement with various media platforms, while 'gratifications' refers to users' media consumption behavior aimed at satisfying social and psychological needs, which include cognitive and affective aspects. UGT may be the most influential paradigm for understanding users' motivations behind media use in mass dissemination research (Florenthal, 2018; Dias and Duarte, 2022).

Services aim to meet users' needs. Here, the user refers not to a single individual but to all the stakeholders impacted by the service. Service design facilitates the interaction process between service providers and recipients to enhance service experience and promote value co-creation. This embodies a demand-oriented design paradigm (Xia, 2023; Zhang, 2017). The integration of service design with the inheritance and promotion of ICH allows cultural stakeholders to interact and

continually refine the content of cultural services. This ensures that traditional culture addresses the cultural and aesthetic needs of the general public (Wang, 2017).

Generally, although the three theories on which this research relies come from three different disciplinary fields, their common goal is to satisfy the individuals' needs. This research aims to meet the cultural needs of individuals by redesigning shadow puppetry we-media content through service design while utilizing the we-media platform.

1.3 Research Gaps

This research identified three critical research gaps by reviewing current literatures, which merit further exploration.

- Scholars currently emphasize the analysis of ICH content distribution on we-media platforms. They explore how these platforms facilitate the promotion of ICH. However, research remains scarce from a foundational viewpoint. There is a need for an integrated approach that combines cultural studies and communication studies. This approach should focus on efficiently disseminating ICH on we-media, taking into account audience cultural preferences and the distinct features of we-media communication.
- The current research on the application of service design theory in the field of we-media mainly focuses on developing and designing software functions. It analyzes the convenience and interactivity of users during software use. Additionally, it optimizes the functionality and user interface (UI) of short video software in terms of service design. However, the ultimate goal of functional software realization is the dissemination of video content. The core of effective video content dissemination lies in the value and significance of that content. There is limited research exploring the concept of service design in the creation of we-media content. As the most popular contemporary form of information dissemination media, the process of information transmission inherently serves as a process of service. The service attributes of information, aided by the development of Artificial Intelligence (AI) and other technologies, continuously strengthen the targeted, customized, accurate service model; this is the future trend of information services.
- At present, concerning the researches on shadow puppetry culture, scholars primarily focus

on cultural protection, inheritance, and historical value. Although the concepts of revitalization and protection have emerged, no exploration has occurred on how shadow puppetry culture can fulfill its cultural function in contemporary society. Furthermore, it remains unclear how it can meet public demand as a prerequisite for its inheritance.

1.4 Research Design

1.4.1 Research objectives

Based on the identified research gaps and the cultural environment in China, this research aims to contribute specific knowledge on applying service design theory in Chinese shadow puppetry dissemination via we-media platforms to facilitate the inheritance and innovation of Chinese shadow puppetry. There are two research objectives:

Research Objective 1 is to use the cultural function theory and the UGT, matching the contemporary cultural functions of ICH with the audiences' needs satisfied by we-media, so as to realize the dissemination of ICH via the we-media platform.

Research Objective 2 is to optimize the effectiveness of ICH short video services by applying service design theory.

1.4.2 Research Scope

This research brings together the theories of digital media and ICH. While take a focus on Chinese shadow puppetry related User generated content (UGC) design on we-media platforms. Figure 1.1 illustrates this focus more clearly. And the research scope lies at the convergence of UGC on we-media platforms and Chinese shadow puppetry (See figure 1.1).

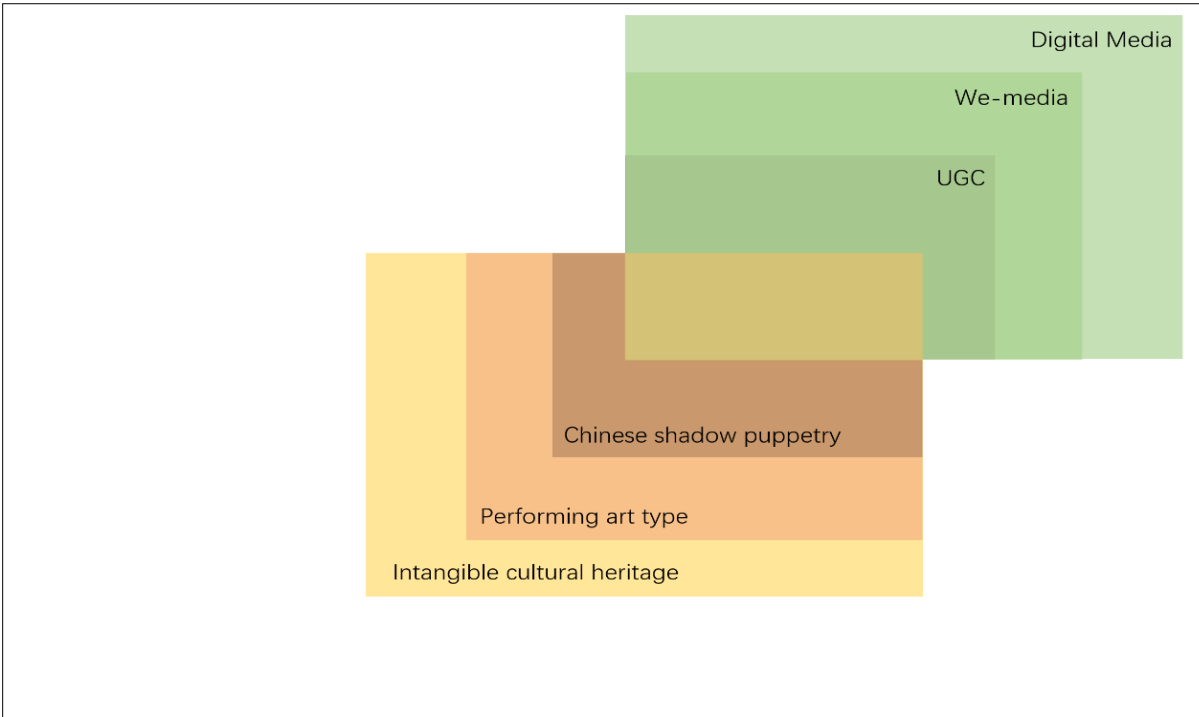


Figure 1.1 The Scope of this research

Source from: Author, 2019

1.4.3 Research Questions

The researcher adhered to a systematic approach in addressing research questions, following the sequence of "realistic observation - problem identification - literature review - gap analysis - determination of research objectives - formulation of research questions." Initially, through realistic observation, the researcher identified that the inheritance and protection of ICH have emerged as a significant topic in contemporary society. In the context of the rapid development of we-media, existing inheritors have successfully facilitated the dissemination of ICH on we-media platforms. However, the progress of related scientific researches has not kept pace with these practical advancements. This research aims to analyze and optimize this phenomenon from a scientific perspective, thereby guiding and enabling a more effective integration of ICH with we-media for the purpose of inheriting ICH. Subsequently, the researcher conducted an extensive literature review, clearly identifying the research gaps and significance of this research. And proposed a cross-disciplinary research methodology that could effectively address the gaps present in existing studies. To validate the research more effectively, the research defined its scope and selected Huaxian shadow puppetry as the study case. Based on the identified research gaps and the

applied methodologies, the researcher established two primary research objectives. To achieve the proposed research objectives and bridge the corresponding research gaps, the research formulates the overarching research question. Simultaneously, based on the two research objectives, to address the overarching research question, the research proposes two sub-questions.

This present research frames the following research questions:

How to improve the dissemination of Chinese shadow puppetry on we-media platform by applying service design theory?

To grasp this concept, the author has investigated the following sub-questions.

The first set of sub-questions concerns the relationship between ICH and we-media:

- Which kind of "we-media" is more suitable for the dissemination of shadow puppetry?
- What are the contemporary cultural functions of Chinese shadow puppetry? What are some that can be realized on we-media platforms?
- What needs are being satisfied when short video audiences engage in interactive behaviors?

The second set of sub- questions relate to, how to use the theory of service design to guide ICH content creators create more popular short videos that promote the dissemination of cultural information:

- How can the cultural functions of shadow puppetry be matched with the demands of we-media users?
- How we-media short videos can serve audiences from a service design perspective?
- How to use service design theory to optimize short video services for ICH?

1.4.4 Research Methodology

This research represents typical interdisciplinary work involving three academic fields: sociology, communication, and design. It will adopt a mixed research method. The research comes from a sociological perspective, using qualitative research methods to analyze and explore the current dilemmas faced by shadow puppetry heritage and innovation. Secondly, it will assess the dissemination of shadow puppetry on we-media platforms from a dissemination perspective, employing quantitative research methods such as data mining and questionnaire distribution.

Finally, the research intends to apply the participatory design research method to complete the final work and the experiment.

As the foundational and emblematic form of Chinese shadow puppetry, Huaxian shadow puppetry will act as a key case study in this investigation. By gaining profound insights into Huaxian shadow puppetry, researchers can obtain a broader perspective on the current dissemination landscape of Chinese shadow puppetry across we-media platforms. Consequently, tailored dissemination strategies can be formulated to aid in revitalizing and preserving the continuity of this ancient Chinese performing art.

1.5 Research Significance

1.5.1 Theoretical Significance

With the emergence and rise of the service economy, service design theory has begun to receive extensive attention from scholars, but the application of this theory in the field of ICH has not been fully studied, with the problems of missing service chain and unclear user orientation. Specifically, in the application process of service design, scholars pay more attention to results of the products finally presented by ICH cultural services. However, they have neglected the fact that service is a process, which requires interaction between service providers and recipients and the joint completion of the service output. This research employs communication theories to strategically select suitable we-media platforms for promoting shadow puppetry. Furthermore, it applies service design theory to develop digitalized shadow puppetry works that effectively cater to the aesthetic preferences of modern audiences through active user participation and co-creation on we-media.

1.5.2 Practical Significance

This research aims to enhance the modern media representation of traditional cultural content through service design by leveraging the advantages of timely and extensive dissemination via we-media while preserving the value and function of shadow puppetry in contemporary society. By doing so, shadow puppetry can be introduced to young people in a modernized way, enabling it to enter their entertainment and social circles. This implementation path for cultural inheritance and protection will encourage young generation to appreciate traditional culture and develop a sense of belonging towards their own ethnic group and local region's traditional culture.

1.6 Research framework

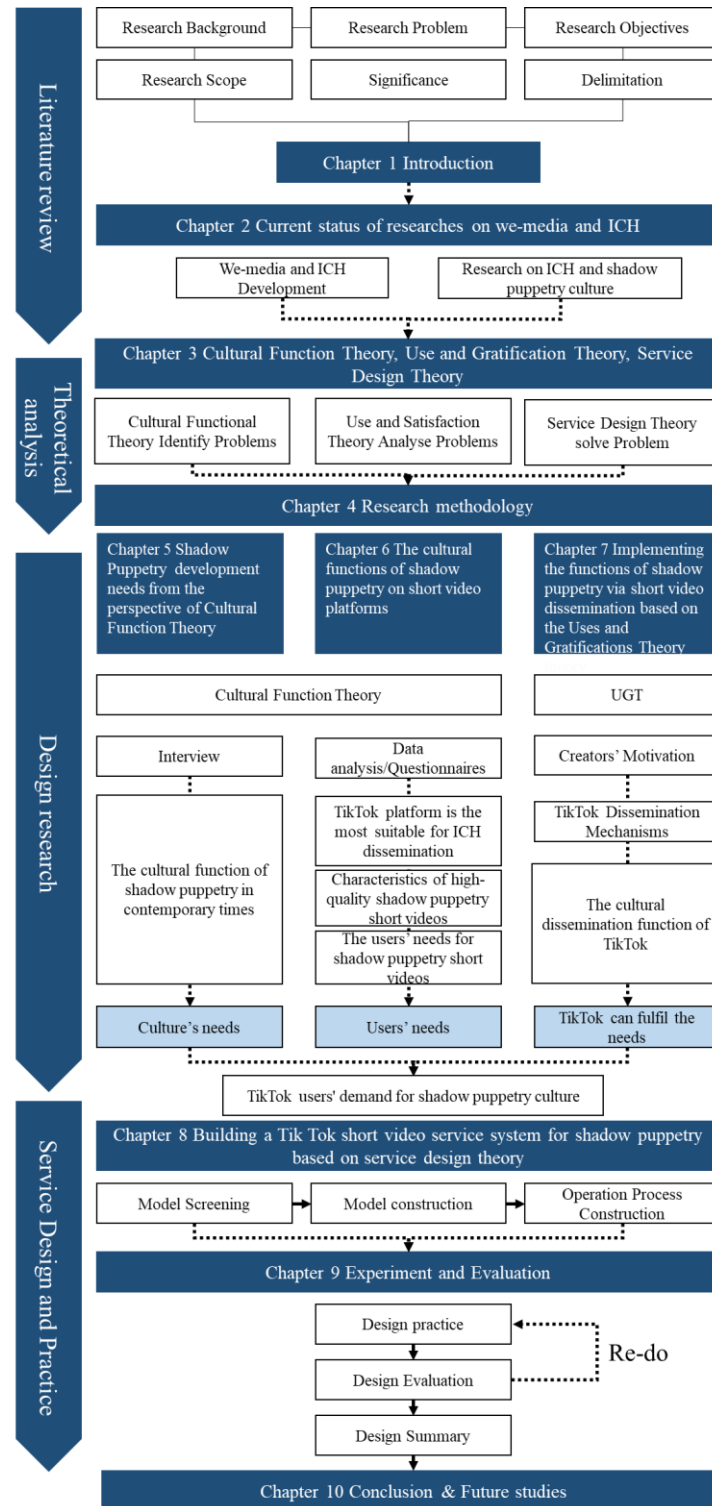


Figure 1.2 The research framework, Source from: Author, 2024

2.0 LITERATURE REVIEW

Chinese and Western scholars have comprehensively discussed the inheritance and innovation of ICH from different perspectives. On the other hand, ‘we-media’ is the result of digital media technology development and is one of the emerging research topics in recent years. Using we-media platforms to disseminate ICH may be the current development direction for many digital media enterprises. The we-media enterprises hope through the injection of ICH related digital content, the passionate collision between traditional culture and popular culture will bring users refreshing sensory experiences and immersive participation. Moreover, the injection of cultural content can help we-media eliminate labels such as homogenization and vulgarization, bringing them new vitality and high-quality user groups. The practice of enterprise has gone far ahead of academic research, but without theoretical and academic research support, enterprise practices are like a castle in the air. China’s ICH has a long history and diverse forms of expression. Different kinds of ICH have their distinctive cultural features. Therefore, we-media platforms should be carefully selected according to culture characteristics and audiences' cultural needs to achieve in-depth and effective cultural dissemination.

2.1 Digital media and the Protection of ICH

“In complement to our familiar corporeal repositories and sources of folkloric dissemination, new media-one of the most exciting, spontaneous, and fluid conduits of vernacular expression and contemporary traditions-lies in wait, literally right beneath our fingertips ripe for observation and analysis.”

---Blank, T.J., 2013, P.121

2.1.1 A definition of digital media and digital media technology

Digital media is about ‘human-technology’ connection (Irwin and Ihde, 2016), it combines, images, texts, data, sound and recipients, that perceive these messages in a complex approach through the multi-channel network (Rab, 2007). Digital media encompasses three distinct categories: sensory media, which include text, graphics, images, audio, video, and animations; representation media, commonly referred to as logical media; and physical media, such as terminal platforms or media

devices that store, transmit, and display the logical media (Ma, 2010). It seems that digital media digitalizes both broadcast modes and content. Put succinctly, it is a new information carrier after the language, text and electronic technology (Li and Tian, 2014). Furthermore, in contrast with traditional media like newspapers, broadcasts, television, new digital media refers to the media type that can provide users with more immersive and communication opportunities and allow users to fully engage their senses in a manner that causes separation from their physical plane for existence (Idris, Mustaffa and Yusoff, 2016; Blank, 2013). New media provides a more broad, timely, and interactive communication platform for the public, especially for young generations, continually shaping our world (Zhao, 2015).

Digital media technology can make abstract information much more accessible to perceive, manage, and interact with. Digital media technology finds application across various sectors. These include digital film and television, digital gaming, digital broadcasting, digital advertising, digital publishing, digital storage, computer graphics, animation technology, and virtual reality (Ma, 2010). Blank (2013) delineates that digital media technology is a ubiquitous part of people's lifeworld; as it becomes much smaller and faster with greater functionality, the user has continued to rise. More importantly, as Irwin and Ihde (2016) figure out, digital media technology continues to push the boundaries of information production, distribution, and communication. When digital media technology is combined with cultural heritage preservation and transmission, it has quickly moved into mainstream conversation, especially about the value of digital media technology in particular cultural communities (Hennessy, 2012).

2.1.2 ICH dissemination and we-media platform

2.1.2.1 Definition of we-media

As a fundamental element within the digital media ecosystem, we-media has revolutionized the information dissemination landscape by leveraging digital technology platforms to facilitate decentralized content production and distributed distribution (Chen, 2019). Bowman and Willis (2003) defined we-media as being empowered by digital technologies; the public is beginning to understand how to create and share their kinds of news or facts. Wang (2011) adds that, besides creating and sharing, the public can also participate in the discussion of topics, express their ideas, and receive feedback timely. Similar conceptions include participatory journalism (Bowman and

Willis, 2003), grassroots journalism, and citizen media (Wang, 2011). After comparing with traditional media, Chen (2019) summarizes that we-media is a kind of digital means that processes the characteristics of individuality, autonomy, spontaneity, and interactivity. And on the we-media platform, a user may have multiple identities like recipient, disseminator, and creator (Chen, 2019). Bowman and Willis (2003) purport that we-media is developing at a high speed that will be around for a while, as communication, collaboration, and sharing personal ideas lie at the heart of the Internet today. In addition, Chen (2019) points out that we-media platforms mainly refer to all kinds of client-side applications (Apps), including mobile applications, mini-programs, web pages on mobile devices, and official websites on personal computers (PCs) (Chen, 2019).

Over the last ten years, the growth of we-media in China has surged dramatically (Xia, 2017). China boasts the largest group of internet users globally. With the support of mobile platforms, we-media presents a vast potential user base and a lucrative market for continued development in the country.

2.1.2.2 The dissemination characteristics of we-media

- Mass users, time flexibility, fast spread

We-media changes the traditional ‘point to point’ dissemination approach into a ‘peer to peer’ way (Liu, Li and Zhang, 2019). With the support of huge number of internet and mobile users, we-media has a huge mass base. Noteworthy, Bowman and Willis (2003) finds that, due to its interactivity characteristic, we-media attract a large group of younger audience, they expect to communicate and share ideas with their friends in order to meet the psychological needs of their self-expression. Besides that, we-media has no time and space limits, users can operate their ‘media’ at any time anywhere (Chen and Qiu, 2017). The dissemination mode of we-media is fission propagation (Yang, Zhao and Ma, 2019), the distance between user and media is zero (Chen and Qiu, 2017). Therefore, the dissemination effect of we-media is quick and wide spread.

- Low threshold, strong interactivity, target advertising

The operation of we-media platform is simple (Chen and Qiu, 2017; Chen, 2019; Yang, Zhao and Ma, 2019). Users can share text, graphics, videos, audios at diverse we-media platforms free of effort (Yang, Zhao and Ma, 2019). Besides the low using threshold, it seems that, the dissemination

cost of we-media is also very low. Specifically, many we-media apps are free to download, and most of the functions are free to use (Chen, 2019). As Bowman and Willis (2003) point out that, the entry barriers of we-media are next to nothing, the information distributing costs are extremely low that anyone can join. And in order to enhance the users' sense of interaction and increase users' stickiness, the functions of we-media involve the latest digital technology: VR, short video, mini-games, emoji (Chen, 2019). The involving of the new technologies can bring users with immersive and engaging experiences, which in turn enhance the breadth of dissemination. Moreover, along with the increase of users' stickiness, we-media platforms can easily collect users' preference big data (Chen and Qiu, 2017). Therefore, the platforms will conduct the function of precisely pushing content according to the users' preference and needs (Yang, Zhang and Ma, 2019).

2.1.2.3 The classification of we-media

Due to the constant development and ripeness of digital media, the types of we-media are increasingly diversified (Zhang, 2014). Therefore, there is no uniform classification of we-media so far. Many researchers (Cao, 2017; Zhao, 2016; Chen, 2019; Zhang, 2014; Fang, 2017) classify we-media according to its product forms, however, under this kind of classification only large user base and influential products are included, such as: Blog, Weibo, WeChat public number (Zhang, 2014), Podcasting (Fang, 2017) as well as representative short video platforms like TikTok and Bilibili (Chen, 2019). Besides product forms, Cao (2017) classifies we-media into two big groups based on different communication subjects, that is personal we-media and professional we-media. To be specific, personal we-media is a decentration information transmission type, that means general public play an active role in the process of disseminating news and information. while professional we-media means we-media that operate and organize by professional individuals and teams (Cao, 2017), however, this kind of we-media types always have strong utilitarian purposes like: advertising or making profit. As a supplementary, Zhao (2011) reveals that, in China, there exists a third type of we-media communication subject that is government agencies. To be specific, by using we-media platforms, government agencies can control the publication content and frequency flexibly. In fact, it seems that, personal we-media are closer to the original definition of we-media, while the other two types are appearing in order to meet the general public's expectations for digital media. Besides that, Zhang (2014) classifies we-media according to

different usage modes, including: we-media with the purpose of social communication; we-media that extend along the industrial chain; we-media for small groups' communication; we-media with self-build new economic. We-media with the purpose of social communication is the most common usage mode, users use we-media to record their daily life and share with others; we-media that extend along the industrial chain refer to opinion leaders in each subdivided industrial sector post professional comments then receive a lot of media attention; we-media for small groups of communication means divide users into small interest groups according to their hobbies, so that to increase users' sense of belongings and identity; we-media with self-build new economic always point to the internet celebrity who turning followers economy into profits (Zhang, 2014).

In general, there are three main we-media classification modes. Researchers categorize we-media based on various research objectives. However, limited literature focuses on classifying we-media with the goal of enhancing the dissemination of ICH. Therefore, in order to use we-media to disseminate ICH effectively, there is an urgent need to re-classify we-media according to the dissemination characteristics and requirements of ICH.

2.1.2.4 The combination of we-media and ICH

Nowadays, it is an overwhelming trend to use 'we-media' to disseminate and promote ICH (Liu, Li, and Zhang, 2019). As Jin (2016) points out, ICH has diversified forms of expression in we-media, such as posting images, short videos, and messages and making quick adjustments according to the audiences' feedback. Recently, we-media product forms applied to disseminate ICH have been various, including WeChat public numbers, Weibo, TikTok, and other mobile apps. Among them, due to the broader-based social network and powerful information transmission functions, short video platforms represented by TikTok (Bi, 2018; Peng, 2019; Liu, 2019; Zhou, 2019) and WeChat public number (Pei 2016; Chen, 2019; Fang, 2017) have sharply stimulated interest from many ICH researchers and practitioners.

It is a relatively new global phenomenon that many people have become addicted to using short video platforms due to their playfulness and creativity (Ma et al., 2019; Xie et al., 2019). A short video lasts from a few seconds to five minutes (Yang, Zhao, and Ma, 2019), and the audience can browse and get spiritual pleasure in their piecemeal time. Besides that, the short video creation

threshold is low; by using a variety of online editing instrumental functions, users can fully exert their creativity (Yang, Zhao, and Ma, 2019). They can shoot, edit, upload, and share their works on the apps anywhere (Xie et al., 2019). As Ma et al. (2019) summarize, the dissemination characteristics of short videos are fragmented, fast dissemination speed, and blurred boundaries between creators and audiences. Due to the lack of strict supervision, many researchers (Yang, Zhao, and Ma, 2019; Lu, 2019) argue that short videos today face serious content homogeneity and thus easily cause aesthetic fatigue. However, Bi (2018) believes that ICH is bringing fresh content and resources to short videos, and short video platforms are, in turn, stimulating the inner vitality of ICH, helping traditional culture find a young and fashionable way to express itself. In addition, the live broadcast function allows young users to communicate with ICH inheritors directly by using a bullet screen, which helps many young users to feel the charm of traditional culture. They are willing to learn some cultural skills (Bi, 2018).

Furthermore, the database of short video platforms has collected all the users' hobbies (Lu, 2019; Zhou, 2019), and the platforms will implement the accurate pushing content function according to the users' needs and preferences (Zhou, 2019; Yang and Zhao and Ma, 2019). Users with the same interests will be gathered together automatically, and they could communicate and socialize on the platform (Zea and Jung, 2019) so that the stickiness between ICH video creators and audiences will strengthen (Bi, 2018). Besides active dissemination, Liu and Ma (2019) further illustrate that short video apps also play a guiding role. To be specific, the 'hot topic function' could encourage users to gather, create and upload their ICH content-related videos under the topic, and the comment area is open for the audiences to give feedback and interact with creators (Liu and Ma, 2019; Bi, 2018). In general, the platform's immersive user experience and stimulation mechanism have opened new ways for users to learn about ICH. Through online communication and interaction, the audiences' sense of participation and interaction enhanced (Peng, 2019).

Ma et al. (2019) state that short video is another latest content carrier after text, graphics, and traditional video. Combining short video platforms with conventional culture is an emerging research trend. Without a doubt, short video platforms provide a new path to narrow the gap between 'mysterious' ICH and ordinary grassroots. Many researchers (Liu and Ma, 2019; Peng, 2019) highly praise the strong interaction and fast propagation speed of short video platforms and stress the advantages of using the platforms to disseminate ICH. The other researchers (Bi, 2018;

Yang, Zhao, and Ma, 2019; Lu, 2019) started to worry that attaching modern elements to ICH will cause cultural distortion, thus forcing the inheritors to lose their autonomy to pass on their skills. It seems that video content is essential in fully displaying ICH characteristics in the limited video time and ensuring the authenticity and original ecology of ICH while meeting the expectations and needs of audiences. In the meantime, these urgent research topics need in-depth analysis and discussion.

2.1.2.5 Application of UGT to culture and we-media research

The UGT is a well-established framework that explains why the public uses specific media at certain times. Initially formulated in the 1940s, it has undergone significant development and refinement. Katz and Lazarsfeld can trace the roots of UGT, who, in the 1950s, sought to explain why radio programs drew to the public. Their researches shifted the focus from media effects on audiences to the motivations behind media use. Blumler and Katz further developed the theory in 1976, identifying five key factors influencing media use: information seeking, personal relationships, identity, entertainment, and relaxation.

Early researches on UGT focused on traditional media such as radio and television. Katz and Lazarsfeld's (1955) seminal work laid the groundwork for understanding how people select and use media based on their needs and interests. In recent years, scholars (Papaharitou, 2019; Ratcliff et al., 2017; Rustemi, 2020; Florenthal, 2019; Whiting and Williams, 2013; Gazit, 2020; Quinn, 2016) have extended this theory to the realm of digital media and social networking sites. Papaharitou (2019) and Gazit (2020) study the population's use of Facebook. They found that users were motivated by entertainment, passing the time, and staying in touch with friends, which aligns with the core tenets of UGT. While Ratcliff et al. examined the relationships between new media and religion by applying UGT, three needs related to religion emerged: passing time, meeting self-requirements, and religion as a catalyst for learning. Whiting and Williams (2013) add that users received gratifications from we-media, such as social interaction, information seeking, passing time, entertainment, relaxation, communication, and convenience. Whiting and Williams further stated that UGT should be more prominent on we-media.

We-media's unique features, such as interactivity and personalization, have prompted researchers (Dias et al., 2022; Cheung et al. 2011; Zhao et al. 2020;) to revisit UGT. Cheung et al. (2011) explore how these features influence user engagement with WeChat and found that users appreciated its convenience and social connectivity. Zhao et al. (2020) investigate the use of TikTok and discovered that users were driven by entertainment, information-seeking, and socializing motives, which are all consistent with UGT predictions. Dias et al. (2022) use UGT and they conducted an online survey with a sample of 347 TikTok users, then argued that self-expression and entertainment are users' primary motivations for using TikTok.

In terms of cultural implications, especially for traditional forms like Chinese Peking Opera or shadow puppetry, there is limited research directly applying UGT.

2.1.2.6 Summary

We-media can accurately draw pictures for each user, distributed the content according to user's preference, and it also meet the audiences' hobbies to receive fragmented information (Peng, 2019). Besides that, due to the characteristics of: low threshold, low cost as well as powerful interactivity, we-media has already become an important way for grassroots to obtain information, entertainment and enrich their life. We-media has various types, the character and technical possibilities of these types fully demonstrates how different forms of co-creation and participation can be integrated into ICH dissemination (Khalid and Chowdhury, 2018). However, different types of ICH have different dissemination needs and requirements. There is an urgent need to classify we-media according to different types of ICH, so that to select the most appropriate we-media form to disseminate a specific type of ICH. At the meantime, the possible challenges pose by we-media should not be over looked. As content is the most important element, which will be later posted on we-media platforms in diverse forms: short video, text or even graphics, a content design is very important. To be specific, the content should keep the authenticity of ICH, and need also attract more audience especially young audiences to know and learn traditional culture. Khalid and Chowdhury (2018) conduct research on the dissemination of ICH of Bangladesh through Facebook, then figure out that, both official and personal page, the strategic development of media content and dissemination strategies for ICH are lack, current cultural dissemination and relevant implications are run-of-the-mill and indistinct. Nevertheless, literatures that cover we-media

content and service design or actions to help promote the effective dissemination of ICH are limited. As Khalid and Chowdhury (2018) propose at the end of their research, future researchers should be conducted to design strategies to disseminate content base on the characteristics of the different types of ICH by using systematic networking approaches.

2.2 ICH and Chinese shadow Puppetry

“China’s unpredictable future will continue to complicate measures to sustain shadow puppetry, but it may also provide an avenue we have yet to conceive. It is certain that at some point, China will come looking for its rich history. Hopefully, this search for its heritage in shadow will not come too late.”

--- Rollins, A. K. 2015, p.317

2.2.1 A review of the relationship between digital media and cultural heritage

Cultural heritage symbolizes civilization and every nation's intellectual wealth (Idris, Mustaffa and Yusoff, 2016; Shi, Hao and Sun, 2008). It is a term that encompasses tangible cultural heritage (often in immovable or material forms) such as monuments, temples, and ruins (Singh, 2012; Valtysson, 2017; King, Stark and Cooke, 2016) and ICH (often in movable or immaterial forms) such as folk music, performing arts, etiquette, customs and craftsmanship (Yang, Sun and Xu, 2006; Idris, Mustaffa and Yusoff, 2016). Both the essential types of cultural heritage are valuable and irreplaceable resources closely linked with each country's traditions, history, culture, and lifestyle customs (Singh, 2012). Since the late 1990s, the potential of digital media for inventing innovative ways of engaging with cultural heritage has been a key issue of heritage practice and academic work (Robbins, 2010; King, Stark, and C, Cooke, 2016). There are three ways to describe the issues of digital media when it is related to cultural heritage. The first one is 'digital cultural heritage', which refers to creating cultural heritage digitally or converting it into digital form from existing analog resources (Rahaman and Tan, 2010). The second one is 'New heritage', which points to new practices that come along with digital technologies and the need to extend the definition of contemporary heritage practices to incorporate political, economic, and social issues (Stuedahl and Mortberg, 2012). The other one was created by Pantano and Tavernis (2009), a new idiom- 'virtual heritage', mainly applied to describe the projects that deal with new media

technology, VR and cultural heritage. VR has the interactive and immersive potential of the digital, which can open new ways of experiencing and thinking about heritage (King, Stark, and Cooke, 2016). Rahaman and Tan (2010) focus on the perception and content of end-users and delineate that representation, documentation, and dissemination are three major domains of digital and virtual heritage. Cultural inheritance and vitality relate directly to the degree of cultural dissemination (Wang, 2014). Many researchers (Rahaman and Tan, 2010; Chen, 2019; Li and Zhang, 2019; Wang, 2014) argue that one of its primary responsibilities is to disseminate knowledge of culture in a global realm. King, Stark, and Cooke (2010) and Chen (2019) further add that the spotlight of the digital cultural heritage sphere so far has remained mainly on how best to disseminate knowledge of material and non-material culture digitally.

The rapid development of digital technology provides a variety of channels as well as a more three-dimensional and diversified exhibition space for the cultural heritage dissemination (Zhao, Lv and Huang, 2015); which enable people to have more opportunities to know and understand these cultures in a more convenient way (Sun and Xu, 2006). Some researchers (Zhao, Lv and Huang, 2015; Servero and Venturini, 2015; Sun and Xu, 2006; Sigh, 2012; Shi, Hao and Sn, 2008; Carrozzino et al., 2011) highly praise the unique characteristics of digital media such as: bottom-up, interactive and humanized transmitting, timeliness and immersive; and perceive that the digital media is the most effective mode to disseminate national culture in contemporary information era (Zhang, Yousaf, Xu, 2017). While others (Malpas, 2008a; Malpas, 2008b; King, Stark and Cooke, 2016; Giaccardi and Palen, 2008; Brown and Nicholas, 2012) against 'digital panacea' and 'digital optimism' concepts doubt the cultural value of digital engagement and worry about the severe challenges digital media and digital media technology pose to cultural heritage, since culturally significant is tied to particular places and things, technologies disruptive of the sense of place as well as the sense of belonging. Thus, a comprehensive review of the current researchers' views on the digital dissemination of cultural heritage may help make good use of the advantages of digital media dissemination while improving deficiencies to design the best way for cultural heritage dissemination.

- In the age of participatory culture, understanding cultural heritage through novel, appealing and interactive ways

Digital media applies to virtual museum exhibits, community websites, multimedia platforms, and other indigenous cultural museums (Hennessay, 2012). These applications provide new spaces for visitors' participation in museums and open heritage to new groups (King, Strak, and Cooke, 2016). Moreover, Sun and Xu (2006) add that, instead of educating people with dull worlds and still photos, digital media applications are more acceptable and enjoyable, enhancing the extent and depth of cultural heritage dissemination and transmission. Users can enjoy and appreciate interactive three-dimensional (3D) heritage structures from all aspects online at anytime, anywhere (Pantano and Tavernis 2009). They can also construct different ways to interact with 3D objects, like in a video game, through immersion in a virtual museum, which is very stimulating and attractive (Pantano and Tavernis, 2009). To critically review the use of digital media tools in the heritage sector, King, Strak, and Cooke (2016) conducted a questionnaire with 125 responses; almost all respondents agreed on the potential of digital media to improve visitors' experiences and enhance the value of that experience through participation and co-creation. Furthermore, Liu, Li, and Zhang (2019) point out that the primary goal of digital media display is to attract people, and what is more important is to enable people to contact and join the process of culture dissemination (Liu, Li, and Zhang, 2019).

Participatory culture –a low threshold for public participation and vernacular artistic expression but strong support for an individual to create and share their creations with others (Giaccardi, 2003). In the age of participatory culture, heritage is digitized more openly and collaboratively (Liu, 2004); users' participation in discursive practices across virtual and corporeal environments is highly encouraged (Blank, 2013). Researchers (Severo and Venturin, 2015; Zhang, Yousaf, and Xu, 2017; Carrozzino, 2011; Chen, 2019; Zhao, 2015) agree that ICH is invisible; it is a 'living heritage,' that requires continual renewal and re-creation. Community-driven efforts to preserve and share ICH demand decentralized, grassroots approaches. Such strategies ensure the survival and vitality of these communities (Severo and Venturin, 2015; Chen, 2019). The rise of digital media, particularly we-media platforms, presents opportunities for democratic participation (Shi, Hao, and Sun, 2008). To be specific, Rahaman and Tan (2010) find that digital media platforms allow interactive dialogue and diversity in content creation. At the same time, Severo and Venturin (2015) add that digital media platforms produce thematic communities and clusters of people gathering around interests and viewpoints. Therefore, it seems that digital media platform possesses the potential to build 'collective cultural memory'.

Moreover, ICH is deeply rooted in the community; to really understand and enjoy it, the visitors need to understand its ‘living’ environment (Lin and Colbert, 2018). Zhang, Yousaf, and Xu (2017) then emphasize that, based on the collaboration of interactive media platforms, the dissemination of ICH can be more understandable and digestible. ICH is in a dynamic development process (Chen, 2019); continued renewal and public participation are the best ways to preserve it (Carrozzino et al., 2011). And it seems that, the digital media plays a vital role in sustaining and renewing ICH continuity.

To enhance user experience, Rahaman and Tan (2010) suggest that future research or digital cultural heritage projects address the end-users’ ‘cultural uniqueness’ to avoid the linearity and allow multiplicity in dissemination content interpretation. While for the preservation and transmission of ICH, it seems that different digital media tools should be selected according to specific condition and protected object owing to its cultural uniqueness. While the principles, customs and traditions of indigenous cultures can impact the development of new digital technology (Robbins, 2010), Stuedahl and Mortberg (2012) call for a digital approach not only focus on the continuity, but also the diversity of people’s cultural practices in producing and reproducing embodied heritage knowledge.

- An urgent need for the dissemination of ICH by using digital media.

Unlike tangible cultural heritage, ICH is not static and is gradually changing along with transforming time, space, and social environment (Zhang, 2015). ICH comprises the roots of each community's cultural identity and processes the characteristics of living, grassroots, and cultural diversity (Chen, 2019). In the age of globalization and quick industrialization, promoting international standards seriously threatens traditional culture's diversity (Peng, Pan and Sun, 2006). Moreover, due to the lack of successors plus the aging of practitioners, a large amount of valuable ICH is in danger of extinction. Thus, Peng, Pan and Sun (2006) point out that, compared with tangible cultural heritage, the preservation of intangible heritage faces a more severe situation. The critical factors for intangible heritage preservation are dissemination and communication (Zhang, Yousaf, and Xu, 2017; Chen, 2019). More individuals should access, comprehend, and appreciate indigenous culture. This engagement promotes contributions to the revitalization of traditional practices and collaborative cultural content creation. Basic text and image documentation insufficiently convey ICH.

On the one hand, describing the technological steps and characteristics of ICH in detail is difficult. Text and digital pictures easily get damaged as time passes; conversely, practitioners have a wealth of theoretical knowledge. However, they are still the tongue, and it is tough to use text and pictures to record tacit knowledge (Xie and Zhu, 2018). Zhao (2015) shows that disseminating cultural heritage needs engagement, interaction, experience, and feedback. Fortunately, digital media is hypertextuality; it can move the state of cultural heritage preservation beyond static display, using an interactive, immersive, and intimate form to exhibit the culture from all aspects based on network information technology (Kalay, 2008). Which meets the needs of ICH dissemination and maximizes the sharing and utilization of ICH (Xie and Zhu, 2018). In addition, Jia and Wang (2012) figure out that the combination of ICH and digital media provides new ideas for traditional cultural dissemination; it maximizes the advantages of interpersonal communication, multi-dimensional dissemination of culture and artistic value, and it is conducive to the convergence of the latest technology and social trends, vividly express ICH. Specifically, digital media technology can provide users with exciting ways to experience and understand intangible culture, guaranteeing a more effective mode of disseminating ICH in the contemporary information era.

2.2.2 ICH

2.2.2.1 The definition and significance of ICH

UNESCO (United Nations Educational, Scientific and Cultural Organization) adopted the definition of ICH in Article 2 ‘Convention for the Protection of the ICH’ (CSICH) that ICH refers to cultural expressions and cultural sites/spaces (in which culturally significant activities and events happen) that are tightly related to the life of communities, groups or individuals of all generations (Jin, 2016; Dai et al., 2014; Kurin, 2018; UNESCO, 2003). After fully understanding the inherent meaning and worth of ICH to communities, Lezerini (2011) puts forward five factors that highlight the significance of ICH. 1) ‘Self-identification’, in the subjective perspectives of creators and inheritors, ICH is invaluable, it is an essential part of their cultural heritage; 2) ‘Constant Recreation’, ICH is a ‘living culture’ with ‘changeable nature’, ICH is constantly change in response to the cultural and social evolution, so that to reflect the creators and inheritors’ cultural identity at any moment; 3) ‘Connection of ICH with the identity of its creators and inheritors, due to the aesthetic, artistic and other externally perceivable values, ICH is deeply rooted in

communities, thus it is significant for its creators and inheritors, which can provide them with a sense of intimate identity and continuity; Tang (2010) argues that, only creators and inheritors can truly understand the real needs of ICH; 4) ‘Authenticity’, means to which extent ICH keeps its original characterization. The loss of cultural authenticity may break the connection between ICH and its creators and inheritors; 5) ‘Relationship between ICH and human rights,’ the protection of ICH needs to ensure the realization of the human rights of its creators and inheritors. In other words, creators and inheritors need to be involved in managing ICH. They must be allowed to access and enjoy the ICH freely and effectively (Lezerini, 2011).

The creators and inheritors are the nucleus of the ICH protection system. Protect ICH is about safeguarding its continuity, diversity, and vitality. The definition of ICH given by ‘CSICH,’ plus Lezerini's (2011) five factors, highlights the significant value of ICH and underlines the specific requirements for the protection of UNESCO (United Nations Educational, Scientific and Cultural Organization) ICH. Instead of a state-oriented approach, a bottom-up coordination mechanism that encourages the participation of communities, non-government groups, or individuals may be more appropriate for protecting ICH. In addition, the protection of ICH must preserve cultural authenticity. Take film as an example; with commercialization, the ‘culture’ attribute of ICH is weakened, while ‘artistry’ is being enlarged; although audiences’ senses have been satisfied, the cultural connotations may be misinterpreted (Jin, 2016). Therefore, digital technology or other protection measures cannot distort the culture, and economic development should not be the only target. Most notably, to support the spontaneous evolutionary process of ICH, a favorable environment needs to be created for ICH inheritors to develop their culture unaffectedly (Lezerini, 2011), and the protection strategies should be more flexible with the combination of current cultural or social development trends.

2.2.2.2 The classification of ICH

The classification of ICH is the foundation of practical protection work and an essential content of the theoretical research on ICH (Duan, 2018). International standards for classifying ICH have undergone three major revisions historically. The last revision confirmed five domains of ICH based on its attributes (Khalid and Chowdhury, 2018; Lenzerini, 2011; Pu, 2009). 1) Oral traditions and expressions, represented by language, poems, songs, and legends; 2) Performing arts, such as

dance, theatre, opera, acrobatics, and puppetry show; 3) Social practices, rituals, and festive events, traditional festivals are inseparable from rituals because most of them originate from primitive religions. And both rituals and festivals that are part of the life cycle of local communities, individuals, and groups; 4) Knowledge and practice concerning nature and the universe, knowledge, and skills created by local communities to understand nature, use nature and live in harmony with nature, include: natural views, cosmology as well as beliefs and practices in astronomy and meteorology; 5) Traditional craftsmanship, mainly refers to handicrafts that produce and circulate among the communities, reflecting the people's life and their aesthetic view, including toys, tools as well as costumes and props required for performing arts.

From the definition of many terms that are related to ICH to the enacting of the ICH classification and the World Heritage List, the convention is an essential international action that builds the world's official uniform standards and pushes forward the protection of ICH (Lenzerini, 2011). However, the convention also receives a lot of criticism from cultural scholars (Kurin, 2018; Lenzerini, 2011; Zanten, 2004). Specifically, Zanten (2004) indicates that the convention's content has 'paternalistic' connotations; using the terms may cause an ICH to 'frozen,' which prevents innovation, and the communities do not have the authority to define their ICH. Lenzerin (2011) adds that adopting the convention will improve the visibility of the state's ICH, stimulate tourist and commercial endeavors while losing cultural authenticity, and lead to culture imitation. Moreover, Kurin (2018) points out that the convention's classification of ICH is not apparent and even puzzling. In general, it seems that the world's ICH is diverse; the convention can only provide official guidelines for ICH protection from an international level; the definition and classification need to combine the state's situation, as the specific characteristics of each cultural, while giving the local communities or individuals' right to define their own culture.

2.2.2.3 The protection of ICH-from 'static protection', 'utilization protection' to 'live transmission'

The protection and development approaches of ICH have long been the focus of academic debate. Some scholars (Liu, 2013; Feng, 2011) are firmly against the industrialization and commercialization of ICH; they believe the final target of industrialization is to make a profit, which will damage cultural authenticity. As early as the Industrial Revolution, pioneers of the Arts and Crafts Movement, represented by William Morris, opposed large-scale mechanized production,

and claimed that the replacement of manual labor by mechanized production would lead to destructive development and the loss of original cultural value (Busek, 2012). This group of scholars seems to pay more attention to the cultural static function. Song et al. (2019) points out that 'static protection' is relative to 'live transmission,' which appears in the convention published by UNESCO and supported by several scholars. 'Live transmission' protects cultural authenticity and ICH by disseminating a 'living state' (Peng and Zhao, 2019). 'Live transmission' highlights the significance of sustainable development and perceives that other protection and transmission approaches can never replace it.

In contrast, the other group of scholars (Cominelli and Greffe, 2012; Lu and Zhang, 2012) contend that 'culture development and utilization' and cultural function theory assert that ICH contains various fields of knowledge it possesses the inner characteristics of creativity and innovation, it should be utilized to promote economic development. Based on the cultural function theory, while also considering the Chinese cultural protection situation, Lu and Zhang (2020) developed a new protection model, the 'structural-function theory.' ICH is continuously changing, and in the wave of modern industrialization, it will show new functions and structures. The ICH needs to be put in the context of contemporary industrialization to promote the development of modern industries and form its competitive advantages in the market (Lu and Zhang, 2020).

Generally, 'static protection' and 'dynamic development and utilization' maybe two extremely ICH protection theories, while 'live transmission' may be the best approach. 'Static protection' theory emphasizes the preservation of the culture's authenticity and perceives any development and utilization will produce 'Fakelore' (Wang and Hu, 2014). As a result of this theory, ICH may not meet the needs of modern society; it walks on the edge of the non-mainstream social culture, forming a self-identity that only exists in a minority group. And therefore, bear the risk of being eliminated at any moment. On the contrary, the 'development and utilization' theory believes the survival of ICH lies in innovation, letting ICH adapt to modern popular culture (Wang and Hu, 2014). However, excessive development will completely change the ICH and eventually lose its transmission. Due to that, the protection of ICH should not only seek to preserve the authenticity of culture but also realize the active protection and 'live transmission' of ICH. In the process of a specific endangered culture protection case, adaptive protection measures should be put forward

according to the characteristics of different ICH and the trends of the state's social development stage.

2.2.3 China's ICH and shadow puppetry

2.2.3.1 A review of the historical process of ICH protection in China

The definition and classification of ICH in China conform to UNESCO-specific standards (Chang, 2016). Being one of the world's oldest civilizations, Chinese people have created a diverse and colorful ICH in history (Liu and Lian, 2018). Song et al. (2019) found that, until 2019, there were almost 870,000 ICH resources in China. Besides, China had 39 items of the world-class ICH on the UNESCO List, the highest number in the world, and nearly 44% belong to the performing arts category (Lin and Lian, 2018). Foreign scholars like Lee (2019) perceive China's enthusiasm for protecting ICH as an eagerness to promote cultural soft power, stimulate national economic development through tourism, and expand the Han-dominated Chinese state by involving minority groups. These research propositions must accurately explain China's motivation for ICH protection. The ICH of China's ethnic minorities accounts for 33% of the 39 items on the UNESCO list, while it accounts for 45% of the national intangible heritage protection list. The protection of ICH in China is nationalized instead of expanding the Han-dominated state. The driving forces for the Chinese to protect their ICH are not limited to economic development. As Liu and Lian (2008) argue, China's ICH cultural heritage is built on a solid Chinese civilization and humanity's cultural wealth. To protect ICH is to preserve the 'roots of the Chinese' and inherit human civilization's 'cultural veins.' China's endeavor to preserve ICH has a long history, and a review of the progress of history can provide enlightenment on current ICH protection approaches and some guidance for predicting future cultural protection trends (Chen, 2014).

Before the 20th century, ICH protection in China was unconscious and mainly relied on manual collection, and the protection types were minimal (Chen, 2014). In early 2000, when China joined as the sixth signatory country of the 2003 convention of UNESCO, the consciousness to protect ICH was spurred (Kuah and Liu, 2016). From 2001 to 2010, China began exploring ICH protection. Then, the period from 2011 to 2015 was the formative stage of China's ICH development. Specifically, in 2011, China's ICH law was officially promulgated, which indicates the

improvement of China's legal system and working mechanism to protect ICH. In 2015, the learning and training plan for inheritors was published, and since then, the protection of ICH in China has been strongly supported by academic and educational resources (I-research, 2019). After 2016, the Ministry of Culture issued a series of ICH revitalization plans. Meanwhile, the central government increased financial support for the revitalization (I-research). Since then, China has had a comprehensive system of identifying and protecting ICH from the national to the local level, and the protection work has jumped to a new level (Kuah and Liu, 2016).

China has gone through 19 years of government-led systematic work on protecting ICH, and the protection concepts have been constantly adjusted with social evolution. In recent years, with the government's support, China's ICH protection work has gradually changed from a donor-type to the use of market mechanisms to cultivate the ability of inheritors to innovate and integrate ICH into modern life. With the development of the Internet, richer forms of ICH dissemination have begun to appear, and the protection of ICH shows a trend of cross-border integration (Peng and Zhao, 2019). And the dissemination of ICH is no longer restricted by geographical and temporal conditions and begins entering young generations' lives.

2.2.3.2 The characteristics of ICH inheritance in China

The survival crisis brought by globalization and modernization to the ICH diversity has been discussed by many scholars (Brown, 2005; Lenzerini, 2011; Yu, 2016) and already reached a consensus. However, in China, the difficulties facing ICH survival and development are much more than that. Although China received a series of ICH protection achievements, but due to the late start, most of the theoretical basis and related terms are derived from western academic ideas without combine China's own national conditions or cultural characteristics (Tang, 2020); which pose a great threat to the preservation of Chinese culture diversity. Therefore, it seems that, research on the protection of ICH should be strengthened to meet needs of ICH and social development.

Chinese ICH deeply rooted in the village, most inheritors have a relative low education level, they do not have a comprehensive understanding of the cultural value and protection approaches (Tang, 2020; Gao, 2018). Therefore, the protection mode in China takes the government-led while

inheritors or creators' passive participation (Kuah and Liu, 2016). Additionally, the inheritance of crafts in China takes family or 'master-apprentice' inheritance way, which possess the characteristics of closure and fragility (Song et al., 2019; Gao, 2018; Rollins, 2015). That means, a kind of ICH can disappear with the departure of a generation of inheritors. Most importantly, under the dual impact of modern civilization and the development of science and technology, ICH cannot meet the aesthetic needs of modern people, therefore, it gradually disappeared in people's daily life, living in its own closed local communities (Gao, 2018).

The special characteristics of China's intangible cultural such as: the diversity of content, the closure of inheritance and the dispersion of space pose huge challenges for the protection. Meanwhile, because of the urban-rural dual system, many ICH roots in the villages for a long time and are unknown for people. Hence, the intervention of modern media and the re-discovery and re-use of traditional cultural highlights are particularly important for the protection of China's ICH.

2.2.4 The protection and inheritance of Chinese shadow puppetry

2.2.4.1 About Chinese shadow puppetry

Chinese shadow puppetry (piyingxi) also known as, 'lamp shadow show', 'light in play' or 'shadow play man' boasts a rich history of over two thousand years (Yan et al., 2016; Gao, 2011). This art form ranks among the oldest in the world, merging the elements of light and shadow with traditional national arts such as paper-cutting, painting, sculpture, drama, poetry, ventriloquism, and acrobatics into a cohesive whole (Zhao, 2019; Gao, 2011; Li, 2020). The themes depicted in shadow puppetry originate from folk myths and historical narratives, conveying widely accepted morals, aesthetic values, social etiquette, and customs (Nichola, 2011). For thousands of years, this traditional folk art not only played a ritual function that helped mark Chinese festival celebrations-wedding, a bumper harvest or pray for healthy; but also represents a panorama of Chinese people's religious beliefs, ways of entertainment, morals, and ethics (Rui, 2018; Li, 2020). In the year 2011, Chinese shadow puppetry was enlisted into the UNESCO ICH of humanity (Li, 2020). And according to UNESCO's classification standard, Chinese shadow puppetry covers both 'performing arts' and 'traditional craftsmanship' types. As a kind of 'performing arts', the essential equipment used in a performance include: a sheet of curtain, lifeless shadow puppetry, props,

musical instruments, and lights (Chen et al., 2011; Li, 2020). Thus, a troupe normally contains 5-9 people, 1 signer (storyteller), 1-3 puppeteers, and several musicians (Rollins, 2015), they work in harmony with each other behind the screen (See figure 2.1). Shadow puppetry demands exceptional skill from puppeteers. They must manipulate several puppets simultaneously while synchronizing their movements with music and vocals (Lv, 2013). Achieving mastery in this art form typically requires 20 to 25 years of rigorous training and practical experience (Rollins, 2015). Cultivating performing talent poses challenges, and establishing a troupe is equally difficult. Additionally, the creation of shadow puppets involves a series of intricate and demanding processes. Each step necessitates meticulous attention and patience from craftsmen, showcasing the remarkable artistry of traditional Chinese artisans (Li, 2020). Chinese shadow puppetry has spread all over China and formed different schools according to local customs characteristics such as: Shaanxi-Shanxi system, Hangzhou system, Shandong system, Hunan-Hubei system (Wei, 2010). They vary a great deal in carving skills, music instruments, ways of storytelling even the sizes of the puppets. And among them, Shaanxi Huaxian is the birthplace of Chinese shadow puppetry, which possess a high social, historic and culture research value (Xue, 2019).



Figure 2.1: Huaxian shadow puppetry performance

Source from: Zhang Tao, cited by the author, 2022

2.2.4.2 The dilemma of Chinese shadow puppetry protection and inheritance

The profound culture and social value of Chinese shadow puppetry have attracted scholars from all over the world. Among them, foreign scholar Rollins (2015) stands on an ethnographic point of view, took six years of fieldwork in China, and built a comprehensive profile of current Chinese shadow puppeteers and puppet makers. During the survey process, Rollins (2015) discovered that the number of traditional Chinese shadow puppetry practices is gradually declining, and in some remote provinces like Sichuan, the practices are almost extinct. Many scholars and cultural researchers have studied the reasons behind this phenomenon. In a nutshell, Nichola (2011) perceives that the dismantling of the 'master-apprentices system' could be one of the main reasons. Today's youth show reluctance to acquire this traditional skill. The reason lies in the substantial initial commitment of time and effort, coupled with limited financial return. The small funds set up by the local government to support masters fail to incentivize apprenticeship. In addition, Lv (2013) and Wei (2010) add that people's enthusiasm for modern digital entertainment media devastates shadow puppetry. The old stories told by shadow puppetry cannot attract young generations anymore.

Furthermore, Rollins (2015) claims that machine-made shadow puppetry, which possess the characteristics of large production, low cost, and low selling price, seriously squeeze the living space of hand-made puppets. In China's tourist market, machine-made puppets occupy 90% of the market (Rollins, 2015), directly leading to shadow puppet-making craftsmanship extinction. Moreover, Zhang (2019) analyzed the extinction of shadow puppetry from the political level and figured out that the Cultural Revolution, which happened after the founding of the People's Republic of China, gave a big blow to the shadow; since then, shadow play practices have dramatically declined. Generally, the problems of the inner inheritance system, along with the development of science and technology and the previous political restrictions, attack the inheritance and development of Chinese shadow puppetry heavily. The inheritance and protection of shadow puppetry can be an urgent issue in China.

Shadow puppetry is an ancient folk art rooted deeply in different regions of China. In the long history of shadow puppetry art, it has been a materialized form and carrier of cultural concepts that influence the cultural behavior and habits of the masses. Wei (2010) points out that shadow puppetry's core inheritance and dissemination value can be divided into two levels. On one hand, shadow puppetry has a high aesthetic connotation and artistic value. Its unique singing style and libretto fully reflect the colorful life of the masses, and they are a treasury of Chinese folk culture and drama literature (Guo, 2020).

On the other hand, shadow puppetry art carries Chinese people's good wishes for life. It propagates joy, optimism, and completeness, which has a solid practical color and represents people's pure, beautiful state of mind. It has incomparable folk value compared with other art forms in China (Wei, 2010; Sha, 2014). Therefore, the protection and inheritance of shadow puppetry protect the roots of Chinese folk culture. Though the development of digital media has influenced the inheritance of shadow puppetry, it also brings a chance for renewal for shadow puppetry to 'come out' of the remote countryside and shed light on its future innovation development road. How to make good use of digital media, which can retain the authenticity of this folk culture while also stimulating its innovations to meet modern people's daily life and aesthetic needs, is worth in-depth study.

2.2.4.3 Current research about the inheritance and protection of Chinese shadow puppetry

As one of the traditional performing techniques, information dissemination and artistic feeling feedback are the core elements of Chinese shadow puppetry inheritance (Wang, 2014). The dissemination of shadow puppetry has gone through three historical stages (Wei, 2010). The first stage concerns the 'person to person' dissemination rule, rooted in the villages and characterized by directness, experience, and timely feedback. The second stage relied on films, which broke through the space limitation but lacked interaction, and the audience information-receiving process was relatively passive. In modern society today, with the development of digital technology and new media, everyone can be both an information disseminator and a receiver (Wang, 2014; Wu and Wang, 2015). That is, the freedom to extract and upload information is in the hands of individuals, who can participate in the innovation and dissemination of shadow puppetry art at

anytime and anywhere. At present, most of the Chinese shadow puppetry protection and inheritance studies focus on the approaches to combining shadow puppetry art with modern digital media technology both at home and abroad. Yang et al. (2018) and Li and Hsu (2007) advocate the involvement of shadow puppetry cultural elements in animation and take ‘The Belt and Road’ as the significant cultural background. Chen (2019) uses three-dimensional production software to generate a virtual performance environment for shadow puppetry. Therefore, users can wear special equipment and then be in a virtual environment and interact with the puppets. The shadow art in the virtual environment is shocking and appealing to young generations.

Additionally, Yang et al. (2018), Li and Hsu (2007) advocate the involvement of shadow puppetry cultural elements in game design, let the players understand the history of shadow puppetry and appreciate the exquisite craft in the game-playing process. Besides, few studies cover the development of shadow puppetry-related apps or video platforms like YouTube or we-media platforms that let shadow puppetry followers communicate anywhere (Liu and Yang, 2018). However, as Hong (2019) points out, although the combination of digital media technology and shadow puppetry covers a wide range in current studies, they still stay in a brief suggestion stage without detailed guidance for the practices or a systematic criterion to evaluate the combination applications. The use of digital media to protect ICH is an irreversible trend. Specific practical guidance for shadow puppetry-related digital content creation is, thus, urgently needed.

2.2.5 Huaxian Shadow puppetry in Shaanxi Province and We-media

2.2.5.1 About Huaxian shadow puppetry

Huaxian, located in east of Xi’an-the capital city of Shaanxi Province, is the birthplace of Chinese shadow puppetry. Huaxian shadow puppetry is well-known for its complicated singing style and accompaniment music, that is ‘Wanwan cavity’ (bowl-bowl-singing style, 碗碗腔) (Li, 2020). In a performance, more than 19 musical instruments are used (see figure 2.2), however, there are only five performers in a troupe, which fully reflect the virtuosity of the performer’s performance technique. Besides, the puppet design also shows its own characteristics (see figure 2.3). Huaxian shadow puppetry belongs to the east-sub-school of Shaanxi shadow, it is famous for the exquisite

and delicate carving technique (Wei, et al. 2008). The puppets which designed in Huaxian have exquisite patterns, lines, and colors, which totally different from west sub-school that bigger in puppet' size and with rough design lines; people can know a character's identity and social status even personality by observing the puppets' facial details (Li, 2020). A large number of Chinese scholars (Zhang, 2012; Wei, et al., 2008; Sha, 2014; Zhang, 2008) take deep research on the design characteristics and singing styles of shadow puppetry in Huaxian, such as Zhang (2008) who tries to apply the puppets design art style into graphic design; and scholars reached a consensus in their published articles that, Huaxixan shadow puppetry have a high cultural value of protection and inheritance. However, similar with other Chinese regions, Huaxian shadow puppetry is facing a crisis of extinction, and it lacks impetus of innovation. What's worse, due to its complicated making procedures, carving skills as well as singing styles, few young people want to come to Huaxian to learn. In the year 2006, the State Council declared that Huaxian shadow puppetry become a national ICH, since then, it was officially included in the list of rescue protection (Zhang, 2012). Subsequently, shadow puppetry ecological parks and museums were established in Huaxian. However, these measures did not play a substantial role in the protection, and some scholars even accused of its commercialization (Zhang, 2012). Thus, shadow puppetry masters were put in a dilemma situation. It seems that, these measures did not solve the real problems facing Huaxian shadow puppetry inheritance. So far, with the development of science and technology, the appearance of we-media enterprises like TikTok provide opportunities for the innovation and inheritance of Huaxian shadow puppetry to some extent.

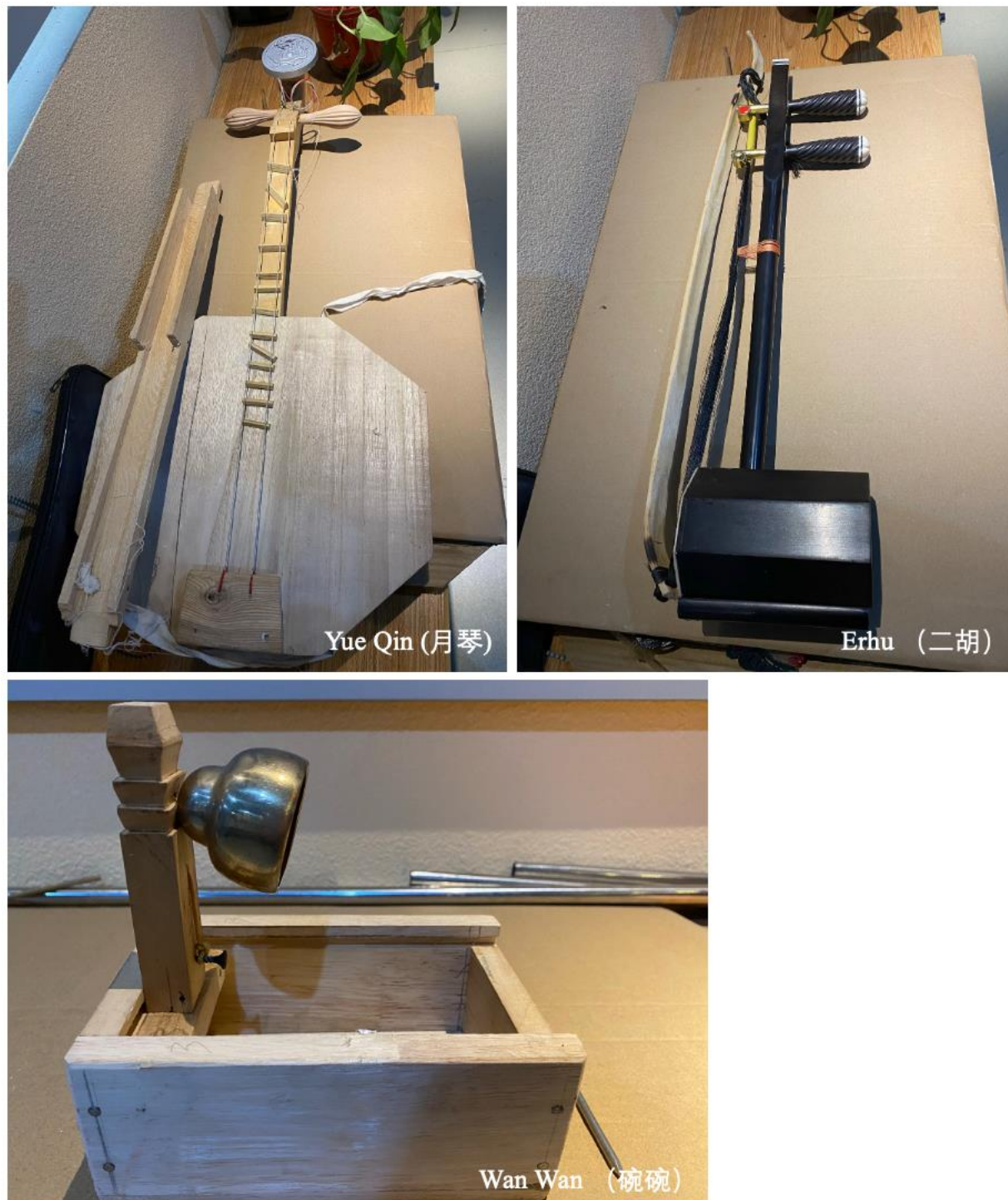


Figure 2.2 Part of the instruments that used in Huaxian shadow puppetry performance

Source from: Author, 2021



Figure 2.3: The heads of Shaanxi shadow puppets (皮影头茬)

Source from: Author, 2021

2.2.5.2 The combination of Huaxian shadow puppetry and we-media

In modern society, we-media represented by short video platforms like TikTok becomes the new dissemination form of disseminating Chinese traditional culture. In the year 2018, the operation team of TikTok has launched several Chinese ICH related online activities aimed at encouraging the dissemination of traditional culture by using TikTok¹. In this activity, TikTok team collaborated with the Huxian shadow puppetry troupe, animated the shadow puppetry characters, and allowed shadow puppetry to dance in a dynamic posture on the platform. Many young people

¹ A report about short video platforms and Chinese traditional culture. (May, 2019). Retrieved from: 6th January, 2020, from: <http://www.199it.com/archives/875154.html> (In Chinese)

liked and shared this activity. Nevertheless, scholars (Yu, 2016; Xue, 2019) just focus primarily on studying the dissemination and marketing models of short video platforms. Literatures covering the combination of we-media platforms and shadow puppetry seems hard to find. Therefore, the shadow puppetry related activities initiated by TikTok lacks academic theoretical support and their dissemination effects have not been evaluated in a timely manner. We-media platforms like TikTok possess the characteristics of agile information dissemination and accessibility. Users are free to share shadow puppetry art information on these platforms, leading to uneven quality of relevant digital content. Thus, digital content related to ICH on we-media platforms needs evaluation and creation under the guidance of service design. This ensures cultural authenticity while actively exploring the possibilities of shadow puppetry innovation on we-media platforms.

2.2.6 Application of Cultural Function Theory to Shadow Puppetry Research

Cultural function theory is a social science theory that explains cultural phenomena. It originates with the British anthropologist Bronisław Malinowski in the early 20th century. The theory asserts that cultural phenomena do not exist in isolation. Instead, they closely relate to human life and fulfill specific functions in society. According to Malinowski, culture represents a collection of tools and methods for solving problems of human existence. It includes knowledge, beliefs, arts, morals, laws, customs, and other abilities and habits acquired by human beings as members of society. Culture centers on fulfilling basic human needs, such as food, water, and shelter, which form the basis of existence. Malinowski argues that culture ensures survival and reproduction by providing means to satisfy these needs, such as hunting, farming, and crafts. Additionally, culture provides mechanisms that allow individuals to adapt to changing environments, which is essential for survival and evolution. Malinowski's student, the American anthropologist Margaret Mead, significantly contributed to the functional theory of culture. In her fieldwork in the Samoan Islands, she documented local adolescents' upbringing and analyzed how culture shapes gender roles and social structures. Mead's work demonstrates the application of cultural functioning theory in explaining specific cultural phenomena, particularly in exploring how culture influences individual behavior and social interactions.

Cultural function theory posits that cultural practices serve specific functions within a society. They contribute to its stability and continuity. In the context of China's shadow puppetry, this theory explains its enduring popularity and its role in preserving cultural heritage. For instance, in a seminal work by David Graeme Smith titled "China's Shadow Puppet Theater: A Critical History" (Smith, 2002), he discusses how shadow puppetry serves as a bridge between the past and the present. It allows contemporary audiences to experience and appreciate traditional stories and values.

Furthermore, the theory analyzes the social and political functions of shadow puppetry. In an article by Elizabeth Johnson titled "Puppets and Politics in Southeast Asia" (Johnson, 2011), she examines how shadow puppetry in countries like Indonesia and Malaysia serves not just as entertainment but also plays a role in religious rituals and political commentary. This demonstrates the versatility of Cultural function theory in understanding the complex roles that cultural practices can play in society.

The educational aspect of shadow puppetry also garners academic interest. In a paper by Xiaoming Chen and Yi Zhao titled "The Use of Shadow Puppetry in Chinese Education" (Chen & Zhao, 2019), they argue that shadow puppetry serves as an effective pedagogical tool to teach children about history, morality, and traditional values. This aligns with cultural function theory, which suggests that cultural practices often serve educational functions within a society.

Regarding the future of shadow puppetry research, more interdisciplinary approaches are needed that combine theater studies, anthropology, and cultural studies. Additionally, there is growing interest in the digital humanities aspect of shadow puppetry, such as using VR to create immersive experiences of performances. This could prove a promising area for future researches, as it combines traditional cultural forms with new technology to preserve and ensure accessibility for future generations.

2.3 ICH and Service Design

The intervention of service design in the protection of ICH essentially realizes a paradigm shift from "static preservation" to "dynamic activation". By leveraging the concepts of service design, researches on the development of ICH aims to explore its methods and effects in practical

applications, with the goal of closely integrating ICH with modern life and enhancing user experience (Feng and Zhang, 2024). This section conducts a summary and organization of the research outcomes of domestic scholars in the application of service design to the domain of ICH development in recent years. The main application scenarios and research fields encompass the following three aspects: optimization of ICH tourism experience (Liu and Wang, 2014; Wang, 2024; Xia, 2023), digitization and interactive experience of ICH (Zhang, 2023; Xiong et al., 2023; Cai, 2023), and the creative industrialization development of ICH (Zhang, 2017; Zhou and Dong, 2024; Sun and Ren, 2020).

- The systematic optimization of offline cultural tourism services for ICH

Service design deconstructs the entire cycle of tourists' travel behavior via the Customer Journey Map (CJM) and Service Blueprint, effecting a cultural value reconfiguration from one-way communication to co-creation experiences. Taking the Wannan International Tourism Demonstration Zone as an instance, the cultural guidance and experience strategies of ICH projects are optimized through the analysis of tourists' motivations, enhancing tourists' cognition of ICH while better integrating the heritage projects into the local cultural life and reinforcing the community's cohesion and cultural pride (Wang, 2024). In Wuyuan, Jiangxi Province, ICH projects have been developed and designed into experiential tourism products, systematically integrating listening to Hui Opera (徽剧), watching Nuo dance (傩舞) performances, savoring the elegance of green tea, and interacting with Nuo dance to offer tourists a full-body and multi-sensory experience (Liu and Wang, 2014). Xia (2023) focused on the design of the 'research and study' service system for the ICH "Ninghai Ancient Stage" (宁海古戏台) in Ninghai County. Through the application of the service blueprint in service design, Xia (2023) extracted and condensed the design elements of the Ninghai Ancient Stage for the designs of the 'research and study' route, 'research and study' manual, 'research and study' courses, and 'research and study' derivative products, encompassing the emotions, purposes, and interactions of customers at all stages of the service.

Such researches mostly focus on the design of service touchpoints in the physical field, aiming to enhance tourists' participation and deepen their understanding of ICH.

- Digitalization and Technological Empowerment

Digital technology, as the core carrier for empowering ICH through service design, is reshaping the spatiotemporal boundaries of cultural experiences. Xiong et al. (2023), Zhang (2023), and Cai (2023) have introduced service design thinking into the design of ICH-related apps and UIs, presenting relevant functions through interface design. Zhang (2023) incorporated service design into the specific application of the Dunhuang mini-program "Cloud tour Dunhuang", integrating functions such as Augmented Reality guided tours and virtual restoration in the digital interface through user profiling, in-depth demand research, and touchpoint analysis, achieving an organic integration of traditional mural protection requirements and modern user experience demands. Xiong et al. (2023), based on the theory of service design, utilized multiple methods such as user profiling, data research, and motivation analysis to construct a UI framework and design a set of UI interaction strategies, digitizing and integrating the cultural materials of summer cloth (夏布文化). Cai (2023)'s research primarily centered on the design of the Manchu epic (满族说部) apps and the virtual exhibition hall, employing service blueprints and stakeholder collaboration to plan user journeys, optimize touchpoints, and promote resource coordination, achieving the dynamic and sustainable development of ICH protection.

- The industrialized development of ICH

Service design transforms ICH into cultural services. By expanding the diversified forms of ICH protection, it contributes to generating greater economic value (Zhang, 2017). Sun and Ren (2020) discussed the branding integration and innovation of the inheritance and product sales of ICH techniques and cultural content in Liaoning Province from the perspective of service design thinking. With consumers at the center, a new retail service model for Liaoning ICH was constructed through apps and offline physical stores, promoting the industrialization of Liaoning ICH, creating more cultural employment opportunities, and facilitating the sustainable development of Liaoning ICH economy. Zhou and Dong (2024), addressing issues such as insufficient product innovation, narrow sales channels, and low industrialization levels in the development of the Yi ethnic embroidery industry (云南彝族刺绣产业) in Yunnan, integrated the service content of the Yi ethnic embroidery industry from the perspective of value co-creation, optimized the industrial service process, and achieved effective inheritance and economic income generation of Yi ethnic embroidery.

In general, service design is transitioning from an experience optimization tool to a comprehensive design operating system for ICH tourism. By organically integrating technology, spatial design, and community engagement, ICH is transformed from a static "cultural specimen" for observation into an interactive "living system" that fosters active participation.

2.4 Conclusion

Under the attack of external and internal factors, Chinese shadow puppetry faces the risk of extinction. The protection and inheritance of shadow puppetry should be the focus of ICH efforts. Rollins (2015) argues that the safeguarding of Chinese shadow puppetry must occur before institutional changes since it always takes a long time to yield results. Fortunately, the rise of digital technology brings opportunities for the innovation and preservation of shadow puppetry. This chapter consists of three main parts. In part one, the researcher comprehensively reviews digital technologies and identifies the most suitable platforms for disseminating ICH: we-media platforms. We-media is significantly user-driven, characterized by low barriers to entry, rapid dissemination speed, and strong interactivity. Users can act as both disseminators and receivers, effectively meeting the needs of ICH dissemination. Next, the researcher closely examines Chinese ICH, uncovers the main challenges faced in the inheritance of Chinese ICH, and emphasizes the significance of protecting shadow puppetry. The researcher also highlights some research gaps in the existing literature. Lastly, the researcher discusses the integration of Huaxian shadow puppetry with we-media platforms. Through the literature review, several future research trends and gaps can be summarized: 1) With the onset of the 5G era, incorporating digital media into the protection of ICH is an inevitable trend, particularly through we-media. There is an urgent need to assess shadow puppetry-related digital content on we-media and develop systematic service designs to guide content creation to promote the dissemination of this traditional folk art. Here, "promote" refers to digital content that resonates with and is well-received by the public. After viewing the content, users should feel encouraged to engage in the cultural dissemination process. Additionally, the content must accurately convey the essence of ICH while preserving its cultural authenticity; 2) The integration of we-media and ICH, notably concerning shadow puppetry, necessitates academic support to identify the most appropriate we-media platform and related digital techniques for disseminating various forms of ICH; 3) Given the diverse customs across regions, shadow puppetry in different parts of China exhibits distinct characteristics. However, the current

literature and research reports indicate that the specific traits of local shadow puppetry are not accurately captured during the digitization process, leading to a homogenized outcome. Users cannot appreciate the natural charm of shadow puppetry, resulting in visual fatigue. Therefore, the research of Huaxian shadow puppetry digitization must focus on its unique carving and performance art characteristics; 4) Service design theory has been extensively utilized across multiple domains of ICH (ICH) preservation and promotion. Nevertheless, the primary emphasis of these applications has predominantly centered on the digitalization of ICH experiences, tourism-related encounters, and the creative industrialization process. At its core, service design aims to establish standardized procedures and methodologies for both service providers and recipients. Current research has largely neglected the potential of applying service design principles to ICH service providers, specifically the custodians and practitioners entrusted with safeguarding and transmitting ICH. The present study contributes by leveraging service design principles to first identify the requirements of service recipients while integrating the characteristics of we-media communication, thereby constructing an effective service design framework for generating ICH-related we-media content.

To more effectively enhance the dissemination of ICH content on we-media platforms, it is necessary to conduct interdisciplinary research combining communication theory with cultural function theory. By examining the cultural functions of ICH in digital communication and integrating the characteristics of we-media platforms through a cross-theoretical analysis, a theoretical framework can be established to ensure that the cultural value of ICH is both reflected and realized on these platforms.

3.0 CONCEPTUAL FRAMEWORK

3.1 Development of Conceptual Framework

In order to make use of the we-media platform to achieve the protection and dissemination of shadow puppetry in Huaxian, this research constructs a conceptual framework in accordance with the logic of "identifying problems, analyzing problems, and solving problems". This research is a typical interdisciplinary research, mainly covering the fields of sociology, dissemination, and design. When constructing the conceptual framework, this research combines the cultural uniqueness of shadow puppetry culture with the dissemination characteristics of the we-media platform and adopts the strategy of "identifying problems from the perspective of sociology, analyzing problems from the perspective of communication, and solving problems from the perspective of design" in the conceptual framework of this research (see figure 3.1).

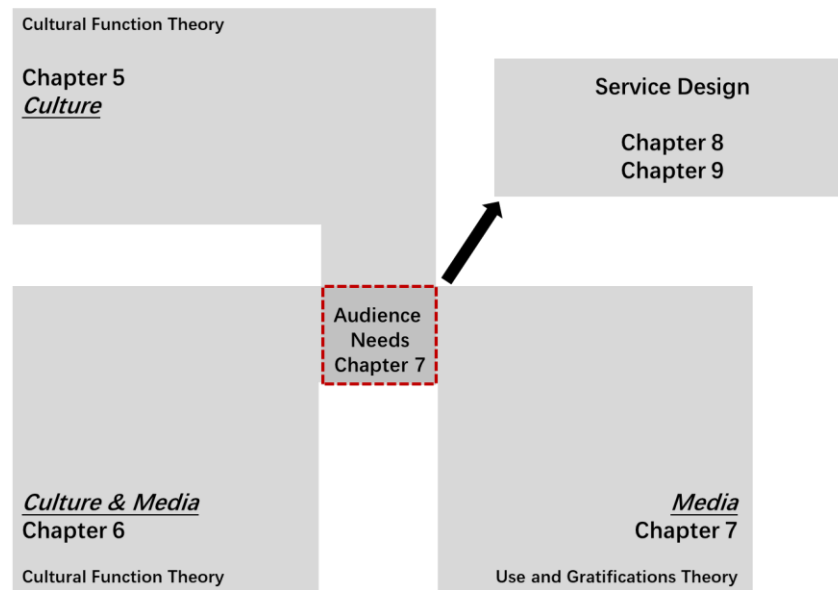


Figure 3.1 Conceptual framework

Source from: Author, 2024

Through the application of service design theory in the we-media creation practice of shadow puppetry culture, and relying on the UGT, the research will provide a "service experience" that meets the visual, auditory, and, content needs of the audiences, so as to highlight the cultural function and value of shadow puppetry culture in contemporary society (see figure 3.2).

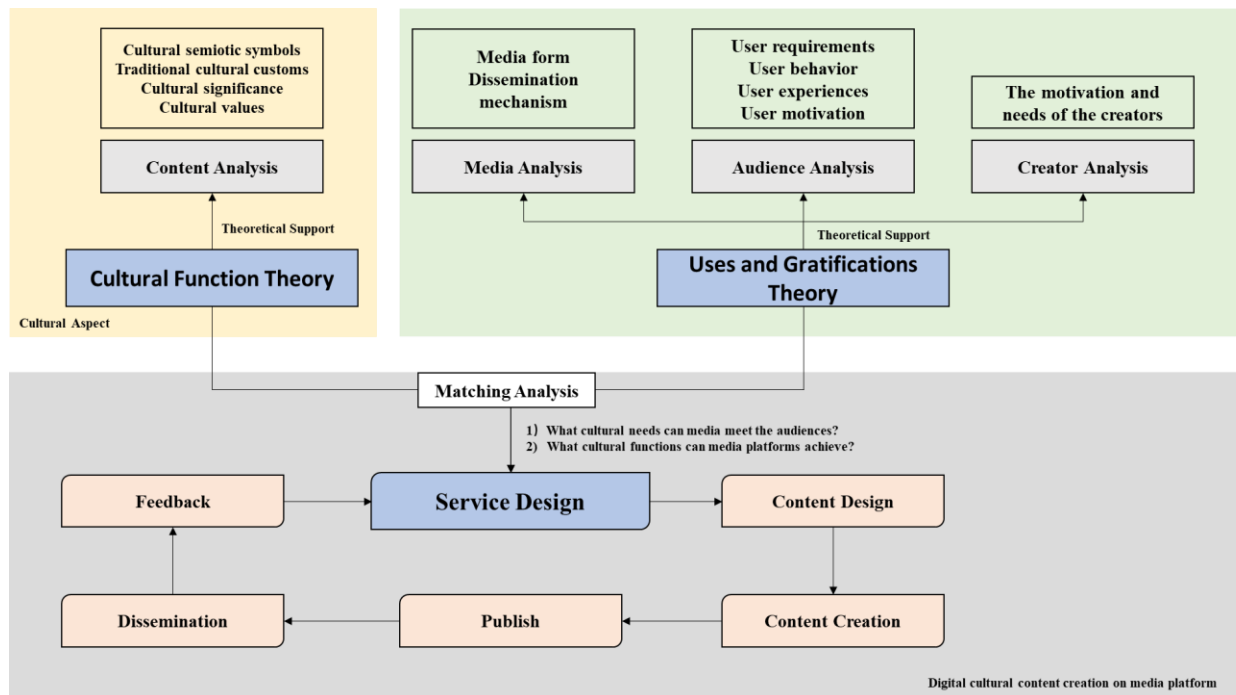


Figure 3.2 The mechanism of conceptual framework

Source from: Author, 2023

The core of this research explores how to maximize the cultural function of Huaxian shadow puppetry via the we-media platform and how to align it with the public's demand for ICH. Through we-media dissemination, the researcher could effectively address the various needs of users, thus promoting the cultural dissemination and protection of Huaxian shadow puppetry. Specifically, the we-media platform offers an interactive and extensive dissemination space, which allows the cultural function of Huaxian shadow puppetry to be expressed and widely shared. This approach combines communication theory and cultural function theory to contribute not only to the inheritance of traditional culture but also to new perspectives and strategies for the modern dissemination of ICH. After an in-depth analysis of the cultural functions of Huaxian shadow puppetry and its dissemination needs in modern society, this research adopts the UGT and the cultural function theory of sociology, aiming to reveal the intrinsic connection between users' needs and the dissemination of ICH. Based on these theories, this research's creation and dissemination of Huaxian shadow puppetry-related content through a we-media platform is actually a practice of service design, aiming to provide we-media users with a rich and profound cultural service experience. From the perspective of design, service design does not only focus on the functionality and aesthetics of the product but also emphasizes the overall optimization of the

user experience and service process. In this research, the theory and methodology of service design will analyze how Huaxian shadow puppetry "identifies, extracts, innovates, reconstructs, and displays" its cultural functions in we-media and digital transformation in order to meet the needs of contemporary social development through user research, content creativity, interaction design, service process optimization, evaluation, and iteration, etc. Further, through service design, a set of strategies will be constructed for the effective inheritance and protection of shadow puppetry via short video we-media platform.

3.2 Research Hypotheses

This research takes a combination of quantitative and qualitative research methods. The research prerequisite is to matching ICH characteristics with the advantages of we-media dissemination. Different ICH has different core values, the cultural elements that can manifest and disseminate are different. In addition, on we-media platforms, indicators include: ‘like’, ‘forward’, ‘attention’ quantity the dissemination effect to some extent, which are also part of the evaluation indicators for this research to evaluate the dissemination effect of we-media platforms.

Table 3.1 Summary of Research Questions & Hypotheses

Research Question	
How to improve the dissemination of shadow puppetry on we-media platform by applying service design theory?	
Research Objective 1: to use the cultural function theory and the UGT, matching the contemporary cultural functions of ICH with the needs satisfied by we-media, so as to realize the dissemination of ICH through the we-media platform.	
Research Question 1:	
1.1	Which kind of "we-media" platform is more suitable for the dissemination of shadow puppetry?
1.2	What are the contemporary cultural functions of Chinese shadow puppetry? What are some that can be realized on we-media platforms?
1.3	Which needs of the short video audiences are met to generate interactive behaviors?

- H1a. Different ICH have their own unique original and core cultural and artistic values and need to be presented in different forms of we-media to achieve the best dissemination effect.***
- H1b. For the evaluation criteria of the dissemination effect, attention, sharing and like are the most direct quantitative indicators. Relatively high indicators above, indicating that the content gets a higher frequency of "multi-stage dissemination".***
-

Research Objective 2: to optimize the effectiveness of ICH short video services by applying service design theory.

Research Question 2:

- 2.1 How to match the cultural function of shadow puppetry with we-media demand fulfilment?
 - 2.2 How we-media short videos can serve viewers from a service design perspective?
 - 2.3 How can we use service design theory to optimize short video services in the ICH category?
- H2a. As an information service form, we-media can improve the we-media service system related to shadow puppetry by applying the service design theory model, in order to meet the audience's needs and realize the cultural function of shadow puppetry in contemporary society.***
-

4.0 METHODOLOGY

4.1 Research methodology framework

Whyte (1989) posits that participatory action research (PAR) serves as a robust methodology for achieving practical goals and enhancing scientific understanding. PAR emphasizes user engagement. Furthermore, we-media, which is cultivated through participation, can bolster PAR research, yielding significant advantages (Qaed et al., 2016). This research will adopt mixed methods, with the majority of data collection occurring on we-media platforms. Research activities will adhere to the stages and principles inherent to the PAR framework.

The research encompasses four interconnected phases: establishing a theoretical foundation, formulating research questions, strategizing, and conducting experiments and evaluations. Both qualitative and quantitative methods will permeate all phases of this investigation. In the qualitative analysis of this study, on the one hand, interviews with inheritors and practitioners of Huaxian shadow puppetry are analyzed to explore the challenges in its inheritance and development, as well as its contemporary cultural functions from a cultural function perspective. On the other hand, representative shadow puppetry content and we-media accounts related to Huaxian shadow puppetry are qualitatively analyzed to identify the characteristics of we-media content that achieve better dissemination effects, and to examine how high-quality videos meet user needs from a cultural function perspective. The qualitative analysis in these two aspects is grounded in the research frameworks of Grounded Theory and. Specifically, the interviews conducted in this study are based on a non-structured interview outline, aligning with the core principle of Grounded Theory, which emphasizes deriving theories from data. Through summarizing the interview contents of multiple shadow puppetry inheritors, practitioners, and apprentices, the study systematically refines commonalities layer by layer according to the Grounded Theory method and integrates insights from the cultural function theory to form the final analytical conclusions.

There are several key reasons for this approach. 1) To address the research questions raised in this research, an interdisciplinary perspective and theoretical support are essential. This involves answering both "what" and "why" questions. The "what" question is addressed through quantitative research to identify commonalities, while the "why" question requires qualitative

research to uncover underlying mechanisms and interpret their significance. 2) Quantitative and qualitative data serve complementary roles. For example, quantitative methods can effectively summarize the characteristics of high-quality ICH short video content using large-sample statistics, but the quantitative method often lack detailed insights into individual experiences. In contrast, qualitative analysis allows for a deeper exploration of the features of representative short video accounts. 3) The integration of theory and practice is critical. This research employs quantitative analysis to verify research hypotheses and qualitative research to generate theories. During the construction of the service design model, a qualitative service design framework is developed based on the findings from both qualitative and quantitative studies. Subsequently, experimental results are analyzed quantitatively to complete the cycle of "hypothesis testing - theory revision."

Chinese shadow puppetry digital content creators, audiences, and cultural practitioners will be invited to engage collaboratively in strategy development alongside the researcher. Actions within this research will revolve around a reflective cycle, with reflection and learning culminating in the final phase. Additionally, owing to the e-research nature of this research, traditional social research methods will transition online, accommodating adaptations such as online surveys, interviews, focus groups, and questionnaires. To triangulate data validity, offline methods will include site visits, observations, photography, and mapping (see Figure 4.1).

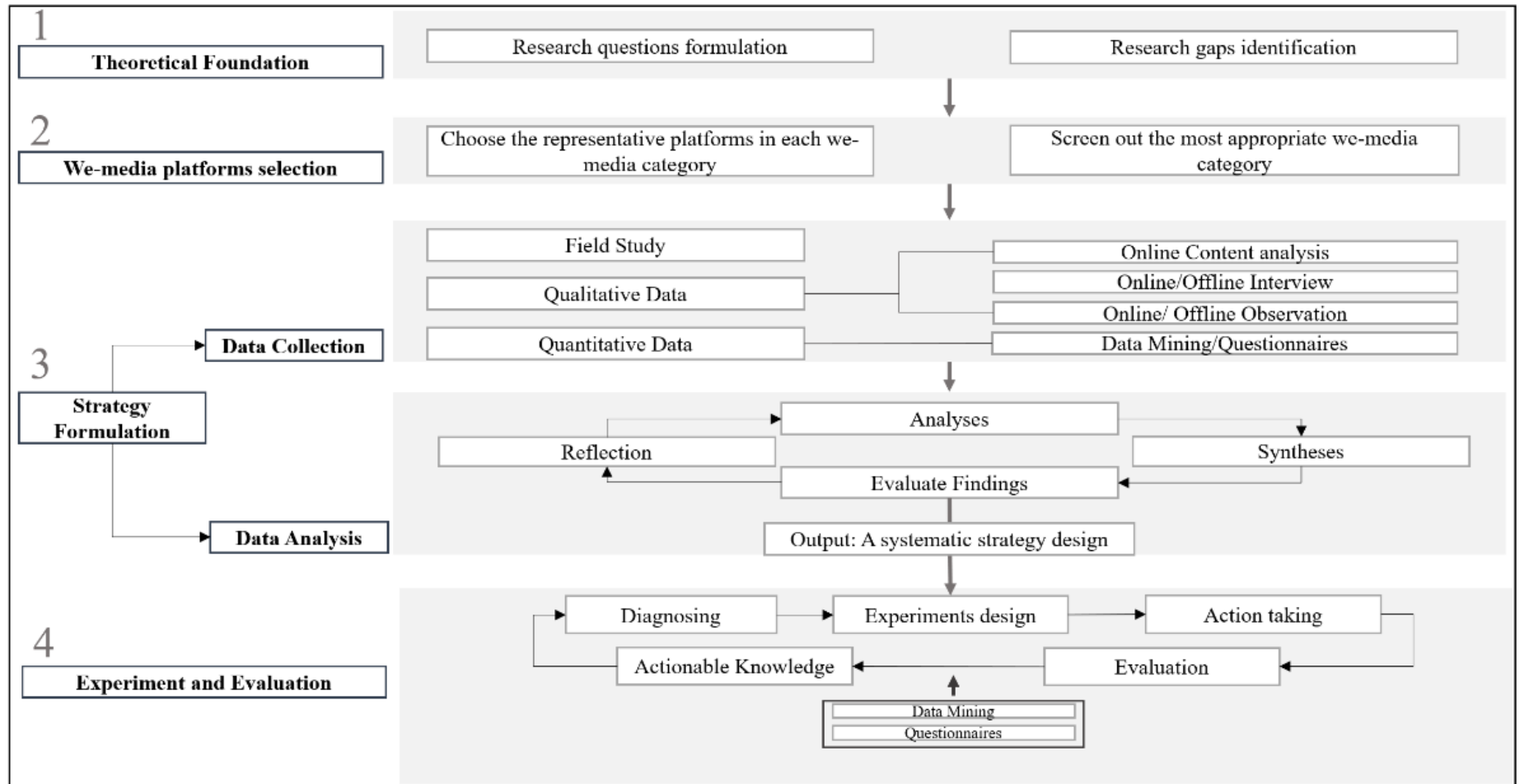


Figure 4.1 The framework of research methodology

Source from: Author, 2019

4.2 Research phases along with associated methodologies

4.2.1 Phase I: theoretical foundation

Step 1: Research questions formulation and research gaps identification

The literature review serves as a critical tool for researchers to clarify the research problem, along with its associated hypotheses and questions (Leedy and Ormrod, 2013). This research will commence with a comprehensive review of the theories surrounding digital media and ICH. Following this, the discourse on we-media and ICH, including their integrated applications both domestically and internationally, will be scrutinized to establish a foundation for identifying the benefits of utilizing digital media in disseminating ICH. Subsequently, the application of we-media in the promotion of performing arts, specifically Chinese shadow puppetry, will be examined in detail. This analysis aims to synthesize the current impact of cultural dissemination on we-media platforms. Ultimately, an in-depth investigation of selected we-media platforms frequently employed to circulate performing arts ICH will be conducted, to gain insights into how user behaviors are influenced by these platforms, thereby laying a robust groundwork for subsequent data collection efforts.

Step 2: Reclassify we-media platforms to enhance the dissemination of ICH

Following a comprehensive examination of existing literature, this research reveals that researchers categorize we-media from various viewpoints, influenced by different research objectives. Drawing from current literature and annual reports on we-media, this research aims to reclassify we-media into distinct categories, considering the specific attributes of ICH.

4.2.2 Phase II: we-media platforms selection

We-media platforms must align with the dissemination needs of Chinese shadow puppetry. Specifically, these platforms should highlight the auditory, visual, and shadow aspects of this traditional art form. Additionally, the platforms must preserve the artistic integrity of shadow puppetry while enhancing its meaning and relevance in today's aesthetic context. Selecting suitable we-media platform stands as a crucial strategy for advancing the digital dissemination of Chinese shadow puppetry.

Step 1: Select the platforms within each we-media category that exhibit a high occupational market rate.

Based on the traits of ICH, the researcher classifies we-media into various categories in phase I. In each category, the researcher ranks the existing we-media platforms by market share. The researcher then selects one or more platforms, ensuring their combined market share reaches at least 65% (See figure 4.2).

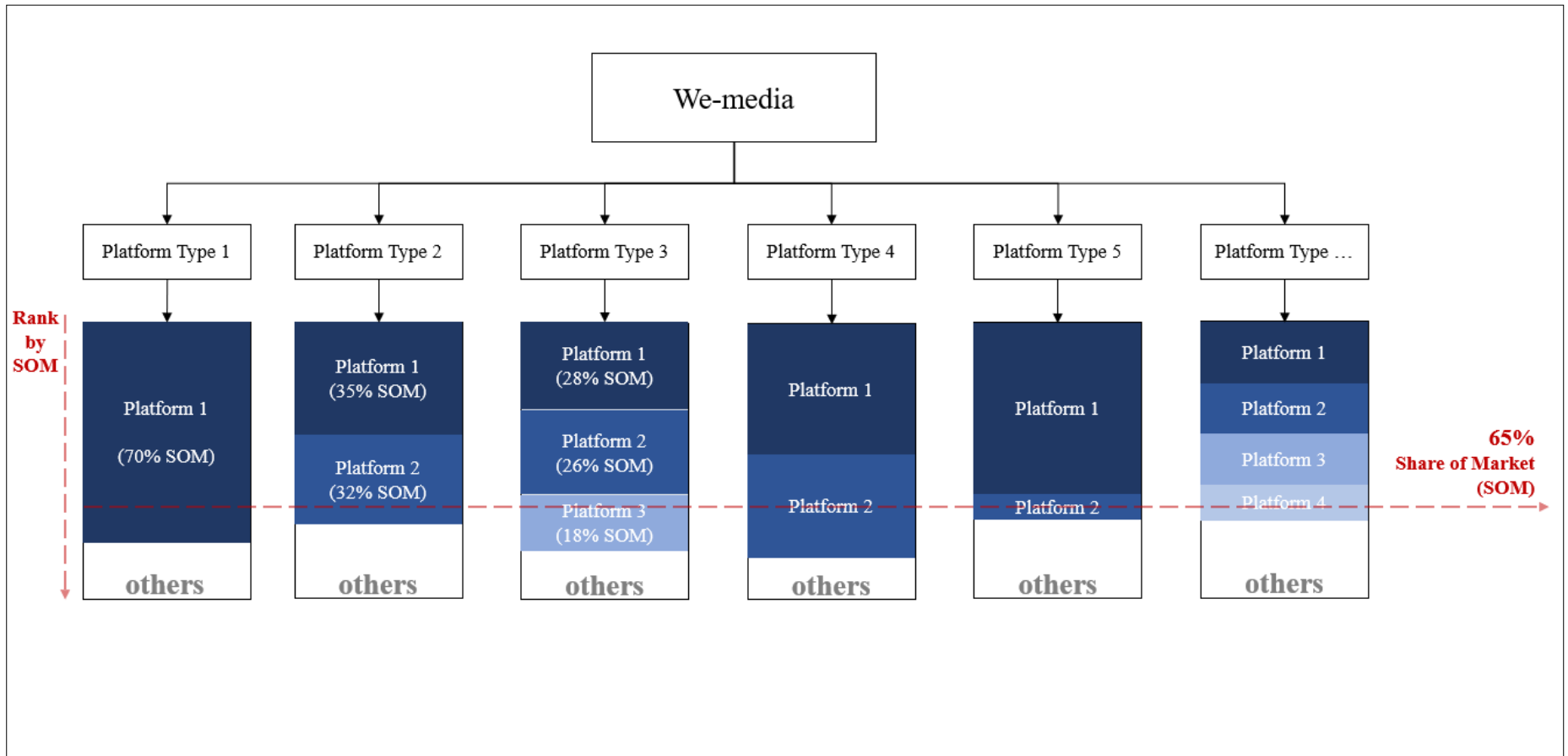


Figure 4.2 The selection of we-media platforms

Source from: Author, 2019

Share of Market (SOM)

Step 2: Identify the most suitable category, along with its chosen platforms.

In Step 1, the researcher selects we-media platforms across various categories. The researcher conducts a comparative analysis of UGC related to Chinese shadow puppetry. This process will identify a specific category along with its corresponding we-media platform(s) for subsequent research activities. To ensure the validity and reliability of the selection, the researcher employs triangulation as a research method. Importantly, this step will enable the researcher not only select the most suitable we-media platforms but also to summarize the characteristics of digital content related to Chinese shadow puppetry and examine its dissemination across diverse we-media platforms.

- **Data mining:** This research will specifically utilize 'Chinese shadow puppetry' as key search terms on the selected platforms in each category. The resulting data to be gathered includes the quantity of digital UGC related to 'Chinese shadow puppetry' and the count of original creators. Additionally, UGC tagged with 'Chinese shadow puppetry' on each platform will be compiled, alongside a collection of comments for subsequent analysis. Furthermore, other quantitative metrics such as shares, likes, favorites, and follows associated with the selected UGC will also be retrieved.
- **Comment analysis:** The analysis will concentrate on public feedback regarding two key aspects: first, whether the UGC fully demonstrates the traits of shadow puppetry; second, if viewers experience an increased attraction to shadow puppetry after engaging with this UGC.
- **Comparative analysis:** The comparative analysis encompasses an examination of both quantitative and qualitative data derived from selected we-media platforms and UGC on those platforms. In essence, quantitative data involve metrics such as the quantity of UGC related to "Chinese shadow puppetry," original creators, shares, likes, favorites, and follower counts. Conversely, qualitative data mainly reflect insights garnered from comment analysis. After conducting a thorough comparative analysis, this research will identify the category of the we-media platform, along with its selected platforms, as the most suitable channels for promoting Chinese shadow puppetry.
- **Expert interviews:** The purpose of conducting expert interviews is to corroborate the choice of we-media platforms identified through data mining, comment analysis, and comparative

analysis. These interviews emphasize the respondents' expertise in specific knowledge areas (Flick, 2011). This research will engage professionals in the we-media sector and practitioners of Chinese shadow puppetry to gather their insights on the most suitable we-media categories and the platform for effectively disseminating Chinese shadow puppetry.

4.2.3 Phase III: strategic development

In the final stage, the researcher identified the most suitable we-media platform(s) for promoting Chinese shadow puppetry. The researcher will complete most of the data collection in this phase on the chosen we-media platform(s). Following this phase, the researcher will develop a systematic strategy to enhance the dissemination of Chinese shadow puppetry across this(these) platform(s).

Step 1: Analyze the content features and classification of other performing arts within the ICH that attract significant audience engagement and sharing on the chosen digital media platform (s). Emphasize the motivations driving the audience's attention and sharing behavior.

- **Collective case study:** The objective of employing collective case studies is to gain insights into the features of popular digital content related to the performing arts on specific we-media platforms. Each case serves a vital role in understanding these characteristics, requiring effective coordination among them (Stake, 1995). In this phase, the researcher will select various widely shared and highly engaged performing arts digital contents as case studies.
- **Purposeful Sampling:** Purposeful sampling is a non-random method for selecting data sources, where the chosen subjects offer maximum insight into the research question (Leedy and Ormrod, 2013). For the ICH selected as the research focus, identify one keyword that best represents each specific art form and rank the search results by popularity. From each performing arts category, select a predetermined number of videos as research samples, ensuring that all digital content is directly or indirectly relevant to the themes outlined in the ICH List.
- **Thematic analysis:** Thematic analysis follows the collective case study to identify themes within the cases (Stake, 1995). This research aims to track the public profiles and activity data of creators who generate popular performing arts-related digital content on selected we-media platforms. Key metrics include the number of followers, posting frequency of performing arts

content, and content themes. The thematic analysis will categorize the creators into distinct groups, such as learner creators, expert creators, and influential creators. Each category will evolve into a creator persona and journey map illustrating the developmental phases of the creators. Subsequently, when designing strategies for disseminating Chinese shadow puppetry across the chosen we-media platform (s), the researcher will utilize the characteristics of various creator personas and journey maps to tailor specific strategies for different shadow puppetry creators.

- **Online questionnaire:** In this research, the researcher will distribute an online questionnaire to a broad we-media audiences. The questionnaire is designed to understand the preferences and interactive behaviors of the audiences when they watch ICH related, we-media content. This will allow the researcher to comprehend their behavioral motivations.

Step 2: Analyze the content features and categorization of Huaxian shadow puppetry digital creations on chosen we-media platform (s).

Beginning with this stage, Huaxian shadow puppetry will serve as a pivotal case study. It is representative, and it can enhance the audiences' understanding of Chinese shadow puppetry.

- **Field study:** To thoroughly understand the characteristics and distinctiveness of Huaxian shadow puppetry, a field study in Huaxian, Shaanxi province is essential. This research will include semi-structured interviews with successors, practitioners, amateurs and creators. These interviews aim to gather insights on: 1) the cultural and artistic significance of Huaxian shadow puppetry and its potential integration with we-media; 2) the challenges of disseminating Huaxian shadow puppetry; 3) the perspectives and recommendations from stakeholders regarding the current digital representations of Huaxian shadow puppetry on we-media platforms. Additionally, the researcher will document the entire performance process of shadow puppetry through photographs and videos during the field study.
- **Content Analysis:** All UGC identified as 'Huaxian shadow puppetry' on the selected we-media platforms will undergo a comprehensive content analysis. This analysis aims to elucidate the attributes and categorizations of contemporary Huaxian shadow puppetry digital creations on those platforms.

Step 3: Based on the findings from the content analysis, identify the traits that drive significant audience engagement and sharing in digital works. Subsequently, investigate the cultural aspects of Huaxian shadow puppetry that demonstrate substantial potential for digital innovation and distribution.

- **Comparative study:** This research analyzes digital media with significant audience engagement and sharing frequency. Through comparative analysis, it identifies cultural elements in Huaxian shadow puppetry. These elements may be reimagined and redesigned to enhance the promotion of Huaxian shadow puppetry.

Step 4: Analyze the traits and categorization of creators producing Huaxian shadow puppetry on chosen digital media platforms.

- **User profile and activity analysis:** In this phase, the researcher will analyze the user profiles and activity data of Huaxian shadow puppetry digital content creators across designated media platforms. Based on this analyzed data, the researcher will categorize the creators into distinct group classifications.

Step 5: Identify the creators' motivations and requirements for producing digital works that garner significant audience engagement and achieve high levels of sharing.

- **Face to face interview:** Furthermore, for the prominent creators in each category who already possess considerable popularity on we-media platforms, in-depth information will be gathered through face-to-face interviews. These creators will later collaborate with researchers to co-design the service design model.

Step 6: Develop a content creation service model that enables creators to generate digital works that attract significant audience engagement and promote extensive sharing.

- **Participatory design:** Following data analysis and the creation of personas and journey maps in step one, researchers, digital content creators of Huaxian shadow puppetry, and tradition bearers will collaboratively design a service model for disseminating Huaxian shadow puppetry across the selected we-media platform (s).

4.2.4 Phase IV: experiment and evaluation

To validate the research findings, the researcher will collaborate with the selected Huaxian shadow puppetry creator who has published Huaxian shadow puppetry digital content on we-media platforms. The researcher will collect data related to this content to assess experimental outcomes. Following data analysis, the researcher will refine the strategies and repeat the experiments. The experimental and evaluation mechanisms are illustrated in Figure 4.3.

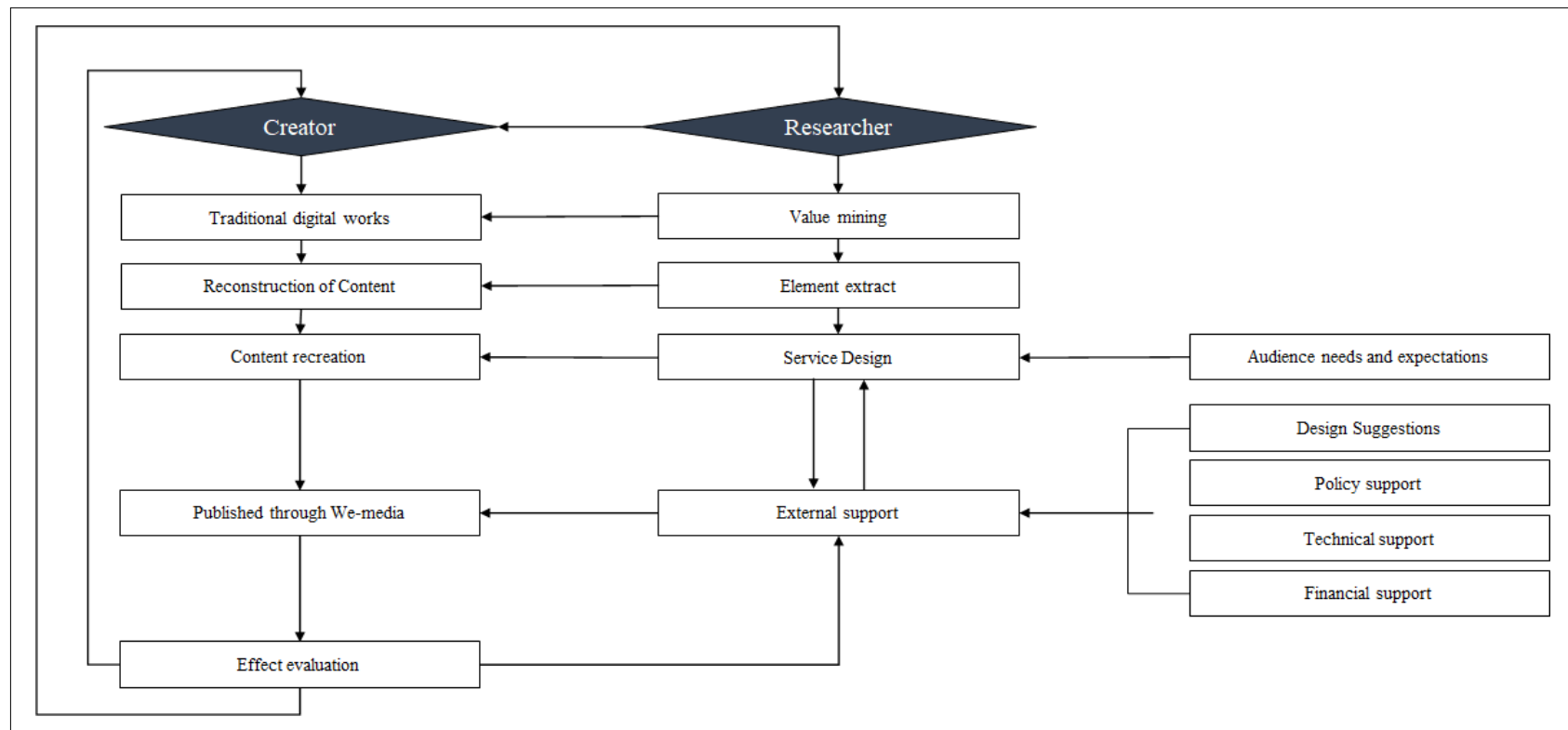


Figure 4.3 The collaborative framework among researchers, creators, and audiences.

Source from: Author, 2019

4.2.5 Research stages with the corresponding research methods

In general, the whole study is designed into four phases: theoretical foundation, we-media platform selection, strategy formulation and experiment and evaluation, the qualitative and quantitative research approaches are involved in all phases of this research (see table 4.1).

Research Phase No.	Content	Detailed Research Stages	Research Methods
Phase I	Theoretical foundation	1) Research questions formulation and research gaps identification	Literature
			Government documents
		2) Re-classify we-media with the purpose of promoting the dissemination of intangible cultural heritage	corporate annual reports
			Theoretical research
			Literature
			Corporate annual reports
Phase II	We-media platforms selection	3) Choose the high market occupation rate platforms in each we-media category.	Literature
			Data Mining
		4) Screen out the most appropriate we-media category with its selected we-media platforms	Comparative analysis
			Expert interviews
			Data Mining
			Content analysis (Internet documents and interactions analysis)
Phase III	Strategy Formulation	5) Identify the content characteristics and content classification of other performing arts intangible cultural heritage that have high audience attention and large sharing quantity on the selected we-media platforms, with a focus on the motivations of audience's attention and sharing.	Collective case study
			Purposeful Sampling
			Thematic analysis
			Online questionnaire
		6) Analysis the content characteristics and classification of the Huaxian shadow puppetry digital works on the selected we-media platforms.	Field study
			Content Analysis
			Comparative study
			Online questionnaire
		7) Identify the gaps between Huaxian shadow puppetry dissemination and other performing arts intangible cultural heritage that have high audience attention and large sharing quantity on the same we-media platforms.	Comparative study
			Online questionnaire
		8) According to the comparative analysis results, referencing the characteristics of high audience attention and large sharing quantity digital works, further explore the cultural elements of Huaxian shadow puppetry that possess high digital creation and dissemination potential.	User profile and activity analysis
Online pilot interview			
Face to face interview			
		10) Identify the creators' creation motivation and needs for producing digital works with high audience attention and large sharing quantity.	
		11) Design a systematic strategy to help creators produce digital works with high audience attention and large sharing quantity.	Participative design
Phase IV	Experiment and Evaluation	12) Practice the strategies iteratively, while modify continually	Experiment
			online discussion and questionnaire

Table 4.1 Research stages

Source from: Author, 2019

5.0 A CLOSER LOOK AT THE DEVELOPMENT, INHERITANCE AND PROTECTION OF HUAXIAN SHADOW PUPPETRY

The Huaxian shadow puppetry is intricately intertwined with the zeitgeist and social dynamics, evolving within the vast river of history. The destinies and careers of a group of indigenous Huaxian shadow puppetry artists also mirror the rise and fall of this traditional art form. In rural areas of Huaxian, it is customary to invite a shadow puppetry troupe to perform during family rituals, such as sacrifices, weddings, and childbirth. However, this rustic art has transcended borders and thrived on the global stage, captivating foreigners who seek to explore oriental culture and experience the unique allure of Chinese ICH. Amidst all the excitement, these seasoned artists inevitably return to their countryside roots - donning cloth shoes day after day - leading lives deeply connected with their ancestral land. Where is the future development road of Huaxian shadow puppetry?

“The elderly man’s body resembles that of a weary camel, as if it were a sigh descending upon the tranquil earth, devoid of strength to elevate itself.”

---ZHANG Tao, 2020

5.1 Introduction

The most prominent feature of Huaxian shadow puppetry lies in its historical continuity. The intricate craftsmanship, captivating performances, and melodious singing style of Huaxian shadow puppetry embody profound traditional intentions and distinctive local characteristics. "Function" and "demand" are two key concepts in cultural function theory, which states that cultural functions exist to meet human needs, with specific demands eliciting specific responses (Li, 2024). Some cultural functions of shadow puppetry may not be congruent with current social development and have lost their efficacy. Therefore, when undertaking innovative design for Huaxian shadow puppetry, it is imperative to first explore the contemporary cultural functions and values of this ancient culture.

For cultural studies, researchers should return to the vernacular context of cultural origin to conduct research. From 2020-2022, the author traveled twice to Huaxian and Xi'an in Shaanxi province to do an in-depth field trip study. Moreover, follow the master's to learn the basic skills of shadow puppetry carving and puppeteering. This chapter discusses the real dilemmas of Huaxian shadow puppetry inheritance and development and explores its cultural functions in contemporary society through the lens of cultural functional theory.

5.2 Master and their stories with shadow puppetry: a deep field study in Huaxian and Xi'an

5.2.1 Interview plan

The field study was carried out in Huaxian and Xi'an, Shaanxi province.

Huaxian is the birthplace of Chinese shadow puppetry, it is also the general source of all Chinese opera art (Wei et al., 2013). Huaxian is the district of Weinan City, Shaanxi province. And it is in the eastern part of the Qinling Mountains, the southern part of the Guanzhong Plain and the southern bank of the Wei River. Huaxian is adjacent to Huayin city in the east and 70 kilometers from the provincial capital Xi'an in the west (Figure 5.1). In October 2005, Huazhou District of Weinan city was established, Huaxian was abolished, and the administrative area of the former Huaxian was taken as the administrative area of Huazhou district. According to the official statement of the first batch of national ICH protection list, the Chinese shadow puppetry around Weinan city and Huayin City of Shaanxi Province is uniformly known as Huaxian shadow puppetry, so this research retains the statement of Huaxian shadow puppetry.

Xi'an is the capital city of Shaanxi Province, located in northwest China, in the middle of Guanzhong Plain, bordering the Wei River to the north and the Qinling Mountains to the south. Xi'an is the starting point of the Silk Road and one of the important birthplaces of Chinese civilization. Huaxian shadow puppetry originated in Huaxian. However, over the past 20 years, government policy support, cultural institutions related to shadow puppetry, and university initiatives in protecting of shadow puppetry have been mainly centered around the capital city of

Xi'an. Therefore, Huaxian shadow puppetry practitioners, to be able to seek better career opportunities, left the birthplace of shadow puppetry and moved to Xi'an.



Figure 5.1 Location of Huaxian and Xi'an

Source from: Author, 2024

Xi'an, a renowned internet tourist city, offers opportunities for the development of Huaxian shadow puppetry-related industries in the region. This field study includes 15 face-to-face in-depth interviews. The interviewees are directly involved in the development, inheritance, and protection of Huaxian shadow puppetry. This research categorizes the 15 interviewees into 5 main groups: nationally certified Huaxian shadow puppetry inheritors, younger apprentices of Huaxian shadow puppetry, local government officials, related practitioners (who are not directly involved in shadow puppetry carving, singing, or puppeteering, but contribute to the shadow puppetry industry or the recording and preservation of Huaxian puppets in various ways), and Huaxian shadow puppetry enthusiasts. This field trip study aims to understand the history and the current inheritance status of Huaxian shadow puppetry from the perspective of different stakeholders. Notably, at the conclusion of this research, there was an interview that the interviewee did not approve for the time being. To respect the interviewee's privacy, the specific content of this interview is not disclosed in this research. The interviews are semi-structured, in-depth discussions. The author developed distinct interview purposes based on the different identity characteristics of the interviewees. Additionally, the specific interview questions were designed around the goals of

each interaction. 1) Through interviews with Huaxian shadow puppetry inheritors, the author aims to learn more about the core values of Huaxian shadow puppetry (cultural, market, and economic) as well as the current challenges faced in the inheritance and development of Huaxian shadow puppetry. 2) By interviewing younger Huaxian shadow puppetry apprentices, the author hopes to understand the motivations of the new generation of inheritors, along with the problems and challenges they encounter during the inheritance and learning process. This insight will aid in designing a follow-up strategy for the research: how to attract more young people to participate in the inheritance and learning of ICH. 3) Through interviews with local government officials in Huaxian, the author aims to understand the current development of Huaxian shadow puppetry in the area, along with the policies and long-term development plans offered by the local government for the inheritance and advancement of Huaxian shadow puppetry. 4) Through interviews with Huaxian shadow puppetry practitioners, the author seeks to understand the economic value and primary business model of Huaxian shadow puppetry within the commercial market. 5) Huaxian shadow puppetry enthusiasts do not depend on related work as their primary income source. They value traditional shadow puppetry culture and seek to learn more about it. Through interviews, the author aims to explore the living environment and inheritance challenges of Huaxian shadow puppetry.

The author interviewed a total of 15 participants in face-to-face sessions. The interviews included 8 Huaxian shadow puppetry inheritors, 2 carving or performing apprentices, 1 local government officer, 2 practitioners related to shadow puppetry, and 2 enthusiasts. Each interview lasted between 1.5 and 2 hours, recorded with the consent of the interviewees. Most interviews occurred in the interviewees' studios, allowing the author to observe the natural living environment of Huaxian shadow puppetry.

Table 5.1 The descriptive table of interviewees

Group	Interviewees	Age at time of interview	Interview Time	The Length of Interview	Interview Method	Personal Title
Huaxian shadow puppetry inheritors	WANG Tianwen	71	7th December 2021	1hour40minutes	Face-to-Face	·Master of Chinese Arts and Crafts ·Representative Inheritor of Chinese Shadow Puppetry (Huaxian Shadow Puppetry) at the National Level
	Wang Ke	40	16th December 2021	45minutes	Face-to-Face	Shaanxi Chinese shadow puppetry carving artist
	Xue Hongquan	53	17th November 2021	1hour45minutes	Face-to-Face	Master of Chinese Arts and Crafts
	ZHANG Jiaxiao	31	2nd December 2021	1hour18minutes	Face-to-Face	City level inheritor of ICH
	LIU Hua	78	25th December 2021	54 minutes	Face-to-Face	·Representative Inheritor of Chinese Shadow Puppetry (Huaxian Shadow Puppetry) at the National Level
	WEI Jinquan	57	1st December 2021	1hour47minutes	Face-to-Face	·Representative Inheritor of Chinese Shadow Puppetry (Huaxian Shadow Puppetry) at the National Level
	HOU Xinmin	57	19th November 2021	1hour50minutes	Face-to-Face	City level inheritor of ICH
	LI Shijie	87	10th December 2021	30 minutes	Face-to-Face	National ICH "WanWanQiang" Inheritors
Huaxian shadow puppetry younger apprentices	LIU Ting	30	1st December 2021	1hour	Face-to-Face	Young Huaxian shadow puppetry inheritor (under the tutelage of Hou Xinmin)
	ZHOU Lang	22	5th December 2021	32minutes	Face-to-Face	The student of the Huaxian Shadow Puppetry Association of Shanxi Normal University
Local government officers	LIANG Sijuan	-	25th November 2021	1hour13minutes	Face-to-Face	The director of the Huazhou District ICH Protection Centre (Affiliated to Huazhou District Culture and Tourism Bureau)
Huaxian shadow puppetry related practitioners	WANG Yumin	41	15th November 2021	3hour3minutes	Face-to-Face	Shadow puppetry animation director
	REN Hua	-	28th November 2021	1hour30minutes	Face-to-Face	The Xi'an Ming and Qing Shadow Art Museum curator
Huaxian shadow puppetry enthusiasts	JIANG Guoqing	-	5th December 2021	1hour19minutes	Face-to-Face	Huaxian Shadow puppetry collector

Field trip 1: 2/7/2020-11/7/2020

Roadmap: Hong Kong-Xi'an-Hong Kong

Research scope:

In 2020, due to the influence of COVID-19, the author could not travel to Huaxian and conducted the research in Xi'an. The author went to Wang's Shadow Puppetry Studio at the Shuyuanmen (书院门) of Xi'an to visit Master Wang Tianwen (汪天稳) and his daughter Master Wang Haiyan (汪海燕). The author also visited the Huaxian shadow puppetry performance theatre and Huaxian

shadow puppetry retail shops in Xi'an Hui Street to learn about the current development of Huaxian shadow puppetry in the tourism market.

Research purpose:

Wang's shadow puppetry represents Shaanxi shadow puppetry and has become the leader of Chinese shadow puppetry. Moreover, Wang's shadow puppetry is also the biggest and strongest among various Huaxian shadow puppetry companies. Wang Tianwen is the only national Master of Arts and crafts in Chinese shadow puppetry, and his daughter, Wang Haiyan, as the younger generation of Huaxian shadow puppetry inheritors, has broken new ground in the innovative design and inheritance of Huaxian shadow puppetry, giving Huaxian shadow puppetry a new luster and vitality. The author chose Wang's shadow puppetry as the first stop of the field study, hoping to have a basic understanding of Huaxian shadow puppetry inheritance and development. Also, the author aims to clarify the situation of those who are still engaged in Huaxian shadow puppetry-related industries, and hoping through the introduction of Master Wang Tianwen, the author could get well prepared for further field study.

Field trip 2: 7/11/2021-11/12/2021

Roadmap: Hong Kong-Xi'an-Huaxian-Xi'an-Hong Kong

Scope of research:

The author conducted a month-long field study in Xi'an and Huaxian, focusing on the vernacular context of Huaxian shadow puppetry, and the author followed two inheritors to understand and learn basic carving and puppet puppeteering techniques of Huaxian shadow puppetry and appreciate the art's traditional charm. In addition, the author also visited the Huaxian Shadow Puppetry Association of Shaanxi Normal University, the New Media Centre of Xianyang Television Station, and the Protection Centre of ICH in Huaxian.

Research Purpose:

Through the field trip study, the author aims to understand current government policy support for the protection of Huaxian shadow puppetry. Also, the author wants to get a basic understanding of the research and learning situation at Shaanxi Normal University. And from the perspective of

cultural function theory, the cultural function of Huaxian shadow puppetry in contemporary times is explored through the interviews.

5.2.2 Portrait of interviewees

Group 1: Huaxian shadow puppetry inheritors

The identification of inheritors is the prerequisite and first step in the protection of inheritors. In the year 2021, China's Ministry of Culture and Tourism released the latest version of the Measures for the Identification and Management of Representative Inheritors of ICH at the National Level. According to the definition issued by the Chinese Ministry of Culture and Tourism in the Interim Measures for Recognition and Administration of Representative Successors for National ICH Projects, the national-level ICH inheritors refers to a person who is certified by the State Council's administrative department of culture and assumes the responsibility of inheriting and protecting a program on the national ICH list; this person should have representativeness, authoritativeness, and influence while meeting the following three requirements: (a) having mastered or inherited a certain national-level ICH and has been engaged in the inheritance practice of the ICH for a long time (b) being recognized as representative and influential in a certain region or field, and (c) being actively involved in inheriting activities and training successor talents, (d) Comply with laws and regulations (Su et al., 2020). The latest version of the Measures for the Recognition and Management of Inheritors has improved the conditions for the recognition of inheritors compared to the 2008 version. However, there are still problems, such as unspecified inheritor evaluation criteria, public disclosure methods, objection procedures, and unclear relief measures. Once local government officials are biased, the selected inheritors may be unqualified, and the real inheritors will not be selected (Wen, 2013). According to the information provided to the author by the Huaxian ICH Protection Center (the ICH Protection Center of Huazhou District belongs to the Culture and Tourism Bureau of Huazhou District, Weinan City, and is a government functional unit.), 11 representative inheritors of Huaxian shadow puppetry have been officially certified by the government. Among them, three national-level Huaxian shadow puppetry inheritors include Liu Hua (刘华), Wang Tianwen (汪天稳), and Wei Jinquan (魏金全). The Shaanxi Province level-Huaxian shadow puppetry inheritors are three people, including Lu Chongde (吕

崇德), Wang Tianxi (汪天喜), and Xue Hongquan (薛宏权). The five inheritors of Huaxian shadow puppetry at the Xi'an municipal level include Dong Jinshui (董进水), Jiang Jianhe (姜建合), Zhao Baiping (赵百平), Wang Haiyang (汪海燕), and Du Zhanfeng (杜占峰). During the field research, the author discovered that not all those who contributed to the inheritance and protection of Huaxian shadow puppetry received official certification. If only the certified inheritors were selected as the research subjects, it might lead to excessive focus on the certificates, thereby neglecting the protection of the ICH itself. This would result in a lack of objectivity in the research and limited conclusions. Therefore, the definition of Huaxian shadow puppetry inheritors in this research will be broadened based on officially recognized standards, with the following main criteria: 1) proficiency in one or more Huaxian shadow puppetry skills including carving, singing, and puppeteering; 2) skills mastered by renowned Huaxian shadow puppetry veteran artists; 3) Huaxian shadow puppetry as the primary business currently; 4) active participation in Huaxian shadow puppetry-related social activities and training or having trained several Huaxian shadow puppetry apprentices.

Under the circumstances where China provides strong support for the protection and innovation of ICH, along with comprehensive guarantees in terms of policies, finance, and legislation, the masters of Huaxian shadow puppetry who hold the official government certificates for inheritance are at the top of the "pyramid", enjoying government subsidies and possessing numerous honors and resources. This research also interviewed those artists who, although not having obtained the inheritance certificates, have been continuously striving to inherit and protect Huaxian shadow puppetry. This research aims to stand at the "waist level" of the pyramid, observing the real situation of the entire shadow puppetry inheritance and development in Huaxian.

The artists of shadow, the creators of mysterious puppets.

WANG Tianwen (汪天稳)



Figure 5.2 WANG Tianwen is being interviewed by the author.

Source from: Author, 2021

Interview Time: 7th December 2021

The Length of Interview: 1 hour 40 minutes

Interview Method: Face-to-Face

Interview Location: Wang's shadow puppetry studio

Wang Tianwen is the fifth Chinese Master of Arts and Crafts and the only national master of shadow puppetry carving. Born in May 1949 into a peasant family, he began to learn shadow puppetry carving techniques at the age of 12 from Master Li Zhanwen, one of the 'Ten Great Masters of Chinese Arts and Crafts.' He has participated in and witnessed the transformation and innovation of Huaxian shadow puppetry from an agricultural society to a modern information society.

The first step toward the marketization of Chinese shadow puppetry was taken by Wang Tianwen (Sha, 2014). After the reform and opening up, shadow puppets entered the tourist market, and the sales volume was very robust at one point. Wang Tianwen received an order for 60,000 pieces of shadow puppets from foreign merchants. He steadily developed the entire Huaxian community to learn shadow puppetry carving. At the peak, thousands of villagers engaged in Huaxian shadow puppetry carving, creating a significant scale effect. Currently, the commercialization of Huaxian shadow puppetry is the strongest effort made by Wang's studio. The majority of Huaxian shadow puppetry carving companies are also closely linked with Wang Tianwen.

In terms of innovation, Wang Tianwen introduced painting into shadow puppetry, allowing shadow carving to move beyond the traditional fixed mode of serving shadow puppetry performances. Huaxian shadow puppetry has transitioned from the backstage to the front stage. Moreover, with modern ornamental and collectible purposes, Huaxian shadow puppetry is gradually entering the art and cultural gift markets, shifting from producing traditional opera characters to modern popular subjects. Additionally, Wang Tianwen intentionally creates giant shadow puppetry pieces for the home market as decorations. Wang's shadow puppetry has become a renowned local cultural brand in Shaanxi Province.

In 2017, with exquisite skills, Wang Tianwen led Huaxian shadow puppetry carving art to the 57th Venice Biennale, showcasing the infinite charm of Chinese traditional culture and achieving a historic milestone for Chinese folk art on the international stage. Wang Tianwen served as an essential interviewee who helped the author explore Huaxian shadow puppetry and connect with other inheritors, advancing the research process.

Huaxian shadow puppetry carving has gradually detached from traditional shadow puppetry culture, shifting from a performance focus to ornamental and collectible art and cultural gifts. From the perspective of cultural function theory, the functions of "production" and "cultural tools" have been realized. The carved works of shadow puppetry in Huaxian have emerged as a contemporary artistic medium that reflects the distinctive traits of Shaanxi regional culture. From the perspective of cultural functional theory, the acquisition and commercialization of shadow puppetry effectively address people's cultural needs, particularly their desire for cultural instruments and social cohesion (social integration).

WANG Ke (王可)



Figure 5.3 Wang Ke is teaching author the Huaxian shadow puppetry carving skills.

Source from: Author, 2021

Interview Time:16th December 2021

The Length of Interview:45minutes

Interview Method: Face-to-Face

Interview Location: Xi'an Ming and Qing Dynasty Shadow Art Museum

Wang Ke was born in 1981 in Huayin, Shaanxi Province. Wang Ke's master, Chen Yiwen, was an expert in shadow puppetry carving. In 2016, Wang Ke came to Xi'an Ming and Qing Dynasty Shadow Art Museum to work on the reproduction and restoration of Ming and Qing Dynasty old shadow puppetry.

The transition of Shaanxi shadow puppetry from its traditional societal application to its display as a cultural relic in museums signifies a shift in its cultural function from "utility" to "static preservation". Within museum settings, the culture of shadow puppetry is presented as an

immobile representation of cultural history. From the perspective of cultural functional analysis, it emphasizes the dissemination of cultural education and continues to embody functions related to social control and reinforcement of values.

XUE Hongquan (薛宏权)



Figure 5.4 Xue Hongquan is being interviewed by the author.

Source from: Author, 2021

Interview Time: 17th November 2021

The Length of Interview: 1 hour 45 minutes

Interview Method: Face-to-Face

Interview Location: Shaohua mountain shadow puppetry exposition park

Xue Hongquan, born in 1968, is a native of Huaxian. Xue Hongquan has received many honors; he is a National Village Craftsman, a Chinese Arts and Crafts Master, and a representative inheritor of Huaxian shadow puppet carving.

In July 2019, Xue Hongquan leased about 4,000 square meters of land from the government at the foot of Shaohuashan Mountain, mortgaged his shop in Huaxian, and invested 5 million yuan in starting to build a private shadow puppet museum of his own. On 1 May 2020, Xue Hongquan's Shaohuashan International Shadow Shadow Puppetry Exposition Park officially opened to the public. About 10 Huaxian shadow puppetry national or provincial inheritors work in Xue Hongquan's exposition park; their average age is about 80 years old, and Xue Hongquan gives them 1,000 yuan per month as basic living expenses.

Xue Hongquan is the head of the new school of shadow puppetry performance. Xue Hongquan has made groundbreaking and innovative attempts at shadow repertoire and performance methods. Xue Hongquan sets up an innovative shadow performance troupe; he combines shadow puppetry with modern stage, sound, choreography, lighting, stunts, and other advanced technologies; he uses modern dance, ballet, children's theatre, idiomatic stories, fables, and myths and legends as the theme, to create several outstanding shadow puppetry performances, 'Xi'er' 'Micheal Jackson' and other public performances have got an excellent social response after performance.

Some experts and scholars, Huaxian shadow puppetry artists and practitioners opposed Xue Hongquan's innovations and even argued with him. They think that Xue Hongquan's innovative repertoire has lost the cultural authenticity of Huaxian shadow puppetry and can no longer be called ICH. Xue Hongquan adheres to the theory of "living protection"; he explains that the protection of ICH should essentially be the protection of skills rather than repeatedly emphasizing the final product. Shadow carving and performance skills need to be passed on from one generation to the next, while the shape and color of the puppets and the repertoire of the performances can be updated and innovated.

Currently, Xue Hongquan is gathering his team to complete large-scale shadow puppetry, 'Punishing Evil and Promoting Goodness, Little Nezha' (惩善扬恶小哪吒), in which he designs

and produces shadow puppetry and assumes the roles of playwright and director. The shadow puppetry has been awarded 210,000 Yuan Renminbi by the National Art Fund's Large-scale Stage Drama and Work Creation Funding Project (see figure 5-5). The traditional shadow puppetry curtain is about 1.5 meters, to let more audience see the performance, Xue Hongquan uses a curtain of 5 meters * 2.2 meters, and the lighting will realize by using laser projection and digital programming.

From the perspective of cultural function theory, Xue Hongquan, as the representative of the innovative school among the inheritors of shadow puppetry in Huaxian County, constantly tries to meet the new cultural needs of contemporary society by innovating the form and content of shadow puppetry expression. Due to the ancient performance plays, the dialect lyrics, and the ancient singing styles, Huaxian shadow puppetry is difficult to be understood by the contemporary audience, mainly young generations. Through the combination of modern content and the use of contemporary audio-optical technology, the distance between shadow puppetry and the audience can be quickly drawn, which can better realize the social integration function of shadow puppetry in the cultural function. Meanwhile, the new forms of shadow puppetry, as a new type of cultural product for consumption, have also fulfilled the functions of being a production tool and a cultural medium for shadow puppets. As a representative of local culture, shadow puppetry has its own cultural cohesion. Moreover, after lowering the threshold for appreciation, it is more likely to attract the attention of modern young people, thus achieving the dissemination of shadow puppetry culture.



Figure 5.5 Xue Hongquan is showing the shadow puppet in the shadow puppetry troupe 《Little Naza》 to the author.

Source from: Author, 2021

ZHANG Jiaxiao (张嘉效)

Interview Time: 2nd December 2021

The Length of Interview: 1 hour 18 minutes

Interview Method: Face-to-Face

Interview Location: Xi'an Academy of Fine Arts

Zhang Jiaxiao is a young Huaxian shadow puppetry inheritor born after 1990. Zhang Jiaxiao was born into a shadow puppetry family; he is the son of Huaxian shadow puppetry municipal-level ICH inheritor Zhang Huazhou (张华州), the grandson of famous shadow puppetry researcher Zhang Qi (张琪). After Zhang Jiaxiao graduated from the Xi'an Academy of Fine Arts in 2008, his father began planning for the museum's founding. In 2019, a countryside folk art family-style mini-museum, 'Xi Peng Zhai' (蓆棚斋), was opened. During traditional Chinese festivals, 'Xi Peng Zhai' will make cultural creative gifts around Huaxian shadow puppetry and put them on the market (Figure 5.6). Zhang Jiaxiao's shadow puppetry works based on the traditional Huaxian shadow puppetry figure modeling and color application but with innovative designs. His works, such as "Like a Tiger Adding Wings (如虎添翼)," have often been selected for the German Red Dot Design Award.

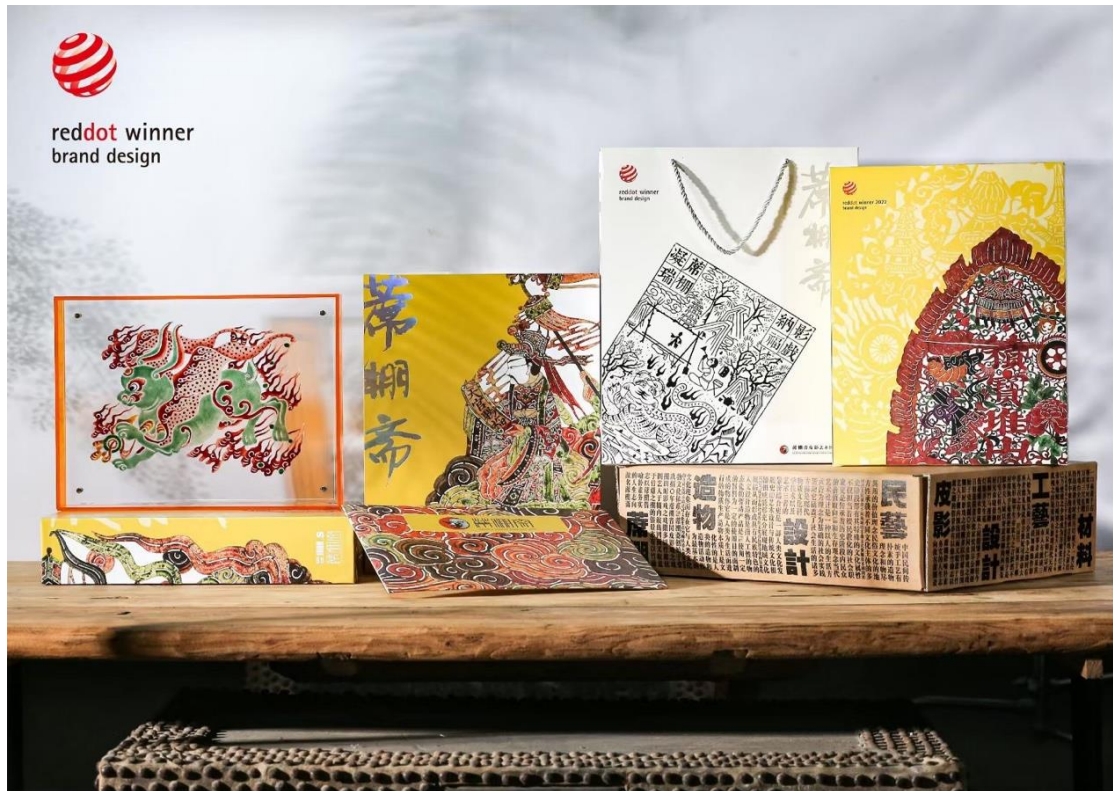


Figure 5.6 Cultural and creative product of Xi Peng Zhai

Source from: Zhang Jiaxiao, 2022

At present, about 9 young people of Zhang Jiaxiao's age are engaged in Huaxian shadow puppetry puppeteering or carving work. Contrary to the pessimistic view of old Huaxian artists, these young men are full of confidence and hope for the future development of Huaxian shadow puppetry. They believe that this art is continuing to progress and develop. Although it has separated from its original vernacular context, it has had the opportunity to go to a higher level and a more prominent international arena.

From the perspective of cultural function theory, shadow puppetry carvings or their derivative cultural and creative products are constantly reinforcing the cultural and artistic handicrafts function of shadow puppetry culture in the context of contemporary society and fulfilling the need for social control (social integration).

Artists who skillfully puppeteering puppets and breathe vitality into shadow puppetry:

LIU Hua (刘华)

Interview Time: 25th December 2021

The Length of Interview: 54 minutes

Interview Method: Face-to-Face

Interview Location: Shaohua mountain shadow puppetry exposition park



Figure 5.7 Liu Hua is teaching the author shadow puppetry puppeteering skills.

Source from: Author, 2021

Liu Hua, born in 1943, is a native of Huaxian and the national-level intangible cultural project inheritor of the Huaxian shadow puppetry.

The 70s witnessed a boom in the development of Huaxian shadow puppetry. Almost every night, there was a shadow puppetry performance. In the early 80s, Huaxian shadow puppetry began to fade; Liu Hua and other artists returned home to work in the fields. In 1987, Professor Jin Zhilin and Professor Yang Xianrang from the Central Academy of Fine Arts visited Huaxian. Professor Jin Zhilin invited Huaxian shadow puppetry artists to perform at the Central Academy of Fine Arts. This performance held great significance for the development of Huaxian shadow puppetry, as it completed the connection between Huaxian shadow puppetry and the domestic art scene while opening the door for Huaxian shadow puppetry to engage with the global shadow arts. The troupe visited Taiwan, Hong Kong, Japan, Italy, Germany, and France, and Liu Hua participated each time. From 1995 to 1998, the troupe frequently performed. Each performance included provisions and accommodation, and the artists could earn 400 yuan Renminbi per day. Liu Hua noted that shadow artists experienced increased status and social recognition. During this period, Liu Hua also took part in the filming of Zhang Yimou's movie 'Alive' (活着), a film directed by Zhang Yimou. From 2005 onwards, whether at home or abroad, performances decreased, and Huaxian shadow puppetry again transitioned from prosperity to decline. Without performances, young shadow puppeteers opted to change professions to support their families.

Huaxian shadow puppetry used to have frequent performances abroad and received a very positive response. Although there are fewer opportunities to travel abroad in recent years due to various factors, this still proves that Huaxian shadow puppetry culture effectively represents and influences the presentation of Chinese culture and shadow puppetry globally. From a cultural perspective, shadow puppetry culture generates a warm response overseas, satisfying foreigners' need for integration of Chinese culture and fulfilling a demand for exploration of other civilizations and arts.

WEI Jinquan (魏金全)

Interview Time: 1st December 2021

The Length of Interview: 1 hour 47 minutes

Interview Method: Face-to-Face

Interview Location: Xi'an Yongqing Square



Figure 5.8 Wei Jinquan and author in Xi'an Yongqing Square, 2021

Source from: Author, 2021

Wei Jinquan was born in 1964 in Huaxian; he is the national-level intangible cultural project inheritor of the Huaxian shadow puppetry. Wei Jinquan was born into a shadow puppetry family. Wei Jinquan's father, Wei Zhenye (魏振业), was a famous Huaxian shadow puppetry front voice in Wan wan cavity. Wei Zhenye learned to sing at the age of 12 and started performing at the age of 14. He later became the leader of Guanghua Shadow Puppet Society, one of the four major

Huaxian shadow puppetry societies. Wei Jinquan often followed his father's troupe performances; after graduating from high school, Wei Jinquan started to learn shadow puppeteering from famous puppeteer Li Maoji (吝茂吉). Later, he found Pan Jingle and Zhao Zhencai to learn to sing the wan wan cavity. Wei Jinquan has become a proficient shadow puppet artist who integrates singing, front voice and shadows puppet carving techniques. Because of his age, his eyesight is not as good as before, Wei Jinquan seldom carves and mainly engages in shadow puppeteering.

Wei Jinquan's shadow performance career has gone through four main stages. In the first stage, after the reform and opening, he mainly performed at weddings and funerals in rural villages. In the second stage, at Yutian Company, he focused on commercial performances. In the third stage, he settled in Xi'an and began performing in hotels and scenic spots. There, he encountered the policy of shadow puppetry in schools and started teaching students. Wei Jinquan said, "Now there are very few folk performances. The elderly in the village who once loved shadow puppetry have passed away one after another. Currently, there are fewer than three performances in the village each year, but when I was studying shadow puppetry, I could perform 20 times a month. In the past, people in the countryside were used to watching shadow puppetry performances. However, now the host says, 'Please enjoy' at the start of each performance, which has completely changed to cater to the commercial market."

Huaxian shadow puppetry is a folk organization that needs strong government support. In the 1930s, there were 48 shadow troupes in Huaxian, 17 troupes later when Wei Jinquan learnt Huaxian shadow puppetry, and 4 troupes around 2010; now, getting 3 troupes together in Huaxian is hard. The average age of the members in the troupe is around 75 years old. Huaxian shadow puppetry is quietly disappearing in rural Huaxian.

The officers from Huazhou district ICH protection center approached Wei Jinquan to record a video archive of his performances to be played in a museum in the future. Wei Jinquan was very angry; he said, 'If living things are put here without protection and artificially turned into museum culture, wouldn't it make Huaxian shadow puppetry go towards extinction?'

Wei Jinquan helplessly said, "Local government shouts a lot of slogans but seldom do practical work." The local government officers wanted Wei Jinquan to gather some old artists to perform three plays and record them for the archive. Usually, a play lasts for 3-4 hours, and Wei Jinquan

asked for a total price of 10,000 yuan. The performance done in August 2021, and the government did not give the old artists the whole payment at the end of 2021. This incident caused a few old artists to misunderstand Wei Jinquan greatly. He said, "Huaxian shadow puppetry made such a great contribution to the development of Huaxian because the shadow puppetry, everyone knows Huaxian and began to pay attention to the development of this village. However, the support of the local government for the shadow puppetry is chilling. If the local government does not understand their culture, they will not think about what kind of innovation and inheritance road is suitable for Huaxian shadow puppetry development." Wei Jinquan argued that the Huaxian shadow puppetry funds should be directly allocated to the inheritors rather than the local government, and the inheritors should be assessed by government agencies regularly. The assessment indicators can be very specific: how many students are taught in a year, whether the apprentices can perform on stage alone, and whether the inheritors should make 10 high-quality videos a year on TikTok or other we-media platforms to help promote the Huaxian shadow puppetry.

Wei Jinquan has many ideas for the future inheritance and development of Huaxian shadow puppetry. He is also powerless; after all, personal power is limited. He said the main problem is still the market, the need for multiple stakeholders to participate, and the need to work together to discuss how shadow puppetry can be better inherited.

According to the interview with Wei Jinquan, as a shadow puppetry performer and inheritor, from the perspective of cultural function, the scenes of commercial performances are already different from the traditional rural cultural scenes, such as in scenic spots, restaurants and so on, and the function of the shadow puppetry culture is more reflected in these scenes to satisfy people's spiritual needs. In this kind of scene, the function of shadow puppetry culture is more to satisfy people's spiritual needs, i.e. the integrative imperatives in the theory of cultural function.

HOU Xinmin (侯新民)

Interview Time: 19th November 2021

The Length of Interview: 1 hour 50 minutes

Interview Method: Face-to-Face

Interview Location: Xi'an wild goose pagoda



Figure 5.9 Hou Xinmin is doing the preparing work for the performance.

Source from: Author, 2021

Hou Xinmin was born in 1964 in Huaxian. In the year 1979, Hou Xinmin started to learn shadow puppeteering from his father, then Hou Xinmin commenced his involvement in local performance alongside his father. In 2006, due to the establishment of the Yutian company, Hou Xinmin left Huaxian and came to Xi'an to develop his career. Since the disbanding of the Yutian company in

2012, Hou Xinmin has been performing in restaurants in Xi'an or taking on commercial shows. Hou Xinmin said that to save cost, merchant now chose to put on a voiceover and Hou Xinmin do the performance. From the original 'five people busy for one shadow puppetry performance' to 'one person busy'.

Hou Xinmin never cared about the official certification of inheritors, and many people invited him to perform shadow puppetry. It was only in the past few years that commercial performances began to require shadow puppeteers to hold a certificate. For this reason, he ran back to Huaxian many times to apply for the certificate, but there was no result. Hou Xinmin is very helpless; he said, "I have left Huaxian for too long; I am not familiar with the government officers who are responsible for inheritors certificate licensing."

Unlike Xue Hongquan's development idea, Hou Xinmin supports "static" ICH protection. He states that the shape and size of the shadow puppet cannot be changed. Nowadays, many performances in the market require 3-4 individuals to manipulate a puppet. Hou Xinmin thinks this kind of puppet cannot be called Huaxian shadow puppetry, and even it cannot add the title of "ICH."

As a guardian of traditional shadow puppetry, Hou Xinmin has been dedicated to showcasing the charm and elegance of Huaxian traditional shadow puppetry to the world. Despite the difficulty in meeting the demands of the current market, as a representative figure of traditional shadow puppetry performances, Hou Xinmin has been highly praised for his performances in museums, TV programs, major festivals, overseas art exhibitions and other events, spreading Chinese culture. From the perspective of cultural function theory, traditional shadow puppetry culture can still meet the cultural integration needs of specific groups in contemporary society.

Exquisitely melodious, resounding with the enchanting ‘Wonder of Wan Wan cavity’ in the Guanzhong Land

LI Shijie (李世杰)

Interview Time: 10th December 2021

The Length of Interview: 30 minutes

Interview Method: Face-to-Face

Interview Location: Shaanxi Opera Research Institute



Figure 5.10 Li Shijie and author

Source from: Author, 2021

Li Shijie, born in 1934, a native of Weinan, Shaanxi Province. Li Shijie learnt shadow puppetry from his father at the age of 7, and at the age of 20, he became a pillar of the Xi'an Deqing Shadow

puppetry Society, he could sing for two months without repetition. 1956, Li Shijie joined the Shaanxi Opera Research Institute which laid a solid foundation for putting shadow puppetry 'Wan Wan Cavity' on the opera stage. Li Shijie's voice is penetrating and very rhythmic, his singing can particularly stimulate the Wan Wan cavity's melodious tunes. Zhang Yimou's film <The story of Qiuju>[秋菊打官司] uses Li Shijie's song <A charming face among peach blossoms>[人面桃花] as film theme. Besides, he has also been the Wan Wan Cavity music director for two television series <Ode to Gallantry>[侠客行] and <The Secret of Guanzhong>[关中秘事]. Through these film and television series, more people know Wan Wan cavity, which play an important role in the promotion of shadow puppetry.

"It's not easy to do one thing in one's life. No one will learn shadow puppetry in the future."

This is a sentence that Li Shijie said many times during the interview.

Unlike the Qinqiang (秦腔) and Laoqiang (老腔) that artists are singing accompanied by large gongs and drums, the musical style is loud and passionate. Wan Wan cavity sounds gentler and more delicate, Wan Wan cavity is good at expressing the emotions of different roles, such as raw, clean, end of ugly. Wan Wan cavity requires singers singing word by word, and it is easier for the audience to understand the emotions of the song. Li Shijie used the word "elegant" to describe Wan Wan cavity.

Li Shijie said that he had 100 plays in his head, and he took out his hand-copied scripts, which were already yellow and curled (Figure 5.11). Li Shijie regarded these hand-written scripts as treasures, perhaps because he wanted to give an account of his decades of singing.



Figure 5.11 Hand-written script by Li Shijie.

Source from: Author, 2021

Speaking of the heritage and innovation of shadow puppetry, Li Shijie said that nowadays there is no guarantee for learning to sing, and that apprentices who have learnt to sing with the master for 3-5 years cannot find a chance to perform on stage in the market. When asked about the progress of Wan Wan cavity school that he mentioned in the earlier television interview, Li Shijie said “I am willing to teach, but no one is willing to learn. Now Xi’an Conservatory of Music does not teach the Wan Wan cavity, the students are learning western instruments now.”

As early as in the 1990s, someone found Li Shijie, hoping that he could come out to perform shadow puppetry, and what Li Shijie hopes is to accept some apprentices and inherit Wan Wan cavity. But later Li Shijie found that they just want to use his fame to make money. Since then, Li Shijie rarely performs in public.

Li Shji was 89 years old at the time of the interview. Considered his health problems, the interview lasted only about 30 minutes. But the conversation with this Wan Wan cavity master, let the author benefited greatly.

Group 2: Huaxian shadow puppetry younger apprentices

LIU Ting (刘婷)

Interview Time: 1st December 2021

The Length of Interview: 1 hour

Interview Method: Face-to-Face

Interview Location: Xi'an Hui Street Shadow Puppetry Theatre



Figure 5.12 Liu Ting is puppeteering shadow puppetry.

Source from: Author, 2022

Liu Ting was born in 1991, a native girl from Ankang, Shaanxi. Under Hou Xinmin's patient teaching, Liu Ting studied for more than a year and learned about ten plays. The most frequently performed plays are "Piggy Carrying a Daughter-in-law" (猪八戒背媳妇) and "Selling Groceries" (卖杂货). Currently, she performs shadow puppetry as her main business and regularly presents shows at a shadow puppetry theater on Huimin Street, the most crowded area for tourists in Xi'an. Liu Ting earns 3,000 Yuan Renminbi a month during the off-season.

Liu Ting stated that TikTok has created opportunities to promote Huaxian shadow puppetry. Many audience members who visit Hui Street to watch her perform because they have seen short videos shot by other tourists on TikTok. In her free time, Liu Ting teaches shadow puppetry to primary school children in Xi'an. She notes that children show interest in shadow puppetry, but there is still limited publicity about it, and children need to learn more about this art form.

As a new generation of shadow puppetry inheritors, Liu Ting gains appreciation from tourists at attractions and love from students in schools. From a cultural perspective, as a representative of Shaanxi culture, shadow puppetry satisfies tourists' curiosity about local culture and students' interest in the craft, addressing their integrative needs and training requirements.

ZHOU Lang (周郎)

Interview Time: 5th December 2021

The Length of Interview: 32 minutes

Interview Method: Face-to-Face

Interview Location: Shaanxi Normal University



Figure 5.13 Zhou Lang is puppeteering the shadow puppetry.

Source from: Author, 2021

Zhou Lang, born in 1999, is a student at the College of Arts and Letters at Shaanxi Normal University and a member of the Shadow Puppetry Association at the same university. Zhou Lang stated that what attracts him most about Huaxian shadow puppetry is its educational significance, as it can impart valuable life philosophies and create a special connection with university students who will pursue teaching careers in the future.

At such a young age, Zhou Lang has already mastered the techniques of Huaxian shadow puppetry carving and puppeteering. He hopes to work in a primary school after graduation and establish a shadow puppetry club to transmit the art of shadow puppetry to his students. He mentioned that children have an innate love for shadow puppetry, which seems to be ingrained in their nature. Shadows exist everywhere, just with different characteristics in various locations. Shadow puppetry may serve as a universal language for all humanity.

In 2015, the Department of Culture and Tourism of Shaanxi Province established an ICH Learning base at Shaanxi Normal University. The university undertook the "China ICH Inheritance Group Training Programme" project, sponsored by the Ministry of Culture and Tourism, the Ministry of Education, and the Ministry of Human Resources and Social Security. Shaanxi Normal University has invited Huaxian shadow puppetry masters like Wang Tianwen, Wang Haiyan, and Wei Jinqun to lecture students of the shadow puppetry association, teaching them to carve and perform shadow puppetry. The shadow puppetry association consists of four departments: carving, interpretation, scientific research, and the scripts association. Currently, there are 200 students in the association, and under the mentorship of Huaxian artists, the troupe regularly performs and reports on its performances. Zhou Lang noted that the enthusiasm of every member of the shadow puppetry association is very high. The support from national policies and the dedicated work of universities appear to provide new hope for the inheritance and development of Huaxian shadow puppetry.

Group 3: local government officers

The director of Huaxian ICH Protection Center

LIANG Sijuan (梁思娟)

Interview Time: 25th November 2021

The Length of Interview: 1 hour 13 minutes

Interview Method: Face-to-Face

Interview Location: Huaxian ICH Protection Center



Figure 5.14 Liang Sijuan is being interviewed by the author.

Source from: Author, 2021

The former Huaxian, now Huazhou district ICH protection center, is an institution under the Huazhou District Culture and Tourism Bureau, mainly responsible for protecting, promoting, and revitalizing Huaxian ICH. Liang Sijuan is the director of the Centre. Liang Sijuan said that the government has always been thinking about and practicing how to develop the shadow puppetry industry. Years ago, the local government invited experts and scholars to advise and introduced a series of policies to give the old artists a certain number of living subsidies. In 2008, the Ministry of Culture called Huaxian "China's Shadow Art Township". The local government has increased the publicity and promotion of Huaxian shadow puppetry, encouraging various government institutions to buy Huaxian shadow puppetry in large quantities. In 2011, Huaxian shadow puppetry was on the UNESCO ICH of Humanity list. Huaxian shadow puppetry was renowned both domestically and internationally and reached its peak. Only after 2018-2019, Huaxian shadow puppets was classified as a valuable local specialty. It was no longer allowed to be purchased by the government, so the supply and demand of the shadow puppetry market began to decline. In recent years, the government has shifted from giving financial support through direct purchases to supporting schools and government institutions to come to Huaxian to study and learn about shadow puppetry. In addition, the government also encourages some enterprises or units in Huaxian to apply for Huaxian shadow puppetry-related innovation project funds.

Liang Sijuan said that the ICH of Hanzhong Nanzheng is rattan weaving. Local farmer Chen Shunliang's rattan weaving company uses the e-commerce platform to make sales, directly driving the local four villages of more than 600 households to eliminate poverty, creating more than 2,000 jobs. After returning, Liang Sijuan found Xue Hongquan, hoping that he could make the e-commerce live broadcast on the we-media platform to drive the shadow puppetry sales; then she found Zhang Jiaxiao and suggested that he do an online shadow digital museum to apply for government funds. However, the failure of the Yutian company has left a deep mark in the hearts of these Huaxian shadow puppetry inheritors, making them very cautious in exploring shadow industrialization and marketization. Coupled with the many cheap machine-carved shadow puppetry on the market, these inheritors are under tremendous pressure; they believe only some consumers understand the difference between hand-carved shadow puppetry and machine-carved shadow puppetry, and they feel their products must sell poorly online. Liang Sijuan stated that the government is now wholly broken traditional purchasing support, and inheritors have no other good ideas to support the development of Huaxian shadow puppetry industries.

According to the data provided by the Huaxian ICH centre, during the Yutian company period, more than 2,000 people in Huaxian did shadow puppetry-related work, and the output value can be as high as more than 50 million yuan. After the Yutian company's dissolution, most Huaxian shadow puppetry workers chose to go out to work. The severe loss of personnel is a significant problem the local government faces. Therefore, the live broadcasting of goods to develop the Huaxian shadow puppetry industry has become a dilemma. Publicity and promotion of the live broadcast is a chance for Huaxian shadow puppetry to recreate the peak of the Yutian company period. However, the pressure of incoming orders cannot be fulfilled on time. Most importantly, the inheritors have lost confidence in the large-scale industrialization of shadow puppetry.

Group 4: Huaxian shadow puppetry related practitioners

WANG Yumin (王裕民)

Interview Time: 15th November 2021

The Length of Interview: 3hour3minutes

Interview Method: Face-to-Face

Interview Location: Qujiang Culture Building

Wang Yumin is an 80s shadow puppetry animation director. Wang Yumin started his career in animation creation in 2004 and formed his animation studio team. In the year 2019, Wang Yumin cooperated with Shaanxi Radio and Television (SRT), and both parties invested in the establishment of SRT Flying Bird Media. Since then, Wang Yumin's team has become the animation section of SRT.

In 2006, Yutian company approached Wang Yumin to work with him on shadow puppetry animation, and that was Wang Yumin's first contact with Huaxian shadow puppetry. In the early days of his business, Wang Yumin believed that this traditional culture did not conform the mainstream aesthetics and would not be marketable. In 2013, after returning from a competition in Germany, he realized he had to find an art style with Chinese characteristics. The criteria for

judging animation abroad focus more on the ideas the work wants to convey rather than the animation effects alone. Among the many traditional Chinese cultures, shadow puppetry is a comprehensive art and can be combined well with animation. In 2016, under the introduction of a French friend, Wang Yumin met Zhang Huazhou, and with the help of Zhang Huazhou, his animation team began to explore the creation of shadow puppetry animation.

In 2019, Wang Yumin began uploading shadow puppetry animations he created to TikTok. In 2021, Wang Yumin's shadow puppetry animation 'Imperial Concubine' [贵妃] quickly gained widespread attention on the TikTok platform (Figure 5.15). Wang Yumin invited the Xi'an-based band Heisha (黑撒乐队) to provide music for the animation in the Shaanxi dialect, and the traditional shadow puppetry danced to the dynamic music, which drew the attention of a large wave of followers. During the creation process, Wang Yumin focused on preserving the color and traditional shape of the shadow puppets. Wang Yumin said, "Shadow animation is a good direction; it produces positive feedback; I have the motivation to continue to do it on the TikTok platform." Wang Yumin's account has gained 49,000 followers and 182,000 likes (Figure 5.16). Wang Yumin said that the dissemination of shadow puppetry is essential, and the quick development of we-media platforms has made it possible for him to have a platform to display his works to more audiences. Now many people have started to find Wang Yumin via the TikTok platform, hoping to cooperate with him. The TikTok platform positioned Wang Yumin as a high-quality blogger in the knowledge dissemination category. Moreover, the platform reached out to Wang Yumin to analyze his video data and give him some coaching on his video creation. After accumulating a certain number of followers, Wang Yumin created a shadow animation communication group on TikTok, which now has 156 followers, including some animation students and Huaxian shadow puppetry enthusiasts. Wang Yumin believes shadow puppetry is far away from the living environment of contemporary people; if the content of shadow puppetry animation level is too high, the audience will not accept it. Shadow animation art form can be very high, but the content of the video must be close to the public's life.



Figure 5.15 Shadow puppetry animation “Imperial concubine” made by WANG Yumin

Source from: author, 2021



Figure 5.16 The TikTok account of WANG Yumin

Source from: author, 2021

Huaxian shadow puppets are exquisite and delicate, featuring diverse characters. Wang Yumin believes there is no need to create new character shapes; instead, he can use technical means to animate the existing shadow characters. Wang Yumin thinks it is a good time for academic researches to innovate Huaxian shadow puppetry. This folk-art lacks of organization and rules, and most shadow puppetry schools in China operate independently.

Wang Yumin is confident in managing his TikTok account, intending to host live broadcasts to teach his followers step-by-step how to create shadow puppetry animations. He also plans to design cultural and creative products based on classic characters from Huaxian shadow puppetry to engage with his audience.

By showcasing Huaxian shadow puppetry through animation, Wang Yumin's works have received widespread acclaim abroad. He stated that a successful animation project involves more than just production; the market primarily values the cultural content and values it conveys. The innovative depiction of traditional Chinese cultural narratives through shadow puppetry has drawn significant public recognition, affirming its relevance to contemporary cultural spiritual needs.

REN Hua (任华)

Interview Time: 28th November 2021

The Length of Interview: 1 hour 30 minutes

Interview Method: Face-to-Face

Interview Location: Xi'an Ming and Qing Dynasty Shadow Art Museum



Figure 5.17 Portrait of REN Hua

Source from: Author, 2021

Ren Hua is the Xi'an Ming and Qing Shadow Art Museum curator. Ren Hua opened the museum with the hope that more young people would see the charm of shadow puppetry and be interested in participating in the inheritance and protection of this ancient culture. He has been trying to make the Museum a window for publicity, bringing out those shadow puppetry that have been sealed by folk collectors and displaying them to everyone free of charge. Unlike shadow museums in other parts of the country, the Xi'an Ming and Qing Dynasty Shadow Art Museum is thematic and only exhibits Shaanxi shadows. Every piece of shadow puppet inside the Museum is carefully selected by Ren Hua, who persuaded folk collectors to contribute them. Ren Hua made some designs on the lighting to create a combination of shadow and light effects (Figure 5.18).



Figure 5.18 Shadow puppetry in Xi'an Ming and Qing Dynasty Shadow Art Museum

Source from: Author, 2021

The Xi'an Ming and Qing Dynasty Shadow Art Museum is a public welfare organization. The government gives minimal subsidies. Ren Hua said that Xi'an is now positioning itself as a tourist city, and the government is more willing to invest money in places that can produce immediate results, such as the light show in the Tang Dynasty Night City. However, safeguarding cultural heritage is a long-term endeavor that requires time to yield tangible results. The main source of revenue for the Museum currently lies in the sale of cultural creative products related to shadow puppetry, which are designed by Ren Hua himself. Ren Hua believes that the Museum's collection still requires further enhancement. When financial resources become more abundant, he aspires to collaborate with private collectors to consolidate their shadow puppetry collections, thereby bringing these artifacts back into public view.

Group 5: Huaxian shadow puppetry enthusiasts

JIANG Guoqing (江国庆)—Huaxian shadow puppetry collector

Interview Time: 5th December 2021

The Length of Interview: 1 hour 19 minutes

Interview Method: Face-to-Face

Interview Location: The family member courtyard of Shaanxi Provincial Highway Bureau

Jiang Guoqing is a researcher at the Gongwangfu Museum (恭王府博物馆) in Beijing, and secretary-general of the China Shadow Puppetry Professional Committee.

Jiang Guoqing, Wang Tianwen, and Li Shijie are known as the last "Three Musketeers" of Guanzhong shadow puppetry (SOHU, 2017). In 1980, Jiang Guoqing was assigned to the Folk Crafts Department of the Xi'an Municipal Arts and Crafts Research Institute. Under the guidance of his master, Wang Tianwen, he learned the art of shadow puppetry carving and assisted in the design of shadow puppetry works. The Institute asked Wang Tianwen and Jiang Guoqing to collect shadow puppetry to enrich their design concepts. Later on, when Jiang Guoqing had more money in his hand, he began to collect puppets himself. At that time, many people in the countryside had ancestral shadow puppets in their possession. Due to the lack of interest among descendants and various family-related reasons, many individuals chose to sell their shadow puppet collections, which made it relatively easier for Jiang Guoqing to acquire these artifacts for his collection. Jiang Guoqing said at that time the good shadow puppetry box was only 700–800-yuan Renminbi, usually the puppets' head of the big box has more than 1,000 pieces, and the puppets' body to more than 300 pieces. After years of accumulation, Jiang Guoqing amassed a collection comprising 20 boxes containing tens of thousands of shadow puppetry artifacts. In 2013, the Shaanxi Provincial Government granted a land in Qujiang for Jiang Guoqing to build Xi'an shadow puppetry museum, but the project has not yet been implemented, and his business card can only state "Xi'an Shadow Puppetry Museum" (Curator of the Preparatory Office). Jiang Guoqing says he has lost confidence in the Shaanxi government, and in the future, he plans to take the shadow

puppets away from their homeland and fight for the chance to see the light of day in the outside world.

In February 2023, Wang Tianwen took Jiang Guoqing and 18 shadow puppetry carving masters, after 318 days of designing and creating the ancient "Riverside Scene at Qingming Festival" (清明上河图) in the form of Huaxian shadow puppetry, which is 23.58 meters in length and 1.2 meters in width, which is known as the Guinness of shadow puppetry by industry insiders. In addition, Jiang Guoqing also cooperated with his master, Wang Tianwen, to create large-scale works such as Princess Wencheng's Entry into Tibet (文成公主进藏) and the 1.8-meter-high God of Door (门神).

In Jiang Guoqing's view, the process of collecting shadow puppetry represents a continuous separation between shadow performances and shadow puppetry, with shadow puppetry increasingly becoming a form of hanging artwork.

5.3 Analysis and discussion

5.3.1 The gains and losses of Yutian company

Yutian Company was once the glory of Huaxian shadow puppetry. However, the numerous restrictive factors that Huaxian shadow puppetry has encountered during its commercialization and industrialization process remain difficult to effectively overcome to this day.

When discussing the development of modern shadow puppetry in Huaxian, interviewees repeatedly mentioned a shadow puppetry company——Yutian company.

The full name of the Yutian company is Shanxi Yutian Folk Culture and Art Troupe. Established in 2005, the Yutian company is a folk performing, production, and training group that includes traditional art forms such as Huaxian shadow puppetry, Wanwan cavity (碗碗腔) and Laoqiang (老腔). The private entrepreneur Lei Wendong (雷文东) established the Yutian company, which brings together well-known shadow puppetry performers and carving masters in Huaxian and divides them into seven performance troupes operating on a corporate model. The Yutian company has a shadow puppetry carving training center, a shadow puppetry museum, and a

shadow puppetry exhibition hall in Huaxian, with exhibition halls and year-round exhibition venues in Xi'an and Lintong (临潼) respectively (Zhang, 2008). The Yutian company received orders for 3 million shadow puppetries during the Beijing Olympics. At its peak, the Yutian company recruited almost all the famous inheritors and Huaxian shadow puppetry artists to perform worldwide. In addition, the Yutian company developed most the villagers in Huaxian to carve the puppets. In 2008, the annual sales of the Yutian company had already exceeded 30 million yuan (Zhang 2008). The rise and splendor of the Yutian company created a specific value for the social and economic development of Huaxian, as well as an excellent impetus for disseminating Huaxian shadow puppetry. According to the description of the old artists, Lei Wendong applied to the government for land development with the intention of pursuing real estate projects. However, owing to inadequate management, Lei Wendong was unable to repay external debts, ultimately leading to the dissolution of Yutian company. "The path has deviated," said Liu Hua. The history of the Yutian company is still the pain in the heart of every Huaxian shadow puppetry artist, and it still influences the development of commercialization and industrialization of Huaxian shadow puppetry.

The temporary success of the Yutian company validates the feasibility of commercializing shadow puppetry in Huaxian. The researcher argues that the path to commercialization of Huaxian shadow puppetry validated in four ways:

- Yutian company integrated the whole industry chain of Huaxian shadow puppetry, proved the feasibility of successful commercialization of Huaxian shadow puppetry, and had good feedback in the market;
- The integration of all the high-quality shadow puppetry resources in Huaxian shows that it is possible to succeed with the full cooperation of the inheritors and related stakeholders;
- Yutian company brought Huaxian shadow puppetry out of Huaxian with an urbanized business model;
- The Yutian company's dissolution reconstructed the market competition pattern of Huaxian shadow puppetry. The development direction of different inheritors has changed from the original convergence to diversification.

The ultimate failure of the Yutian company has the following implications for the current commercialization of shadow puppetry in Huaxian:

- After the lessons learned from the failure of Yutian company, the existing shadow puppetry practitioners in Huaxian have become more conservative in their business model and business thinking, which can include a.) business cooperation among inheritors has become less; b.) their development is very cautious about controlling the company scale; and c.) there is more pressure from public opinion on the inheritors to carry out business innovations;
- Government confidence has suffered. Due to the failure of Yutian company, the government's support for this kind of investment project related to the preservation of traditional culture has been affected to a certain extent.

5.3.2 The difficulties facing the inheritance and development of Huaxian shadow puppetry

- The value of Huaxian shadow puppetry deconstructs as the new cultural scene replaces the traditional one.

Huaxian shadow puppetry is detaching from its original survival soil; the main subject of the holder is no longer the single group of farmers. The government policy guidance, market environment, cultural development, and other aspects may influence the survival of Huaxian shadow puppetry. For more than half a century, the heritage and development of Huaxian shadow puppetry have experienced extraordinary rise and fall, standing in the sociological point of view to define the contemporary return of Huaxian shadow puppetry can only be called 'virtual prosperity.' "Culture on the stage, the economy in the play" (文化登台，经济唱戏), no matter how much emphasis on the inheritance and protection of ICH, the real protagonist of the play is the "economy." As in the fieldwork, the most frequent problem mentioned by various stakeholders is "lack of funds." Undeniably, Huaxian shadow puppetry has been on the international stage and has had a high moment. However, the primitive villagers and peasants have disappeared and have become the symbols of the market's endorsement and expression.

From "five people busy for one play " on the performance stage to "one person busy," from shadow puppetry carving serving shadow puppetry performances to serving the collection and tourism

market, the traditional cultural value of shadow puppetry is being deconstructed step by step. "Only shadow puppetry carving is profitable; singing and shadow puppetry performance is no better than carving a shadow puppetry," the old craftsmen lamented. If only the material carriers of folk culture are preserved, once the elderly Huaxian shadow puppetry artists entirely disappear, Huaxian shadow puppetry may no longer be fully passed down to future generations. The genuine dilemma of inheritance likely originates from this issue.

"Flourish within the confines, fragrance beyond them" (墙内开花，墙外香) —Jiang Guoqing

"Local people do not like local products." (本地人不兴本地货) —Liu Hua

The foreign audience loves shadow puppetry mostly out of psychological curiosity. However, the love of foreign audiences alone cannot save the Huaxian shadow puppetry. How can we make a new generation of Chinese young people interested in Huaxian shadow puppetry? It may be the first step to be taken urgently for the inheritance and protection of Huaxian shadow puppetry.

- Shadow puppetry of the Ming and Qing dynasties have become 'appreciated collectibles,' machine-made shadow puppetry have become 'tourist commodities,' contemporary shadow puppets have become 'artistic decorations,' and traditional arts have become priced commodities.

The Ming and Qing dynasties are the heyday of Huaxian shadow puppetry. Nowadays, most of the shadow puppetry in the collectors' hands are from the Ming and Qing dynasties. However, due to the lack of an overall understanding of shadow puppetry, the collectors only select puppets that are well carved from the shadow puppetry box, resulting in the split up of characters and props. The script of shadow puppetry is passed on by word-of-mouth, and with the passing away of the old artists, it will no longer be possible to restore.

The machine-carved shadow puppetry mainly faces the tourist market (Figure 5.19). The merchants use low-quality cowhide to reduce costs. The machine-carved lines are not smooth, and the joints have traces of machine burning, but they sell well because of their low cost and low price. According to the response of a vendor who sells machine-carved shadow puppetry in Hui

Street (a tourist attraction), they make a net profit of 60,000 yuan to 70,000 yuan during the Chinese New Year festival at the Xi'an City Wall by selling machine-made puppets.



Figure 5.19 Lots of machine-made shadow puppetry in the tourism market in Xi'an Hui Street

Source from: Author,2020

While consumers have a fondness for shadow puppetry, they generally lack refined aesthetic preferences and an in-depth understanding of the overall artistic value of this traditional art form. To a certain extent, this makes artists' hand-carved shadow puppetry do not get the attention they deserve; consumers only simply compare prices between hand-carved puppets and low-grade machine-made puppets, inevitably leading to the loss of these profound skills.

In the home furnishing, gift, and collection markets, shadow puppetry appear as decorations on the walls of dining rooms or bedrooms of urban families. The cultural connotation of ancient art and the history of peasant artists have become the 'decorations' of consumers' cultural tastes. What will be lost in this process is not only the rich historical and cultural practices of farmers as the

main body but also the peasant artists who become performance machines in the commercialization of shadow puppetry (Sha, 2016).

- Cultural inheritance has changed from ‘responsibility’ to ‘task’, and cultural inheritance is narrowly defined as the teaching of skills

The transformation of the traditional master-apprentice relationship in the modern context is also worth exploring. Huaxian shadow puppetry in the vernacular context is a family inheritance system; the traditional master-apprentice relationship formed spontaneously. However, the modern master-apprentice relationship is more like a government-led relationship, fulfilling the mandatory targets or tasks set by the government for the inheritors. Meanwhile, the relationship between masters and apprentices has changed from cultural transmission to pure skill teaching. There are three main reasons for the change of master-apprentice relationship in the modern context; one is that the old artists do not have too much energy to teach their apprentices; secondly, most of the Huaxian shadow puppetry old artists can only maintain a basic living situation, young apprentices see the living situation of the masters and will not willing to commit to learn, at least not view the shadow puppetry as their only business. Thirdly, nowadays, under the diversified employment opportunities in the market economy, young people only want to know a little about shadow puppetry, and they can no longer sink their hearts into the shadow as their lifelong career to study.

- Huaxian shadow puppetry innovation faces the debate between ‘static protection’ and ‘live protection.’ Regarding the inheritance and development of Huaxian shadow puppetry, stakeholders have not made a joint effort to promote it.

Many old Huaxian shadow puppetry artists cannot accept the creative thinking that combines Huaxian shadow puppetry with modern technology and art. They are still in pursuit of the original shadow puppetry carving and singing. However, skills or techniques need to be protected for ICH, not the final product. In the rapid development of trend culture today, the first thing we can do is to show shadow puppetry in a new and creative way to attract the attention of more young people, instead of starting with the ancient culture to make the current young people feel distant. The deep-rooted idea of the old artists is that they have a low social status. These negative emotions will seriously affect their enthusiasm for the inheritance and development of shadow puppetry.

- The reasons behind the decline of Huaxian shadow puppetry are summarized as the impact of modern culture and technology by current researches. However, the integration of Huaxian shadow puppetry with modern culture lacks path guidance.

Regarding the decline of Huaxian shadow puppetry, the most common narrative in recent years has been the impact of "modern film and television art" and even "modern culture." However, unthinkingly attributing changes solely to modern media and technology may only serve to artificially create and exacerbate the perceived contradiction between "tradition" and "modernity." (Sha, 2016). Every traditional culture has its new value in the modern socio-cultural scene, and many folk arts have found their own innovation and development path in integrating with modern culture. The rapid development of we-media provides opportunities for the inheritance of shadow puppetry. From this point of view, there are two schools; the first is the 'development school.' Many artists or young apprentices have been aware of it and are practicing it, no matter how effective it is. These young people hope to promote Huaxian shadow puppetry via we-media like TikTok, but they must learn how to produce a high view count digital content. The second is a pessimistic school, which feels that TikTok cannot save the Huaxian shadow puppetry. The ancient art of Huaxian shadow puppetry risks fading into obscurity, while platforms like TikTok may eventually withdraw from this domain.

Huaxian shadow puppetry has distinctive national, local, and contemporary characteristics; even in today's diversified forms of entertainment and art, the cultural connotation carried by shadow puppetry is still a work of art with a global character. It is unpredictable whether shadow puppetry will be passed down in its complete form or survive as a folk art. However, in terms of its folk concepts and artistic conception, it will be integrated into new art forms in modern civilization and endure forever. The significance of protecting and inheriting traditional culture lies in treating it as the root and bloodline of national culture and creating new culture with cultural continuity in the latest period.

The author believes that cultural inheritance has unique paths in each historical stage. At present, we-media platforms are the most opportunity to expand the dissemination effect of Huaxian shadow puppetry. In the long term, the development of we-media will continue to innovate. The media form and scene of the short video platform may change. However, as the most efficient

form of information transmission in the digital information age, short video platforms will continue to become the mainstream carrier of we-media communication.

5.3.3 Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory

- The cultural function of shadow puppetry undergoes deconstruction, and shadow puppetry no longer embodies its role through "carving & performance & singing".
- The cultural significance of shadow puppetry has undergone a transformation, no longer merely being a form of performance. Its visual presentation has gradually moved from the background to the forefront of the stage. Its value is no longer confined to the realm of "shadows". Shadow puppetry has evolved into a more refined and elegant art form, which has led to a weakening of its cultural function in traditional society. Collecting antique shadow puppets or purchasing new ones has become a way for individuals to gain social recognition and showcase their cultural taste. This phenomenon aligns with the concept of derived demand discussed in cultural function theory and still reflects the social need for integration.
- In today's society, shadow puppetry is facing a delicate balance between "static preservation" and "dynamic preservation". The former aims to protect the traditional form of shadow puppetry in its original state, while the latter advocates for its evolution in line with the pace of societal development, enabling it to thrive in modern culture. From the perspective of cultural function, the proponents of "static" preservation of shadow puppetry limit the realization of its contemporary educational function. Initially, this educational function covered the inheritance and popularization of various fields such as history, culture and art. However, this function was often limited to the teaching and research domains of experts or scholars. If the presentation form of traditional performance scenes has not achieved a breakthrough, then the audience of Huaxian shadow puppetry will be greatly reduced, and the educational value of shadow puppetry cannot be fully reflected in contemporary society.

In conclusion, within the context of modern society, Huaxian shadow puppetry continues to fulfill various societal needs such as social control (social integration), cultural tool production

(economy), education and training, and spiritual integration through diverse forms. The cultural significance of Huaxian's shadow puppetry remains relevant in contemporary times.

5.3.4 The cultural functions of Huaxian shadow puppetry in the contemporary era

This chapter investigates the contemporary cultural functions of Huaxian shadow puppetry through interviews with practitioners across diverse fields, employing a cultural function theory framework. The identified cultural functions of Huaxian shadow puppetry encompass four primary aspects: social control (social integration), production of cultural capital (economic impact), education and training, and integrative imperatives (spiritual significance). Among these, the function of social control is primarily manifested in the significance of Huaxian shadow puppetry as a crucial element of ICH and a quintessential representation of Shaanxi's local culture. In terms of cultural preservation, it continues to evoke people's desire for protection and sense of belonging, whether through traditional performance or modern dissemination, both domestically and internationally. It is regarded as an emblematic form of traditional Chinese culture that can facilitate social integration.

The function of creating cultural tools lies in the evolution of shadow puppetry from a comprehensive tradition to an artistic form, wherein the art of shadow puppet carving gradually emerges as a distinct entity within the broader culture. This transformation enhances the artisanal attributes and economic value of shadow puppet carving works, including industrialized production. Thus, it positions them as valuable cultural products.

The function of education and training primarily demonstrates by the gradual integration of shadow puppet culture into schools. Local government support and the efforts of cultural inheritors drive this integration. Additionally, shadow puppetry museum facilitates the dissemination of knowledge about this culture through educational outreach. Some inheritors transition away from traditional hereditary transmission systems for shadow puppetry. Instead, they embrace apprenticeship-based learning in both performance and carving art.

The function of integrative imperatives manifests in the transformation of performance scenarios for shadow puppetry culture, shifting from traditional rural weddings and funerals to other consumption contexts. In contemporary society, shadow puppetry culture evolves away from its

traditional religious and educational functions, assuming a more prominent role in fulfilling people's spiritual pursuit of cultural enrichment. The subsequent summary encapsulates the key discussions on the functions of Huaxian shadow puppetry culture as articulated by the interviewees in this chapter.

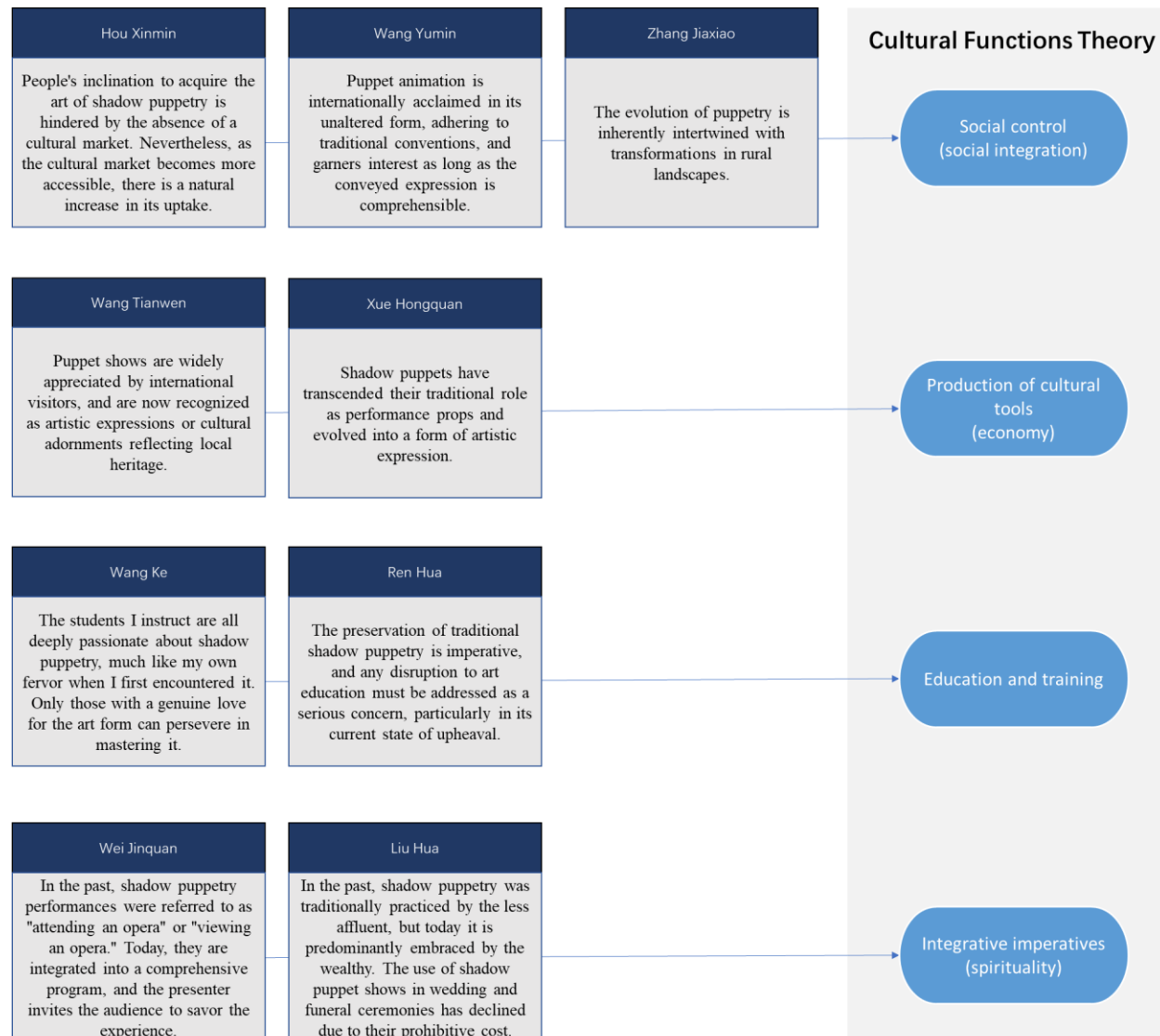


Figure 5.20 The cultural function of Huaxian shadow puppetry among the interviewees

Source from: Author,2024

5.4 Conclusion

“Enjoy doing it.”

When it comes to the question why you would like to continue to engage in Huaxian shadow puppetry related works, this is the answers of all the interviewees. And when asked if the inheritors are still willing to let their children learn shadow puppetry, the inheritors also unanimously answered that “It must be taught, whether they will engage in this field is their choice, but the skills cannot be lost”. It is their persistence that allows us to witness the exquisite Huaxian shadow puppetry in today’s era of rapid development of science and technology. Their craftsmanship is admirable.

These Huaxian shadow puppetry artists possess not only exceptional artistic accomplishments, but also exhibit a profound simplicity akin to the richness of loess. Over the years, this group of old artists have been crying out for the inheritance and development of Huaxian shadow puppetry. They were very happy about the author’s arrival. The old men were moved by the willingness of someone to be close to Huaxian shadow puppetry and to pay attention to this endangered art. They wanted to do something more for Huaxian shadow puppetry, but time was very tight for this group of old people whose average age was already 70 years old.

In April 2023, Master Li Shiji passed away in Xi'an due to illness. Reflecting on the interview, the elderly man tremulously lifted the bed sheet and retrieved the cherished handwritten scripts he had safeguarded for many years, presenting them to the author. Furthermore, towards the end of the interview, he bestowed upon the author an out-of-print CD featuring his own singing—a gesture that deeply saddened the author. What lingers in the author’s mind is the old man's desperate gaze when discussing Wan Wan Cavity's legacy. Master Li Shiji regarded shadow puppetry as his life's devotion; may this venerable master rest in peace. Through this research endeavor, it is hoped that Huaxian shadow puppetry's Wan Wan Cavity will receive increased attention so that its enduring rhythm may forever be ingrained within Guanzhong Plain. Because of the impact of the epidemic, the fieldwork of this research lasted for one year. During this year, the author walked along the streets and lanes, close to Huaxian shadow puppetry, and tried to restore the real living

environment of Huaxian shadow puppetry and Huaxian shadow puppetry practitioners from a sociological point of view.

Huaxian shadow puppetry inheritors, local government agencies, practitioners, collectors, the younger generation of apprentices, and the students at Shaanxi Normal University have provided great help to the author's research, for which the author would like to express the deepest gratitude. Also thank them for their perseverance and efforts for Huaxian shadow puppetry. This research aims to serve as a catalyst for innovative concepts regarding the inheritance and advancement of Huaxian shadow puppetry, thus guiding future progress.

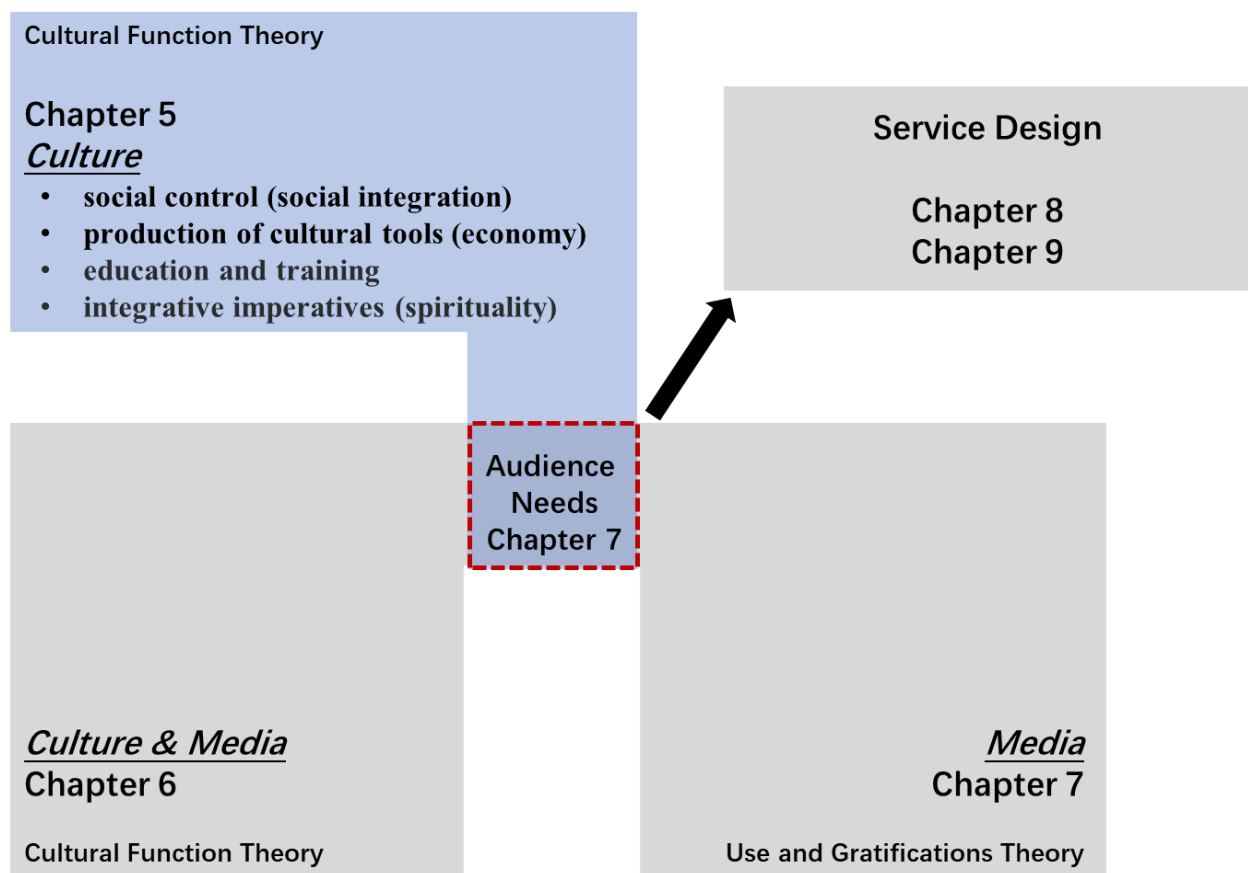


Figure 5.21 the cultural function of Huaxian shadow puppetry

Source from: Author,2024

6.0 THE DEVELOPMENT CHARACTERISTICS OF THE INTEGRATION OF CHINESE SHADOW PUPPETRY AND WE-MEDIA PLATFORMS

6.1 China's we-media platforms development status

6.1.1 China's we-media platforms development stages

- Mobile phone terminal technology and 4G 5G technology development are the basis for the rapid formation of we-media.

As reported in the 49th Statistical Report on Internet Development in China, published by the China Internet Network Information Center (CNNIC) on February 25, 2022, China's internet user population exceeded 1.03 billion by December 2021. This marks an increase of nearly 43 million users compared to the end of 2020. The report also revealed that the internet penetration rate had reached 73%. As of December 2021, there were approximately 1.029 billion mobile internet users, with an additional 43.73 million new users compared to December 2020. The proportion of internet users who accessed the internet through mobile phones was reported at an astonishing rate of 99.7%, while desktop computers, laptops, and tablets collectively accounted for only around 35%, 33%, and 27.4% respectively. The data clearly indicates that with rapid advancements in mobile internet technology and widespread adoption of technologies like 4G and 5G, smartphone has become the primary device for Chinese consumers accessing the mobile internet; traditional PCs struggle to compete effectively for consumer online time. The rapid advancement of mobile networks has directly propelled the swift evolution of 'mobile internalization' across various industries. Starting from its official entry into the 3G era in 2009, followed by the advent of the 4G era in 2014, and now embracing the dawn of the 5G era in 2021, China's mobile internet development has witnessed remarkable progress. The growth statistics within the realm of mobile apps unequivocally demonstrate the transformative impact and enhancements brought about by advancements in both 4G and 5G network technologies on mobile internet. By December 2021, the number of mobile internet users in China reached 1.03 billion, an increase of 85% over 2014; the number of instant messaging users reached 1.029 billion, an increase of 99% since 2014; the number of online video users (including short videos) reached 750 million, an increase of 213% over 2014; and the number of online payment users reached 904 million. The number of online shopping users reached 842 million, up 257% since 2014, while the number of online news users

reached 771 million, up 86% since 2014 (CNNIC, 2022) . From the above data, it is evident that with the rapid popularization of 4G and 5G technologies, the penetration of Internet apps in mobile terminals has gradually deepened, especially in the fields of online video, online payment, online shopping and online news. As the we-media industry depends on online video, online news, and instant messaging applications, the rapid development of these fields in mobile terminals aligns with the swift rise observed in recent years. In 2005, Sina Blog began operating in China, marking the official start of China's we-media industry. By 2014, the number of we-media employees reached 1.46 million; by 2021, this number increased to 9.7 million, of which 3.7 million are full-time and 6 million are part-time (CNNIC, 2022) .

By considering these factors and taking into account the current status and future potential of we-media development, this research aims to systematically explore the utilization and platform characteristics of we-media on mobile devices.

- The quality and diversity of we-media content is rapidly improving, and has developed from the initial UGC to high-quality stages such as PGC, MGC, etc.

We-media has been able to develop rapidly, relying on its own characteristics of privatization, populism, universality and autonomy. It breaks the centralized feature of traditional media's "one-to-many" model and forms a decentralized "many-to-many" model. Any entity capable of generating, creating and disseminating content becomes an information source in the we-media. Therefore, in the context of we-media, the meaning of 'we' gradually expands from initially referring narrowly to individuals to encompassing creators broadly. In addition to individuals defined traditionally in we-media, some professional institutions, companies and teams have also become part of the 'we' in we-media. As the creative subjects diversify continually, we-media content begins to be categorized into various forms: UGC, PGC (Professionally Generated Content), OGC (Organization-Generated Content), PUGC (Professional User-Generated Content), and MGC (Media Generated Content) (see table 6.1). This research compares and analyzes these five mainstream modes of we-media content based on six indicators: primary creative subjects; average content quality; main themes; main features; primary dissemination goals; and primary target audience (see figure 6-1). UGC is primarily created and released by ordinary users on the we-media platform, including pictures, text, audio, and video. As the primary content creators, individual users exhibit significant variation in their content generation capabilities. Consequently,

the overall quality of published content tends to be moderate, with most content comprising personal life documentation, individual perspectives, and the sharing of personal files or television productions. The main motivations for content creation are primarily social in nature, while some individuals also aim to achieve profitability.

Table 6.1 The classification and characteristics of digital content on we-media platforms.

Category	User-Generated Content	Professionally-generated Content	Occupationally-generated Content	Professional User Generated Content	Machine Generated Content
	UGC	PGC	OGC	PUGC	MGC
Type of creator	Individual User	Professional Elite	Professional Content Creators	Private User	Artificial Intelligence (AI)
Average content quality	Usual	High Quality	High Quality	High Quality	High Quality
Main content theme	Personal Life	Specialised Science	Public Information	Personal Life	Public Information
	Personal Viewpoint	Breakdown of Field Observations	Hot Topic Comments	Personal Viewpoint	Hot Topic Comments
	Personal Film and Television Work	Value transfer	Film and Television Production	Personal Film and Television Work	
Main content features	Liveliness	Professionalization	Professionalization	Liveliness	Topicality
	Popularity	Verticalisation	Boutique	Popularity	Modelling
	Sociability	Uniformity	Brandability	Sociability	Automatic
Main communication objectives	Socialisation	Specialised Science	Profitability	Profitability	Information Dissemination
	Profitability	Profitability	Value Leadership	Socialisation	Profitability
Main communication audiences	Regular User	Regular User	Regular User	Regular User	Regular User
	Social Circle	Professional User		Social Circle	

PGC is mainly composed of professional elites, and the content they create places a strong emphasis on professionalism. This makes the quality of the content easier to control and imposes higher requirements on the knowledge and qualifications of the creators. Some professional content creators are both users and contributors of the platform, providing content that meets certain quality standards as experts. In terms of content creation, this is reflected in the production

of more specialized, high-quality and vertical content. Their main goal is scientific popularization of professional knowledge, while also partially focusing on profitability.

OGC refers to content produced primarily by industry professionals who possess specific knowledge and backgrounds. These individuals receive appropriate remuneration, such as content editors hired by various news websites. The core of production consists mainly of professionals from relevant fields. They strictly manage content output and strive to meet users' content demands. Their creative efforts typically arise from their duties. This reflects the fulfillment of their employment contracts.

PUGC is a form of content that resembles UGC but incorporates the professionalism and high quality of PGC. PUCC mode is a new production model that has evolved alongside UGC and PGC modes. UGC creators often possess certain professional skills and knowledge reserves but lack experience and technology in producing PGC content. After collaborating with professional PGC production teams or companies, such as many multi-channels network (MCN) firms, they can create high-quality personal content that combines the diversity of UGC with the professionalism of PGC. This synergy is recognized as "the trend of the long-term development of Internet short videos" due to its high degree of integration. PUGC short videos not only satisfy users' demands for specialized, high-quality content but also promote closeness and personalization, addressing the diverse needs of short video users and significantly enhancing the overall quality of content on short video platforms.

MGC, also known Technically Generated Content, refers to using AI to generate vast amounts of sensor information through data mining and intelligent algorithms. For instance, MGC news is news intelligently produced by machines using AI technology. Audio and video clues are acquired using cameras, sensors, drones, and other devices. Through internal video image recognition functions, machine intelligence understands the content and makes value judgments. Subsequently, associated with existing data, voice semantics are retrieved, arranged, and combined to produce and review news articles intelligently. These articles then undergo a series of video and voice synthesis editing processes along with data visualization to ultimately generate rich-media news. This process is characterized by leveraging the automation and intelligence advantages of AI, rapidly integrating vast social information into media content. Consequently, it can automatically

generate high-quality news and trending content in real-time. Its accuracy and ability to grasp hotspots can significantly improve content quality based on big data analysis.

- China's we-media is expanding globally and influencing the world, encompassing Chinese creators and we-media platform companies.

With the rapid development of we-media in China, creators and we-media platform companies have gradually expanded from China to the world. Many domestic video creators have gained a substantial number of followers at home by producing high-quality video content. At the same time, they have also uploaded their videos to overseas video websites.

Table 6.2 Active TikTok Users aged 18 and above ranking (Resource from: TikTok annual report of 2023)

Rank	Countries	Active TikTok Users aged 18 and above (million)
1	The United States	140.6
2	Indonesia	106.9
3	Brazil	74.0
4	The Russian Federation	56.3
5	Mexico	51.3
6	Vietnam	49.6
7	Philippines	42.7
8	Thailand	39.5
9	Turkey	30.8
10	Saudi	25.2

The release of the videos attracted not only a large number of overseas Chinese but also more international users interested in the Chinese-speaking world. This allowed them to experience the powerful content creation ability of Chinese we-media creators. Creators like Li Ziqi (李子柒), Dianxi Xiaogao (滇西小哥), and Countryside Xiaogang (乡村小刚) showcase China's rural life. Additionally, popular science creators such as Lao Gao (老高), Xiao Mo (小莫), and Dashujun (大树君) also contribute to this landscape (Social Blade, 2022). Currently, the top ten Chinese we-media creators on YouTube have gathered a collective following of 44.03 million enthusiasts. At the same time, Chinese we-media platforms exert a global influence, with TikTok emerging as the leading contender. According to statistics from Data Reportal - Global Digital Insights in July 2022, TikTok has surpassed one billion monthly active users globally. In the international market, TikTok alone has over 140 million monthly active users in the United States. In addition to TikTok, other Chinese we-media platforms that currently have significant overseas impact include Snack Video and Kwai (international edition, Kuaishou in China) (Kemp, 2023).

6.1.2 The classification of China's we-media platforms

The classification of we-media platforms can be approached from multiple dimensions, including media format, content type, primary function, business model, and user characteristics. Under different classification frameworks, distinct categorization systems emerge based on the defining features of each platform. In recent business analysis reports, China's we-media platforms have been categorized into eight types: long video, short video, audio, live streaming, news aggregation, vertical specialization, social interaction, and overseas platforms (Lige, 2021). This classification primarily reflects the business attributes of several "leading" platforms that dominate significant market shares but lacks adherence to a standardized classification criterion. Consequently, it is evident that the classification standards for we-media platforms lack consistency. Furthermore, there exist hierarchical or overlapping relationships among these categories, which may pose challenges for subsequent in-depth analyses of various we-media platforms.

This research focuses on the dissemination of shadow puppetry on we-media platforms. The main purpose of this section is to select the most suitable we-media platform(s) for this art form. This will be achieved through an analysis of the development status, dissemination mechanisms, and forms of various we-media platforms, alongside an evaluation of the artistic characteristics and

actual dissemination effectiveness of shadow puppetry. Thus, this research categorizes we-media platforms by emphasizing the variations in content presentation formats of shadow puppetry across different platform types, without delving into further subdivisions such as content, users, or mechanisms under identical presentation forms.

Shadow puppetry, as a form of drama, is also a kind of "art of light and shadow". Its artistic expression focuses on the performance of the shadow puppets and the singing and recitation in the script. Chinese shadow puppetry was inscribed on the Representative List of the ICH of Humanity by UNESCO in 2011. According to the official description of Chinese shadow puppetry by UNESCO, "Chinese shadow puppetry is a form of theatre acted by colorful silhouette figures made from leather or paper, accompanied by music and singing. Manipulated by puppeteers using rods, the figures create the illusion of moving images on a translucent cloth screen illuminated from behind" (CNIN,2017). From another perspective, by observing the differences in local shadow puppetry across various regions in China, one can also discern the characteristic in aspects such as production techniques, performance scripts, singing styles, and performance forms. These differences are concrete and require concrete means such as pictures and videos for presentation and documentation. Therefore, based on the expression characteristics of shadow puppetry, this research systematically classifies and screens we-media platforms by considering their respective features. First, we-media platforms primarily in the form of pure audio or pure text-and-image are excluded, as pure audio cannot effectively convey the essential "shadow and light" elements of shadow puppetry, while pure text-and-image struggles to capture the "dynamism" and "vocal performance" inherent in shadow puppetry. Neither of these two forms fully represents the core value of shadow puppetry art. Given that the primary content output formats of we-media are "video", "audio", and "text", the analysis can be further narrowed down to focus on the classification and characteristics of different types of video-based we-media platforms.

This research categorizes video-based we-media platforms into the following six types based on their content presentation and dissemination characteristics: closed video platforms, semi-closed video platforms, professional video platforms, algorithm-recommended long-video platforms, algorithm-recommended short-video platforms, and live streaming platforms. Among them, closed video platforms are primarily developed and operated independently by video creators to enhance the efficiency of video dissemination. Among these, closed video platforms are primarily

developed and operated independently by video creators for purposes such as technical exchange or member-customized programs. This is often a response to the various restrictions imposed on video content by open video platforms, with the aim of enhancing video dissemination efficiency. However, establishing a closed video platform involves significant technical barriers and operational costs, making video creation more complex compared to relying on other public platforms. Furthermore, the scope of content dissemination on such platforms is highly restricted, typically adopting a membership-based model. Consequently, for cultural forms like shadow puppetry that require broad dissemination, these platforms fail to meet the necessary cultural dissemination requirements. Additionally, since the operational data of these platforms is not publicly disclosed, it is challenging to gather sufficient samples for analysis. Therefore, this research will not delve further into these platforms.

6.1.3 The market situation of China's video based we-media platforms

6.1.3.1 Operation status of head enterprises of video-based we-media platforms

Based on the aforementioned classification of video-based we-media platforms, this research aims to analysis the dissemination of shadow puppetry across various types of video-based we-media platforms. Through data mining and comprehensive comparisons, a prominent platform with exceptional operational indicators and significant market share is meticulously selected from each category for in-depth analysis.

- Semi-closed video platform: WeChat video number. Launched officially by Tencent in January 2020, WeChat Video number is a video-based we-media platform integrated within the WeChat social app. Users of WeChat can post videos on this platform with a maximum duration of one minute or up to nine images. Given that WeChat primarily focuses on its "Moments" feature as a social networking tool, the dissemination mechanism of WeChat Video number leans more towards friend-to-friend video sharing and distribution. Leveraging WeChat's user base of nearly 1.2 billion, WeChat Video number rapidly emerged as a leading platform in the semi-closed video category since its inception. By December 2021, it had achieved a daily active user (DAU) count of 500 million, a monthly active user (MAU) count of 750 million, an average daily usage time per user of 35 minutes, and an average daily video playback volume of 3 billion. (book118.com, 2022).

- Professional video platform: IQiyi (mobile) (Nasdaq: IQ) is a video business company independently established by Baidu's investment in 2010. Initially named Qiyi, it officially launched the "IQiyi" brand in 2011. In 2013, it merged with the PPS video business acquired by Baidu and became listed on NASDAQ on 29 March 2018 in the United States. IQiyi's platform focuses on popular dramas, self-produced variety shows, and algorithmically-screened third-party popular content distribution, leading to the creation of mostly professionally generated content (PGC). This approach enhances user stickiness and membership conversion rates through a high-quality content distribution mechanism. As of December 2021, the platform has 97 million subscription members, with 98.6% being paid members (the rest are free experience VIP or non-VIP). On the IQiyi platform, daily active users (DAU) total 857 million, monthly active users (MAU) reach 428.6 million, and monthly usage time is 6.4 billion hours. The average daily usage time for a single user is 29.86 minutes, with average daily video playback at 1.1 billion times (IQIYI, Inc. 2021).
- Algorithm recommended long video platform: Bilibili (NASDAQ:BILI) was created on June 26, 2009. In its early days, it served as a we-media platform for creating and sharing content related to animation, comics and games. Users with similar interests could form various interest communities here. Users can label their hobbies based on their preferred fields, and the platform's algorithm will intelligently recommend video content that users may like in order to increase user click-through rates and completion rates. As the user relationships on Bilibili are based on fan communities, high-quality video creators will gain more followers while a large number of followers promotes the gradual improvement of video quality. As of September 2019, Professional user generated content (PUGC) content accounted for 90% of the overall playback volume on Bilibili with monthly active creators reaching 1.1 million and monthly submissions totaling 3.1 million (CAIJINNG, 2020). In 2012, its various system platform mobile apps were gradually launched. On March 28, 2018, Bilibili went public on NASDAQ and subsequently received investments from Tencent, Alibaba, Sony, and others. On March 29, 2021, it officially listed for the second time in Hong Kong and on October 3, 2022, the conversion of its listing status on The Stock Exchange of Hong Kong Limited to the main board became effective. As of December 2021, it has a monthly active user base of 252 million with a daily active user

base of 72.2 million. The average daily usage per user is 82 minutes with a daily video playback volume of 2.2 billion times and an average monthly interaction count of 10.1 billion (BILIBILI, Inc. 2023).

- Algorithm recommended short video platform: TikTok, a short video app incubated and launched by ByteDance on September 20, 2016, emerged after Kuaishou's struggle in the market for nearly five years. Kuaishou officially transformed its original Graphic Interchange Format (GIF) tool software into a short video we-media app in 2014; however, due to the limited adoption of 4G technology at that time and its initial positioning as a decentralized platform for showcasing ordinary talents, the works uploaded by creators were deemed of low quality and quickly labeled as "vulgar" and "low" by the market. It was during this period that TikTok entered the scene with an integration of trendy music and short videos, targeting fashionable and trendy young people from first- and second-tier cities. Through improved shooting capabilities and social functions, TikTok gradually enhanced the quality of user-generated videos while supporting high-quality top creators through traffic guidance and technical assistance. In addition to supporting PUGC creation, TikTok also collaborated with variety shows and dramas to achieve rapid user acquisition. In 2019, TikTok expanded into live-streaming e-commerce following increased demand for online live shopping due to the global outbreak of COVID-19. And as of December 2021, TikTok has 570 million DAUs, 800 million MAUs, 118 minutes of average daily use by a single user, and 40 billion daily video plays (TikTok, Inc. 2022).
- Live streaming platform: Huya Live Mobile. In 2012, YY Company pioneered the game live streaming industry in China by launching its platform, YY Live (previously known as Huya Live). In 2014, YY Live rebranded and became an independent entity called Guangzhou Huya Information Technology Co., Ltd. On May 11, 2018, Huya Live successfully debuted on the New York Stock Exchange (HUYA.US), solidifying its status as the leading online live streaming platform in China. Initially focused on game live streaming, Huya Live has since broadened its offerings to include a wide array of comprehensive live streaming services, such as entertainment, variety shows, sports, and more. Notably, in 2020, Tencent emerged as Huya's largest shareholder and subsequently facilitated the acquisition of DouYu—a publicly traded live streaming company—through

a stock-for-stock transaction in October of that year. After this merger's completion, their combined market share surged to an impressive 60.1%, with Huya accounting for 33.6% and DouYu contributing 26.5% (5GETFJUN, 2022). As of December 2021, statistics indicate that Huya Live boasts an active monthly user base exceeding 85.4 million individuals, alongside approximately 6.78 million daily active users who spend an average duration of around 100 minutes per session (HUYA, Inc., 2022).

6.1.3.2 Video-based we-media head enterprises' participation in ICH conservation practices

In recent years, the protection of ICH has increasingly become an essential cultural construction task in China. Government departments have issued numerous relevant policy documents on ICH protection. The most significant documents include the "14th Five-Year Plan" for ICH Protection released by the Ministry of Culture and Tourism in 2021 and the "Opinions on Further Strengthening the Protection of ICH" issued by the State Council. Both documents propose that ICH protection should align with the trend of media integration, enrich dissemination methods, expand dissemination channels, encourage new media to establish special topics and columns on ICH, bolster the creation of related documentaries, promote outstanding programs, and urge various new media platforms to enhance their dissemination efforts (NCNA, 2021). With policy support, leading enterprises on we-media platforms have implemented various ICH protection practices, thereby contributing to the protection and inheritance of ICH within their respective domains. This research collects and analyzes the integration and development of major video-based we-media enterprises with ICH protection efforts.

- Semi-closed video platform: WeChat Video Number related to ICH have been identified through comprehensive data collection. As of May 2022, a total of 1535 accounts have published content pertaining to ICH on WeChat video, encompassing 1211 videos. Among these, 608 accounts actively shared videos related to ICH and engaged in discussions through 154 posts. These videos garnered significant attention with a cumulative count of 64,400 likes, accompanied by 2758 comments and over 85,600 shares. WeChat Video endeavors to foster the convergence between the preservation of ICH and we-media technology by organizing diverse activities that support its development.

In November 2020, WeChat Video collaborated with more than ten government departments responsible for safeguarding ICH in conjunction with China University of Media Communications (CUMC) to initiate the "ICH Torch Relay Program". The core strategy involves accelerating the ICH with the platform's we-media operations by concentrating on three key areas: inviting ICH inheritors to collaborate on the platform, offering specialized guidance on short-video creation and management, and fostering the exploration of ICH's digital value. Presently, the platform's incentive measures primarily consist of engaging ICH inheritors and professional we-media teams through forums and conferences, while providing comprehensive training in we-media content creation for the inheritors.

- Professional video platform: As of May 2022, iQiyi has curated a comprehensive collection of 224,000 videos pertaining to ICH on its platform (iQiyi, 2022). Among these, there are 11,000 OGC video contents exclusively produced or co-produced by iQiyi in collaboration with professional TV stations, while the remaining 213,000 videos encompass diverse aspects of ICH published by PUGC or other esteemed institutions. To facilitate the convergence of ICH preservation and new media technology, iQiyi has orchestrated diverse initiatives to bolster the advancement of ICH. Illustratively, in May 2019, iQiyi hosted the China Web Drama Development Summit Forum, which witnessed the signing of numerous remarkable web drama projects encompassing film and television productions centered around ICH themes. Furthermore, in June 2020 and June 2022, iQiyi organized multiple 'Virtual Tour of ICH Image Exhibitions' on the auspicious occasion of 'Cultural and Natural Heritage Day (June 13th)', disseminating official documentaries through live streaming, recorded broadcasting, and interactive methods to showcase the captivating allure of ICH. In addition to these endeavors, during June 2021's 'Cultural and Natural Heritage Day', iQiyi collaborated with eight online video platforms to host an 'ICH Shopping Festival' under the theme 'People's ICH Shared by People'. This festival employed online live streaming and exhibition broadcasting techniques as over 7,000 ICH shops across various online shopping platforms engaged in sales promotion activities for more than 60 thousand pieces of non-heritage products.
- Algorithm recommended long video platform: bilibili, through the data crawl (Feihu Data, 2022), as of May 2022, there are 1,154 ICH-related creators (UP owners) on the bilibili platform, with a total of 1,589 videos related to ICH, and a total playback of 183 million times.

Among them, there is 1 video with over 10 million plays, 10 videos with 5-10 million plays, and 116 videos with 1-5 million plays.

To promote the protection of ICH and the integration of we-media technology, Bilibili held various activities to support the development of ICH. In July 2021, Bilibili launched its first call for ICH videos to encourage creators to release more high-quality works and inspire more video creators to engage in the creation of ICH content. This campaign ran from July 20, 2021, to August 31, 2022. The platform widely collected four types of ICH videos, namely literature, work, music, and art. The videos participating in the activity will be ranked based on their cumulative video views. The top-ranked videos will receive cash rewards ranging from 2,000 to 3,000 yuan, as well as exclusive avatars, limited edition avatar frames and other digital rewards. Statistics show that a total of 457 creators participated in this activity, uploading 1,002 ICH-related videos, which garnered a cumulative playback of 76.78 million times. By May 2022, the number of ICH videos released through this initiative accounted for 63% of the total ICH videos on the platform, while their total broadcast volume represented 42% of all ICH video broadcasts, indicating that the video platform effectively amplified the dissemination of ICH content.

- Algorithm recommended short video platform: Tik Tok. Based on data collection, as of May 2022, there were 14,547 creators related to ICH on Tik Tok. On average, these creators publish approximately 217 ICH-related videos per day and 665 such videos every three days. From June 1, 2021 to May 31, 2022, the total number of views for videos related to national ICH projects reached 372.6 billion, and the total number of likes was 9.4 billion. Among the 1,557 national ICH projects, 1,553 of them were disseminated on Tik Tok, with the coverage rate of ICH projects reaching 99.74%.

To promote the integration of ICH protection and we-media technology, TikTok has organized various activities to support the development of ICH as follows. At the end of 2018, TikTok collaborated with Beijing Longzaitian Shadow Puppetry Troupe (龙在天皮影团) to organize the 'To take a look at shadow puppetry can be a happy thing' (皮一下很开心) topic challenge. Users were invited to imitate funny actions of shadow puppetry for collaborative filming or perform popular video plot actions using shadow puppetry. In just a few months, by

January 2019, the total number of views for this topic exceeded 1.46 billion (TrendInsight, 2022).

In April 2019, TikTok officially announced the launch of the 'ICH Partner' program, aimed at facilitating the promotion and preservation of ICH by assisting inheritors in three key areas: 1) enhancing inheritors' modern dissemination capabilities through traffic support and themed events; 2) engaging society as a whole in promoting ICH through music, special effects collection, and other means; 3) strengthening local cooperation by collaborating on local ICH topics and developing cultural creative products to enhance dissemination capabilities. In terms of support effectiveness, within just one week since its inception, over 2,200 inheritors have applied for participation with more than 120 representative inheritors at provincial level or above providing certification materials. As of June 2020, this initiative has successfully enabled five inheritors to earn an annual income exceeding one million yuan, while over forty non-heritage creators have amassed millions of followers. Building upon the ICH Collaboration Program initiated in 2019, TikTok has sequentially launched a series of ICH themed initiatives, including the ICH Market (非遗集市, June 2020), TikTok ICH Show (抖音非遗秀, July 2020), Witnessing Craftsmanship Project (看见手艺计划, October 2020), ICH Adventure Diary (非遗奇遇记, June 2021), TikTok Trendy Goods Night (抖音新潮好物夜, August 2021), Daily Ingenuity (每日匠心, February 2022), TikTok Oriental Fashion Season (抖音潮流东方季, April 2022), and ICH Shopping Festival (非遗购物节, June 2022). These activities have significantly facilitated the dissemination and advancement of ICH on TikTok through topic generation, traffic support, and live streaming assistance.

- Live streaming platform: Huya Live. According to data collected from the official website, five creators (anchors) are currently associated with ICH on this platform. However, as of May 2022, no active anchors linked to ICH have been identified. This limitation arises from live streaming platforms primarily focusing on gaming and entertainment content, thus attracting predominantly enthusiasts in these domains. Consequently, livestreams featuring ICH content struggle to gain user engagement within these popular areas. As a result, the sustainability rate for anchor broadcasts diminishes. In April 2018, Huya Live and Lüliang Lan County in Shaanxi Province initiated the 'Qinghe Poverty Alleviation Program' (青禾扶贫计划), aiming

to promote the cultural allure of ICH through live streaming the Lan County Dough Sculpture Art Festival.

In June 2018, Huya Live collaborated with the Ministry of Culture and Tourism to organize a live streaming event at Prince Gong's Mansion Museum. The event featured 11 broadcasts over six days. Esteemed domestic clothing design teams, such as those from Beijing Institute of Fashion Technology, Wuhan Textile University, and Shanghai University, participated. Renowned fashion design teams like Art Flower(艺之卉), Du Xi(度兮), and Mu Zhen(木真) also showcased how traditional ICH elements are incorporated into modern clothing design through live streaming. This event effectively demonstrated the harmonious fusion between the charm of classical ICH and contemporary fashion artistry.

In July 2021, Huya Live partnered with the Traffic International Wildlife Trade Monitoring Network and the China Wildlife Conservation Association to launch the 'Protecting Forest King Together' live streaming event. Through live broadcasting platforms, it showcased various forms of ICH, including egg carving, flower-shaped dough sculpture (Hua Bo Bo), paper cutting (Jianzhi), and cloth pile painting (Bu Dui Hua), all integrated with tiger-themed content. Coinciding with World Tiger Day on July 29th, this initiative aimed to draw global attention to tiger conservation.

6.1.3.3 Algorithms recommend short-video-based we-media platforms as the most compatible with the current needs of ICH dissemination

By analyzing the operational data of leading companies across five categories of we-media platforms and examining the current dissemination and protection practices of ICH content on each video-based we-media platform, it becomes clear that these top companies have actively participated in ICH preservation in recent years. However, not all platforms are suitable for preserving and inheriting ICH or for meeting the specific needs of ongoing ICH conservation efforts. Therefore, this research aligns eight indicators of ICH dissemination requirements with the characteristics of leading companies in five categories of we-media platforms. Ultimately, it concludes that ICH dissemination requirements on we-media platforms remain at an early stage, referred to as the "widespread dissemination" stage. This sets it apart from other popular

socio-cultural content like sports, music, and literature, which have advanced beyond this stage into more specialized areas known as "vertical dissemination". ICH faces limitations due to its regional nature and challenges from new cultures. Thus, rapidly expanding the influence of ICH dissemination is a pressing issue requiring attention. This research matches compliance between the eight indicators required for ICH dissemination and the suitability offered by leading companies in five categories of we-media platforms. It assigns corresponding rankings based on compliance scores ranging from 1 to 5 points per indicator, ultimately selecting the most suitable we-media platform(s) and company(ies) for current ICH dissemination based on total scores obtained across all eight indicators. The analysis results show that the algorithm recommends short video we-media, with TikTok, its leading company, scoring 36 points. Compared to the other four types of we-media platforms, it demonstrates a relative advantage. Moreover, considering the current dissemination effect of ICH on the TikTok platform, the algorithm-recommended short video we-media platform emerges as the most suitable choice for promoting ICH at present. Consequently, it becomes a focal point of analysis in this research (see table 6.3).

Table6.3 Analysing the operation data of the head enterprises of the 5 types of we-media platforms

The need for we-media platforms for ICH dissemination				We-media Platform Conformity Matching					
	Problems faced	Solutions	Demand for we-media	WeChat Video	Aiqiyi	Bilibili	Tiktok	Tiger tooth	
				Semi-closed video category	Professional video category	Algorithm recommended long video category	Algorithm recommended short video category	Live streaming category	Basis of scoring
subscribers	Limited offline audience	Wide dissemination to all social groups	User size, user group richness	4	2	3	5	1	DAU
	Lower base concern	Platform-enabled traffic	Platform support is skewed	2	3	4	5	1	Participation in ICH Conservation Practices
author	Content creation is difficult	Lowering the creative threshold	low creative threshold	4	2	3	5	1	Platform content features/existing ICH-related content base
	Low quality of content production	Improvement of technical capacity	Platform technical support	2	5	4	3	1	Content production expertise
	Low innovation in content	Cross-border cooperation incorporating innovative elements	Platform Resource Docking	2	3	4	5	1	Participation in ICH Conservation Practices
Industry Trends	entertainment	Integration of entertainment elements	Content diversity and platform resource alignment	2	3	4	5	1	Diversity of content/involvement in ICH conservation practices
	commercialisation	Convergence of view counts realisation and marketing	View Counts Revenue and Bandwagon Functions	3	2	4	5	1	Availability and richness of commercialisation features
	Intellectual Property Protection	Creator Authentication and Work Protection	Certification mechanisms and property rights protection mechanisms	2	5	4	3	1	Availability of authentication functions and property rights protection mechanisms
				21	25	30	36	8	

6.2 The dissemination characteristics of Chinese ICH on TikTok

6.2.1 The current situation of ICH dissemination on TikTok

According to the analysis of ICH dissemination data on TikTok, as of June 2021, videos related to national-level ICH projects exceeded 140 million (Pusongzhu, 2021). On June 11, 2022, TikTok released the "2022 ICH Data Report," revealing that from June 2021 to June 2022, views for national-level ICH project videos on TikTok reached 372.6 billion. Out of 1,557 national-level ICH projects, 1,553 were shared on TikTok, resulting in a coverage rate of 99.74%. In terms of age distribution among ICH content creators on TikTok, individuals born in the '80s and '90s now primarily inherit and disseminate ICH on the platform ('10% born in the '60s,' '20% born in the '70s,' '35% born in the '80s,' '26% born in the '90s,' and '6% born after 2000'; other categories account for the remaining 3%). Endangered ICH projects² saw a year-on-year growth rate of 60% in views over the past year.

The analysis of commercial development data on TikTok reveals a remarkable 668% year-on-year increase in the sales volume of ICH products from June 2021 to June 2022, facilitated by live streaming and other methods. In June 2021, a copper fusion mural work titled "Fish, Birds, Fragrant Flowers" priced at 188,000 yuan was sold on a Tik Tok live-streaming platform, setting a new record for the highest sales of ICH products on Tik Tok. Meanwhile, Li Tinghuai, the representative inheritor of the national technique of making Ru porcelain, sold over 3 million yuan worth of Ru porcelain through Tik Tok e-commerce (BJD, 2023). During this period, approximately 590,000 live streaming sessions were conducted for ICH projects on TikTok, with an outstanding year-on-year growth rate of 642%. The average number of live broadcasts per day by the TikTok creators of ICH is 1,617. The number of ICH hosts who received live-streaming tips has increased by 427% year-on-year, and the total amount of tips has increased by 533% year-on-year. The sales of traditional Chinese brands related to ICH (referring to those brands recognized by the "Revitalization and Development Committee of Chinese Traditional Brands" established by the Ministry of Commerce of China, which are renowned for their long history,

² Endangered ICH projects refer to those listed with a description indicating their endangered status in China's National List Representative Project Catalogue for ICH

possessing products, skills or services passed down through generations, having a distinct background of traditional Chinese culture and profound cultural heritage, achieving widespread social recognition and forming a good reputation) increased by 617% year-on-year, and the number of ICH inheritors generating income on the platform increased by 34% year-on-year.

According to the analysis of interactive development data on TikTok, which focuses on ICH from June 2021 to June 2022, the cumulative number of likes for videos related to ICH reached an impressive 9.4 billion. The most popular interactive activities involving ICH on TikTok include engaging in synchronized dances with ICH elements, savoring traditional delicacies, experiencing sugar blowing artistry, crafting wooden figurines, and showcasing traditional costumes. These activities enable short video users to participate actively in themed events associated with ICH alongside other users based on specific activity requirements. By capturing relevant footage and uploading it onto the platform while incorporating appropriate tags, these videos gain enhanced visibility through platform support in terms of traffic generation. Utilizing big data algorithms, the platform recommends these videos to users who are also participating in or have similar interests in the event—thus fostering a virtuous cycle that amplifies dissemination effects.

6.2.2 Creators ‘portraits

To enhance the study of ICH development within the realm of we-media, this research explores users on the TikTok app who are associated with the theme of 'ICH' and conducts an analysis on the content of ICH-related videos published by highly influential creators. The creators on TikTok are categorized into four distinct types based on their creative content and identity: ICH inheritors, ICH story narrators, official accounts of TV shows, and accounts of local ICH protection centers. Meanwhile, according to the classification of these four types, the creator account with the highest number of followers is selected as the typical creator case and a portrait study is conducted.

- Typical creator type 1: The inheritors of ICH, primarily consisting of inheritors, unacknowledged practitioners of intangible cultural skills, and enthusiasts of such skills, focus primarily on showcasing these skills, introducing related products, or documenting their works through videos. Given that each inheritor or practitioner specializes in a specific type of intangible cultural skill, the content presented by these accounts tends to be repetitive as they demonstrate the same skill in different contexts and timeframes. The typical account selected

for this research is Li from the ICH Weaving. The TikTok account is ab881 (非遗竹编老李) and it is officially certified as the inheritor of the Bamboo Weaving ICH in Dongcun Village. As of May 2022, this account has 4.158 million followers, has posted 131 works, and has received a total of 39.14 million likes. The most popular single video has received 4.233 million likes. Founded by Li Niangen from Xinyu City in Jiangxi Province—a fifth-generation successor to this local intangible heritage project—this account began recording the bamboo weaving process on TikTok platform in 2019 based on suggestions from others. These videos showcased various steps including selecting bamboo stalks, cutting them into sections, cleaning them and then weaving and coloring them into exquisite bamboo art pieces. The exceptional craftsmanship and beauty quickly attracted a large number of followers. Subsequently, Li Niangen organized a dedicated media team and established Zhaoming Entertainment Media Company to engage in professional PUGC production. They continuously innovated their video content by incorporating rich plots along with hot topics at different periods, resulting in an increasing number of followers. Moreover, the combination of short videos and live streaming allowed for multi-angle demonstration. Starting from 2021, Li Niangen has been selling bamboo weaving products through TikTok's online store, with monthly sales exceeding 50,000 yuan, thus achieving commercialization of ICH products.

- Typical Creator Type 2: ICH story narrators, are mainly produced by Professional Generated Content (PGC) and Professional User Generated Content (PUGC) teams. These teams utilize professional shooting, editing, and screenwriting techniques to highlight various aspects of ICH inheritors, their development history, creation processes, and ICH skills. Through voiceovers and explanations, they create short video works similar to documentaries. Among the creators in the ICH story narrators field, this research selected Feiyidayu (非遗大宇)—a TikTok account that had 1.054 million followers as of May 2022—which has produced 105 works, accumulating a total of 33.51 million likes. Public information indicates that the account belongs to Zhongyi Youmei (Beijing) Electronic Commerce Co., Ltd., with Beijing Shiyi Cultural Media Group Co., Ltd. as its shareholder. This company acts as a platform to promote and showcase the historical value and artistic appeal of non-heritage cultural products while also globalizing ICH itself. ICH Dahuyu serves as an extension of their strategy for

industrial development related to non-heritage by integrating relevant resources, leveraging TikTok's reach, and entrusting professional media agencies (MCN company: Shandong Huazhong Cultural Media Co., Ltd.) to produce high-quality non-heritage works for effective dissemination.

- Typical creator type 3: The official accounts of TV shows typically receive management from professional media institutions. These institutions specialize in editing and re-creating large-scale non-heritage programs originally produced for traditional media platforms like television and radio. The re-created works then disseminate on short video platforms for secondary distribution. One exemplary account discussed in this article is “ICH is Coming” (非遗来了), with its TikTok account named "Feiyilaile." It is officially certified as the Shanghai People's Radio and Television Non-heritage Program Official Account. As of May 2022, this account has amassed 153.4 million followers, published 338 works, and received a total of 5.095 million likes. As a cross-media initiative, this program not only airs on television and radio but also disseminates through platforms such as TikTok, Xigua Video (西瓜视频) and offline activities to present comprehensive perspectives on ICH content. The TikTok account ‘ICH coming’ serves as a branch of this comprehensive program. By May 2022, the program has aired over 100 episodes featuring more than 300 non-heritage projects while conducting interviews with more than 100 inheritors.
- Typical Creator Type 4: The accounts of local ICH protection centers mainly consist of the centers established by local governments, which rely on their responsibilities and resources for protecting, inheriting, and supporting ICH projects at the local level. By publishing various short videos related to these projects on the TikTok, they aim to achieve dissemination, publicity and protection of local ICH. The selected account in this article is "Sichuan ICH" with a TikTok ID: ‘sichuanfeiyi’ and official certification as the Sichuan Provincial ICH Protection Center Official TikTok Account. As of May 2022, this account has gained 618,000 followers with 701 published works and a total of 15,408,000 likes. Its most popular video has received 318,000 likes. Operated by Sichuan News Network Media Group, this account focuses on showcasing the achievements and outstanding ICH of Sichuan Province through eight categorized albums: Sichuan Inheritance; Sichuan Opera; Martial Arts; Craftsmanship; Embroidery; Bamboo Weaving; Kung Fu. Each album provides concentrated displays from

multiple perspectives on different types of ICH in Sichuan Province while highlighting their skills and unique features in diverse forms such as documentaries, news forwarding, costume change editing snapshots submissions from netizens etc., catering to a wide audience.

Several conclusions can be drawn from the results of analyzing the creators' portraits on TikTok:

- Accounts specializing in a single type of ICH are more likely to attract fans: Because the appeal of ICH content has a significant degree of locality and circle-specificity. If a TikTok account has certain story-telling, continuity, and thematic elements in its content, it is more likely to gain a steadily growing followers base that pays long-term attention. The platform will also push the latest videos of this account to the followers immediately. Compared to the other three types of ICH accounts that release various ICH works, Li, the master of bamboo weaving ICH, as the inheritor of bamboo weaving ICH, all his videos are centered around the theme of bamboo weaving. In terms of the number of fans, it has a significant advantage. However, the accounts of other creators, due to involving more ICH content, although the single video views and likes are high, the followers' conversion rate is relatively low.
- The average number of likes per video serves as an indicator for assessing the quality of videos: A crucial metric for evaluating an account's operational proficiency lies in its average number of likes per video. Data analysis reveals that despite the Sichuan ICH account having posted over 700 videos, its average number of likes stands at a mere 22,000. In contrast, ICH Dayu has only shared 105 videos but boasts an impressive average number of likes reaching 319.2 thousand.
- From a video quality perspective, it becomes evident that both ICH Dayu and ICH Laoli are managed by professional MCN companies. Their video content arrangement, shooting techniques, editing skills, and voiceover quality all belong to the higher echelons of PUGC standards. Conversely, ICH Coming and Sichuan ICH have released a large quantity of videos through cutting, editing, and reposting methods, which creates a noticeable disparity in video quality compared to the former.

6.2.3 Case Study of High-quality ICH Short Videos Content on TikTok

Through the analysis of ICH creators on TikTok, it becomes clear that the video content features and publishing strategies employed by different creators significantly impact their followers' base size and video dissemination effects. However, the most compelling feature of short-video we-media is that it enables anyone to create popular content without necessarily requiring a substantial following or widespread recognition. The platform allocates promotional traffic according to the video's dissemination metrics. If a video garners significant engagement or interactions in its early stages, the platform will channel additional traffic to foster a positive cycle of video propagation. This research selected five ICH-related videos on TikTok as case studies, mainly categorized into teaching, story narration, skill display, celebrity learning, and non-heritage special effects. From the case analysis, it is evident that different types of ICH short videos yield varying effects on the dissemination of ICH content, providing insights for the improved dissemination of puppetry on TikTok.

- High-quality ICH video Content type 1: Educational videos of this type primarily focus on teaching ICH skills through explanations provided by ICH inheritors. They are particularly suitable for relatively simple and easily learnable craft-based ICH practices, such as paper cutting, embroidery, cooking, origami, martial arts, etc. The selected video discussed in this research is titled 'Unlimited Paper Cutting Once: Cut 4 'Spring' Characters,' (无所不能的剪纸一次, 剪4个春字) which showcases the Chinese Paper Cutting ICH project. It was created by the creative account 'ICH Comes' (非遗来了) and released on June 28, 2021 with a duration of 299 seconds. The video has garnered approximately 2.58 million likes, around 45,000 comments, about 340,000 collections, and roughly 390,000 shares. Produced by the program group ICH Comes in collaboration with Xinjiang Korla paper cutting inheritor He Ping (何平) as the instructor demonstrating the detailed process of creating a three-dimensional 'Spring' character from a red piece of paper through paper cutting techniques. The instructional steps are meticulously explained while incorporating distinctively Chinese elements like 'Spring' and 'China Red.' This aspect has attracted significant engagement from viewers who actively participate in learning and share their achievements within the video's

comment section. Consequently, the video has generated substantial interaction traffic due to its high level of audience involvement along with clear visual presentation.

- High-quality ICH video content type 2: Story narration. This video mainly tells the story of ICH inheritors' protection and inheritance of ICH skills through editing and filming. This video suits ICH skills with strong storytelling. It shares the history, experiences, difficulties, and achievements of ICH bearers during ICH protection. It allows the audience to grasp the challenges of ICH inheritance and protection, encouraging them to engage with the video to express their views on "perseverance," "inheritance," and "cultural protection." The typical video selected for this research is titled "ICH Dokuro Bamboo Drifting" (非遗技艺独竹漂). It features the Guizhou ICH item of Dokuro Bamboo Drifting. The account behind this creation is ICH Dayu, released on April 14, 2020. The video lasts 46 seconds and has garnered approximately 1.54 million likes, 11,000 comments, 800,000 favorites, and 600,000 views. The creator of ICH Dayu edited the ICH drifting video of Guizhou inheritor Yang Liu (杨柳). Through music commentary, the video narrates the 17-year perseverance of the ICH inheritor in mastering the ICH drifting technology. It recounts how, as a child, the inheritor practiced countless times, falling into the water but never giving up. After 17 years, he successfully showcased the non-heritage skills to the world, merging ICH drifting with modern dance. The video content centers on youth, dreams, and perseverance. It tells the story of an ICH inheritor overcoming numerous challenges and ultimately achieving success. This narrative has earned recognition and encouragement from the audience, igniting the popularity of this video.
- High-quality ICH video content type 3: The skill demonstration type primarily records the techniques and processes of ICH skills through detailed filming methods. It delivers visual impact by showcasing the precision, complexity, and delicacy of the entire non-heritage skill process. The typical video selected for this research is titled "It's not the smooth music, but the exquisite skills refined through thousands of blows" (丝滑的不是音乐，是千锤百炼的技艺). It features the ICH project of Yi Sancai (彝三彩), created by the Sichuan ICH account, and released on July 23, 2022. The video lasts 32 seconds and has garnered approximately 1.32 million likes, 110,000 comments, 40,000 collections, and 100,000 shares.

The video content was produced and released by the "Yi Sancai" account on TikTok, then integrated and edited by the Sichuan ICH account. It includes music that creates a rhythmic feature painting skill display, capturing significant attention and interaction. The video showcases the intricate repeated patterns painted by the Yi people on pottery and wooden objects using macro shooting. The vivid colors and refined skills of the ICH inheritors astonish viewers. The keywords in the comments section—"smooth, amazing, and stress-relieving"—indicate that the video satisfies young people's interest in ICH skills and enhances their cultural confidence.

- High-quality ICH video content type 4: The "internet celebrities learning traditional handicraft skills" category of videos primarily relies on internet celebrities with many followers. It documents their learning of non-heritage skills to showcase and disseminate ICH. On one hand, internet celebrities boast large followers, ensuring rapid dissemination of the videos. On the other hand, they act like stars, influencing and guiding their followers' circles, which promotes more followers to engage with this type of non-heritage content. The typical video selected for this article is titled "Is Making Longxi Candy Only about Technique?" (做龙须酥只要技术吗). It features the non-heritage project of Longxu Candy, a special sweet snack made through unique techniques. The creator account is Jiang Xunqian (September), released on November 12, 2021, with a video length of 183 seconds. It has garnered approximately 1.2 million likes, 13,000 comments, 19,000 collections, and 16,000 forwarded videos. The video creator "September" is a professional female video blogger, akin to Li Ziqi (李子柒), who has gained worldwide popularity. September's shooting style focuses on recording the making of various foods, handicrafts, and traditional crafts, utilizing professional shooting and editing techniques. To showcase skills, she employs numerous macro perspectives to document the making process. The selected video details September's journey in making Longxu Candy. After several failures, she ultimately succeeded. The video's viral success stems mainly from the dragon's whiskers making process, which requires constant pulling and stretching of sticky sugar. This creates a striking contrast with the delicate female character. By documenting her entire journey from failure to success, the video fosters admiration for the creator, leading to audience interaction.

- High-quality ICH video content type 5: Type 5 of high-quality ICH videos involves integrating special effects with ICH. This category includes two main types of presentations. The first type utilizes TikTok's unique special effect's function, paired with face recognition and positioning technology. This approach allows users to incorporate special effects into their video shooting process, such as face swapping and adding decorations. The second type involves professional video creators using film special effects to enhance the visual impact and create a sense of awe in presenting ICH content. Since the primary focus of the first type lies in its production effects, rather than the video content itself, this section will not undergo extensive analysis. Therefore, this chapter primarily concentrates on analyzing the second type of video. This article focuses on analyzing the second type of videos. The typical video selected is titled "Heavy Snow Makes Grandpa's Hair White Too, I Sing a Song for My Grandpa" (大雪偷偷白了发, 我给爷爷唱一曲), which involves the ICH project of Peking Opera. The creator account is Zhu Tiexiong (朱铁雄), who posted it on February 9, 2022. The video lasts for 56 seconds and has received approximately 3.58 million likes, about 109,000 comments, approximately 260,000 views, and about 18,000 shares. Zhu Tiexiong graduated from university and pursued a career in photography and video editing after graduation. He began releasing special effects videos on TikTok in 2019, which garnered positive responses. In 2021, Zhu Tixiong commenced producing videos centered on ICH. By incorporating specific narrative elements, he seamlessly integrated ICH with real-world settings through the use of special effects, delivering an unexpected and captivating visual experience to viewers. The video analyzed here focuses on Peking Opera, narrating the story of a young man who performs an aerial somersault using Peking Opera techniques to bring joy to his grandfather, an avid fan of this art form. Simultaneously, special effects are employed to transition from modern attire to traditional Peking Opera costumes. Coupled with authentic Peking Opera singing, the video achieves a comprehensive fusion of storytelling, technology, and cultural significance. The special effects evoke a sense of awe and wonder among the audience, while the narrative evokes empathy for the older generation and their connection to traditional culture. Utilizing this same methodology, Zhu Tixiong also produced a series of videos showcasing other ICH, including shadow puppetry, face-changing, and lion dance. According to statistics, following the release of the first five videos, the account

garnered 2.55 million followers, establishing itself as a notable phenomenon within TikTok's cultural content category.

Based on the analysis of the five types of high-quality ICH videos on TikTok, this research draws the following conclusions:

- From a dissemination efficiency perspective, no direct correlation exists between video length and the number of likes. The key to achieving high video dissemination efficiency lies in obtaining more playbacks and likes within the shortest time frame. It is clear that story narration, skill demonstration, and ICH & special effects videos remain limited to 60 seconds or less, quickly engaging with the theme while promptly presenting audience interaction highlights. Consequently, these videos generally receive more likes per second. In contrast, teaching and celebrity learning videos often have longer durations, with final results typically revealed towards the end of the video. This frequently leads to lower completion rates and challenges in promoting interaction during the initial segment.
- From an interactive conversion rate standpoint, likes, comments, collections, and forwarding exhibit a progressive relationship as four common forms of video interactions. Audiences often recognize the video content and engage in liking, further expressing their desire for communication through comments. If they have a subsequent desire to watch again, they engage in collection interactions. If they wish to share and discuss it with others, they engage in forwarding interactions. The higher the collection and forwarding rates, the stronger the video's ability to receive long-term attention and spread. It is clear that the five types of videos, including craftsmanship teaching videos, have a higher proportion of liking, collecting, and forwarding overall due to their practical value. Meanwhile, skill demonstration videos often receive more user empathy and admiration due to the impressive process and exquisite results, resulting in a higher comment conversion rate.
- From the perspective of the interaction user structure, videos showcasing skills, learning from online celebrities, and those combining ICH with special effects are more attractive to young people under the age of 30. While instructional and story-explaining videos mainly focus on documentary content and do not involve much secondary creation or multi-element integration of the content, the distribution of interaction user structure is relatively even.

6.2.4 Status of official ICH-related activities on the TikTok platform

From April 2019 to June 2022, the TikTok platform organized ten nationwide activities aimed at promoting ICH on TikTok through data mining statistics. These activities exclude those organized by ICH organizations, cultural departments, local governments, schools, and similar entities, or those co-sponsored by TikTok. Notably, the "ICH Partner Program (非遗合伙人)" launched in April 2019 and the "Seeing Skills Program (看见手艺计划)" launched in October 2020 are two significant activities carried out by TikTok in recent years to support the development of integrated short videos featuring ICH. The "ICH Partner Program" provides extensive assistance to ICH through enhanced traffic support, improved monetization capabilities, establishment of an ICH open platform, and fostering urban collaborations to facilitate its dissemination on TikTok. According to statistics gathered from April 1 to December 31 in 2019 during the activity period, more than 5,000 practitioners related to ICH participated in this event. The total number of views for this topic exceeded 3.09 billion, and the total number of likes reached over 37 million. Initially, the program aimed for ten ICH inheritors to achieve one million followers or an annual income of one million yuan on TikTok by April 2020. However, as of June 2021—one year after its initiation—five inheritors have surpassed an annual income of one million yuan, while more than forty creators specializing in ICH have garnered over one million followers on the platform, exceeding expectations and demonstrating substantial promotion of ICH on short video platforms (Netease, 2020).

6.3 The dissemination characteristics of Chinese shadow puppetry on TikTok platforms

6.3.1 Chinese shadow puppetry video creators' characteristics

As of May 3, 2022, a total of 82 creators have published Chinese shadow puppetry videos on TikTok. This group consists of 70 individual accounts, 10 from shadow puppetry studios, and 2 linked to official entities. The platform has officially verified 14 accounts. These include 4 verified by inheritors, 9 by relevant institutions and troupes, and 1 by the shadow puppet industry association. On May 23, 2021, the total number of creators sharing Chinese shadow puppetry videos on TikTok was 47. This included 38 personal accounts, 4 established by working studios,

and 5 from official agencies. The growth rate of creators over one year reached 74.5%, with individual accounts increasing by 84.2%.

As of May 3, 2022, these 82 creators had produced and published 25,700 Chinese shadow puppetry videos on TikTok, garnering a total of 12,074,186 “likes,” with the most “liked” single video reaching 806,000. Collectively, these creators amassed 1,675,466 followers. In comparison, on May 23, 2021, 47 creators published 10,984 Chinese shadow puppetry videos, receiving 9,062,565 “likes,” with the highest single video also reaching 806,000. These 47 shadow puppetry creators accumulated a total of 1,137,724 followers. The number of videos increased at a rate of 134 percent, while the total number of “likes” grew by 33.2 percent.

As of May 3, 2022, among the 25 shadow puppetry video creators with available follower data, male followers represented 37.88%, while female followers accounted for 62.15%. An analysis of followers by age group yields the results displayed in Table 6.4.

*Table 6.4 The followers’ age group of the 25 Chinese shadow puppetry video creators.
(1,095,163 followers in all)*

Age group	6-17	18-24	25-30	31-35	36-40	Above 41
Followers	341,799	246,437	99,446	104,127	75,934	236,528
Percent	31%	23%	9%	10%	7%	22%

After examining the data, which encompasses follower count, demographic distribution by gender and age, video publication frequency, total "likes," and peak "likes" for individual videos, this study produced the following conclusions.

- The number of “likes” that received by the most popular video and the number of followers is highly correlated.

This study utilized the CORREL function to examine the relationship between the number of "likes" on each creator's most popular video and their follower count (Wang and Yu, 2021). The correlation coefficient registered at 0.968638, suggesting a robust relationship. Additionally, the correlation between the total likes received by each creator and their follower numbers reached 0.975243, further underscoring a substantial correlation.

Despite the strong connections among follower count, total likes, and highest likes per video, the success of individual videos plays a critical role in driving traffic to accounts. As follower counts rise, average likes per video tend to increase as well; however, the total likes received are a result of this trend, not its cause. The relationship between the total number of videos uploaded by each creator and their follower counts is only 0.136007 (see Figure 6.1).

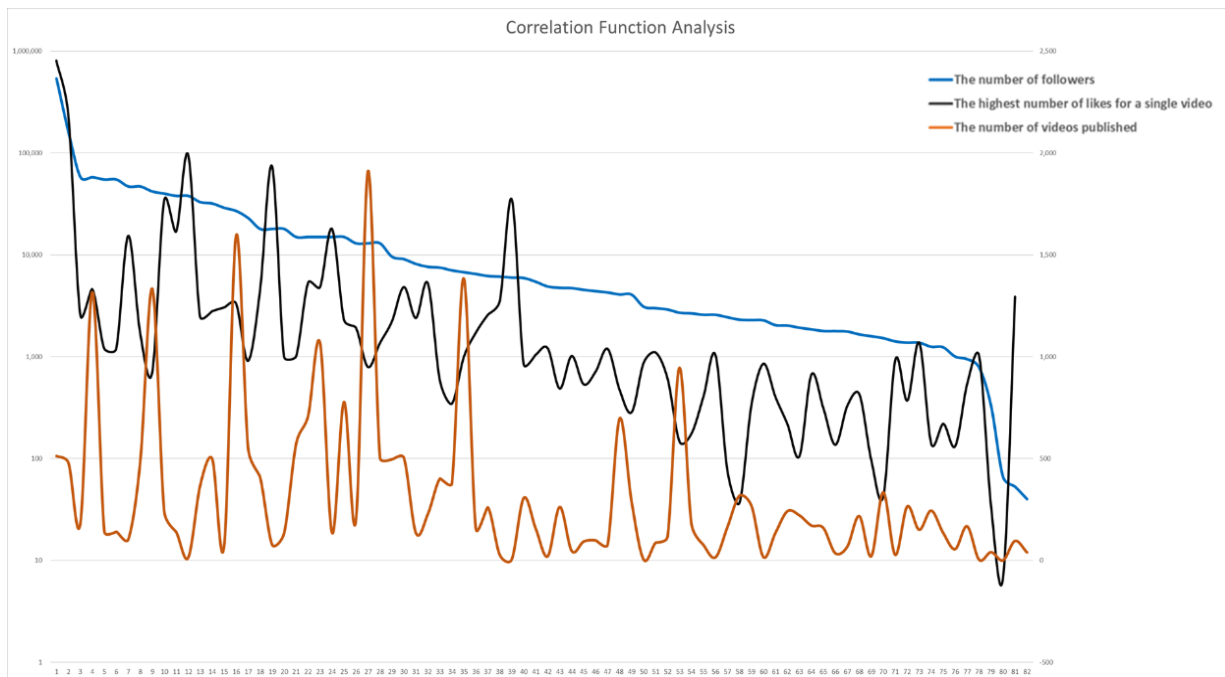


Figure 6.1 Correlation function analysis

Source from: Author, 2022

The volume of videos produced and uploaded by a creator does not dictate the number of followers on the account. However, a high-view, quality video can effectively transform audiences into followers of the account.

- Authenticated accounts operate better overall than non-authenticated accounts

Among the 82 accounts, 14 are officially certified. This group includes 4 certified inheritors, 1 certified industry association, and 9 certified enterprises. A total of 68 accounts are not official certified. An analysis of the average operational data from these two groups reveals that certified accounts have a significantly higher average followers' count of 27,853, compared to non-certified accounts, which have an average of 18,884, representing a difference of +47.6%. The average total

number of likes for certified accounts is 1,471,191, while non-certified accounts show a nearly identical figure at 1,473,544, indicating a negligible disparity in terms of overall likes received. However, certified users publish approximately fewer works on average 258 than their non-certified counterparts, who average 326. Nevertheless, the engagement rate per work for certified users is substantially higher, with an average of 2,114 likes per work, which marks a +170.3% increase compared to the non-certified users' average of 782 likes per work. These findings illustrate that the dissemination efficiency among certified individuals surpasses that of uncertified users due primarily to two key factors: 1) Non-individual users account for a significant proportion (71.4%) of all officially verified profiles, whereas non-individual creators constitute only a small fraction (0.3%) of the uncertified user base. Non-individual entities, such as enterprises or industry associations, often possess superior video creation capabilities through team-based self-production or outsourcing, resulting in much higher quality video content. 2) Verified accounts receive enhanced platform support, facilitating video dissemination. For instance, TikTok's verification process covers personal, institutional, and corporate verification. Personal verification targets individual users, including public figures, certain professionals, and competition winners. Once reviewed and confirmed by the platform, these accounts display a 'yellow V' verification badge. Conversely, corporate verification primarily addresses enterprise users, allowing them to link their accounts to real-world companies for verified enterprise status. Such accounts empower enterprises to conduct marketing activities. A 'yellow V' personal verification account can also be categorized as either professional certification or high-quality content creator certification. Professionals with a certification in a specific field gain content exemption right after obtaining 'yellow V' verification; for instance, after a shadow puppetry master is certified, when they explain the shadow puppetry techniques or provide popular science content in their videos, the related popular science content will directly pass the review; if the account has not been certified, for example, if an un-certified account provides content such as medical or health management information, the content they post will be classified as "un-certified popular science" and will be restricted in traffic by the platform, and even face the risk of being banned. Meanwhile, for verified accounts, when they post related videos, they will also receive additional traffic support and an increased weight of attention from the platform. Participating in related topics at specific stages can also lead to more traffic diversion, enabling the rapid dissemination of the videos.

- The majority of followers consist of females, with most being under 30 years old or over 41 years old.

Out of the 82 research samples selected for this research, only 25 accounts allowed for the extraction and analysis of follower details. This limitation arose because some accounts disabled the permission to view their followers' information. Among the 1,095,163 followers of these 25 creators, the female follower proportion surpasses that of male followers. Regarding age demographics, 63% of followers are below 30 years old, while 22% exceed 41 years old. As depicted in Figure 6.2, the age distribution of a creator's followers is notably concentrated; followers cluster either under 30 or above 41 years old. This phenomenon likely correlates with the creators' video production styles (see Figure 6.2).

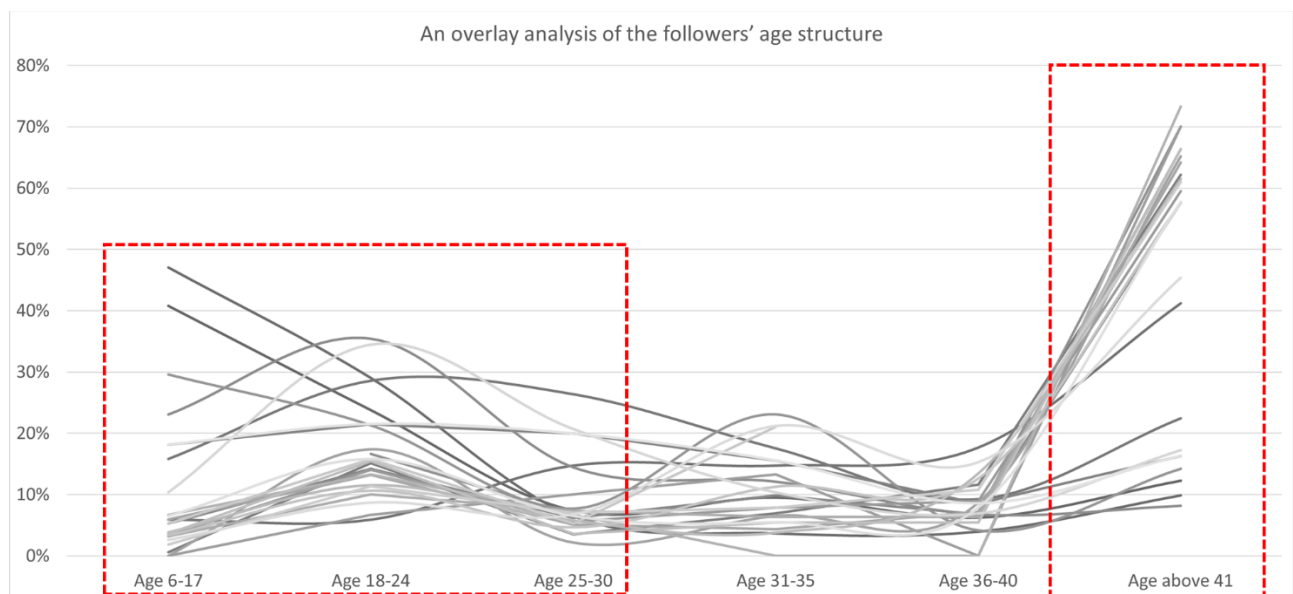


Figure 6.2 An overlay analysis of the followers' age structure

Source from: Author, 2022

6.3.2 User portrait analysis

Five widely appreciated short videos (with the highest number of "likes"), were selected for deeper investigation. This research performed a user profiling analysis of the five video creators. The additional analysis corroborates the finding that a strong correlation exists between the followers' count and the peak "likes" received by an individual video (Wang and Yu, 2021). Moreover,

through an analysis of audience comments, the content innovation of these videos emerges as a key factor for audience recognition. Specifically, the creator “Xiu Zhen Xiao Shuang” (TikTok account: “袖珍小爽”) combined popular content and creative stories with a shadow puppetry performance. The humorous narratives and the allure of traditional art quickly gained audience acceptance. “Lover of Chinese shadow puppetry” (TikTok account: “皮影爱好者”) blends animation and shadow puppetry with ‘hip hop’ music, promoting traditional shadow puppetry to engage younger generations through dancing shadow puppets. “DUAN Yunfeng” (TikTok account: “段云峰”), a dancer, mimicked shadow puppetry movements in a dance performance featuring traditional tracks, which rapidly garnered audience likes and attention. “The Extraordinary Craftsman” (TikTok account: “了不起的匠人”) created a short video about the story of a young shadow puppetry inheritor. Set against the backdrop of “cultural confidence,” it quickly gained audience support. Additionally, this video employed a cinematic perspective for shooting and editing, detailing the production and performance of shadow puppets. The five Chinese shadow puppetry videos present distinct unique characteristics, which exemplify the pinnacle of Chinese shadow puppetry in short video format on TikTok (see Figure 6.3).

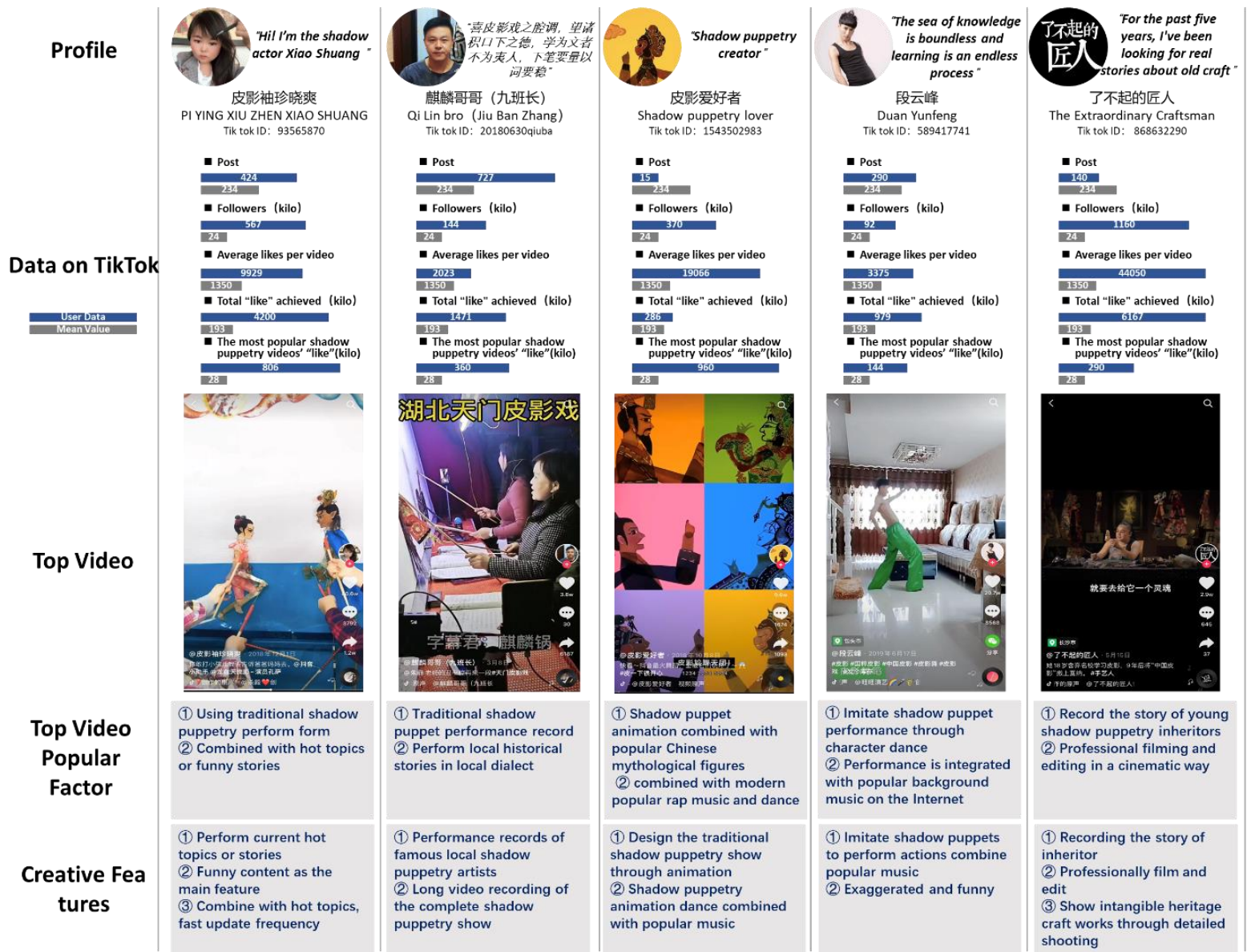


Figure 6.3: Portraits of five prominent creators in the realm of Chinese shadow puppetry.

Source from: author, 2021.

6.3.3 The attributes of Chinese shadow puppetry video content on TikTok

The research examined TikTok videos labeled with “# Shadow Puppetry (皮影)” on May 3, 2022. By sorting according to 'like' counts, the researcher included the top 73 popular shadow puppetry videos in the analysis.

The analysis of the short video content indicates that the 73 widely recognized shadow puppetry clips can be categorized into six distinct groups (see Table 6.5). Currently, these popular short videos primarily merge traditional shadow puppetry with timely themes, trendy elements or hot IP. This innovative approach to shadow puppetry design qualifies as "new content." The duration of these 73 videos typically remains under 60 seconds, aligning with the characteristics of effective short video dissemination. Collectively, these sample videos garnered a total of 3,389,859 likes, averaging 46,436 likes per video, alongside 44,136 comments, which averages out to 605 comments per video.

Table 6.5 The classification, video duration and number of “likes” of the 73 Chinese shadow puppetry short videos

Content Classification	Quantity	Percentage
The form of stage performance-traditional content	16	22%
The form of stage performance-new content	12	16%
Shadow puppetry carving or performance teaching	6	8%
The form of animation-new content	8	11%
Documentary	19	26%
Others	12	17%
Video Duration	Quantity	Percentage
Within 15s	19	26%
Within 60s	24	33%
Over 60s	30	41%
The number of “likes”	Quantity	Percentage
Over 100,000	7	9%
10,000-100,000	29	40%
5000-10,000	21	29%
Less than 5000	16	22%

The subsequent analytical outcomes emerge from a multi-element analysis of 73 selected Chinese shadow puppetry videos, along with their release timings and assorted interactive data.

- In 2021, the prevalence of popular Chinese shadow puppetry short videos surged on TikTok, while user engagement with these videos steadily escalated.

Among the 73 curated popular short videos of Chinese shadow puppetry, the data reveals that 6 videos emerged between January and May 2022. In contrast, 37 videos debuted in 2021, 15 in 2020, 6 in 2019, and 9 in 2018. In order to accurately analyze the changes in the total number of likes for 73 videos during the period from 2018 to 2022, when calculating the "average number of

likes" received by each video, since there was a highly popular video in each of the years 2018 to 2021 whose number of likes exceeded the average number of likes of all videos for that year, during the average value calculation process, the presence of such outliers caused deviations in the average value statistics. Therefore, by calculating the average and standard deviation of the number of likes for all videos each year, the values that differ from the average by more than two standard deviations were selected as "outliers" and were excluded from the average number of likes statistics for that year. Analyzing data from 2018 to 2021 reveals that while shadow puppet videos had relatively high average likes in 2018 and 2019, this can be attributed primarily to TikTok's launch of the "ICH Partner Program" in 2019, which facilitated traffic support and cultivation of a few highly liked videos. However, from 2020 to 2021, the number of high-quality shadow puppet videos that received a large number of likes showed an increasing trend. They gradually progressed from "individual development" to "overall development" (see table 6.6).

Table 6.6 The year when the 73 Chinese shadow puppetry short videos were published and the number of “likes” received.

year	Year 2018	Year 2019	Year 2020	Year 2021	Year 2022 Jan.-May
Number of Videos	9	6	15	37	6
Totally Number of “likes”	1,076,803	1,007,593	473,275	703,280	128,918
Average number of “likes” received by each video (Except Outliers)	33,850	52,319	14,734	12,980	21,486
Average number of “likes” received by each video (Include Outliers)	119,645	167,932	31,552	19,008	21,486
Standard Deviation of “likes” received by each video (Include Outliers)	244,927	262,754	68,464	39,667	19,827
Number of “likes” (Outliers)	806,000	746,000	267,000	236,000	/
Number of “likes”	2,806	26,000	14,000	30,000	47,000
	92,000	12,000	11,000	7,167	38,000
	16,000	6,593	6,535	6,638	38,000
	15,000	144,000	6,389	35,000	225
	96,000	73,000	4,162	29,000	5,618

	15,000		3,562	17,000	75
	25,000		2,588	15,000	
	8,997		1,697	13,000	
			1,710	11,000	
			114,000	11,000	
			5,191	9,965	
			11,000	9,947	
			18,000	8,090	
			6,441	7,413	
				6,861	
				6,772	
				5,741	
				5,588	
				5,426	
				7,824	
				4,628	
				4,272	
				4,086	
				91,000	
				21,000	
				10,000	
				5,727	
				2,659	
				2,049	
				4,840	
				46,000	
				16,000	
				4,230	
				197	
				990	
				1,170	

- Chinese shadow puppetry videos featuring unconventional content and innovative presentation methods garner heightened popularity among viewers. The average "likes" for videos that blend new material into traditional shadow puppetry performances demonstrate a clear superiority (refer to Table 6.7).

Table 6.7 Average number of “likes” for different Chinese shadow puppetry video categories

Content Classification	Average number of “likes” received by each video
------------------------	---

The form of stage performance-traditional content	9,096	56,918
The form of stage performance-new content	157,047	
Shadow puppet carving or shadow puppetry performance teaching	46,142	
The form of animation-new content	35,457	
Documentary	18,688	
Others	37,016	

- To achieve content completeness, traditional videos generally have a longer average duration. While some may garner more "likes," the average likes per second (LPS) remain restricted. Conversely, Chinese shadow puppetry videos that present fresh content, including humorous anecdotes, popular IP, and trending subjects, can quickly engage audiences in a brief time frame (see Table 6.8).

Table 6.8 The number of LPS for different Chinese shadow puppetry video categories

Classification of video content	Average video time (s)	The average number of LPS for each type of video ³
The form of stage performance-traditional content	214.2	138
The form of stage performance-new content	52.25	4,789
Shadow puppet carving or shadow puppetry performance teaching	63.3	936
The form of animation-new content	48.9	1,963
Documentary	89.7	833
Others	107.5	1,978

³ The average number of "likes" received per second for each type of video = \sum The average number of likes received per second for each video of this type / Total number of videos in this type

6.4 The dissemination characteristics of Huaxian shadow puppetry on TikTok platforms

6.4.1 Huaxian shadow puppetry video creators' characteristics

As of May 3, 2022, a total of 11 creators publishes Huaxian shadow puppetry videos on TikTok. Of these, 6 accounts belong to individuals, while 5 are established by Chinese shadow puppetry companies or studios. There are 5 accounts officially verified by the platform, including 1 account verified by museum, 3 accounts verified by shadow puppet related institutions and troupes, and 1 account verified by shadow puppet production company.

After analyzing data such as followers' count, video publications, and likes, along with data concentration analysis, this research presents the following findings.

- The overall operation performance of the creation account of Huaxian shadow puppetry on the TikTok platform is lower than the average operation level of accounts related to shadow puppetry.

As of 3 May 2022, this research indicates that 11 creators have produced and published 1,436 Huaxian shadow puppetry videos on TikTok. A total of 415,327 “likes” were received. The 11 Huaxian shadow puppetry video creators collectively have 70,101 followers. Each creator averages 130 videos posted, 289 likes per video, 37,757 total likes per account and 6,372 followers per account. In comparison, Chinese shadow puppetry video creators on TikTok, during the same period, posted an average of 313 videos per account, garnering an average of 469 likes and 6,372 followers per account. The average total likes per account was 147,246, and the average number of followers per account was 20,432. These four indicators surpass those of Huaxian shadow puppetry video creators by 141%, 62.2%, 290%, and 221%, respectively. The data clearly shows that Huaxian shadow puppetry video creators currently operate below the average level of shadow puppetry-related accounts on TikTok, revealing a significant disparity across all operational indicators (see table 6.9).

Table 6.9 The data of Chinese shadow puppetry and Huaxian Shadow puppetry on TikTok

Creators	Chinese shadow puppetry video creators	Huaxian shadow puppetry video creators
Number of accounts	82	11
Total number of videos posted	25,700	1,436
Total number of followers	1,675,466	70,101
Total number of likes	12,074,186	415,327
Average number of likes per video	469	289
Average number of likes per account	147,246	37,757
Average number of followers per account	20,432	6,372

- The operation of Huaxian shadow puppetry creators' creation accounts vary little, failing to develop "head accounts" with a driving effect.

By analyzing the three indicators of the number of followers, the number of videos published, and the number of "likes" of the Huaxian shadow puppet creator accounts and shadow puppetry creator accounts, and comparing the standard deviation data of these three indicators, it can be clearly seen that the standard deviation of the Huaxian shadow puppetry creator accounts in these three indicators is much smaller than that of the Chinese shadow puppetry creator accounts. This indicates that compared to the Chinese shadow puppetry creator accounts, the 11 Huaxian shadow puppetry creator accounts have no significant differences in operation, and the data concentration is relatively high, without an absolutely dominant account. In contrast, the Chinese shadow puppetry creator accounts have larger standard deviations in these three data indicators, with a higher degree of dispersion. With an average number of followers of

approximately 20,000, there is one head account with over 500,000 followers (TikTok account: 93565870) and another with over 150,000 followers (TikTok account: jlmppy888). With an average number of likes of approximately 150,000, these two accounts have a total of 4.25 million and 1.36 million likes respectively, demonstrating a significant head effect (see table 6.10).

Table 6.10 The creators' data of Chinese shadow puppetry and Huaxian Shadow puppetry on TikTok

Creators	Chinese shadow puppetry video creators	Huaxian shadow puppetry video creators
Number of accounts	82	11
Standard deviation of total number of videos posted	377	101
Standard deviation of total number of followers	61,931	11,469
Standard deviation of total number of likes	491,977	69,467

6.4.2 User portrait analysis

To gain a deeper understanding of the characteristics of Huaxian shadow puppetry video creators this research selected three representative accounts from 11 samples for analysis. This selection was based on an examination of account operations and creator identities. The three accounts analyzed are Chang'an Shadow Puppeteer (长安弄影人, TikTok account: 15591822396), shadow puppetry inheritor Wei Jinquan (皮影戏非遗传承人魏金全, TikTok account: wjq15353087991), and Shadow Animation King (皮影动画王, TikTok account: feiniaodonghua). These accounts were chosen due to their high followers' counts, total like counts, and other operational indicators, which exceed the average levels of the 11 accounts. The three accounts represent three distinct types: Huaxian shadow puppet troupes, Huaxian shadow puppetry inheritors, and Huaxian shadow animation production enterprises. The Chang'an shadow puppeteer account is operated by the Huaxian shadow puppet theatre troupe of the East Shadow Society.

This offline shadow puppet theatre, founded in the Lianhu District of Xi'an City, Shaanxi Province, primarily releases videos of daily performances and recordings from popular shadow puppetry theatres. It also serves commercial purposes, allowing users to purchase tickets for offline performances. The account features 136 videos, with a total reach of 15,000 viewers. The most popular videos, which showcase classic Chinese historical stories through shadow puppetry, have garnered a total of 227,000 likes. These videos blend traditional performances with modern music, creating a stimulating fusion. The choreographed movements of the shadow puppetry performance and the musical rhythm create a "timing" effect. Some of the videos are accompanied by funny voiceovers, which have won the affection and praise of a large number of viewers. The TikTok account Wei Jinqun, founded by the national inheritor of Huaxian shadow puppetry, primarily showcases Wei Jinqun's career and daily performances. The account contains 229 videos, amassing 7,637 followers and 24,000 likes. Videos featuring Wei Jinqun have gained significant popularity. He has participated in many cultural activities and film and television projects, especially large-scale events and live broadcasts, including the Boao Forum (博鳌论坛) and Sun Tzu From America (《孙子从美国来》). The success of these videos largely relies on view counts, reflecting industry appreciation from professionals and users. Moreover, this account has successfully disseminated Huaxian shadow puppetry to the public, making it a representative of local culture promotion. Local users have expressed high appreciation for the content. The TikTok account 'Shadow Animation King', dedicated to shadow puppetry animation, was established by Shaanxi-based animation director Wang Yumin. His animation style merges elements of Shaanxi shadow puppetry with traditional Chinese narratives, creating a unique cultural identity within Chinese animation. Wang has also competed in international animation contests, representing China and winning various accolades. He is recognized as a pioneer in globalizing Chinese animation. The account primarily features shadow puppetry animation clips created by Wang Yumin and his team, along with animation creation records, tutorials, and fusions with trendy societal elements. The most popular videos showcase shadow puppetry animation combined with local rap, epidemic narratives,

and other societal themes. These videos highlight distinctive shadow puppetry characteristics. Incorporating unique shadow puppetry features into the animation allows for the engagement of current affairs and relevant topics, ultimately increasing viewership. This approach enables audiences to appreciate the charm of shadow puppetry culture, effectively promoting it and challenging traditional perceptions (See figure 6.4).



Figure 6.4: Three popular Huaxian shadow puppetry videos creators' portrait.
Source from: author, 2022

6.4.3 The characteristics of Huaxian shadow puppetry video content on TikTok

This research examined TikTok for videos labeled with "# Huaxian Shadow Puppetry," "# Huazhou Shadow Puppetry," and "# Shanxi Shadow Puppetry" on October 31, 2022 (due to the small sample size of shadow puppetry videos in Huaxian, the sample base date was adjusted to 31 October 2022 to ensure more effective samples for this analysis). Since the total number of shadow puppetry videos on TikTok is relatively small compared to the shadow puppetry category, this research searches by the above tags and sorts them by "like" numbers. the top 30 popular Huaxian shadow puppetry videos that received the most 'like' numbers were considered in the following analysis.

According to the short video content, the 30 popular shadow puppetry short videos can be roughly divided into 5 categories (see Table 6.11). Due to the limited audience that Huaxian shadow puppetry can attract and the small number of creators, the videos related to Huaxian shadow puppetry on TikTok are mainly records of traditional shadow puppetry, backstage records of traditional shadow puppetry performances, and documentaries made by professional creative teams; the dissemination effect is also not able to achieve wider dissemination, and the videos with high number of likes are based on the cooperation of brand advertisements, local documentaries, and Internet celebrities' travelogues. The 30 sample videos received a total of 588,806 likes, with an average of 19,626 likes per video, and a total of 9,489 comments, with an average of 316 comments per video.

Table 6.11 The classification, video duration and number of "likes" of the 30 Chinese shadow puppetry short videos

Content Classification	Quantity	Percentage
The form of stage performance-traditional content	6	20%
The form of stage performance-new content	2	7%
The form of animation-new content	3	10%
Documentary	8	27%
Others	11	36%
Video Duration	Quantity	Percentage
Within 15s	5	17%
Within 60s	5	17%

Over 60s	20	66%
The number of “likes”	Quantity	Percentage
Over 100,000	1	3%
10,000-100,000	3	10%
5000-10,000	4	13%
Less than 5000	22	74%

The subsequent results of the analysis emerge from the multi-element examination of 30 selected Huaxian shadow puppetry videos, incorporating their release timing and diverse interactive metrics.

- During the period from 2020 to October 2022, the number of Huaxian shadow puppetry-related videos on the TikTok platform with a certain amount of attention and interaction showed a significant upward trend.

Among the 30 chosen prominent Huaxian shadow puppetry videos, 15 appeared between January and October 2022. In 2021, 12 videos were released, while 3 videos were published in 2020. In addition to the obvious increase in quantity, the richness of content types in Huaxian shadow puppetry videos also grew from 2021 to 2022. In 2021, the 12 videos altogether contained 5 types of content. However, in the 15 sample videos of 2022, in addition to the content that had already appeared in 2021, there were also new contents such as film and television video editing, offline experiences, and non-stage forms of new content combining shadow puppetry with trendy culture (see table 6.12).

Table 6.12 The year when the 30 Huaxian shadow puppetry short videos were published and the number of “likes” received.

year	Year 2020	Year 2021	Year 2022 Jan.-Oct.
Number of Videos	3	12	15
Totally Number of “likes”	51,053	474,684	63,069
Totally Number of “Comment”	2,498	2,334	4,657
Content Classification	The form of stage performance-traditional content	The form of stage performance-traditional content	The form of stage performance-traditional content

	Video clips	/	Video clips
	/	Documentary	Documentary
	/	The form of animation-new content	The form of animation-new content
	/	The form of stage performance-new content	The form of stage performance-new content
	/	The form of non-stage performance-traditional content	The form of non-stage performance-traditional content
	/	/	The form of non-stage performance-new content
	/	/	Offline experience

- In terms of video dissemination data performance, Huaxian shadow puppetry's overall data is lower than the average for shadow puppetry videos on TikTok.

The comparison data reveals that the shadow puppetry video samples receive significantly more engagement than the Huaxian shadow puppetry video samples. The average number of "likes" and "comments" for these videos is about twice as high as those from Huaxian. Additionally, the number of likes per second is nearly four times greater for the shadow puppetry video samples compared to Huaxian. This indicates that the current dissemination data for Huaxian shadow puppetry videos on TikTok remains at a relatively elementary level, particularly regarding dissemination efficiency. Although the total duration of the 30 videos from the Huaxian shadow puppetry sample closely matches that of the 73 videos from the other shadow puppetry sample, there is a substantial gap in both the number of likes and comments per second (see table 6.13).

Table 6.13 Comparison of the performance of Huaxian shadow puppetry and shadow videos in TikTok dissemination data

Disseminating data	Chinese shadow puppetry videos	Huaxian shadow puppetry videos
Number of Videos	73	30
Totally Number of “likes”	3,389,859	588,806
Average Number of “likes”	46,436	19,626

Totally Number of “Comment”	44,136	9,489
Average Number of “Comment”	605	316
Total video duration (second)	7819	6746
Number of likes per second	433.5	87.3
Number of comments per second	5.6	1.4

6.5 ICH content audiences’ portrait on the TikTok

6.5.1 Questionnaire Setting and Reliability/ Validity Analysis

The questionnaire contains 33 questions. Questions 1-7 gather basic information and use multiple-choice format. Questions 8-14 explore short-video users' preferences for using short-video software, also in multiple-choice format. Questions 15-20 assess short-video users' motivations for watching ICH-related videos, presented in multiple-choice format. Questions 21-32 investigate short-video users' motivations for watching ICH-related videos, using a Likert scale format.

Questions 21-32 of the questionnaire employed a five-level Likert scale to assess the motivation of short video users in watching ICH-related videos. To ensure the reliability and validity of the statistical results from the scale, this research performed Reliability Analysis and Validity Analysis on the results of Questions 21-32 from 509 valid questionnaires using SPSS (Statistical Product Service Solutions) software. Reliability Analysis utilized Cronbach's coefficient alpha, detailed as follows. Here, α represents the reliability coefficient, K denotes the number of test questions, and the variance indicates the variance of each subject's score for each question. The variance also reflects the total score variance obtained by all subjects. The evaluation of questions 21-32 through SPSS software yielded a Cronbach's alpha coefficient of 0.911. This result indicates that the reliability of the five-level Likert scale for Questions 21-33 of the questionnaire is highly reliable.

$$\alpha = \frac{K}{K-1} \left(1 - \frac{\sum S_i^2}{S_t^2} \right)$$

Validity Analysis utilized Kaiser-Meyer-Olkin Measure of Sampling Adequacy, the specific steps are as follows: first, in SPSS software, select the Analysis function and then choose Factor under Dimension Reduction. Import the results of the target questions into the Variables field. In the Description section, select KMO and Bartlett's test of sphericity (see Table 6.14). In the Rotation section, choose Varimax. In the Options section, under Coefficient Display Format, select Sorted by size and suppress absolute values below 0.5 for small coefficients. After analysis, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy for this part of the questionnaire was found to be 0.915, which exceeds 0.6, indicating that the questionnaire design demonstrates satisfactory validity.

Table 6.14 KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.915
Bartlett's Test of Sphericity	Approx. Chi-Square	4181.819
	df	66
	Sig.	.000

6.5.2 Characterization of user demographics

This questionnaire was mainly aimed at users who were using short-video apps. When the respondents scan the QR code on the questionnaire to log into the system and start filling out the form, a message will pop up stating "We will use all the information solely for academic purposes. We guarantee strict confidentiality and will protect your personal privacy." Moreover, the questions in the questionnaire do not involve any personal privacy issues of the respondents. A total of 588 questionnaires were collected, among which 509 were valid. The validity rate was 86.5%. All the invalid

questionnaires were from users who had never used short-video apps. The questionnaires were collected through WeChat, QQ, and third-party online platforms. According to the screening results, 71.5% of the respondents (364 individuals) reported watching ICH-related content using short-video software and engaging in interactive behaviors such as liking, commenting, and forwarding. This group constitutes the user segment of ICH short videos that this research aims to analyze (see figure 6.5).

To better ensure the validity and randomness of the questionnaire, online surveys were conducted using stratified sampling. Specifically, the questionnaires were distributed and collected through ICH forums, Shaanxi Normal University students' social networks, we-media platforms, family and friend referrals, as well as online communities. The Tencent Questionnaire software was employed for data collection, which includes a built-in feature to prevent duplicate submissions. Subsequently, the collected data were systematically cleaned and screened to extract valid samples, providing a reliable basis for the subsequent in-depth analysis.



Figure 6.5 Questionnaire QR code, Source: Author, 2021

According to the results of the data on the gender structure of users, of the 509 valid questionnaires, the number of male respondents is 155, accounting for 30.4% of the total number, and the number of female respondents is 354, accounting for 69.6% of the total number. Among the groups of people who pay attention to ICH short videos related content, the number of females who pay attention to ICH short videos is 254, accounting for 69.7% of the total number of respondents, and the number of males who pay attention to ICH short videos is 110, accounting for 30.3% of the total number of respondents. The partial sample and the overall sample are basically the same in terms of gender ratio, combined with the 2022 Mega Engine White Paper on ICH released by the Mega Engine Urban Research Institute, the official data platform of TikTok, which shows that the proportion of female users who pay attention to ICH-related content on the TikTok platform is 46%, and the proportion of male users is 54%. It can be seen that in terms of gender structure, the attention of male and female users to TikTok's short videos on ICH is basically balanced, with no more obvious differences.

As shown in the results of the data on the age structure of users, the proportion of 18-24 years old reached 51.4% (187 people), followed by the proportion of 41 years old and above reached 25.3% (92 people), and the total proportion of 25-40 years old reached 20.9% (76 people). As for the structure of the highest education level, the proportion of undergraduates reached 58.5% (213 respondents), the proportion of those with less than a bachelor's degree reached 31.6% (115 respondents), and the proportion of those with a master's degree or above reached 9.9% (36 respondents). Meanwhile, in order to increase the validity and comprehensiveness of this questionnaire, the 509 valid questionnaires also included 33 shadow puppetry industry-related practitioners, with a sample share of 6.5%, among which there were 14 shadow puppetry inheritors at all levels, 4 shadow puppetry performing artists (non-inheritors), 11 shadow puppetry enthusiasts, 1 shadow puppetry-related business trader, and 3 other respondents (shadow puppetry researchers, shadow puppetry animation creators, shadow puppetry inheritors to be recognized). In terms of data on the use of short video platforms, 64.2% of the sample used the TikTok platform to watch short videos (327 respondents), 8.6%

of the sample used WeChat Video Number to watch short videos (44 respondents), 7.3% of the sample used the Kuaishou (快手) to watch short videos (37 respondents), and 19.8% of the sample used other software to watch short videos (101 respondents), with TikTok being the most popular platform in the survey. TikTok is the software that the vast majority of users in this survey sample use to watch short videos.

6.5.3 Behavioral Analysis of Users' Interaction with Short Video Platforms

In terms of frequency of use, 57.8% (294 respondents) of the users utilized short video software on two or more occasions per day. Meanwhile, the proportion of users who use short-video apps once a day is 18.6% (95 respondents), and 23.6% (120 respondents) used short video software less than once per day. Regarding total duration of using short videos daily, 27.1% (138 respondents) utilized short video software for less than 30 minutes per day. Additionally, 29.5% (138 respondents) used short video software for 30 minutes to 1 hour per day, while 20.2% (103 respondents) used it for 1 hour to less than 1.5 hours per day. The proportion of users who engaged with the app for an average duration exceeding two hours per day was 16.3% (83 respondents).

Regarding usage scenarios, this questionnaire adopts a multiple-choice format (with no more than two options). Among the respondents, 79.5% reported using short video apps during "leisure time," 24.6% during "mealtime," and 16.3% while "waiting in line." Users selecting "in the bathroom" and "during commutes" account for 13.4% and 12.8%, respectively.

In terms of the most frequently watched short video content, the questionnaire presents a multiple-choice question (with no more than three options). The results reveal that the top three short video content types watched by users are comedy sketches, dance and talent show, and food and scenic beauty videos, with each accounting for 38.5%, 29.1%, and 25.9% of the total, respectively. In addition, more than 10% of the popular short video content includes film clips (24.6%), pet-related content (17.9%), news content

(14.9%), handsome and beautiful people content (14.3%), beauty and fashion content (14.3%), professional knowledge content (13.4%), documentary content (11.4%), and sports content (10%). Regarding the form of short video content that viewers often watch, the questionnaire provides a multiple-choice question (with a maximum of two selections). The most widely viewed form of short video among respondents is the film clip category, comprising 47.9%. This is followed by the self-filming category at 41.7%, and the graphic narrative and documentary categories, which account for 31.6% and 18.1%, respectively.

In terms of motivation, the questionnaire featured multiple-choice questions, allowing a maximum of two responses. The results show that 50.7% of users chose "to pass the time and relax" as their motivation, while 38.7% opted for "rich and interesting." Additionally, 22.0% selected "learning-related knowledge," "exploring new objects," and "understanding news." A total of 22% of users also chose "to learn relevant knowledge," "to explore new objects," and "to understand news." The proportion of users selecting "exploring fresh objects" and "understanding news" as motivations for using short video software was 13.4% and 13.8%, respectively.

6.6 Motivation of audiences' participating in ICH interaction on TikTok

Of the 509 valid questionnaires, 71.5% of respondents (364 in total) reported viewing ICH-related content and engaging in interactive behaviors such as liking, commenting, and forwarding. This research combines the questionnaire data with cultural function theory in sociology and uses UGT theory in communication to analyze the interactive behaviors of interviewees who participated in ICH content on short video platforms.

- Social control and knowledge demand drive audiences' interactive behaviour in ICH related videos.

In terms of motivations for interactions such as likes, comments, and shares related to ICH content on short video platforms, 30.8% of audiences believe they "gained new knowledge" while viewing, prompting their interaction. Meanwhile, 27.5% of

audiences hope to support traditional culture through their interactions. Additionally, 15.9% of audiences engaged due to experiencing "emotional resonance" after watching ICH videos. Furthermore, 14.6% of audiences interacted because the content of the ICH videos was novel to them. Lastly, 7.4% and 2.7% of audiences engaged because the content was "funny and creative," or because it related to "popular topics they care about." By analyzing the Likert scale results for questions related to knowledge demand (Q21-Q24), the mean score was 4.1, indicating a high level of demand and significant tendency. The standard deviation of 0.91 (less than 1.5) suggests that respondents exhibited a high degree of consistency in their responses regarding this demand. Similarly, by analyzing the Likert scale results for questions related to social control demand (Q25-Q31), the mean score was 3.6, reflecting a high level of demand and significant tendency. With a standard deviation of 1.2 (also less than 1.5), the results indicate that respondents demonstrated a high degree of consistency in their responses regarding this demand as well. The analysis indicates that among the motives for users to interact with short videos on ICH, "helping traditional culture" is a significant behavioral motive. The analysis of cultural function theory suggests that "help for traditional culture" is rooted in recognition and confidence in traditional culture. This "help" should be viewed as a willingness to protect ICH. The ICH, as a cultural form with rich local, national, and social attributes, is a cultural product that integrates religion, art, knowledge, entertainment, and other needs. From the perspective of cultural function theory as developed by Malinowski, one can argue that the demand to protect cultural inheritance is a derivative demand of humanity. This research posits that watching short videos is a spontaneous act, not driven by endogenous or exogenous pressures. Therefore, the "protection" of ICH arising from such spontaneous acts is, to some extent, based on the "cultural means of compulsion" in cultural function theory (Malinowski, B. 2014). As human civilization continues to develop, economic order, social order, and rules have become indispensable. Individuals require certain protection mechanisms to safeguard their rights, interests, and security amidst various risks and challenges. However, individuals' protective behaviors do not always receive timely and effective feedback. This situation necessitates cultural means to foster

individual protective behaviors. In the era of we-media, the amount of interaction has become one of the most important indicators for measuring information dissemination effectiveness. During interactions, users often believe their actions can be validated through interactive data, assuming "high interaction volume = high dissemination volume = effective protection." Nevertheless, this visual feedback does not fully reflect the actual protection effect. The develop of a more objective and scientific methodology for evaluating the efficacy of individual protective behaviors is crucial for advancing human civilization. Cultural tools and interactive feedback represent some of the most effective means to promote individual conservation behavior. More objective and scientific methods are necessary to assess the effectiveness of individual conservation behaviors to facilitate the advancement of human civilization. Likewise, 15.9% of users' interactive behaviors following viewing ICH videos due to emotional resonance also satisfy derived human needs. Empathy, as commonly understood, arises from the need for social identity and maintaining social order. Once fundamental survival needs are met, the extension of basic biological needs, such as safety, comfort, and reproduction, along with the need for the continuation of common cultural order, prompts users to engage in interactive behaviors. In contrast, the research revealed that 14.6% and 7.4% of users engaged with ICH videos due to their "novel content" or "funny and creative," aligning with the comprehensive needs outlined in cultural function theory. These interactions can be further categorized under entertainment, encompassing both basic and derivative needs. This differentiation resonates with the comprehensive demand in cultural function theory, further classified as entertainment demand based on basic and derivative needs.

- **Training needs drive audiences to continuously and actively pay attention to ICH short videos.**

In terms of actively following ICH creators, 22.8% of audiences have not only viewed ICH-related content and engaged in interactive behaviors such as liking, commenting, and sharing during their use of short video app, but they have also demonstrated a long-term interest in specific ICH creators. Although the proportion of long-term followers

of ICH creators in the survey sample is relatively low. 53% of audiences have actively searched for ICH-related videos. By further exploring the motivations for their behaviors, 25.8% of audiences have actively searched for ICH-related videos because they encountered such videos and wanted to know more. The results indicate that 22.6% of audiences generated active search behaviors due to curiosity, while 18.8% did so out of personal preference and sustained interest. Additionally, 12.9% of audiences searched for ICH-related videos based on a friend's suggestion, and 12.2% did so after seeing others' sharing. Another 7.7% of the audiences initiated their search activities because of "recommended searches based on popular topics". According to the principles of biological determinism, human actions are believed to follow a consistent sequence. This sequence, exemplified by the impulse-act-satisfaction pattern, is considered universal and applicable to all human activities. For instance, the sequence of hunger-eating-satisfaction or fear - escape - peace of mind represents a fundamental aspect of human behavior. Similarly, the relationship between short videos and users adheres to this basic law, as evidenced by the questionnaire results. The results of the questionnaire indicate that 25.8% and 22.6% of users actively search for ICH-related videos for these reasons: "to see related ICH videos and hope to learn more about them" and "out of curiosity," respectively, which collectively account for nearly 50% of the total. The root of search behavior lies in active demand, where impulse and action occur simultaneously. Impulse and action arise from the pursuit of satisfaction, which, based on Malinowski's theory of cultural function, corresponds to the growth demand of basic human needs and aligns with the training demand of cultural response. In search behavior, people's active needs stem from curiosity and the desire to gain knowledge about previously unknown information. This drive motivates individuals to seek and obtain new knowledge. Impulses and actions are responses produced in the process of satisfying this need. The acquisition of new knowledge during the search process provides a sense of satisfaction, which further motivates continued searching. This creates a cycle where individuals engage in search behavior to fulfill three key cultural functions: the production function, the exchange and distribution function, and the consumption function. The production function occurs through acquiring new

knowledge, the exchange and distribution function takes place via sharing and disseminating this knowledge, and the consumption function involves understanding and applying this knowledge. Hence, search behavior not only fulfills basic needs but also contributes to the development and progress of culture. Consequently, the act of searching is regarded as an essential cultural response that enables individuals to gain a deeper understanding of and adapt to a rapidly evolving world. It offers them opportunities to enhance their cognitive abilities and problem-solving skills.

In summary, this research reveals that the interaction motives of audiences with traditional ICH short videos mainly stem from the social control function carried by ICH. This social control is not merely coercive or restrictive; instead, it exerts a subtle influence on individual behaviors by promoting and inheriting specific values, behavioral norms, and lifestyles, thereby maintaining social order and stability.

Furthermore, this research examines the motivations behind audiences' continuous and active engagement with ICH short video content. According to Malinowski's theory of cultural functions, culture not only meets people's basic physiological needs, but also satisfies their higher-level psychological needs. This research finds that audience's behavior mainly arises from the way ICH culture satisfies their growth needs. Growth needs refer to an individual's aspiration for development and enhancement in cognitive, emotional, social, and professional domains. As a distinctive cultural phenomenon, ICH culture encompasses rich connotations and diverse forms of expression, providing audiences with a broad learning space and spiritual support, contributing to their overall development.

6.7 Conclusion

This chapter first analyzes the current situation regarding the development of China's we-media platforms, which has emerged from the rapid growth of mobile Internet and its high penetration rate. This research focuses on the study of we-media, specifically

mobile phone applications. Simultaneously, the development of we-media in China has already entered a phase of high-quality and diverse growth. The content of we-media has evolved from UGC to include PGC, OGC, PUGC, MGC, and others. The presence of high-quality content indicates that the overall trend of we-media continues to rise. Additionally, the influence of China's we-media on global information dissemination expands imaginative space for cultural exchange and export.

Furthermore, this research explores the characteristics of various we-media, particularly in relation to shadow puppetry and ICH culture. The examined we-media platforms primarily concentrate on video content, which is categorized into six types based on the manner of content presentation and dissemination features. Given the limitations in the dissemination capacity of closed video categories, this research ultimately emphasizes five types of video-based we-media platforms: semi-closed video, professional video, algorithm-recommended long video, algorithm-recommended short video, and live broadcast. Through data mining and comparative analysis, this research identifies the major platform across these five categories for in-depth operational and ICH protection analysis. By correlating the characteristics of we-media platforms with the demands for ICH dissemination, the author concludes that algorithm-recommended short-video platforms currently best meet the shadow puppetry dissemination needs. This research consequently focuses on TikTok, a leading enterprise in this category.

In the following investigation, the author analyzes TikTok, the foremost company in this category. This research examines the current dissemination traits of ICH on TikTok using data mining techniques, which includes an overview of ICH dissemination data, commercialization, and case studies of typical creators and high-quality videos. It reveals that ICH culture is disseminating with a certain scale and because of Tik Tok, which has birthed numerous high-quality creators and works. Creators innovate by integrating elements through recording, editing, narration, and special effects, thereby achieving efficient ICH culture dissemination on TikTok.

Simultaneously, this research tracks the dissemination of shadow puppetry on TikTok. Analyzing creators and short video content reveals a noticeable improvement in the operational capabilities of shadow puppetry accounts and the quality of video content creation from 2018 to 2022. Innovative content, linking hot topics, trendy elements, and documentaries, has also emerged. The analysis of shadow puppetry creator samples and video examples reveals that high-quality accounts and videos yield more effective dissemination results.

This chapter provides a deeper examination of Huaxian shadow puppetry dissemination on TikTok through data mining. A comparison of Huaxian shadow puppetry creators and videos with their counterparts illustrates that Huaxian shadow puppetry is still in its early stages on TikTok. Its dissemination effect remains below average compared to other shadow puppetry forms and ICHs on TikTok. This analysis indicates that there is no significant influence or innovation in terms of the creator's capabilities and video quality. Thus, it is essential to address the challenges faced by Huaxian shadow puppetry while leveraging TikTok's strengths for more effective dissemination. This chapter asserts that the successful dissemination of ICH, including shadow puppetry, is indeed feasible on the TikTok platform. It also highlights the current challenges facing Huaxian shadow puppetry, laying the groundwork for further research.

Finally, this chapter, based on the results collected through the questionnaire, explains the motivations of audiences' interaction with and their sustained attention to ICH short videos from the perspective of cultural function theory. These motivations not only reflect audiences' recognition and favorite for ICH, but also demonstrate the significant value and significance of ICH in modern society.

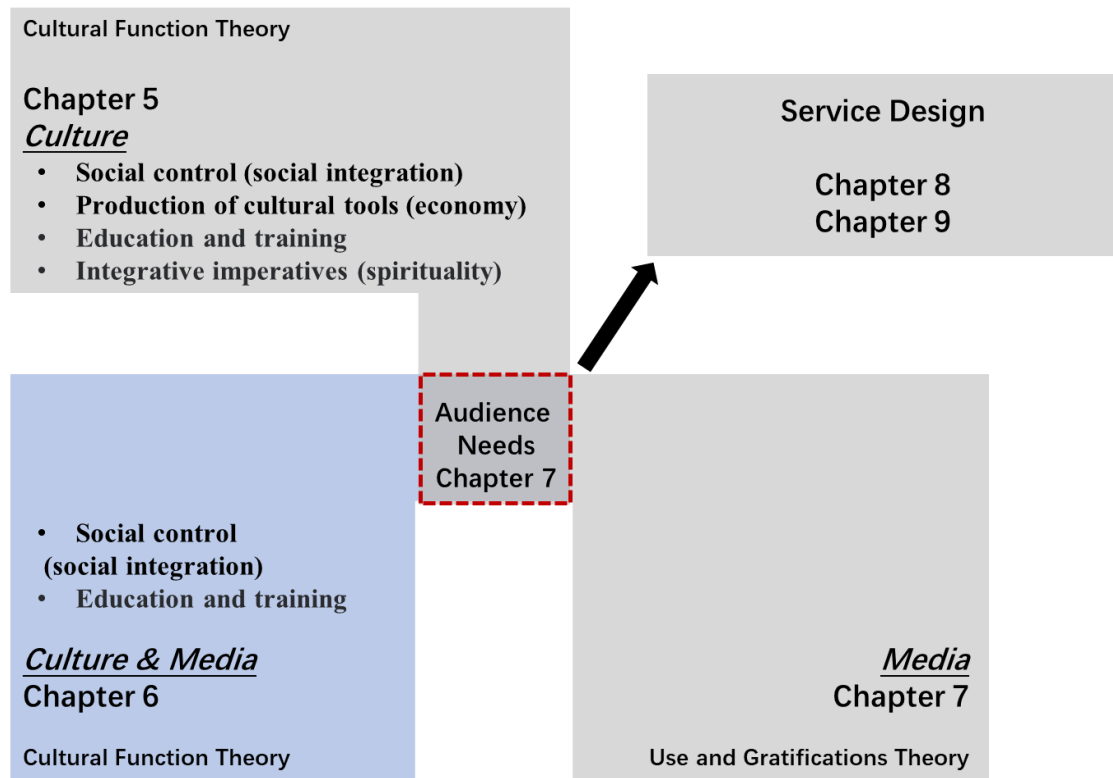


Figure 6.6 Cultural function of Huaxian shadow puppetry from the culture and media aspect, Source: Author, 2024

7.0 CULTURAL FUNCTION THEORY AND UGT PERSPECTIVES ON SHADOW PUPPETRY SHORT VIDEOS

This research examines the creative motivations of TikTok shadow puppetry creators using interviews as the primary research method. These interviews focus on the creators' initial intentions, the difficulties they encounter during creation, and their creative needs. From December 4, 2021, to May 10, 2022, researchers interviewed 17 TikTok shadow puppetry creators, including inheritors, practitioners, and heads of enterprises related to shadow puppetry. The interviews aimed to capture their perceptions of short videos and their thoughts on the dissemination of shadow puppetry through short videos from the perspectives of various roles within the creator community.

Meanwhile, this research analyzes the dissemination mechanism of TikTok short videos and shadow puppetry within the framework of UGT. It also combines the research on the cultural functions of Huaxian shadow puppetry conducted in the fifth and sixth chapters of this research under the cultural function theory, in order to find the convergence point where the cultural functions of shadow puppetry are realized on the TikTok short video platform and meet the needs of users.

7.1 Creators create motivation of ICH content on we-media platforms

The creative motives of ICH short video creators are diversified, which not only contain the deep emotion and inheritance responsibility for traditional culture, but also involve the concern for education and popularization, the pursuit of innovation and development, as well as the consideration of economic gain. This research conducted in-depth interviews with a number of inheritors or enthusiasts who have already disseminated ICH on video-based we-media platforms. And there are several main motivations regarding the creators : 1) ICH short video creators have realized the modern dissemination of traditional culture through the use of new media technology, which not only contributes to the preservation of traditional culture, but also injects new

vitality into it; 2) Short video platforms have provided new ways for ICH education, and creators have made it possible to spread ICH knowledge more widely by producing educational content; 3) Many ICH short video creators incorporate modern elements into their works, making traditional art take on a new look and meeting the aesthetic needs of contemporary audiences; 4) With the booming short-video market, ICH creators have achieved significant financial rewards through advertising revenue and content monetization. This, to some extent, has promoted the creation, production, and dissemination of ICH-related content (see table 7.1).

Table 7.1 Type of creation motivation

Type of motivation	Descriptions	Case
Cultural heritage motives	Dedicated to the preservation and inheritance of traditional culture, it records and disseminates ICH items through short videos to inspire public interest and respect.	Paper-cutting artists produce videos to demonstrate the art of paper-cutting and pass on the ancient art.
Motivation for Education for All	Dedicated to educating and popularising ICH knowledge, it teaches the historical background, technical process and cultural connotation of ICH items through short videos.	Instructional video on shadow puppetry production by shadow theatre artists, detailing the process of shadow making and manipulation techniques.
Motivation for innovative development	Pursue innovation and development on the basis of respect for tradition, and create ICH products that meet contemporary aesthetics and consumption trends by integrating modern	Potters create ceramic works of art that incorporate modern design concepts to showcase their artistry.

	elements and new technologies.	
Social responsibility motives	Considering that the dissemination of ICH culture is a social responsibility, raising social awareness of ICH preservation through one's own efforts, and promoting the preservation of cultural diversity.	ICH researchers use short video platforms to promote the importance of ICH conservation and call for public participation.
Motivation to increase income	Seeing the potential for financial gain through short-form video platforms, it is possible to generate revenue by attracting followers and traffic to realise advertising revenue, sell products or offer online courses.	Bamboo weaving artists demonstrate their exquisite weaving skills and attract the audience to buy their handmade products.

7.2 Dissemination mechanism of shadow puppetry culture on TikTok based on cultural function theory and UGT

7.2.1 Content dissemination mechanism of TikTok

TikTok, as the most representative short video platform, has a content distribution mechanism known as the "interest-based recommendation system." The content display logic utilizes a vertical screen with a single-column autoplay, where users see different content in a sliding order and have no choice for the next video. Therefore, due to TikTok's unique passive content distribution mechanism, creators aiming for greater exposure must increase their visibility so their videos appear more frequently in various users' "next videos." In order to ensure the fairness of the recommendation system, the

TikTok platform has built a set of video distribution algorithm based on " the information leakage funnel " algorithm logic. Through interviews with professionals in the operation of we-media and the operation of the TikTok platform, this research summarizes the core content of TikTok's current content recommendation mechanism algorithm into five stages: content review, initial push, weighted push, premium push, and report review (see figure 7.1).

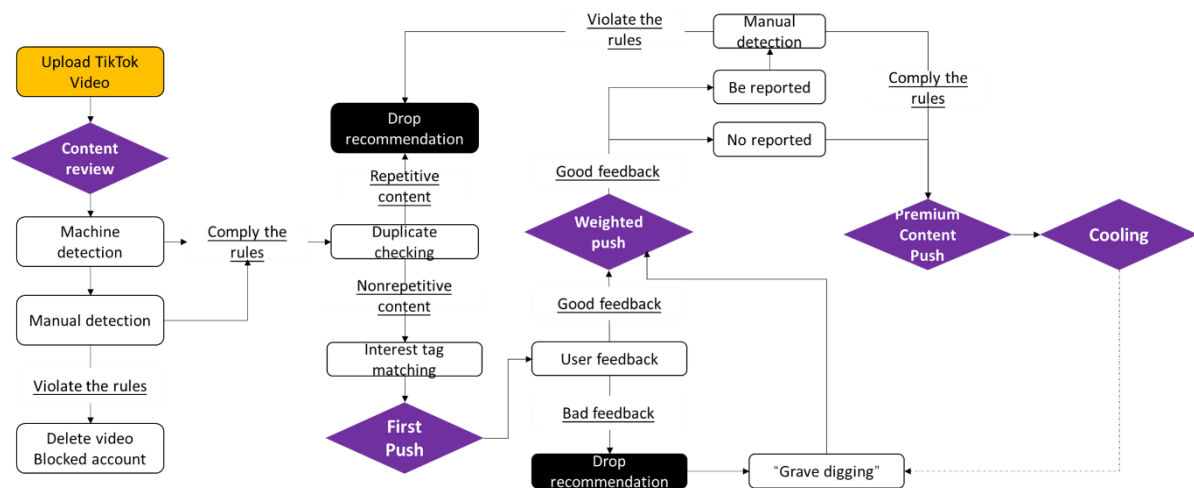


Figure 7.1 Content dissemination mechanism of TikTok short video platform

Source from: author,2023

- **Content Review Stage:** The content review stage primarily divides into two parts: the compliance audit and the content quality audit. After the creator uploads a short video, the first step involves conducting a compliance audit. The platform performs a preliminary review of the video content, title, and tags through machine testing. If the system detects violations, the video undergoes manual testing for a second review. During this review, the platform auditor assesses the machine testing prompts for risky content, evaluating the video title, cover screenshots, and keyframes. If the content of the video is confirmed to be in violation, then the video will not be allowed to be publicly released, and the publishing account will even face the risk of being banned. If both machine and manual inspections reveal no violations, the content proceeds to the content quality audit. This process also occurs simultaneously through

machine identification and manual audit. First, the machine conducts "repetition detection" on the video content and the previously published videos. If the content is similar to past content or highly repetitive compared to published content on the platform, it may be classified as "low traffic recommendation" or made visible only to followers, limiting its audiences. If the short video passes the "repetition detection", it will successfully complete the review stage. The platform will then identify the video content, keywords and video tags, and prepare for the next round of traffic promotion.

- The first push stage: After the video has passed the content audit, the platform will make use of the famous "information leakage funnel algorithm" in the algorithm mechanism to combine the video keywords, tags and other contents for the first push, and the first push will match 200-300 online users whose "interest potential" is highly matched with the video content and whose interest labels are highly compatible with the video tags, which is also known as the "cold start" stage. It should be emphasized here that TikTok's recommendation mechanism is based on the principle of "traffic pool superimposition and push", and when the feedback information obtained by the video in a certain traffic pool meets the platform's requirements, the platform will further push the video to the next larger traffic pool. Based on the above rules, the TikTok platform focuses on content quality and user feedback as the core of its algorithmic mechanism for content exposure. Combined with the above rules, the feedback from the 200-300 users of the first push of the video will determine whether the platform will further increase the recommended scale of the video and enter the next "traffic pool"; the feedback indicators of the video at this stage are mainly the rate of likes, comments and video completion rate. According to the understanding, the initial evaluation indicators for the first push need to meet the following requirements: a liking rate of over 3.5% (The total number of likes/the total number of views), a comment rate of over 0.35% (The total number of comments/the total of views), and a 5-second completion rate of 45%

(The number of audiences who watched the video for 5 seconds/the total number of views). To meet the above standards, the platform will be considered the video feedback to be good, otherwise, it will consider the video content to be poor and stop recommending it. There are also some videos, although in the first push stage did not get further traffic push, but in the context of a subsequent event, it is possible to suddenly turn red, network term called "grave-digging". For instance, many "prediction-based" creators make predictions about future events and have them come true. In many cases, there is a phenomenon known as "grave-digging". Or as the number of followers of the creator's account keeps increasing, the fans start to "rewatch" the creator's previous videos, thereby "activating" the old videos and bringing them back into the recommendation mechanism.

- Weighted push stage: If the user feedback during the initial recommendation stage of the video platform is good, and the weighted evaluation indicators rank within the top 50% or higher for the same period, then the platform will further combine the account score for traffic weighting. In this step, the platform will strengthen the distribution of tags corresponding to the video audience, making the content distribution more precise and efficient. The platform hopes to further increase the exposure and feedback effect of the videos through continuous weighted push and precise distribution. According to TikTok's "eight-level gradient traffic pool," the weighted push stage will keep sending the video to a higher level of traffic pool based on feedback data until reaching the "100,000 users" level of traffic pool. If the video continues to receive good feedback data, it will then enter the premium content push recommendation stage.
- Premium content push stage: As the video progresses, it will gain higher traffic exposure. Simultaneously, the recommendation mechanism will change. The "labelling" aspect will gradually diminish during this phase, transitioning into a stage of full dissemination. The user group will expand beyond the original

video label limitations, allowing more users to access it. The video will transform into a "hit video." This video is expected to become a hit on the platform within the next month. It will be continuously pushed to users until the completion of this stage, after which it will enter the cooling period and provide scattered recommendations.

- Report audit stage: In the above push process, if a user reports the video content, it will immediately enter the report audit stage. This audit stage does not affect the video push. The platform will manually review the reported content and video. If it is confirmed that the video violates the rules, the creator can appeal. If the appeal fails, the video will be stopped or deleted instantly. If the complaint fails, the video will stop pushing or be deleted, which may severely impact account weighting or even cause a ban. If the complaint is successful, the video will continue to be pushed according to the prior pushing mechanism.

In summary, the content distribution mechanism of TikTok is centered around the "interest-based recommendation system", using an "information leakage funnel" algorithm logic to build a complex short-video distribution algorithm. This algorithm is divided into five stages: content review, first push, weighted push, premium content push, and report audit stage. This fully demonstrates TikTok's platform's ability to discover and promote high-quality content, and also sets higher requirements for creators, encouraging them to create more innovative and attractive works. The rapid dissemination of ICH content on TikTok requires creators to fully understand the platform's push mechanism, leverage the advantages of TikTok's content distribution mechanism, and thereby achieve efficient dissemination of ICH content on the short-video platform.

7.2.2 Application of Cultural function Theory and Use and Gratifications Theory in the Content Dissemination Mechanism of TikTok

This research elucidates the theoretical foundations discussed in Chapter 3. It operates within a framework that employs sociology to identify problems, communication

theory to analyze these problems, and design to propose solutions. The research will subsequently rely on sociological theories to address identified issues, applying the UGT of communication to analyze how the cultural functions of ICH short videos facilitate their dissemination across short video platforms.

The swift ascent and popularity of short video platforms stem from their adept comprehension and fulfillment of user requirements. According to UGT, articulated by Katz, Grivich, and Hess, users proactively select media content to meet specific needs, asserting the subjectivity and intentionality of individual media use. Users resort to media to satisfy Cognitive Needs, Affective Needs, Personal Integration Needs, Social Integration Needs, and Escape/Relaxation Needs.

Short video we-media platforms effectively address these five dimensions through diverse content and high interactivity. For cognitive needs, these platforms deliver a vast array of informative content spanning education, news, and technology, allowing users to acquire new knowledge through these contents and satisfy their thirst for learning (Katz, E., & Lazarsfeld, P. F., 1955). In terms of affective needs, the entertainment content and funny videos on short-video platforms can bring users happiness and joy, helping them regulate their emotions and meeting their needs for emotional expression and connection (Rubin, A. M., 1983). For personal integration, users can produce and share their videos to cultivate self-image and achieve self-expression (McQuail, D., 1994). In terms of social integration, features like comments, likes, and shares foster connections among users and enhance social engagement (Papacharissi, Z., 2002). Finally, short video platforms serve as an escape from stress, offering users a means to unwind through light-hearted content or interactive games to alleviate life's pressures (LaRose, R., & Eastin, M. S., 2004).

The key to the success of short video platforms lies in their precise understanding of user needs and their ability to meet these needs comprehensively, fostering a multi-dimensional media experience. TikTok's dissemination mechanism exemplifies an algorithm-driven personalized recommendation strategy, functioning within a cyclical

process of "push-feedback-push." The platform analyzes user behavior and preferences to forecast interests, subsequently recommending relevant short videos to the users (Bakshy, E., Hofman, J. M., & Meyerson, M., 2012). User interactions, such as viewing duration, likes, shares, and comments provide critical feedback, informing the algorithm of user satisfaction and guiding future content recommendations (Covington, P., Adams, J., & Sirovich, G., 2016). Whether the content of short videos can meet the five major needs of users has become a key factor influencing user feedback. The appeal of the content lies in the extent to which it can reach and satisfy these needs, thereby stimulating users' positive feedback and creating a positive dissemination cycle.

- Satisfying both the users' social integration needs and cognitive needs is a key factor for the efficient dissemination of ICH type short-video content.

The dissemination effectiveness within the algorithmic framework of TikTok short videos hinges on whether ICH content can meet the specific demands of users. This assessment arises from analyzing ICH short videos through the lens of cultural function theory, alongside scrutinizing TikTok's dissemination mechanisms through the use and gratification theory. The convergence of these analyses reveals the sustainability of ICH short videos within TikTok's algorithm.

This research concludes that user engagement with ICH short videos stems from the cultural functions of "social control" and "training needs." These two major functions correspond to the five needs in the UGT, respectively representing the "social integration need" and the "cognitive need". From the perspective of supply and demand logic, the cultural functions of ICH short videos, such as "social control" and "training needs", if they can fully meet users' "social integration needs" and "cognitive needs" on the TikTok short-video platform, then these videos will achieve efficient dissemination on the TikTok.

UGT posits that users exhibit initiative and selectivity in their media interactions, while TikTok's algorithms refine content promotion based on user engagement metrics.

Consequently, for ICH short videos to realize effective communication outcomes, they must engage users by capturing their attention, fostering emotional connections, and encouraging social interactions.

- Shadow puppetry culture in traditional societies meets the need for social integration through the paths of public entertainment, education and indoctrination, and religious rituals.

As a unique art form, shadow puppetry plays an important role in the traditional social structure, and its ability to satisfy the demand for social integration in the traditional social system is mainly reflected in the following three aspects: firstly, shadow puppetry, as a kind of public recreational activity, is able to enhance the communication among villagers and strengthen social cohesion in the traditional agriculture society where entertainment was scarce. During traditional festivals or special occasions, through the performance of shadow puppetry, it could strengthen the connections among community members and maintain social order. This kind of public entertainment not only provided a platform for joint participation but also promoted interaction and communication among community members, contributing to the enhancement of social cohesion and stability. Secondly, the shadow puppetry culture also meets the social integration needs in terms of education and enlightenment. In traditional societies, shadow puppet shows were often used to tell moral stories and historical legends. Through this method, traditional culture and social norms were imparted, guiding and educating young people in terms of values, achieving the function of social control. This form of enlightenment not only helps to inherit traditional culture but also cultivates the moral character and values of young people, promoting social harmony and stability. In addition, shadow puppetry culture also meets the demand for social integration in the form of religious ceremonies. In some places, shadow puppetry is used as a part of religious ceremonies for ancestor worship and praying for a good harvest. The function of such religious ceremonies not only embodies the religious beliefs and cultural connotations of shadow puppetry culture, but also strengthens the beliefs and cohesion among the community members, and promotes the stability and

development of the society. In conclusion, shadow puppetry culture holds significant social control value within the traditional social structure and meets the needs of social integration. It is not only a form of public entertainment but also possesses various functions such as education, enlightenment, and religious rituals. These functions not only help preserve traditional culture but also enhance the connections and cohesion among community members, promoting social stability and development.

- Shadow puppetry culture in modern society serves to fulfil the social integration needs by fostering cultural identity, cultural confidence and national identity.

In modern society, the social control value of shadow puppetry culture has undergone a transformation. With changes in social structure and values, the role of shadow puppetry culture in community cohesion has weakened, especially in terms of public entertainment, which has been replaced by a multitude of new forms of entertainment. However, as a traditional art form, shadow puppetry still plays a role in bringing together community members and disseminating culture on specific occasions such as festivals.

The value of shadow puppetry culture in terms of inheritance and educational functions has been newly strengthened nowadays. Modern society's respect for cultural diversity and increased awareness of the protection of traditional culture have made shadow puppetry culture an important cultural resource. The social integration capacity of shadow puppetry culture embodied in its educational function, is not only limited to moral indoctrination, but also extends to art education, history education and cultural heritage protection education. Shadow puppetry has been introduced into the education system in a variety of forms, such as school programmes, community workshops and public exhibitions, to help the younger generation understand and appreciate traditional art, to cultivate a sense of identity and responsibility for traditional culture, and to enable the younger generation to learn about and understand traditional culture, thereby providing guidance and education in values. In addition, shadow puppetry culture has assumed the role of cultural identity and cultural exchange. As a unique form of visual

art, shadow puppetry has demonstrated the charm of national culture on the international stage and become part of cultural soft power. Through channels such as international art festivals and cultural exchange programmes, shadow puppetry culture promotes cross-cultural dialogue and understanding, helping to build a more harmonious globalized society.

In modern society, the religious ritual function of shadow puppetry has weakened relatively. This is related to the secularization trend of modern society and the diversification of religious beliefs. However, as an artistic form of expression, the value of shadow puppetry in cultural inheritance and national identity recognition has been rediscovered. Shadow puppetry culture has become a bridge connecting the past and the present, the local and the global, which helps to enhance national cultural confidence and promote cultural diversity.

In conclusion, the social integration needs of shadow puppetry culture in modern society are more reflected in aspects such as cultural inheritance, education and enlightenment, and the identification of national cultural identity. Although its role in enhancing community cohesion has changed, shadow puppetry culture, as an important cultural resource, still plays an indispensable role in modern society. Through the protection and innovation of shadow puppetry culture, it can continue to exert its value of social control in modern society, while promoting the continuous development of culture and the harmonious progress of society.

- Shadow puppetry in modern society meets the cognitive needs through innovative media, modern stories and diversified interactive methods.

The way shadow puppetry meets the cognitive needs of the general public in contemporary society is significantly different from that in traditional societies. This is mainly manifested in aspects such as the means of dissemination, the scope of the audience, the content update, and the interaction methods.

First of all, the modernization of communication media is the most obvious change. In traditional societies, shadow puppetry was mainly disseminated through live performances, with the audience limited by geographical location and time constraints. However, in contemporary society, with the development of the Internet and digital technology, the dissemination of shadow puppetry culture has transcended the limitations of time and space.

Secondly, the expansion of the audience base is another important feature. In traditional societies, the audience was relatively fixed, mainly consisting of local residents and viewers from nearby areas. In contemporary society, this limitation has been broken. Shadow puppetry culture's audience now includes not only local people but also enthusiasts and scholars of shadow puppetry from both domestic and foreign regions. Moreover, with the general improvement in educational levels and the increased acceptance of diverse cultures, the people who are aware of shadow puppetry culture have become more widespread, no longer confined to specific social classes or age groups.

Content updates are another crucial factor. In traditional societies, the content of shadow puppetry was often fixed around historical stories, myths, legends, and folk tales, which were rich but relatively monotonous. In contemporary society, more emphasis is placed on innovation and diversity. Shadow puppetry artists began to attempt to integrate modern elements into traditional stories or create new plays that reflect contemporary social issues. For instance, some shadow puppetry works explore topics such as environmental protection, gender equality, and anti-corruption, making the shadow puppetry culture more relevant to the actual lives and ideological concerns of modern people.

The changes in the mode of interaction should not be overlooked either. In traditional shadow puppetry performances, the audience's participation was relatively limited, mainly through watching and verbal feedback. In contemporary society, the audience can participate in the performance through forms such as online bullet comments,

reviews, and likes, communicating with the actors and other audience members in real time. This level of participation and interaction has greatly enhanced the audience's immersion and experience.

In conclusion, in contemporary society, the way shadow puppetry meets the cognitive needs of the public is more diverse and modern. The changes in its dissemination media, the expansion of its audience range, the update of its content, and the innovation of its interaction methods have jointly promoted the development of shadow puppetry in meeting the cognitive needs of the public in modern society.

7.3 Conclusion

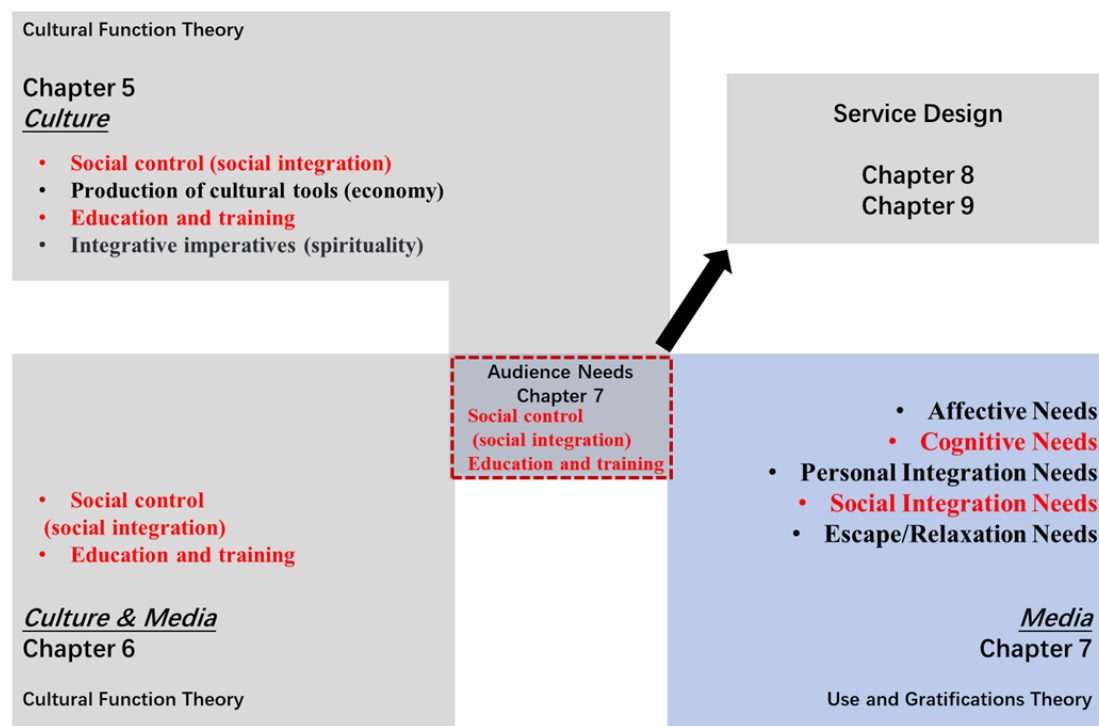


Figure 7.2 The audience needs for shadow puppetry short video

Source from: author, 2023

Based on the UGT and the operation mechanism of the TikTok platform, the five main aspects in which short-video we-media can meet users' needs are as summarized.

Combining the research conclusions of Chapters 5 and 6 of this research, the above five aspects of needs are matched with the demand types of the current cultural functions of shadow puppetry. The final conclusion is that in order to achieve efficient dissemination of Huaxian shadow puppetry on the TikTok short-video platform, the content creation of Huaxian shadow puppetry on the TikTok platform should meet users' cognitive needs and social integration needs, and the corresponding cultural functions of shadow puppetry are social control and education and training (See Figure 7.2).

In summary, based on the above analysis, combined with the analysis of video content related to ICH and shadow puppetry culture on the current TikTok short video platform, the following types of video content can be used to integrate the characteristics of shadow puppetry culture to meet users' social integration and cognitive needs (see table 7.2).

Table 7.2 The content category that can be used to meet users' social integration and cognitive needs

Serial Number	Content Category	Specific Content
1	Display of Traditional Crafts	Short videos showcase the making process and techniques of ICH projects
2	Telling Historical Stories	Short videos tell stories related to the history and legends associated with ICH projects
3	Introduction of Cultural Figures	Short videos introduce the lives and artistic pursuits of master craftsmen and cultural artists
4	Recording of Cultural Activities	Short videos record festivals, celebrations, and various cultural activities related to ICH
5	Cultural Exchange Interaction	Short videos showcase the exchange and interaction between ICH and other cultures
6	Innovative Development Examples	Short videos present innovative developments of ICH projects in modern society, such as new product designs and cross-industry collaborations

7	Popularization of Cultural Education	Short videos popularize knowledge about ICH to raise public awareness and participation in its protection
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8.0 SERVICE DESIGN

The theoretical development of service design traces back to the 1980s, when it mainly focused on process optimization and enhancing customer experience in the service industry. In 1982, G. Lynn Shostack, then a marketing management expert and consultant at Citibank, proposed the concept of Service Design for the first time in marketing management (How to Design a Service, 1982). He emphasized the need for service-focused planning through design (Shostack, G.L., 1982). In 1983, the paper "The Dramaturgy of Services Exchange: An Analytical Framework for Services Marketing" by Stephen J. Grove and Raymond P. Fisk presented the Service Theatre theory from a services marketing perspective (Grove, S.J., & Fisk, R.P., 1983). Shostack (1984) introduced the concept of "service blueprint" in his seminal work to visualize the service delivery process and identify improvement opportunities. Since then, service design has gradually shifted from single process optimization to a holistic user experience design (Shostack, G.L., 1984). In the 21st century, service design began to receive more academic attention. Donald A. Norman, a renowned academic, proposed User-Centered Design in 1986 in his book "User-Centered System Design: New Perspectives on Human-Computer Interaction" (Norman, 1986). Bitner et al.'s (2008) article in the Journal of Service Research systematically organizes the principles and methods of service design, emphasizing its role in creating value and enhancing customer satisfaction (Bitner, M.J., Ostrom, A.L., & Morgan, F.N., 2008). In the same year, Stickdorn and Schneider published "This is Service Design Thinking," which illustrates core concepts and practical methods of service design thinking, positively promoting the popularity and application of service design (Stickdorn, M., & Schneider, J., 2010). As the application of service design in the business field has matured, its systematic thinking and analytical tools have gradually been introduced to the cultural field. Zhang (2017) clearly proposed in the article that service design should be applied to the protection of ICH transforming the cultural value of ICH through service strategies, and optimizing user experience through tools such as apps. This reflects the

transformation of ICH protection from "static preservation" to "dynamic inheritance", as well as the responsiveness of design studies to social and cultural issues.

8.1 Core elements of service design

The term "service design" encompasses the strategic and systematic design of service systems, encompassing key elements such as stakeholders, touchpoints, offerings, and processes.

- **Stakeholders**

Interaction design and experience design primarily focus on users, treating them as the center of design. They are dedicated to creating intuitive and enjoyable user experiences. In contrast, service design is broader in scope and requires considering all stakeholders. It aims to optimize service processes through design, enabling all parties to participate efficiently and happily. Stakeholders can be categorized into core, direct, and indirect stakeholders based on their degree of relevance to the service.

- **Touchpoints**

In service design, touchpoints refer to the interfaces where stakeholders interact with the service system. These touchpoints can be physical, such as storefronts and equipment operation interfaces, or non-physical, such as phone conversations and online chats. Touchpoints serve as crucial nodes in the delivery and experience of services. They directly influence service quality and user satisfaction. When designing services, conducting a detailed analysis and design of these touchpoints is necessary to ensure smooth connections that provide consistent, high-quality service experiences for users. At the same time, it is essential to consider the synergy between different touchpoints and how to enhance overall service quality by optimizing specific touchpoints.

- **Processes**

The core of service design is to build a cohesive, efficient, and user-friendly service system. This system not only includes various touchpoints but also involves how these touchpoints work together and how they impact the pace and fluidity of the entire service process.

- **Offering**

The core of service design is the service itself, which acts as the cornerstone and essence of service system design. The theory of service design emphasizes the key characteristics and delivery methods of services. It posits that services represent an intangible process of value creation and delivery. The goal of service design aims to maximize service value by optimizing service processes, improving service delivery, and enhancing the customer experience.

8.2 Main Models of Service Design Theory

There are multiple theoretical models in service design theory that provide frameworks and tools for understanding and practicing service design. The following are some of the major theoretical models:

Service Blueprint: proposed by Shostack (1984), a service blueprint is a graphical tool used to show in detail the various touch points and activities behind the service delivery process. It helps organizations to identify problems in their services and improve the customer experience (Shostack, G. L. ,1984).

The service blueprint model is particularly suitable for industries such as hospitality, banking, healthcare, aviation and retail where front and back-office activities need to be carefully coordinated to ensure smooth service delivery. The model enables organizations to clearly identify the key aspects of the service delivery process to improve operational efficiency and customer satisfaction.

Customer Journey Map (CJM): this is a tool that describes a customer's experience during the purchase and use of a product or service. By mapping customers' perceptions,

emotions and behaviors, service designers can better understand customers' needs and design services that better meet expectations (Edvardsson, B., Tronvoll, B., & Grönroos, C., 2005). Customer journey mapping as an analytical tool is of significant value to industries that are committed to optimizing the customer experience, particularly in the retail, travel and leisure, financial services, healthcare and education sectors. By building customer journey maps, organizations can gain insights into the details of the customer experience during the purchase and consumption process and improve it accordingly.

Sensory Design: this model highlights the integration of the five human senses—sight, hearing, smell, taste, and touch—to enrich the service experience. Designers enhance customer satisfaction by creating attractive sensory experiences (Hultén, B., 2011). The five senses experience design methodology is mainly applicable to industries that rely heavily on sensory elements to create appeal and enhance the customer experience, such as catering, perfume and cosmetics, entertainment, hospitality and automotive industries. The approach aims to create memorable and lasting impressions by stimulating the customer's senses of sight, sound, smell, taste and touch.

Experience Value Model (EVM): this model argues that the goal of service design is to create a unique customer experience that increases the customer's perception of value. It typically involves three dimensions of emotional, functional and social value (Pine II, B. J., & Gilmore, J. H., 1998). The experiential value model is applicable to industries that seek to differentiate themselves from the competition and increase customer value perception by providing unique customer experiences, such as high-end retail, theme parks and experiential entertainment, high-end tourism and leisure, and customized service industries. The model emphasizes shaping the customer experience from three dimensions: emotional, functional and social.

Co-creation: proposed by Prahalad and Ramaswamy (2004), the co-creation model emphasizes customer involvement in the service design process. By involving customers in the creation and delivery of services, customer needs can be better met

and the level of service personalization can be enhanced (Prahalad, C. K., & Ramaswamy, V., 2004). Co-creation is particularly suited to industries that are innovation-driven and rely on close collaboration with customers to co-create new value, such as technology, consulting, education, healthcare and manufacturing. Through co-creation, companies can more accurately understand customer needs and develop more competitive products and services accordingly.

Systems Thinking: Service design often requires consideration of complex systems and interacting components. Systems Thinking models help designers understand the dynamic nature and interdependencies of service systems in order to design and manage services more effectively (Meadows, D. H., 2008). The systems thinking model has significant advantages for dealing with problems in complex service ecosystems, such as supply chain management, public services, urban planning and sustainable development projects. The model helps decision makers to fully understand the interrelationships and dynamic interactions between the various components of the system so that they can make more rational and effective decisions.

Value Proposition Canvas: Although not specifically developed for service design, the Value Proposition Canvas is a useful tool to help entrepreneurs and innovators understand the problems and needs of their customers and design product or service value propositions that address those problems (Osterwalder, A., & Pigneur, Y., 2010). The value proposition canvas as a strategic tool is widely applicable to all types of businesses, especially startups, product development teams and service innovators. Whether it is a technology company, software development, consulting services, or any other field that requires a clear value proposition and customer profile, the Value Proposition Canvas can help organizations focus on the core value creation elements.

Table 8.1 The model of service design

Theory Model	Characteristics	Suitable Industry Range
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Service Blueprint	Visualizes the service delivery process, including touchpoints and backstage activities.	Broadly applicable across various service industries such as hotels, banking, healthcare, etc.
Customer Journey Map	Depicts the customer's experience journey in terms of perception, emotion, and behavior.	Suitable for industries where customer experience is crucial, like retail, tourism, financial services, etc.
Sensory Experience Design	Creates attractive experiences by engaging the five senses to enhance customer satisfaction.	Applicable to industries focused on sensory experiences, such as catering, entertainment, beauty care, etc.
Experience Value Model	Focuses on creating unique customer experiences from emotional, functional, and social value dimensions to increase perceived value.	Suitable for industries pursuing high customer loyalty and differentiated competitive advantages, such as luxury retail, automotive, etc.
Co-creation	Encourages customer participation in the service design process to meet customer needs and enhance personalized service levels.	Applicable to industries where innovation and customer engagement are critical, such as technology, education, health care, etc.
Systems Thinking	Understands the dynamic nature and interdependent relationships within the service system to effectively design and manage services.	Applicable to industries within complex service ecosystems, such as public services, supply chain management, etc.

Value Proposition Canvas	Helps entrepreneurs and innovators understand customer needs and design solutions.	Applicable to startups, product development, and service innovation fields, such as software development, consulting services, etc.
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The development of service design theory reflects the maturity of the service industry and the growing awareness of the importance of customer experience. From the early days of product-centeredness to today's customer-centeredness, the concept of service design has changed significantly. Today's service design focuses not only on the functionality and efficiency of services but also on multi-dimensional experience design that encompasses emotional, social, and sensory aspects. Designers have begun to emphasize the emotional experience of customers by creating comfortable and pleasant service environments that convey attentive and thoughtful service. Simultaneously, they are concentrating on social interaction during the service process. This enhances customers' sense of belonging and loyalty by providing engaging and meaningful social experiences. In the future, as technology continues to progress and consumer needs evolve, service design will persist in innovating and developing, delivering more surprises and value to enterprises and customers.

8.3 Video creation and dissemination from the perspective of Service Design

With the rapid advancement of technology and the deepening of globalization, information has become an indispensable component of individuals' daily lives. The concept of information consumption, initially introduced by American futurist Alvin Toffler in his 1980 book "The Third Wave," has garnered significant attention from both academia and industry. Toffler (1980) defines information consumption as encompassing the processes through which individuals or organizations acquire, process, utilize, and disseminate information. With the evolution of digital technology, information consumption has transcended traditional print media and broadcasting to encompass a diverse array of digital platforms such as we-media, online news portals, and streaming services.

As the concept of information consumption evolves, a greater emphasis arises on the service attributes of information. Scholar Qiu Feng first proposed integrating information dissemination with service design. He emphasized that the entire process of information dissemination can be likened to a comprehensive service process. By analyzing and statistically examining from a design perspective, technology allows for a more systematic prediction and evaluation of the entire information dissemination process and its outcomes, thus moving away from indiscriminate dissemination (Qiu Feng, 2017).

TikTok short video platform has led the new trend of information dissemination worldwide with its unique algorithm-driven “interest-based recommendation mechanism”. The platform uses deep learning to analyze user behavior data and accurately match and push personalized content, greatly improving user engagement and content dissemination efficiency. This research conducted innovative research on TikTok from the perspective of service design. It analyzed and restructured its content creation, recommendation algorithm, and user interaction functions using service design theory. Taking Huaxian shadow puppetry as an example, it also analyzed the dissemination characteristics of ICH content in the new media environment. This research explored how to optimize the presentation of ICH on TikTok through service design, in order to enhance user experience, promote information consumption and cultural dissemination, and ultimately achieve the protection and inheritance of ICH.

8.4 Application of Service Design Theory in ICH Short Video Creation

To achieve better dissemination effects in the age of contemporary short videos, researchers can apply service design theory to the practice of shadow puppetry 's we-media content creation. By relying on the theory of Use and Gratification, researcher can address the needs of audiences and users. This approach provides a "service experience" that satisfies audiences' visual, auditory, and content needs, thus emphasizing the cultural function and value of shadow puppetry in society today. In the current digital era, short videos become a crucial medium for information dissemination,

particularly for the inheritance and popularization of ICH. However, standing out among the multitude of short video content and promoting a deeper understanding and appreciation of shadow puppetry culture necessitates the application of service design theory to optimize and enhance ICH short video content creation. Service design theory prioritizes user-centeredness, delivering a comprehensive, efficient, and enjoyable service experience based on audiences' needs. In the practice of shadow puppetry culture and we-media creation, researchers can leverage this theory to conduct in-depth explorations of the visual, auditory, and content preferences of audiences, thereby customizing short video content to meet their expectations.

Short videos play a role as a medium for disseminating information. The content design, playback method, and interactive experience of the videos all influence users' perception of the information services. Therefore, this research adopted the CJM framework in service design to analyze the experience of users when watching videos. By mapping out users' touchpoints, actions, and emotional states during playback, the research aims to uncover challenges and potential improvements in the information service landscape. Specifically, this research will develop a user experience map for Huaxian shadow puppetry short videos, using the playback timeline as the guiding framework. The analysis will prioritize user navigation through critical touchpoints such as viewing, retention, interaction, and feedback. Furthermore, this research will identify key elements that shape user experiences on TikTok, including title selection, alignment with video tags, attractiveness of the opening scene, content quality, and engagement within the comments section. Additionally, the research will explore users' emotional reactions at these touchpoints—covering aspects such as curiosity, satisfaction, and disappointment—to establish a thorough understanding of their experiences when engaging with Huaxian shadow puppetry short videos.

In Chapters 5 and 6, particularly sections 6.5 to 6.6, this research analyzes the cultural functions and values of Huaxian shadow puppetry in modern society. It does so from the viewpoint of service providers, including heritage bearers, practitioners, and industry stakeholders. The research also utilizes a survey-based research method to

gather user insights on interactive demands related to ICH short videos. By merging the cultural aspects of Huaxian shadow puppetry with the interactive requirements for ICH short videos through service design theory and the CJM framework, this research depicts stakeholders' experiences at service touchpoints. Moreover, it incorporates principles from the KANO model to classify service design needs, highlighting how these integrated requirements illustrate service quality characteristics at various touchpoints.

In Chapter 6, Sections 6.2 to 6.4, this research explores user requirements while analyzing the qualities of current videos to gauge user satisfaction and the traits of short videos. Furthermore, it identifies and evaluates the essential service features within the existing video service framework. Chapter 7 focuses on analyzing TikTok's distribution mechanism to understand the service touchpoints and objectives throughout the entire service cycle.

8.4.1 Customer Journey Map (CJM) Model Basics and Logic

The CJM serves as a pivotal instrument in the realm of service design, offering a visual representation of the complete customer-company interaction process involving products or services. The CJM meticulously illustrates the customer's experiences at various touchpoints, shedding light on their emotions and pain points throughout each phase. By comprehending the customer journey, enterprises can pinpoint areas for enhancement, thereby elevating customer satisfaction and fostering loyalty. The notion of the customer journey was initially introduced by Osborn O. Reichhold in 2000 and further expounded upon in his publication "The One-to-One Future: Building Relationships One Customer at a Time." Reichhold underscored the significance of personalized service and enduring customer relationships while introducing the concept of "one-to-one" marketing.

As the market environment and consumer behavior evolve, the concept of the customer journey is also continuously developing. Scholars have expanded their understanding of the customer journey to encompass not only purchase behavior but also emotional

experiences, cognitive processes, and social interactions. For instance, Hassenzahl, M. and Tractinsky, N. (2006) underscored the significance of user experience in technology-based products by proposing that CJM can be utilized to comprehend how users engage with these products over time and pinpoint areas for enhancement. Similarly, Garrett, J. J. (2011) explored the application of CJM in designing digital interfaces and advocated for its ability to offer a comprehensive perspective on the customer experience.

The theoretical model of the CJM is fundamentally customer-centric, focusing on identifying and optimizing key touchpoints in the purchase, usage, and feedback processes to elevate customer experience and satisfaction. It aims to cultivate enduring customer relationships and drive business growth. The model underscores commencing from the vantage point of the customer and comprehensively grasping their needs, expectations, and behavioral patterns. This is achieved through a thorough analysis of the customer's emotional experiences, cognitive processes, and social interactions to unveil the underlying determinants of their behavior. The CJM theoretical model not only attends to observable customer behaviors but also delves into their internal transformations. By mapping out emotional fluctuations at different stages, it furnishes enterprises with comprehensive insights into customers' inner worlds. In practice, implementing the CJM theoretical model necessitates transcending traditional departmental boundaries and fostering cross-departmental collaboration to ensure consistent and seamless customer experiences. Simultaneously, enterprises must employ data-driven approaches by gathering and analyzing substantial volumes of customer data to continually refine the CJM so that it accurately reflects evolving market dynamics while formulating more effective marketing strategies and service enhancement measures (see figure 8.1).

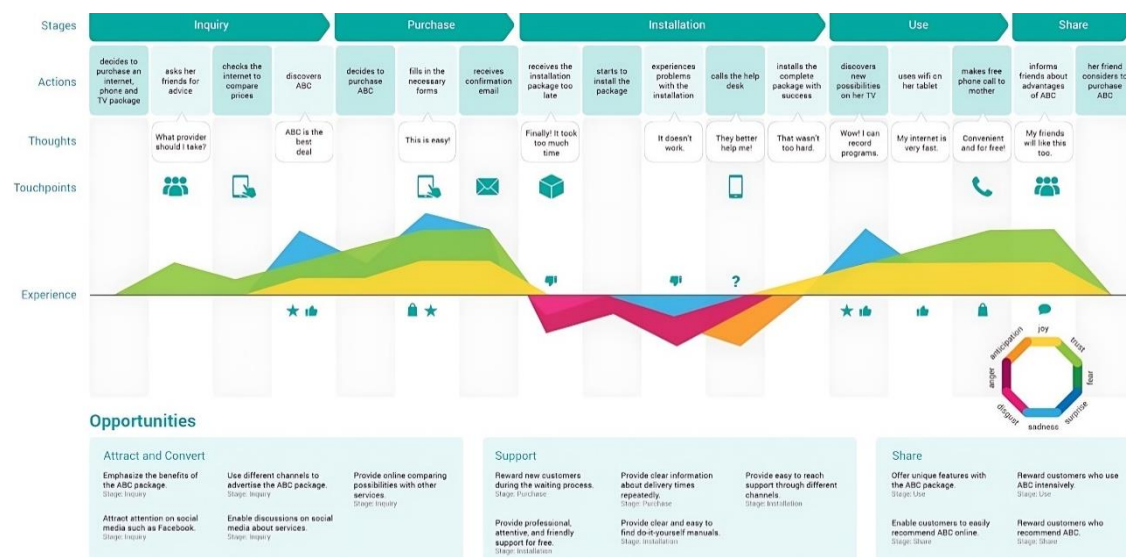


Figure 8.1 The example of CJM model

Source from: Web, <https://www.uisdc.com/service-design-process-method-summary>,2024

8.4.2 Construction of CJM for Huaxian Shadow Puppetry Short Video Service

The development of the CJM service model for short videos requires the integration of six essential components within the service process. These components include service stages, touchpoints, emotions, behaviors, pain points, and opportunity points. The primary focus should be on merging the characteristics of short video playback while mapping out the entire process alongside key touchpoints. Thus, this research begins by synthesizing and structuring the creation process and fundamental elements of short videos.

- The basic principles of good short video creation need to meet three "Any".

Based on the recommendation algorithm of TikTok short videos, the progression from initial push to weighted push, and ultimately to premium content push, highlights the characteristics of outstanding videos that adhere to the "three any" principles: any object, any scene, and any state. Specifically, under the principle of any object, highly viral short videos are not limited to satisfying or targeting niche user groups. Videos

with limited appeal can only address the needs of a small segment of users and struggle to continuously expand their traffic pool within TikTok's recommendation framework, thereby hindering rapid dissemination. When a video successfully transcends its initial traffic pool through precise user engagement during the first distribution phase, the ability to meet broader user demands becomes the critical factor determining its popularity. Next, the principle of any scene emphasizes the diversity and richness of video content. Whether showcasing humorous daily anecdotes or providing in-depth professional analysis, content presented with a unique perspective and engaging delivery has the potential to spread rapidly. Users consistently favor fresh, entertaining, and thought-provoking material. Lastly, the principle of any emotional state focuses on the emotional expression and resonance of the video. A compelling video should evoke strong emotional reactions from users, whether through humor, empathy, or introspection. Only when users experience significant emotional engagement while viewing the video will they be motivated to share it widely, facilitating broader dissemination.

Countless short videos are presented to the audience every single second on TikTok platform. Creators must have a thorough understanding of TikTok's recommendation mechanism in order to produce engaging short videos. They should strive to create high-quality content that adheres to the "three any" principle. Only in this way can their videos stand out in the fierce competition and achieve success.

- The portrait of the target audience should be established as the "cold start" basis by accurately identifying the primary user group. Subsequently, through promotion to potential onlookers, the process of gradually transforming from "cold start" to "hot dissemination" can be achieved.

Whether a video can attract a group of "precise users" in the early stages and receive positive feedback from them is a key factor in determining if a video can achieve a "cold start" and eventually become a hit. "Precise users" refer to target audiences who are highly interested in and relevant to the video's content. During the "cold launch"

stage of a short video, accurately portraying this group of users is crucial. Their interactive behaviors—such as liking, commenting, and sharing—drive the video’s exposure and traffic. According to user behavior theory, early user feedback can significantly affect content visibility and dissemination (Bakshy, E., Hofman, J. M., Koren, T., & Liu, Y., 2012).

While the success of a 'cold launch' brings initial traffic and attention to a video, it doesn't guarantee that the video will remain popular until the end. To achieve sustained traffic, the content must appeal to a broader audience of 'onlookers', who may be interested in the video's subject matter but are not the initial target audience. These users may find the subject matter engaging, yet they do not constitute the original target audience. Therefore, video creators must consider how to balance the in-depth participation of specific users with the broader interest of onlookers during the content creation process. This approach aims to maximize the dissemination effect of the content (Tseng, F.-C., & Fogg, B. J., 2009).

In practice, the algorithms of short video platforms constantly adjust their recommendation strategies based on user interaction data to enhance user satisfaction and platform activity. This means that the user feedback collected during the "cold launch" phase of the video not only influences its initial traffic size but also may have a significant impact on its subsequent dissemination trajectory. Therefore, a deep understanding of user behavior and preferences, along with effective methods to attract and retain user engagement through content creation, is crucial for the success of short videos. Some specific strategies for quickly attracting accurate users to achieve a cold start are as follows (see table 8.2):

Table 8.2 The technique of attracting accurately users need

Technique	Description	Example

Precise Title Setting	Use keyword research tools to analyze words that the target audience might search for and combine them with hot topics or trends to design titles.	For fitness enthusiasts, use "Home Workout" as a keyword in the title.
Hot Topic Tagging	Increase the chances of your video being discovered by the target audience by utilizing popular hashtags or challenges.	Include the hashtag "#10DayChallenge" to appear in relevant topic search results.
Content Positioning and Optimization	Delve into the interests and needs of the target audience and create relevant and valuable content.	For food lovers, make videos about healthy eating or local specialty foods.
Integrating Interactive Elements	Incorporate questions, polls, or direct calls to action for viewers to comment into your videos to promote user engagement and feedback.	Ask at the end of the video: "Which breakfast do you prefer? Tell us in the comments section!"
Data Analysis and A/B Testing	Utilize data analysis tools provided by the short video platform to monitor video performance and conduct A/B testing to find the most effective strategies.	Test different cover images, titles, or release times to see which ones have the highest click-through rate.
User Research and Community Engagement	Collect opinions and suggestions from your target audience through surveys, we-media interactions, or user groups to understand their preferences and expectations.	Set up a survey link at the end of the video for viewers to fill out.

- Content explosion around user needs to capture human instincts

The reason short hot videos can quickly attract the attention and affection of many users largely lies in their ability to subtly engage various human instincts. These instincts include the herd effect, aversion to loss, completion psychology, and a keen sensitivity to current events. Together, they create the strong allure and dissemination of short videos.

The herd effect is a common phenomenon in human social behavior. It refers to the tendency of individuals to imitate the behavior or views of others in a group. In the field of short videos, this effect manifests in users' tendency to watch and share videos that have already received a large number of likes and comments. This imitation behavior not only increases the video's exposure but also strengthens the user's interest in and identification with the video. Loss aversion refers to the fact that people are more averse to losses than they are joyful about gains of equal size. In short videos, this psychological mechanism appears in users' concern about missing a popular video or failing to share it with friends. To avoid this sense of loss, users are more willing to actively seek and watch popular videos and participate in interactions. Completion psychology refers to people's natural pursuit of things that are complete and coherent. In short videos, this psychology appears in users' preference for video content with strong storytelling and clear logic. By designing the plot and editing techniques carefully, short videos can tell a complete story in just a few minutes to satisfy users' need for completion psychology. The sensitive capture of current events is also one of the important features of hot short videos. Current event slicing refers to presenting trending topics or popular trends in fragmented ways within the video, triggering users' resonance and discussion. This immediacy and relevance enable short videos to quickly capture users' attention and inspire sharing and spreading behaviors.

In summary, the reason hot short videos can quickly gain popularity lies in their effective utilization of human instinct, such as the herd effect, loss aversion, the psychology of completion, and sensitivity to current events. These factors interact and

collectively create the strong allure and viral potential of short videos. This research will further explore, based on service design theories and models, how to utilize the how to leverage these instincts to optimize content design and dissemination strategies, thereby addressing the evolving needs and expectations of users.

To stimulate user instincts and achieve interactive behavior, several content models can play a corresponding role. Taking the stimulation of completion psychology as an example, the specific examples are as follows (see table 8.3):

Table 8.3 Completion psychology trigger method

Completion Psychology Trigger Method	Example Dialogue	Description
Suspenseful Opening	"She was once an ordinary person, but a secret instantly changed her destiny..."	Sets up a suspenseful element at the beginning of the video to pique viewers' curiosity.
Serial Content	"Episode 1: The Mysterious Letter; Episode 2: Revealing the Truth; Episode 3: Ultimate Showdown..."	Divides content into multiple parts or episodes, each leaving cliffhangers.
Revelation Introduction	"Do you know why cats always like to hide? There's an amazing secret behind it..."	Introduces a topic with a revelation, sparking viewers' curiosity and desire to explore.
Tutorial or Guide Video	"Learn perfect makeup in five steps! Follow me and become a beauty goddess easily!"	Provides a complete tutorial or guide, breaking down complex content into simple steps.

Story Relay or Challenge Video	"Next challenger, please take the relay! Create a new story with this prop!"	Encourages viewers to participate in story relays or challenges, providing a starting point or prop for users to unleash their imagination.
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- Time granularity is "molecularised" and giving time pressure.

In film art, to constantly capture the audience's attention, the film must carefully arrange narrative, screen transitions, music, action design, and other elements concerning chronology and pace. This is the film's sense of rhythm. A strong sense of rhythm guides audience emotions, heightens story tension, and enhances fascination. The rhythm is not only reflected in the shooting speed of the shots and the compactness of the editing, but also in the ups and downs of the plot, the movements of the characters, and the interaction between visual and auditory elements. Studying film rhythm incorporates disciplines such as cinematography, psychology, and cognitive science. Film theorists frequently investigate how rhythmic control can elevate narrative and how audiences perceive and respond to various rhythmic patterns. David Bordwell, in his book, offers a thorough analysis of editing rhythm, asserting that it significantly contributes to a film's narrative rhythm (Bordwell, D., 1985). Barbara Klinger examines how rhythm impacts the audience's viewing experience, particularly in Hollywood genre films.

As an emerging media form, short video is gradually changing people's information consumption habits. Compared with traditional long video, short video is characterized by its "short" duration and high-density content presentation. This "short" does not only refer to the total length of the video, but more importantly, the video content is compressed and cut in time, as well as the rhythm of the compact and fast. In short videos, the time granularity of the content is compressed to 2-3 seconds as a rhythm unit. This rhythmic unit is designed to quickly impact the user's needs, and each rhythmic unit is a stimulus to the user, designed to trigger interest, curiosity or

emotional resonance. Through continuous stimulation, the stimulation effect of the rhythm unit is optimized by means of adjusting the length of the footage, the editing speed and the sound effects (Klinger, B. ,1997) Short videos attempt to impress and stimulate interactive behaviors within the user's limited attention span. In order to achieve this continuous and persistent stimulation, short video production needs to follow certain principles. Firstly, the video content needs to be designed closely around the user's needs to ensure that each rhythmic unit matches the user's point of interest. Secondly, the switch between rhythm units needs to be smooth and natural, avoiding abruptness or dragging. Finally, the overall length of the video needs to be controlled within a reasonable range to ensure that users can finish watching in fragmented time.

The pacing of short videos is a key factor in their success. By compressing and slicing the temporal granularity of the content, as well as constantly hitting the user's needs or interest point at a fast pace, short videos are able to impress and inspire interactive behaviors within the user's limited attention span.

8.4.3 Building a Service Model for the Huaxian Shadow Puppetry Short Video Creation Based on CJM Model

Based on the analysis of the production process and key points of the short videos of Huaxian shadow puppetry, combined with the analysis contents in Chapters 5, 6 and 7 of this research, following the construction elements of the CJM model, the six elements of the Huaxian shadow puppetry short video service model - service stage, touch point, emotion, behavior, pain point and opportunity point - are summarized as follows:

Service Stages: Under the interest recommendation mechanism of TikTok short videos, users are initially passive when receiving video services. Therefore, the beginning of the short video service is that users can be "pushed", followed by being attracted by the content to achieve "retention". During the process, users are constantly stimulated and moved by the video information services, thereby achieving interaction. The interaction forms include likes, comments, forwards, and collections. If users wish to have long-term attention to the creator's other video content, they will further initiate the "follow"

interaction behavior, and this service process will be repeatedly triggered in the subsequent software usage. Alternatively, users may actively choose to visit the creator's TikTok homepage and view previously released short videos thereby initiating a new service process.

Touch Points: corresponding to the service stage of short video, the initial phase involves pushing interest-matching related videos to target users based on TikTok's short video recommendation mechanism. During this stage, users act as passive recipients of information services, and key touch points include video titles, tags, and content. As the user begins watching a pushed video in the retention stage, crucial touch points encompass the opening scene and first 3 seconds of video content, including on-screen text, music, and plot. When the user decides to continue watching the video, in order to achieve the dissemination effect and generate interaction, the video needs to continuously create key films to stimulate the user's senses and instincts, triggering their interactive behavior. Here, the touch points refer to several closely-paced key films. The subsequent interactive behaviors include likes, comments, forwarding, collection, and following. How to trigger these behaviors requires identifying the emotions, pain points, and opportunities that drive users to take these actions. The occurrence of these behaviors has already achieved the service goal at the level of short-video content services. The touch points involved in the subsequent behaviors belong to the interaction design content in the software usage aspect and are unrelated to the content of this research.

User Emotion: During the process of watching the video, at different service stages, in order to achieve the service goals, service design needs to be carried out based on the emotions that users should have. The measurement of users' emotions is divided into very satisfied, satisfied, average, dissatisfied, and very dissatisfied in the constructed Huaxian shadow puppetry short video CJM model in this research. During the push stage, users are passively triggered to access the video service process based on the interest recommendation mechanism of the TikTok platform. Since the platform matches the video titles, tags, and content with users' interests, usually users are pushed

to videos that they are interested in, and their emotional satisfaction is average or satisfactory. However, occasionally, due to the algorithm of the platform, users may receive aversive content pushes because of their historical searches or random recommendations, which leads to an emotional satisfaction of dissatisfaction or very dissatisfaction. During the retention stage, whether users can achieve a high level of satisfaction is the key to the continued success of the video service. Only when users receive satisfactory or extremely satisfactory emotional feedback in this stage will they be motivated to continue watching the videos and thus have the opportunity to trigger interaction. In the continuous viewing stage, users' interaction behaviors can occur at any time. Unsatisfactory emotions during the service process may cause users to leave and stop watching, thereby interrupting the service. Therefore, it is imperative during continuous viewing to maintain user emotions at or above a baseline level through consistent content stimulation in order to meet their emotional needs for satisfaction or high satisfaction. Meanwhile, during the continuous viewing stage, as the user's needs are met, different interaction behaviors will occur. However, regardless of which interaction behavior takes place, it will drive the video to be further disseminated and spread.

User Behavior: During the push phase, users predominantly engage in passive reception of video content, exhibiting minimal active participation. In the retention phase, user behavior is characterized by uninterrupted and sustained viewing. Subsequently, in the sustained viewing phase, users are inclined to exhibit one or more interactive behaviors such as liking, commenting, sharing, and collecting when their requirements are met.

Pain point: According to the KANO model, pain points for video viewing users in short video services refer to the features that are taken for granted by users. Videos with these features are more likely to receive likes and interactions, while those without them may have a limited dissemination effect. By integrating the analysis of high-quality videos in Chapter 6 and the research on TikTok short videos' dissemination mechanism and characteristics in Chapter 7, this research identifies specific pain points corresponding

to each service stage and touchpoints in constructing the Huaxian shadow puppetry short video service model (see Table 8.4).

Table 8.4 CJM pain points of Huaxian shadow puppetry

Service Stage	Pain Points	
	Positive Pain Points	Negative Pain Points
Push Stage	Video content meets platform audit requirements	Video content cannot pass the platform audit due to violation or duplicate content
	Video gets more interaction counts and gets pushed by platform view counts	The video title and tags lack targeted interest orientation
		Poor video production quality, too short or too long, high repetition of video content
Stay Stage	High-quality starting film	Low quality video opening screen
	Suspenseful starting content	Unclear video opening theme
		Content plagiarism and high degree of homogeneity
Keep Watching Stage	Tightly paced mix of key films	Video content has little variation and bores the viewer

	Social integration needs are met	The video content is empty and uninteresting
	Cognitive needs are met	Cultural content is too traditional for young people to appreciate
	Content plot is progressive to attract users to watch until the end of the video	Cultural content is too specialized for the general public to understand
		Poor picture quality and noisy content

Opportunities: According to the KANO model's definition of needs, opportunities for video viewing users are service elements that can enhance interaction during video consumption, aligning with the excitement-type needs in the KANO model. These needs represent the latent desires of users for short videos and are activated when the overall content or a pivotal scene impresses them, significantly elevating user satisfaction upon fulfillment but not impacting it if unmet. Although not explicitly articulated by users, satisfying these needs promptly prompts interactive engagement with the video. Chapter 6 of this research analyzes high-quality ICH video content and demonstrates that these needs are met through innovative video shooting techniques, fusion of modern and traditional content, unexpected cultural expression forms, etc., stimulating viewers to engage with the content by liking, commenting on, and sharing it.

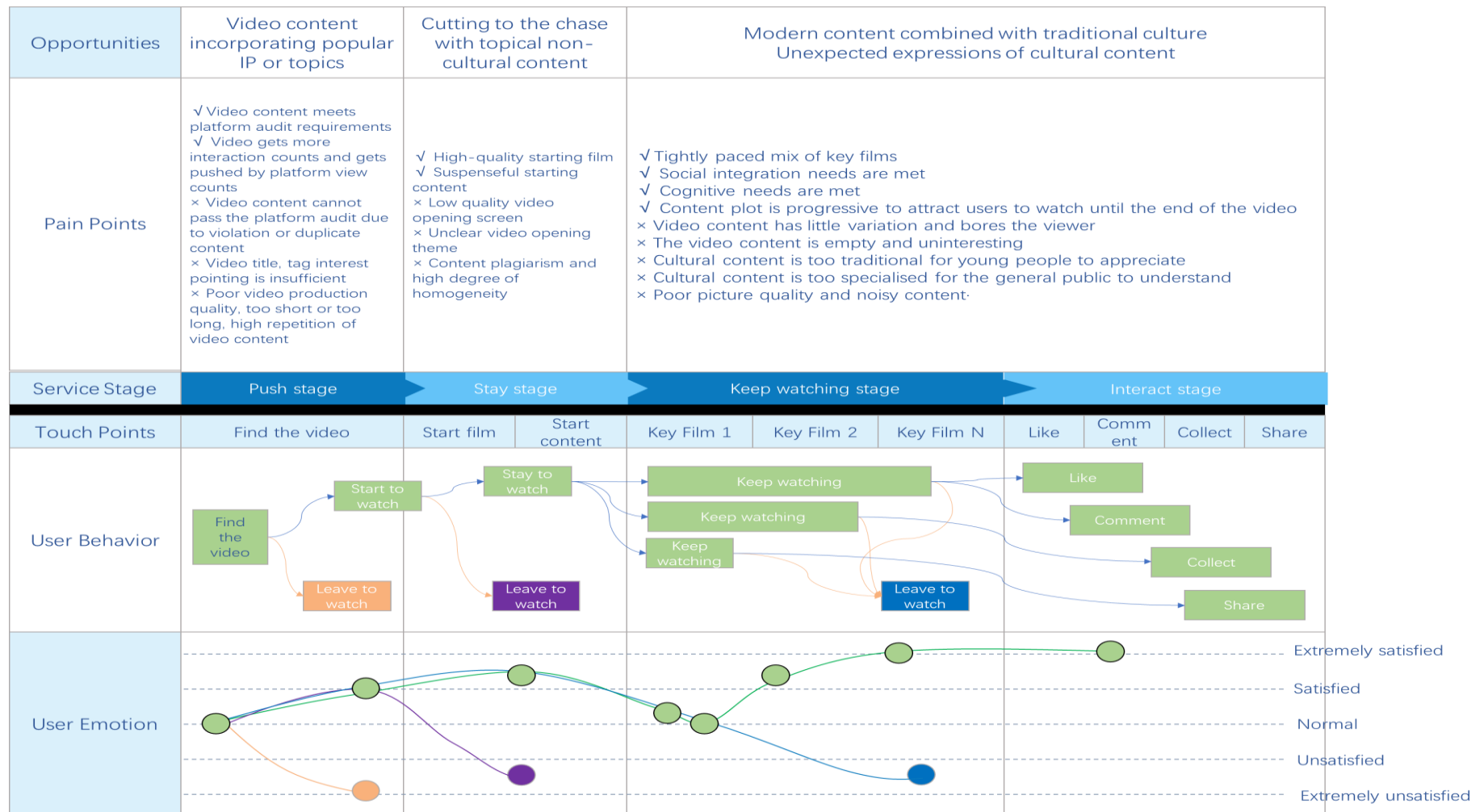


Figure 8.2 The ICH short video creation service model
Source from: Author 2024

8.5 Operation Mechanism of ICH Short Video Creation Service Design Model

According to the regulations of CJM, this research takes Huaxian shadow puppetry as an example and constructs a short film creation service model for ICH. In the specific operation process of this model, this research divides the entire video production process into four steps, each with corresponding working stages. Moreover, this research combines the characteristics of ICH and arranges core actions and methods/tools for each working stage. These methods/tools are combined with the short video creation service model to refine and analyze the operations of each step and working stage. The specific steps are as follows (see figure 8.3).

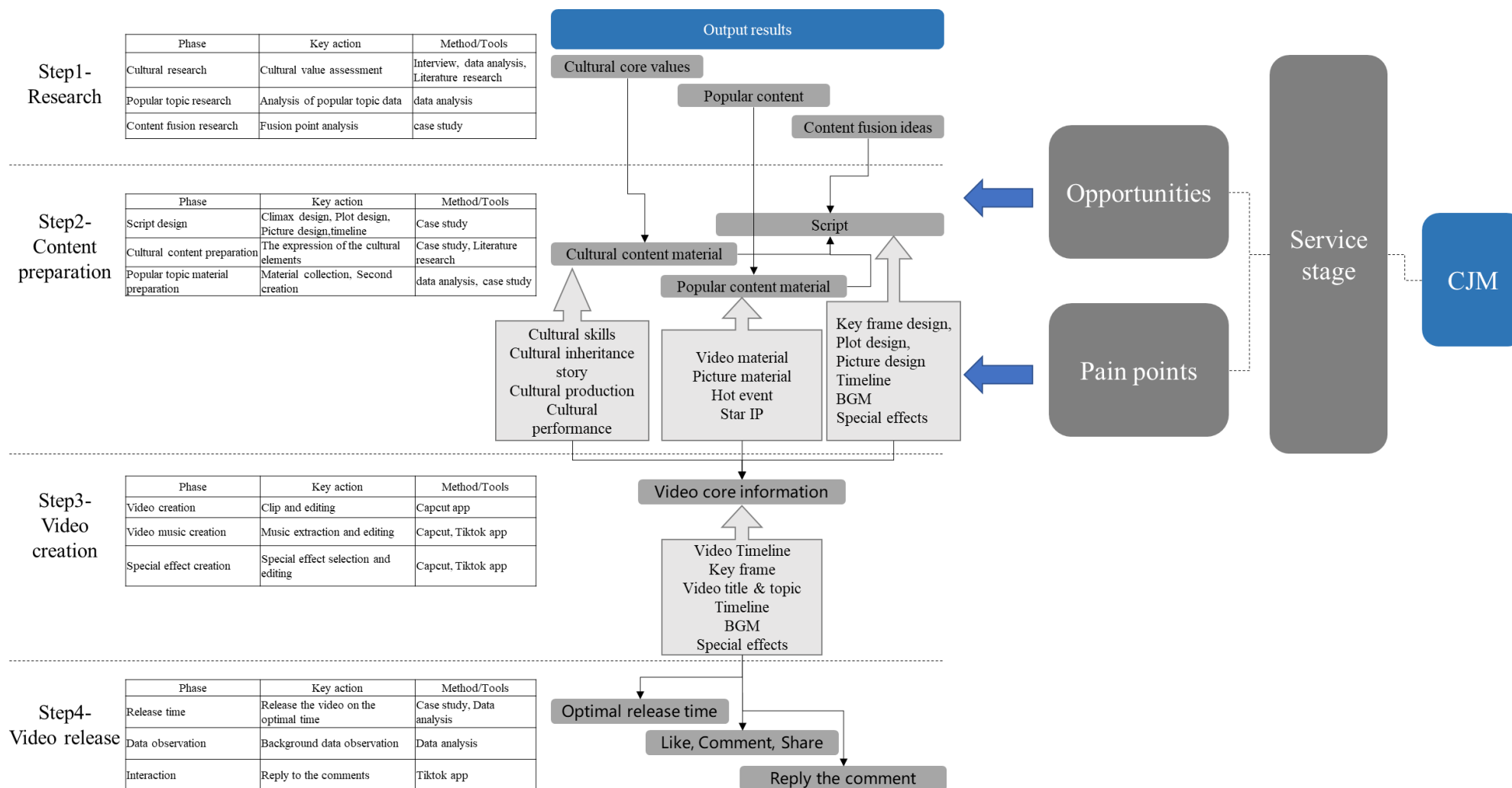


Figure 8.3 The steps of short video creation service model
Source from: Author 2024

● Step1-Research

Before creating the video, it is necessary to deeply explore the core value elements of that culture first. Each culture has the most representative and attractive elements for the audience. Take Huaxian shadow puppetry as an example; its exquisite carving process and rich color modeling are the most characteristic and representative elements. The methods researcher can use at this stage include interviews with professionals, literature research, and data analysis. By analyzing which cultural elements are applied in past short videos with higher interactive data, the researcher can accurately grasp the cultural elements. To quickly break through the "cold start" stage of a video, the content must be combined with current popular topics or Intellectual Properties (IPs). Here, the researcher uses Trendinsight (巨量数算), the official data center of the TikTok platform, to analyze current hot topics or IPs. The researcher also discovers how to integrate cultural elements with these popular IPs and topics, developing a reasonable and effective integration plan. In terms of content fusion, for example, modern popular IPs can be sculpted with shadow techniques, or modern popular events can be interpreted through shadow performances.

● Step2-Content Preparation

After determining the integration scheme of cultural elements and popular topics, designers must base the video script content. This includes key frame design, plot design, picture design, timeline, background music, and, if capable, the design of subplots for key episodes. To gather and create content materials for the later video production, it is essential to prepare some video materials, props, scenes, and so forth. Adequate space must remain for splicing materials in the later stage. The design of the key frame in the script represents the most critical part of the preparation process. It encompasses the title and topic relevance mentioned in this research's analysis, along with the main content of the video process's key frame. This design should align with the analysis of shadow puppetry culture based on Cultural Function Theory and the Satisfaction and Needs Theory discussed in Chapter 6、7. To satisfy the audience's social integration needs and cognitive needs, the creator must ensure the video content remains in the best condition possible. The key frame in the video could include lines or drama clips surrounding a specific celebrity IP, meeting the social integration needs

of celebrity followers. According to the CJM model, video scripts can be structured and tailored based on each key film's pain points and opportunities, thereby integrating content for video creation.

- Step3-Video creation

After the content material is ready, the official TikTok video production software, Capcut (剪影), can be used for editing and video creation. The creator can base their work on the video script and combine it with existing content for editing. Capcut provides basic editing functions, but it also includes rich transitions, picture-in-picture (PiP) mode, visual effects, keyframe animation, and other advanced features. These tools greatly expand creators' expressive methods and creative space, allowing them to achieve the video effects required by the scripts. Capcut's functions enrich creators' means of expression, enabling them to produce video works that both meet the video scripts' needs and are visually appealing. By using these tools effectively, creators can capture viewers' attention on the TikTok platform, thereby increasing their content's views and interaction rates.

- Step4-Video release

After the short video is completed, achieving "cold start" becomes extremely important. The timing of uploading and publishing should coincide with peak user activity. This strategy enhances continuous engagement with background data, video playback, and user interaction. It also facilitates the video's performance in the content pool, boosting playback and sharing rates. The users' usage habits indicate that the peak traffic periods of short-video apps mainly consist of four periods: 7 a.m. to 9 a.m. during working hours, 12 p.m. to 2 p.m. during lunch breaks, 6 p.m. to 8 p.m. after work, and 9 p.m. to midnight during leisure time. Thus, videos should ideally release during these times. To ensure ongoing dissemination, creators must closely monitor background data, including views, likes, shares, and comments. These metrics reflect video popularity and guide creators in optimizing content. For instance, analyzing user comments and feedback enables creators to gauge preferences and adjust content strategies accordingly, enhancing user satisfaction and loyalty. Furthermore, user interaction

during video playback significantly influences distribution. Creators can foster interaction by responding to comments, initiating a topic challenges, and leveraging trending topics to engage users' sense of participation and sharing desire. This approach not only boosts distribution efficiency on the platform but also broadens the video's influence and outreach.

In conclusion, it is necessary to quickly disseminate short videos related to ICH. The research, preparation, production, and release of such content can follow the established rules of CJM, and these rules can be combined with the specific operational mechanisms proposed in this research. Accurately grasping cultural value, formulating clear target scripts, setting key frames according to the video rhythm, and completing the production of the short videos are crucial steps. In addition, choosing the appropriate release time, continuously monitoring backend data, and actively interacting with users are all effective dissemination strategies. These methods help the videos enter a larger traffic pool, promoting the transition from "cold start" to "hot dissemination".

9.0 EXPERIMENT AND EVALUATION

9.1 Purpose

In order to verify the promoting effect of the ICH short-video creation service model designed in the previous chapter on the dissemination of shadow puppetry, this research will use the CJM to evaluate the dissemination of the short videos. This study will adopt the CJM model and collaborate with the Huaxian shadow puppetry carving enthusiasts who create short videos. In this chapter, the researchers closely follow the ICH short-video creation service model designed in the previous chapter. This research takes Huaxian shadow puppetry as the experimental object and combines the existing operation situation of the Huaxian shadow puppetry enthusiasts' TikTok accounts. The researchers will verify the effectiveness of the model by analyzing the backend data of the created videos.

9.2 Experiment plan and stages

This experiment was carried out by the researcher and Zhou Lang, a shadow carving enthusiast from Shadow Puppetry Society of Shaanxi Normal University (during this research period). The researcher met Zhou Lang during the fieldwork in 2021, when he was still pursuing his undergraduate degree at Shaanxi Normal University. Zhou Lang is also a practitioner of disseminating ICH on we-media platforms including TikTok.

In this experiment, the researcher collaborated with Zhou Lang and utilized the ICH short video creation service model and the operation mechanism to assist in the production of the short videos. Specifically, the researcher used the ICH short video creation service model to determine the direction of video content creation, and strictly followed the steps of the model to determine the video script. Based on the requirements for the shadow puppetry images in the script content, Zhou Lang carried out the shadow puppet carving. The researcher converted the shadow puppetry images into digital images as video creation materials. The video content production, editing, dubbing, music arrangement and were all completed by the researcher based on the service design model. Additionally, to verify the effectiveness of the model and to demonstrate the cultural value of shadow puppetry in education and training, the researcher added the content of the carving process to the script design of video-3. According to the script

content and the video shooting requirements proposed by the researcher, Zhou Lang recorded the entire shadow puppetry carving process and sent it to the researcher. The researcher incorporated this video recording content into the final released video results. After the video creation was completed, the researcher sent it to Zhou Lang and released it at a specific time point according to the requirements of the service design model to achieve better dissemination effects. 48 hours after the video release, Zhou Lang could extract the video dissemination data from the TikTok backend, including playback volume, likes, shares, audience analysis, playback duration, completion rate, comment volume and comments. The data included time-specific data and total data. Zhou Lang sent all the data to the researcher for evaluation and analysis.

9.2.1 Analyse the effectiveness of the account's past video distribution

The TikTok account utilized in this research belongs to Zhou Lang, established in 2023 under the title "Zhou Lang's Shadow Universe"(周郎的皮影宇宙). As of April 2024, his TikTok ID is 28244900708 and he has uploaded 113 videos, amassed 75,000 likes, and attracted 492 followers (see figure 9.1).



Figure 9.1 The account of Zhou Lang

Source from: The TikTok app, author, 2024

The initial video published by this account debuted on December 17, 2023. The first fifty videos primarily showcased the creator's shadow carvings. These videos garnered

221 likes, averaging just 4.42 likes each. This engagement level suggests limited interaction and low dissemination rates. Some videos incorporated fundamental editing techniques and integrated themes with current events and popular IPs, such as Santa Claus and Cthulhu mythology; however, none of them generated substantial impact (see figure 9.2). The professionalism of the content has limited the platform's traffic support, preventing it from smoothly transitioning from the "cold start" stage to a more advanced stage. As a result, the platform ended up with extremely low video views.

The researcher collaborated with Zhou Lang to discuss the features of his earlier published videos. Then the researcher analyzed issues linked to ineffective video distribution. Based on the CJM short video creation service design model, the researcher planned the optimization path for the dissemination of short videos related to Huaxian shadow puppetry content of Zhou Lang's account. This process follows a four-step method.

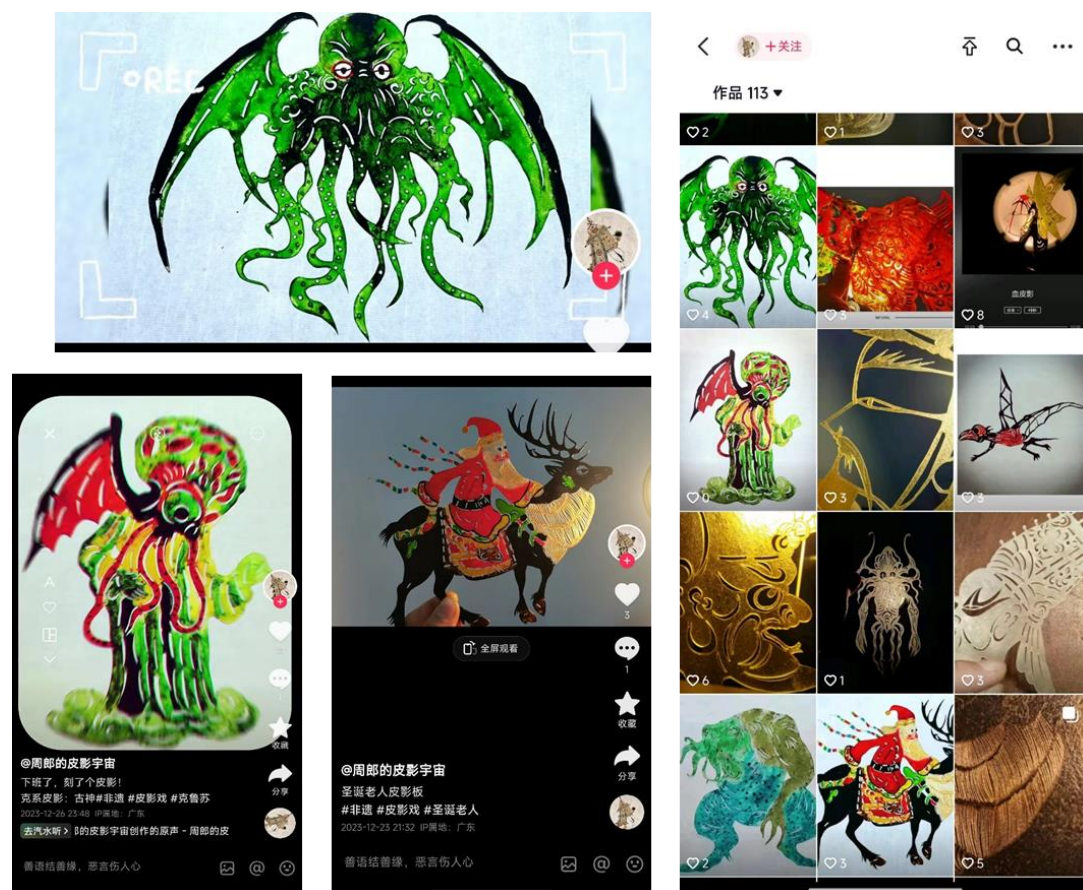


Figure 9.2 The previously released videos

Source from: The TikTok app, author, 2024

9.2.2 Step1-Research

- Big data in the backend to find hot topics and combine them with shadow puppetry

In the service system and steps of this research, the first step is the research on the value of shadow puppetry culture. The author conducted interviews with the inheritors of Huaxian shadow puppetry. It is evident that the influence of Huaxian shadow puppetry in the field of shadow puppet carving is significant. The delicacy of the carving, the complex patterns, and the color combination are the core values that make Huaxian shadow puppetry receive appreciation worldwide. Therefore, in this stage of cultural value research, the researcher will focus on presenting the carving techniques and color images of Huaxian shadow puppetry. In the field of popular topic research, this research analyzes the relevant topic data from January 1 to January 7, 2024, using indicators related to content guidelines from TikTok's official data center, Trendinsight. Among celebrity data, the top-ranked individual IP belongs to Chinese young male actor Xiao Zhan (肖战), who garnered an impressive submission volume of 3.395 million and over 230 million views, resulting in 8.758 million likes on related videos. A correlation analysis during this period reveals a strong association with the television (TV) series "The Legend of Hidden Sea" (藏海传). The core plot revolves around the character Zang Hai played by Xiao Zhan, where he, as the protagonist, strives to achieve both personal revenge and the protection of the country. By searching through online resources, it can be seen that since this TV series released its official poster on December 31, 2023 and began filming, it has aroused great interest among fans (see figure 9.3).

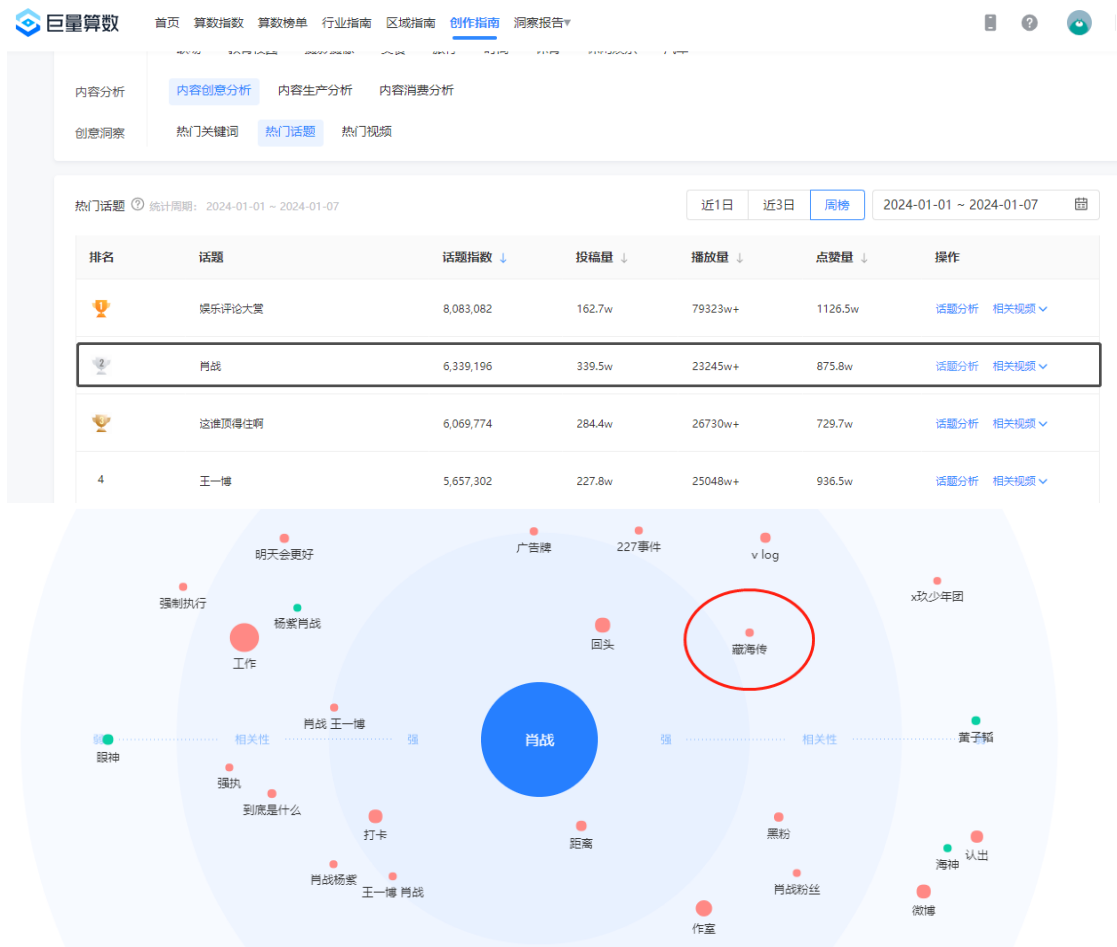


Figure 9.3 The data of hot topic and idols

Source from: The Trendinsight app, author, 2024

The initial poster for this film creatively integrates the light and shadow elements of traditional Chinese shadow puppetry (see Figure 9.4). It effectively intertwines the themes of Xiao Zhan, “The Legend of Hidden Sea” and shadow puppetry. According to the rules of cold start for short videos, videos featuring popular topics have a greater chance of quickly moving beyond the initial push stage and entering the weighted push stage. Therefore, in conclusion, the researcher will collaborate with Zhou Lang to focus

on topics related to Xiao Zhan and the TV series “The Legend of Hidden Sea”, and engage in shadow puppetry creation and short video production.



Figure 9.4 Pre-release promotional poster for the TV series " The Legend of Hidden Sea " Source from: Official TikTok account of " The Legend of Hidden Sea ", 2024

9.2.3 Step2-Content preparation & Content creation

In terms of content preparation, it will be carried out from three aspects: script design, cultural content design and hot topic design. In order to be able to further test the effectiveness of the service system, the research has completed the design and production of a total of three videos. The first one is used to test the driving force of the hot topic, featuring the presentation of short-duration hot content. The second video then examines the effect of continuously stimulating user demand through key frames over a longer period of time, and compares it with the observation of the video's dissemination effect from the first video. The third video focuses on validating how to improve video interaction while meeting the user's training needs by way of instructional content.

- Video-1: Replicate the core content of popular topics to trigger interactive traffic.

The total duration of the video is 6 seconds. The imagery features a singular background of red ancient architecture. The character design represents the protagonist from the official poster of the TV series " The Legend of Hidden Sea ". The background music comprises the soundtrack from the series' promotional video. Subtitles include the

phrase “The Guardian of the Sea, entering the game with dedication, with no regrets” (藏海传，以身入局，落子无悔). Add subtitles and dubbing to the official account's posts, add snow effect to enhance the atmosphere. The tags are selected based on big data to match the top trending topics with the highest traffic and is set in combination with the content, including #Xiao Zhan# Zang Hai Zhuan# Entertainment Review Awards# ICH.

Content creation

Background production: The researcher utilized AI text-to-image software, specifically the Qiyu Ai App (奇域), to generate background images. This process involved three iterations to complete the base image. The initial prompt for the first generated image was " highest quality, the texture of shadow puppetry film, grand scenes, a red ancient building, exquisite, in front is a vast snowy area". However, the outcome exhibited poor depth. Subsequently, the author extended the style and modified the prompt to " highest quality, the texture of shadow puppetry film, grand scenes, a red ancient palace, exquisite, in front is an open snowy area, the rendering style." The second generated image contained excessive details. To refine the composition, the researcher selectively removed superfluous elements, ultimately producing the video background image.

Character Image Production: Similar to other shadow puppetry production techniques, the Huaxian shadow puppetry employs a distinctive " The knife remains stationary while the leather is being pushed during the carving process" method (推皮走刀法). In this technique, the carving tool (the knife) remains stationary while the artisan manually manipulates the cowhide, enabling the creation of highly intricate and detailed carvings on the hardened material. Zhou Lang employs this carving technique to replicate character images from the official poster of the TV series using cowhide. According to the techniques of shadow puppetry carving, he intricately sculpts the head, sleeves, arms, body and clothing. The clothing features the exquisite cloud patterns characteristic of Huaxian shadow puppetry, utilizing a color palette of red, black, and

blue. Finally, the researcher captures the work with a high-definition camera and processes it through software to create a vector image (see Figure 9.5)

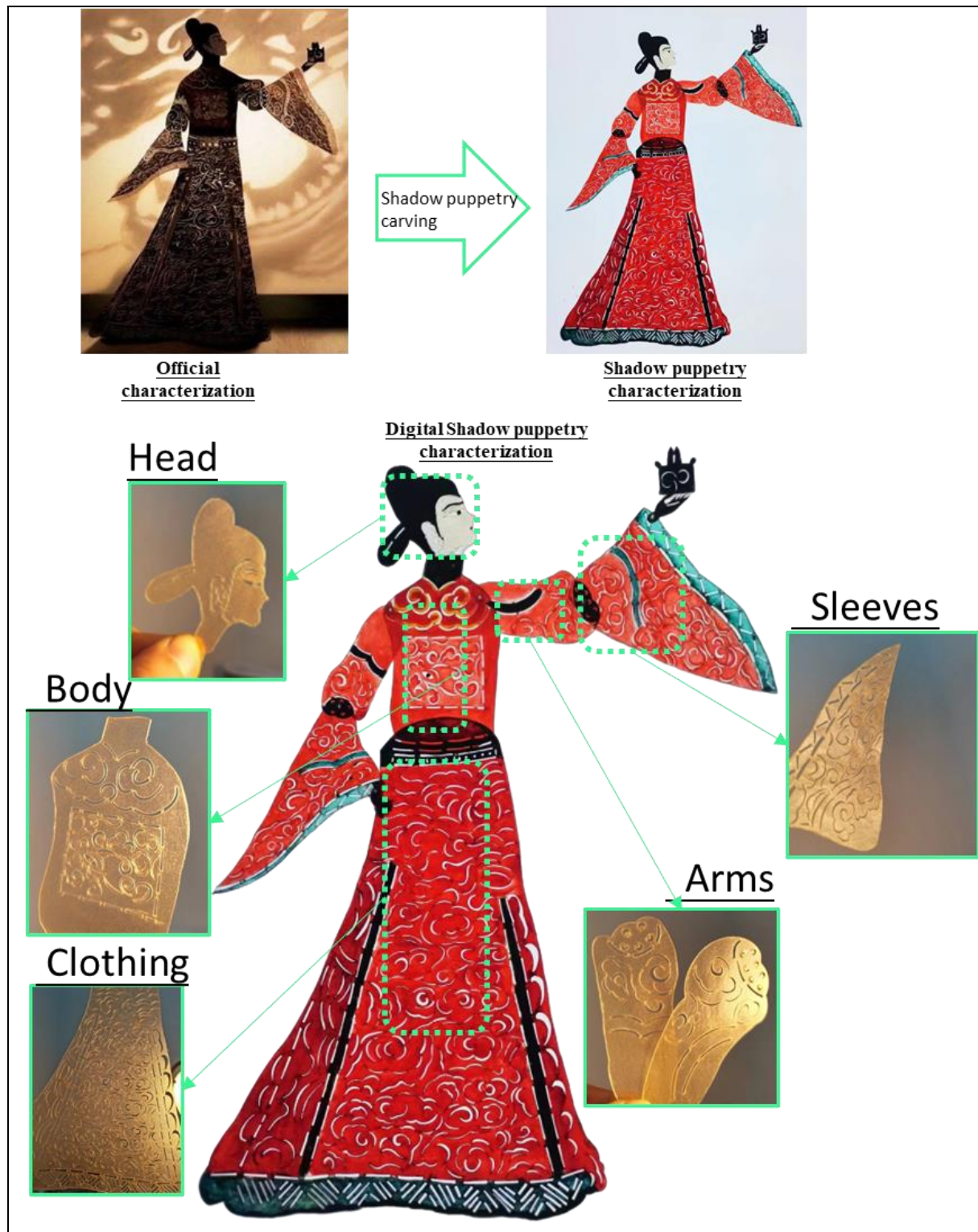


Figure 9.5 Shadow Puppetry Image Making Process

Source: Carved by Zhou Lang, 2024

- Video-2: Extend the content of popular topics to stimulate users' needs and optimise the visual quality.

Scripting

Table 9.1 The scripting of video-2

Timeline (S)	Key frame	Description of the screen	BGM
0-5	preamble	White letters on black background	Subtitle readout
6-9	Portrait of a Scholar (书生形象)	Vintage background Drone view	Tomb Raider - Ten Years on Earth (盗墓笔记.十年人间) Li Changchao (李常超)
10-13	Portrait of wave pattern (波浪纹)	The image is emerging	
14-17	Portrait of curly grass pattern (卷草纹)	Quick turnaround	
18-21	Portrait of official dress (官服形象)		
22-25	Portrait of dragon dress (龙袍形象)		
26-32	Five portraits are presented together		

The total duration of the video is 32 seconds. It begins with a 5-second introduction that creates suspense, enhancing viewer retention and completion rates. The remaining 27 seconds feature six distinct scenes. Each scene showcases a different portrayal of the protagonist Zang Hai in five unique styles, representing various historical tasks. Each portrayal lasts for 4 seconds and includes its title along with a corresponding poem. The overall visuals employ a vintage leather texture as a backdrop. Aerial drone perspectives dynamically shift between the five portrayals, synchronized to the music's rhythm. The video concludes with all five portrayals displayed simultaneously, with

special effects creating a fade-out transition. The script is outlined as follows, with accompanying text for each scene presented below (see table 9.2).

Table 9.2 The screen text of video-2

Timeline (S)	Screen text
0-5	<p>小飞侠们期待的藏海大人</p> <p>我用皮影给你们刻，宠吧，一次刻 5 个</p> <p>The little fairies eagerly anticipate the great Lord of Zang Hai.</p> <p>I will carve five shadow puppets for you all.</p>
6-9	<p>书生藏海,少壮远游探海深，胸怀壮志梦翻腾。</p> <p>In the vast ocean of knowledge, the youthful scholar embarks on deep explorations, fueled by grand aspirations and dreams that surge within.</p>
10-13	<p>海浪纹藏海,青春扬帆勇前行，未知风险笑相对。</p> <p>The patterns of ocean waves conceal the sea. Youth sets sail boldly into the unknown, facing risks with a smile.</p>
14-17	<p>卷草纹藏海,中年归航心已定，智慧累积眼更明。</p> <p>The winding grass patterns conceal the sea. In middle age, the heart finds its course, and accumulated wisdom sharpens the vision.</p>
18-21	<p>锦衣藏海,历经风浪见彩虹，内心平静如止水。</p> <p>In the face of challenges, one emerges like a rainbow after a storm, with a heart as tranquil as still water.</p>
22-25	<p>龙袍藏海,晚年回首波澜平，一生传奇凝笔端。</p> <p>The dragon robe conceals the sea; in my later years, I reflect on the turbulent waves, a lifetime of legend encapsulated at my fingertips.</p>
26-32	<p>藏海传,弹剑高歌豪气在,望穿秋水风雨路。</p> <p>The epic poem " The Legend of Hidden Sea " conveys a bold spirit, singing of swords while traversing a path filled with autumn's depths and the tumult of wind and rain.</p>

The title was chosen to match the top trending topics according to the big data and set with the content, including #XiaoZhan #ZangHai Biography #Entertainment Criticism Award #ICH.

Content creation

Background production: the researcher through the collection of related video and image materials, use Adobe After Effect software to create a video background, the background is in a retro-colored leather texture as the base color, and the animation effect is achieved through short-range tracking shots, drone perspectives, and rapid transitions (see figure 9.6).

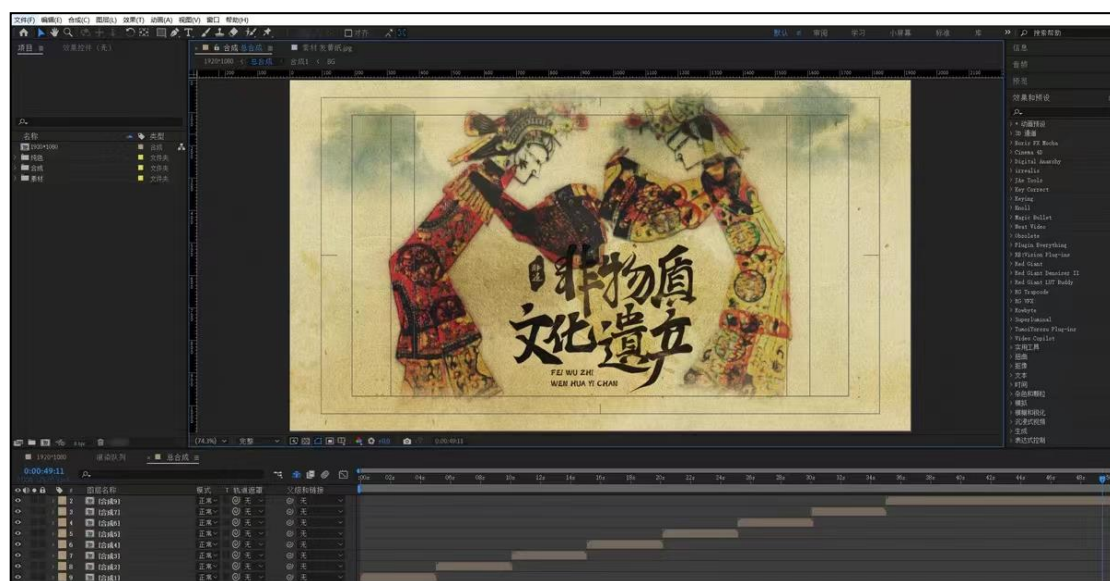


Figure 9.6 Use Adobe After Effect software to create a video background

Source: Author, 2024

Character Image Production: The researcher and Zhou Lang designed five distinct representations of the protagonist Zang Hai, reflecting his five life stages: childhood, youth, middle-aged, and old age (see figure 9.7). Zhou Lang employed traditional Huaxian shadow puppetry techniques for sculpting and coloring these figures. Finally, the researcher captured high-definition photographs, utilizing computer software to create vector images for subsequent video production.



Figure 9.7 Different characters of shadow puppetry images

Source: Zhoulang & Author, 2024

- Video-3: Integration of the shadow puppetry crafting process in a pedagogical format

Scripting

The total duration of this video is 91 seconds. Its main content still revolves around the protagonist, Zang Hai. The video content is presented in the form of a shadow puppet carving tutorial. By demonstrating the five core steps of Huaxian shadow puppet carving, it utilizes the high attention of the popular IP to meet the training needs of users. Due to the certain technical threshold of shadow puppetry shows, the video presents the complex carving techniques in a relaxed tone, creating a contrast and achieving interaction with users. The video production also follows the requirements of service design model. For the five steps of carving, the core content of shadow puppet carving is displayed every 3 - 4 seconds. At the end of the video, a popular topic related to the recent hot IP, "Television series subscription volume exceeds 1 million", is used as the conclusion, further increasing the view count. The tags are set based on big data and content, matching the popular topic, including #Xiao Zhan #Zang Hai Biography #Entertainment Review Award #International Shadow Puppetry Art.

Content creation

This video showcases the main content of the five core steps of shadow puppetry carving. It presents the entire details of Huaxian shadow puppetry carving from the first-person perspective of actual shooting, and the final product is still presented in the form of animation (see figure 9.8) .

Carving View 1
Drawing needles



Carving View 2
Sketch



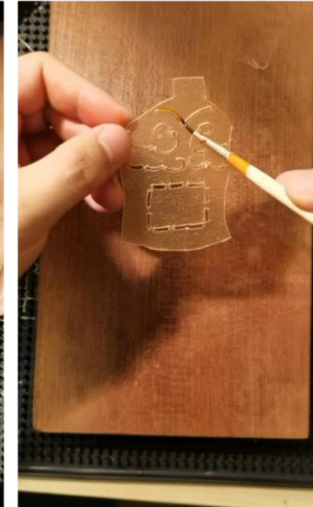
Carving View 3
Soak skin



Carving View 4
Carvings



Carving View 5
Paint



Starting View
Idol's ads cut



Ending View
Final product



Figure 9.8 The carving steps of shadow puppetry, Source: Zhou Lang & Author, 2024

9.2.4 Step3-Video creation

- Video-1: Using Capcut to complete editing and special effects

Firstly, import the base image in Capcut and drag the layer Timeline to 6 seconds to control the overall video duration, then use the software picture-in-picture function to insert the task character, adjust it to the screen position, set the entry time and the entry effect, then insert the text, voice-over and the entry effect, and finally insert the music and synchronise it with the screen duration. Figure 9.9 shows the creation process of video-1.

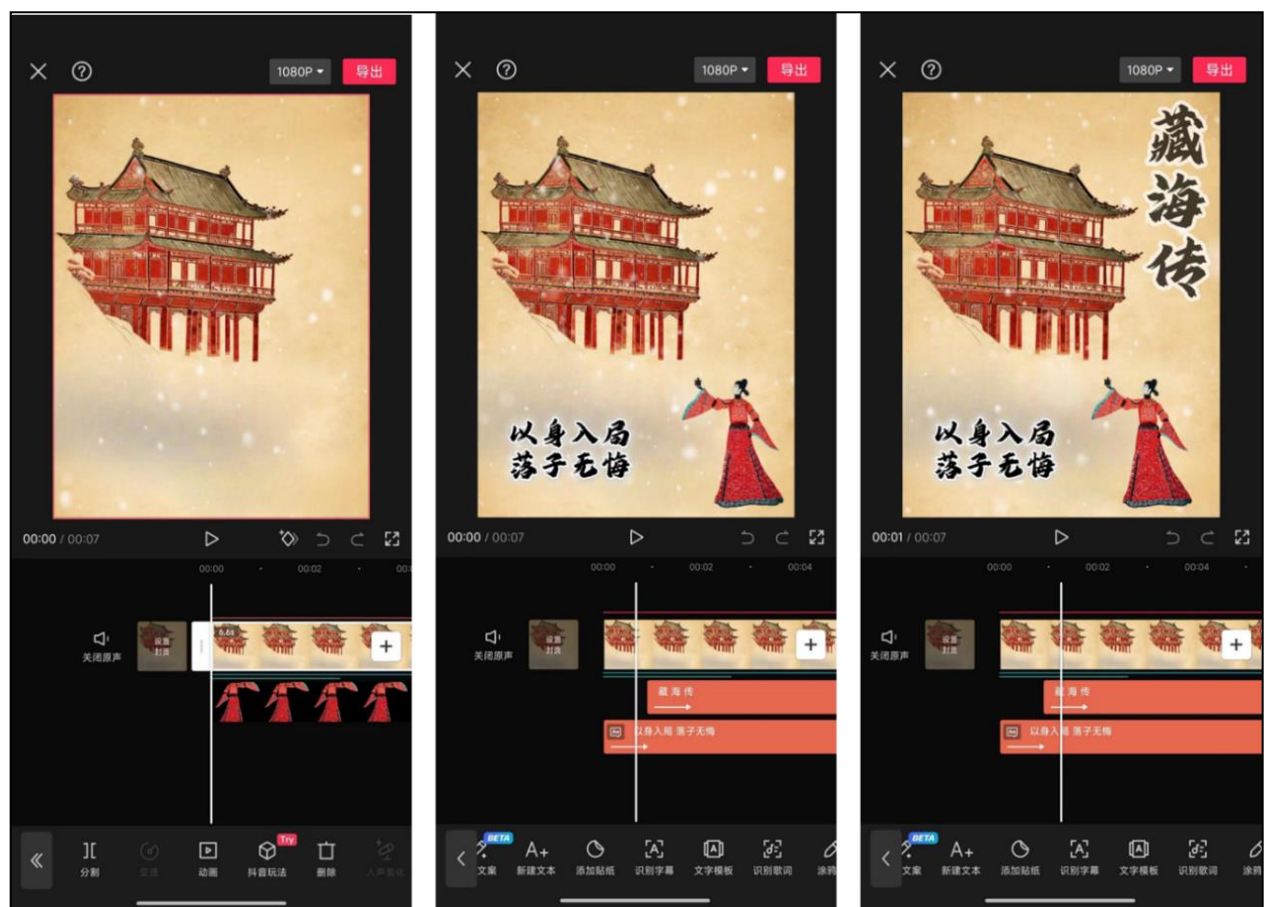


Figure 9.9 The production process of video-1

Source: Author, 2024

- Video-2: Using Adobe After Effect (AE) to complete the animation, using Capcut to complete the editing and special effects production

Using the AE software, each key frame scene is created. By adjusting the animation speed, the time of each key frame is controlled at 4 seconds, and then quickly switch to

the next scene. The perspective of different key frames alternates from left to right, creating a sense of depth. Finally, the ending shot is formed from close-up to far, and the five characters gradually emerge (see figure 9.10).

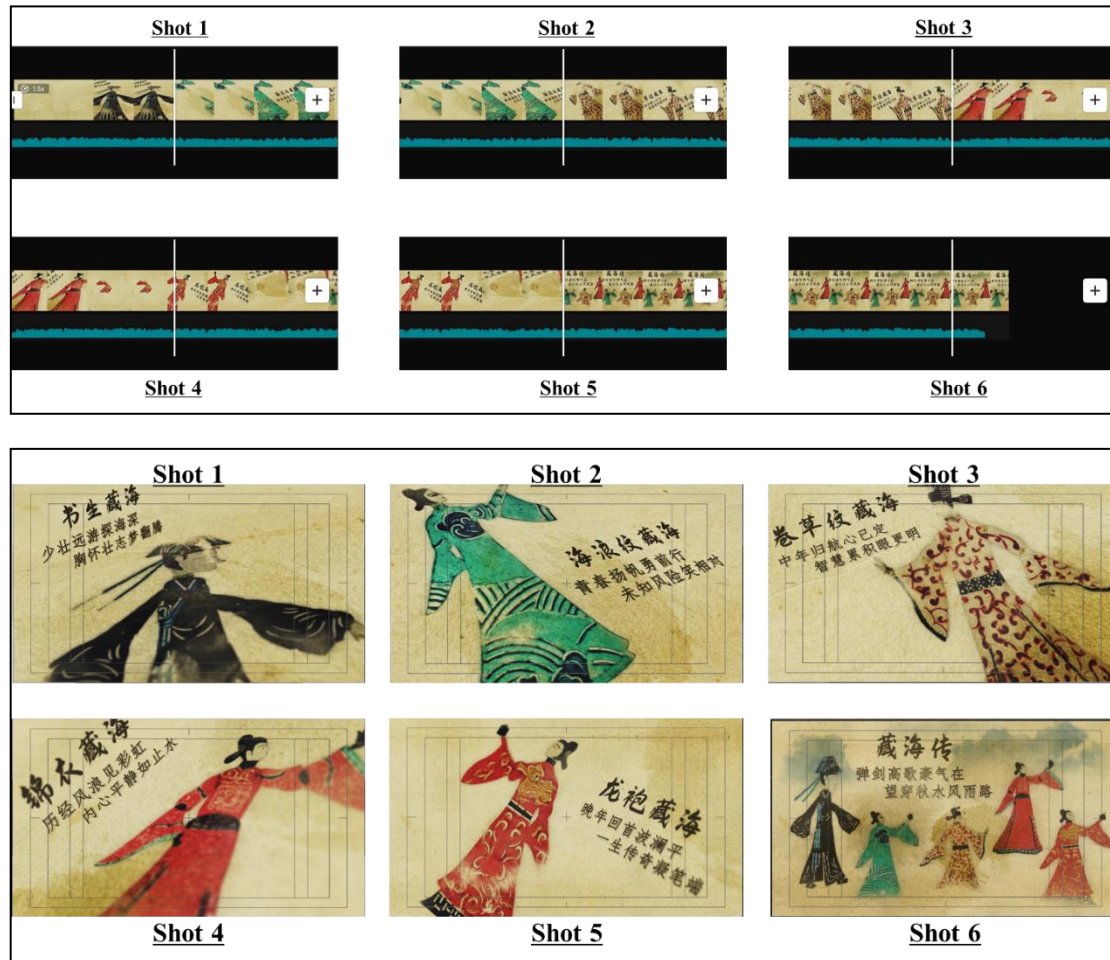


Figure 9.10 The production process of video-2

Source: Author, 2024

After the key frame animation is completed, import it into the Capcut software as the base video. At the beginning of the video, insert a 5-second black background template according to the script, insert the opening text and add a voiceover. Then, insert the video that has been created using the AE software into the beginning video, and insert the background music. Further adjust the video playback speed according to the music rhythm to achieve "key points", and insert the software's built-in "fading away" effect at the end of the video to enhance the overall effect of the video (see figure 9.11).

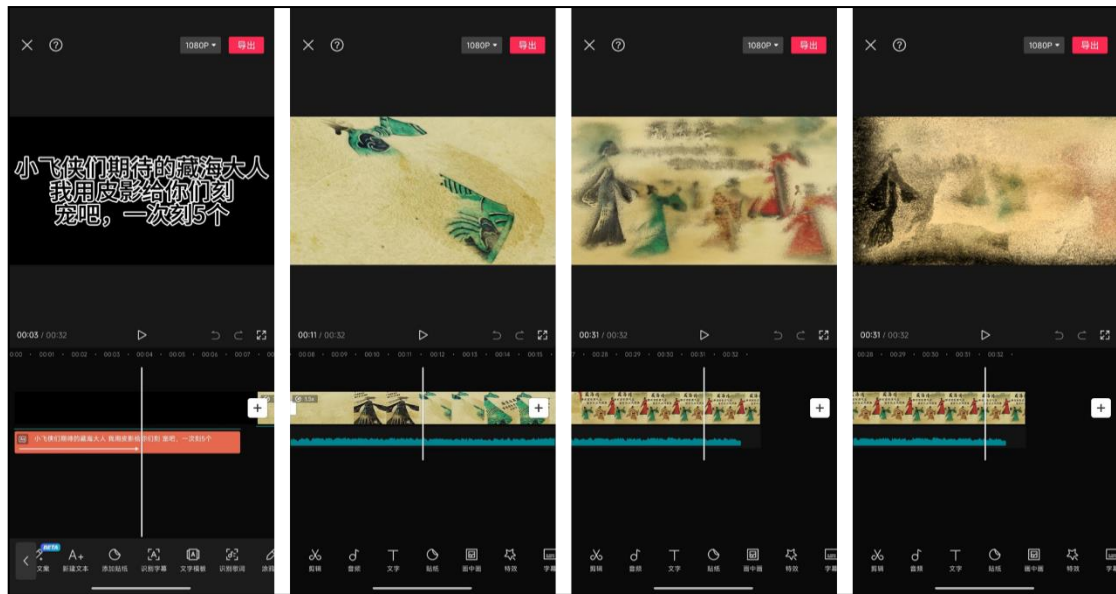


Figure 9.11 The editing process of video-2

Source: Author, 2024

- Video-3: Using Capcut to complete splicing of live action footage and special effects production

At the beginning of the video, the teaching content is divided. The carved images are separated using the Capcut software. According to the principle of retaining the most representative scenes for each key step of 3 to 5 seconds, the most significant images are kept, and the Capcut software is used to stitch the images together and add subtitles in the order of the carving process. To accurately showcase the regional cultural characteristics in the video, the background music includes popular songs sung in Shaanxi dialect. At the end of the video, the complete work is presented, and it is combined with popular topics to stimulate user interaction (see figure 9.12).

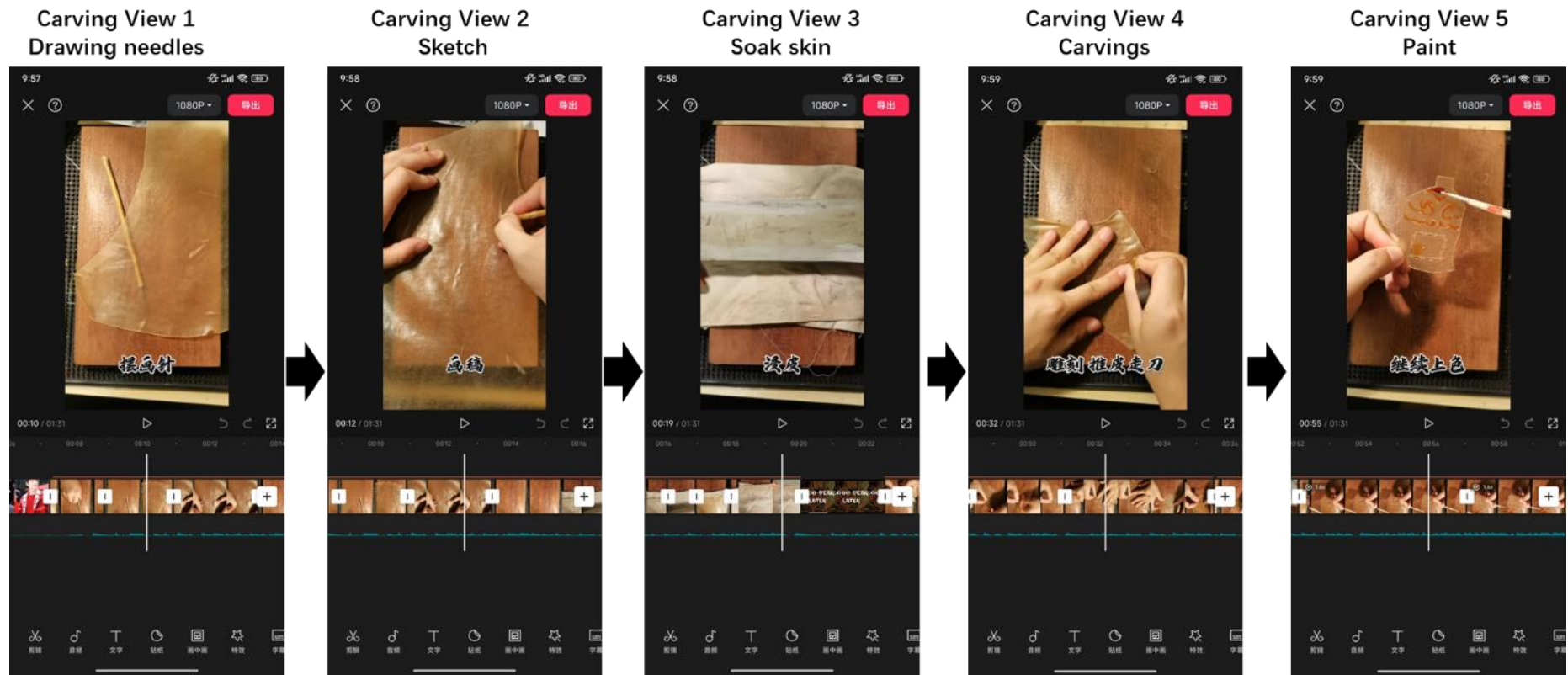


Figure 9.12 The editing process of video-2

Source: Author, 2024

9.2.5 Step4-Video release

- Video 1: The first video is scheduled for release on 31 March 2024 at 7 p.m., aligning with the peak evening hours of online users during the weekend (see figure 9.13).

The video link: <https://zenodo.org/records/15504028>

- Video 2: The second video is planned for release at 9 p.m. on 5 April 2024, coinciding with the peak evening hours of online users during the holiday period (see figure 9.13).

The video link: <https://zenodo.org/records/15504028>

- Video 3: The third video is scheduled for release at 8 p.m. on 27 April 2024, aligning with the peak evening hours of online users during weekends (see figure 9.13).

The video link: <https://zenodo.org/records/15504028>

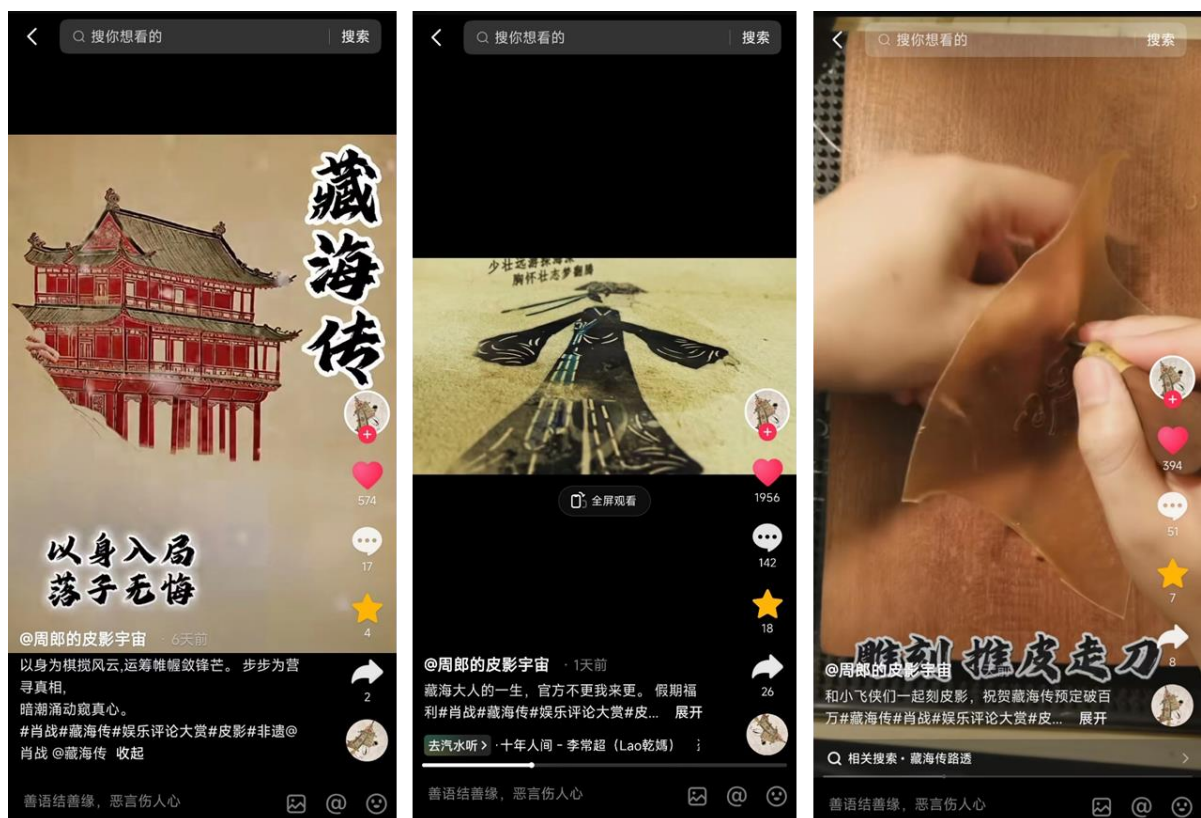


Figure 9.13 Final Video Results

Source: Author, 2024

9.2.6 Video Content Analysis Based on the CJM Model for Huaxian Shadow Puppetry Short Videos

Drawing on the CJM model for Huaxian shadow puppetry short videos creation outlined in Chapter 8, and the operational framework of the video creation model, this chapter formulates content tailored to address pain points and capitalize on opportunities at each touch point of the CJM model. The research scrutinizes the content and production of three videos through the lens of the CJM model to validate its practicality. The specific areas under examination are as follows (see figure 9.14).

Service Stage	Push stage	Stay stage		Keep watching stage			Interact stage			
Touch Points	Find the video	Start film	Start content	Key Film 1	Key Film 2	Key Film N	Like	Comment	Collect	Share
Video-1 Pain Points	Original Content Compliance with platform specifications	Quoting popular IP lines		1 key film, quoting popular IP lines, dubbing, high quality animation						
Video-2 Pain Points		Quoting popular IPs and building suspense		6 key films, sophisticated video production, 5 different character IP image styles to meet the user's cognitive needs and social integration needs						
Video-3 Pain Points		Combining popular IPs to stimulate cognitive demand		6 key films, teaching content combined with popular IP to meet users' cognitive needs and social integration needs						
Video-1 Opportunities	Video tags including #XiaoZhan #ZangHai Biography #Entertainment Criticism Award #ICH	/		/						
Video-2 Opportunities		Awakening Expectations		A fast-turning animated representation of popular IPs and traditional shadow puppetry						
Video-3 Opportunities		Curiosities		Display of traditional craftsmanship in the recording category						

Figure 9.14 Video content matches the CJM model

Source: Author, 2024

9.3 Experiment data analysis

This research will analyse the dissemination effect of the two videos through comparative analysis with the dissemination data 48 hours after the release of the videos. The dissemination data indexes involved video playback volume, number of likes, number of comments, retention rate, completion rate, playback time, comment analysis and other aspects. From the analysis of the number of likes, which is the most intuitive way of reflecting the dissemination effect of the videos, video 1 received a total of 504 likes within 48 hours after its release, and video 2 received 2,260 likes within 48 hours after its release and compared with the average number of likes of the first 50 videos released by the account, the overall dissemination effect of the videos has improved significantly.

- The dissemination effect of video 1 verifies the importance of popular topics, and the dissemination effect of video 2 verifies the effect of using the CJM creation model to enhance the dissemination of the video based on the integration of popular topics.

Video 1, although its total duration and production quality were inferior to that of Video 2, still demonstrated the driving effect of popular topics on video dissemination after its release. Compared to the first 50 videos of this account, Video 1 merely combined high-heat topics with a simple approach and included the content of popular topics in the title and topic tags. As a result, it achieved certain improvements in dissemination. In contrast, during the production of Video 2, elements such as suspenseful opening scenes, visual effects, and continuous stimulation were added, which further enhanced the video's dissemination effect.

- In terms of video views, video 1 received 3 weighted pushes, video 2 received 5 weighted pushes, while video 3 received 3 weighted pushes.

Video 1 garnered a total of 10,494 views within 48 hours. In the first hour post-release, it attained 972 views, attributed to the platform's initial promotional push. During hours 2 to 10, views rose to almost 4,000 as the video entered a period of platform engagement. After the second weighted push, along with the third weighted push, the views surged rapidly, surpassing 10,000 before stabilizing (see figure 9.15).

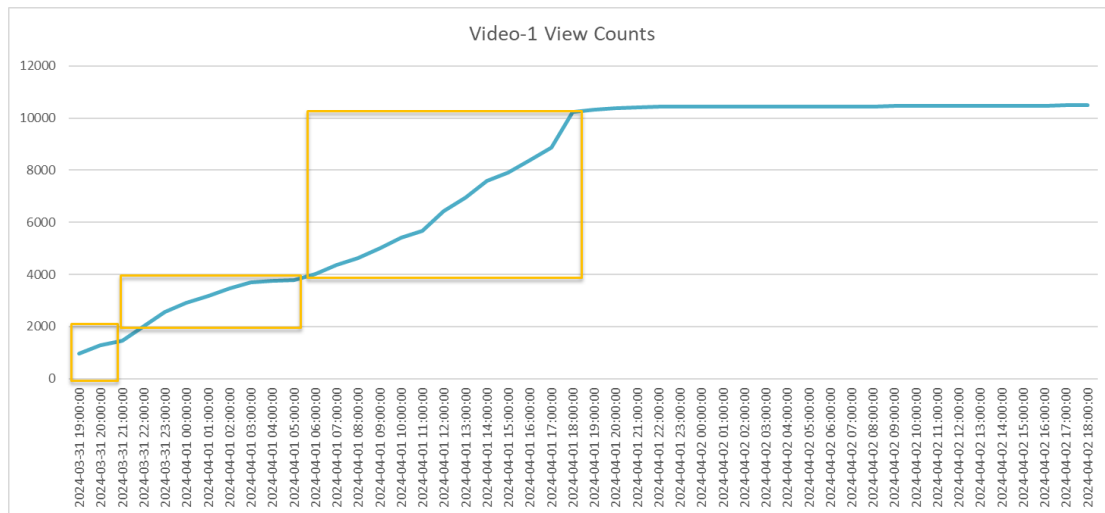


Figure 9.15 View counts of Video-1

Source: Author, 2024

Video 2 achieved a total of 29,274 views within 48 hours. This included 515 views in the initial hour following its release. The platform provided its first weighted push at this point. Subsequently, the video quickly garnered 3,005 views between the second and third hours, leading to a second weighted push. By the fourth to sixth hour, views climbed to 10,231, matching Video 1's total views within the same 48-hour span after just six hours. The platform then initiated a third weighted push. Between hours seven and nineteen, views soared to 15,026. This prompted a fourth weighted push from the platform, resulting in a view count of 25,000 between hours twenty and twenty-eight. Finally, a fifth weighted push occurred, and by hours twenty-nine to forty-eight, views peaked at 29,274 (see figure 9.16).

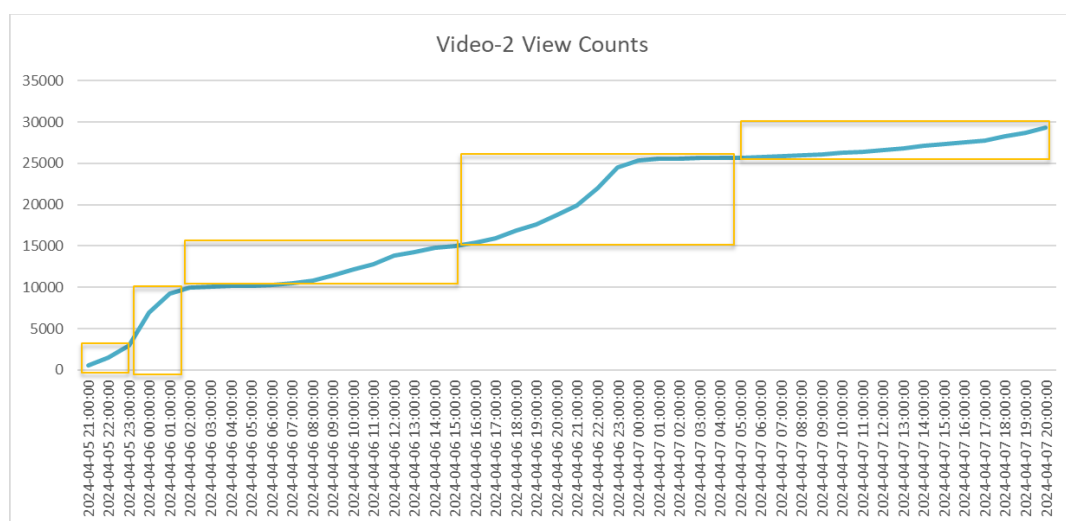


Figure 9.16 View counts of Video-2

Source: Author,2024

Video 3 garnered a total of 7,106 views within 48 hours. In the initial two hours post-release, the views reached 444, attributed to the platform's first promotional push. During hours 3 to 5, views soared to 3,564, coinciding with the platform's engagement period. Following a second promotional boost, views surged to nearly 7,000 before stabilizing (see figure 9.17).

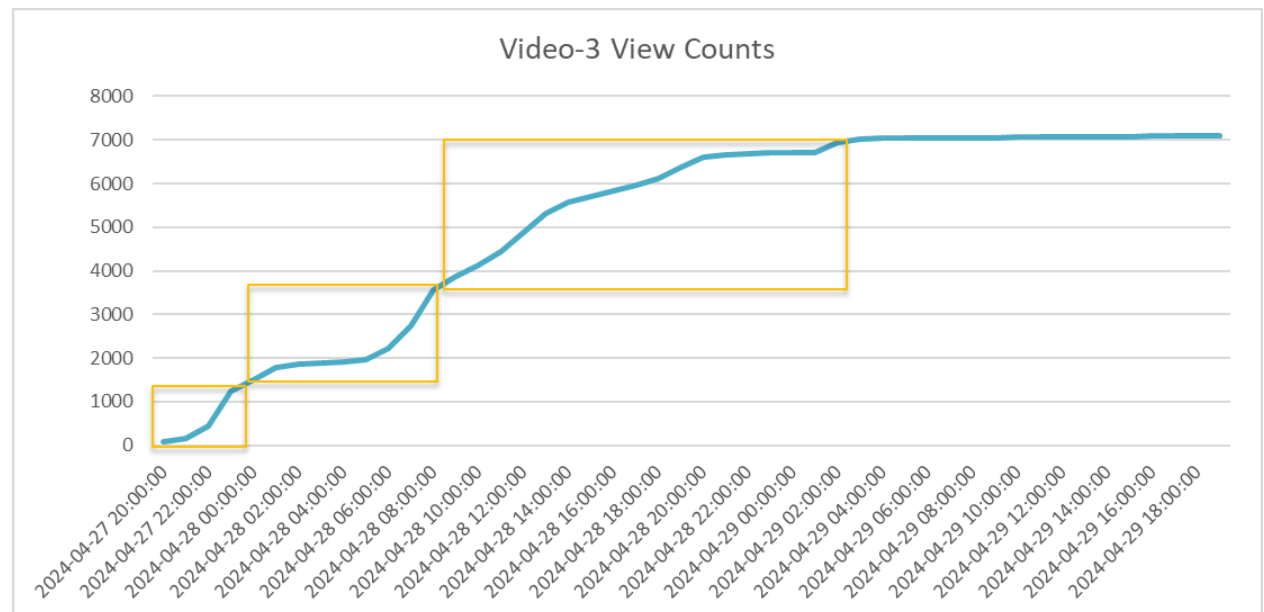


Figure 9.17 View counts of Video-3

Source: Author,2024

- Video 2 stimulates user demand through short-cycle high-frequency, with sustained like rates higher than the broader market over the same time period

Video 2 alternates the content of the screen every 4 seconds in the middle of the video, and continuously presents the task images and scenes that meet the viewers' needs. According to the data statistics and analysis based on the videos like rate (video like rate = number of likes per second / number of views per second), starting from the 6th second when the main screen is entered, from the 8th second until the end of the video, the users' perception and needs are constantly stimulated and satisfied. The like rate is generally higher than the average level of the same duration works in the market. This data performance once again verifies what the author proposed in this research, that high-quality short videos need short cycles and continuous stimulation of users' needs.

The total duration of the video can be relatively long, but the rhythm of the key frames must be fast (see figure 9.18).

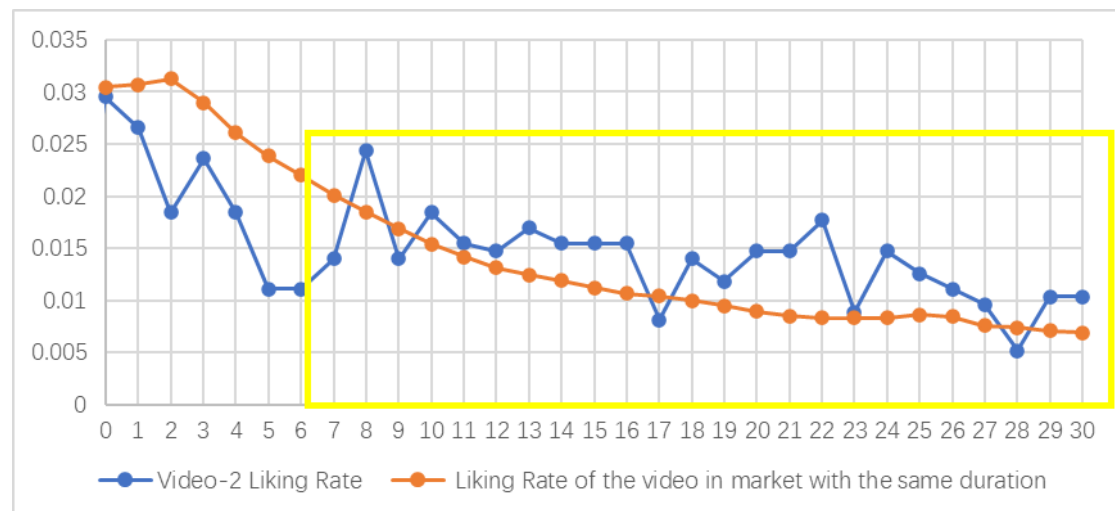


Figure 9.18 Liking rate of Video-2

Source: Author, 2024

- Video 2 attracts view introduction with high hot topics, and at the same time shows cultural skills to achieve the dissemination of cultural values and satisfy the audience's cultural needs.

The analysis of audience interest in video consumption reveals that "stars" comprised 50.61% while "TV series" represented 24.8%. This distribution results from a synergy between video content and trending topics, alongside celebrity IP, which attracts viewer traffic. This correlation highlights the significant impact of popular topics and celebrity associations on video engagement. Additionally, within the first 48 hours post-release, the video garnered 164 comments. The predominant terms used were "awesome" and "craftsmen." This suggests that, while viewer traffic arises from the allure of celebrities and trending themes, not all viewers are inclined to share their appreciation with the celebrities involved. In essence, not every video seeking to capitalize on celebrity presence or trending topics secures audience engagement. The video's intrinsic value lies in its ability to captivate viewers through the presentation of refined traditional cultural techniques and high-caliber content, invoking admiration for artisans and their craftsmanship.

- By analysing the content of the Video 2 comments, it is verified that hot topics can achieve a cold start for the video, which is effective in ultimately achieving the dissemination of cultural values and attention.

In the comments on Video 2, the top five high-frequency keywords were “so amazing,” “craftsman,” “Chinese shadow puppetry,” “amazing,” and “lord.” Although the high view count was initially driven by the idol topic of “Xiao Zhan,” as the video received continuous weighted promotion, the attention generated by celebrity-related topics gradually shifted toward the content about shadow puppetry. This indicates that the video's impact on promoting shadow puppetry culture and ICH is becoming increasingly evident. The celebrity content served as an initial traffic driver, enhancing the platform's algorithmic recommendation of the video. Meanwhile, the admiration expressed for shadow puppetry artisans and the appreciation of traditional culture in the comments demonstrate that the video content successfully fulfills users' needs for social integration, thereby achieving effective cultural dissemination.

- By analyzing the comment interaction rate of Video 3 and the content of the comments, it is evident that instructional cultural content combined with trending topics better fulfills users' training needs, resulting in a higher proportion of comment interactions.

The comment interaction rates (number of comments to video) for the three videos, measured 48 hours post-upload, were 0.17%, 0.56%, and 0.76%. Although Video 3 does not exceed the first two in total views and likes, it garners significant comment engagement. Analyzing the comments for Video 3 reveals that the top five phrases include "teacher," "eyes," "actually," "good," and "brain." The video's introduction uses educational content to attract viewers and stimulate their curiosity and training needs. However, learning the intricacies of shadow puppetry carving presents challenges that diverge from user expectations, fostering interaction. Users express both admiration for the craft's complexity and engage with the creator, sometimes in a mocking manner (see figure 9.19).



Figure 9.19 The comment of Video-3

Source: Author, 2024

9.4 Experiment effect evaluation

The researcher followed the shadow puppetry short video creation service design model in the process of making and releasing three short videos. Systematically, Huaxian shadow puppetry has optimized its content through service design for digital dissemination on short-video we-media platforms. Specifically, the study validated the effectiveness of the experiment and model from the following four perspectives:

- Effectively validated the cultural function of Huaxian shadow puppetry in the context of short-video dissemination.

Based on the relevant research conclusions in Chapters 5, 6, and 7 of this research, from the perspectives of Cultural function theory and UGT, Huaxian shadow puppetry should fully exert its social control, educational and training cultural functions on the short-video platform. According to the CJM model constructed in Chapter 8 of this research, in the research stage, find popular celebrity topics that can be combined with the elements of shadow puppetry, and conduct rapid verification through video-1. Combine the communication effect and audience interaction content to verify the rationality of the touchpoints and key films settings in the model through video-2. Further supplement the verification of the education and training of shadow puppetry through video-3. Through the analysis of communication data, prove the feasibility of the CJM model and its effectiveness in improving the dissemination effect.

- Effectively verified the dissemination effect of the short videos created based on the model.

Based on the verification of the effectiveness of video content fusion in video-1, this research further optimized the video results in strict accordance with the CJM model, and combined the TikTok dissemination mechanism to enhance the content expression at the touch points. By analyzing the dissemination data of video-2, it was compared that video-1 merely verified the effectiveness of content fusion, while the dissemination effect of video-2 was significantly improved. Meanwhile, through the analysis of the time-series data of video dissemination, this research verified the assumptions about the interaction between user behavior and content output during the construction of the CJM model. From both the result and process perspectives, it further proved the validity and feasibility of this model.

- Validation of the innovativeness in the service design model.

The CJM model of shadow puppetry short videos constructed in this research can achieve a closed-loop mechanism of "content - feedback - optimization". By analyzing the feedback from the audience in video-2 regarding the video content, the creation process of video-3 further strengthened the display and integration of star content. At the same time, the educational and training cultural functions of shadow puppetry were

presented in a content-based manner based on the operation mechanism of the CJM model. Through a comparative analysis of the dissemination data of the three videos, the effectiveness of the closed-loop mechanism of this service design model was fully verified.

- Effectively verified the operability of this model

This research takes a PAR method. During the execution of this experiment, this research collaborated with a young inheritor of Huaxian shadow puppetry. According to the data from the TikTok platform, the video content created by this inheritor in the past did not have a good dissemination effect. Therefore, the users of this model were not professional short-video creators, which excluded the situation where the model's effectiveness was distorted due to the individual capabilities of the users. By comparing the dissemination data of three videos with the dissemination data of other videos on this inheritor's TikTok account, the dissemination effect improved significantly, fully demonstrating the operability of this model for non-professional video creators.

10.0 CONCLUSIONS & DISCUSSION

10.1 Summary

The primary objective of this research is to design a content creation service model for the preservation and promotion of ICH, exemplified by Huaxian shadow puppetry, leveraging the short video we-media platform. This research comprehensively understands the development dilemma of Huaxian shadow puppetry. Then analyzes the cultural value and function of Huaxian shadow puppetry from a sociological perspective. Additionally, the researcher researches the current dissemination status of ICH and Huaxian shadow puppetry on short video we-media platforms. Ultimately, the author constructed a short video content creation service model for Huaxian shadow puppetry through the applying of service design theories and models. The author also verified the experimental validity of this service model and achieved some preliminary research results. The effectiveness of the service model is confirmed through experiments, meeting some preliminary research objectives and addressing the research questions.

Specifically, the research focuses on "uses sociology theory to find problems, use communication theory to analyze problems, use design theory to solve problems". It takes cultural function theory as the cornerstone for analyzing the cultural connotation of Huaxian shadow puppetry. The research explores the opportunities and challenges of ICH in the era of short-video we-media using demand and satisfaction theory. Throughout the research, the researcher conducted multi-dimensional data mining and analysis. The research carried out numerous interviews and distributed questionnaires to ensure the reliability and authenticity of this research.

10.2 Overview of dissertation

This research aims to explore how to optimize the process of Chinese shadow puppetry short video content creation through service design and to meet the needs of short video users to promote the dissemination effect of Chinese shadow puppetry. Therefore, this objective is achieved through a systematic investigation and service system design, which is divided into nine chapters throughout the research.

Chapter 1 introduces the research background, research questions, research objectives, research scope, research significance, and research framework. Chapter 2 identifies current research directions and gaps by reviewing existing research. Chapter 3 focuses on the theoretical framework of this research, which is centered around "adopting the cultural function theory of sociology to identify the problems, the UGT of dissemination to analyze the problems, and the service design theory to solve the problems. Chapter 4 is the research methodology and research steps used in this research. Chapter 5, from the perspective of cultural function theory, through numerous interviews with individuals, explores the cultural functions of Huaxian shadow puppetry in contemporary society. At the same time, it truly understands the development challenges and opportunities faced by Huaxian shadow puppetry in the era of we-media. Chapter 6, through data collection and analysis, explores the current dissemination status and characteristics of the content of shadow puppetry on we-media platforms. And combined with questionnaire surveys, it analyzes the cultural functions currently demonstrated by shadow puppetry in the dissemination process of short videos from the perspective of cultural function theory. Chapter 7, using the UGT of communication studies, explores how shadow puppetry videos satisfy the needs of we-media users and which cultural functions they embody. Chapter 8 builds a service model for shadow puppetry short video content creation and establishes the operation mechanism and usage method based on the research results in Chapters 6 and 7. Chapter 9 then carries out specific practice based on the service model established above, studies the creation of three videos, and examines the effect of the service model through data analysis.

The main research question of this project was “How to improve the effective dissemination of shadow puppetry on we-media platform through Service design?” The answer can be provided by the answers to the following sub-research questions.

- Which kind of "we-media" platform is more suitable for the dissemination of shadow puppetry?

To address this issue, based on the characteristics of the various we-media platforms, the researchers divided them into five categories. From these categories, the researchers selected the platform with the highest market share for each type as the research sample. At the same time, the researchers combined the interview information in Chapter 5 to

explore the demands for the inheritance and development of shadow puppetry in the we-media context. To solve these problems, the researchers conducted quantitative evaluations of the five we-media platforms by collecting data and relevant information. These evaluations were consistent with the cultural characteristics and inheritance demands of Huaxian shadow puppetry. Finally, the researchers concluded that in the short-video category, TikTok, with its users' interest-based algorithm recommendation system, is the most suitable for the dissemination of shadow puppetry.

- What are the contemporary cultural functions of Chinese shadow puppetry? What are some that can be realized on we-media platforms?

In Chapter 5, this research conducts interviews with diverse practitioners of Huaxian shadow puppetry across different domains and integrates cultural function theory to analyze the contemporary cultural functions of Huaxian shadow puppetry. The findings indicate that within modern society, Huaxian shadow puppetry continues to serve various societal needs such as social control (social integration), economic contribution through cultural tool production, education and training, and spiritual enrichment in diverse forms. The enduring cultural significance of Huaxian shadow puppetry is evident in present times. Subsequently, Chapter 6 utilizes data analysis and survey questionnaires to demonstrate the potential for ICH and shadow puppetry to effectively disseminate on the TikTok platform. It also validates the role of Huaxian shadow puppetry on TikTok in terms of social control and education/training based on cultural function theory.

- Which needs of the short video viewers are met to generate interactive behaviors?

In terms of viewer demand for ICH video content, Chapter 6 of this research examines and explores this through a questionnaire survey. This survey is based on the cultural function theory and the UGT. It summarizes the results from 509 questionnaires. Social control and knowledge demand drive users' interactive behavior in ICH short videos. Training needs motivate users to actively follow ICH short videos. Users' motives for interacting with ICH short videos and their reasons for continuing to seek them are reasonable explanations derived from Malinowski's cultural function theory. These motives reflect users' identification with and love for ICH culture. They also highlight the important value and significance of ICH culture in modern society.

- How can the cultural functions of shadow puppetry be matched with the demands of we-media users?

This research, through Chapters 5 and 6, analyzes the cultural functions of Huaxian shadow puppetry in contemporary society and on we-media platforms based on the cultural function theory. Through Chapter 7, based on UGT, it examines which needs the Huaxian shadow puppetry short videos on we-media platforms satisfy and which cultural functions they embody. Combining the research contents of the above three chapters, the conclusion drawn is that the Huaxian shadow puppetry short videos on we-media platforms meet users' cognitive needs and social integration needs, and the corresponding cultural functions are social control and education and training.

- How we-media short videos can serve users from a service design perspective?

In order to create videos with high dissemination effects, the researcher first analyzed TikTok's dissemination mechanism in Chapter 7, while also considering the characteristics of creating content related to ICH. In Chapter 8, the researcher constructed a model based on service design theory. During the process of watching short videos, short video users are actually receiving short video services. The content dissemination during the playback of short videos and the interaction behaviors of users are the touchpoints of service interaction. This research combined the characteristics of the dissemination mechanism of short video platforms, divided the entire process of video creation and release into four stages, and organized the specific operational skills of each stage from the perspective of service design.

- How can the creators use service design theory to optimize short video services in the ICH category?

Based on the establishment of the above model, the researcher uses participatory design methods and collaborates with shadow puppetry carving artist during the experimental process. The author released three videos in strict accordance with the operational steps of the model on the shadow puppetry carving artist's TikTok platform. Furthermore, the researcher compared and analyzed these videos with past ones through backstage data analysis. This work verified the model's validity concerning the dissemination effect results. At the same time, the operation process practice demonstrates the model's implementation capability.

Elaborate on the research hypotheses proposed in this research based on the research conclusions drawn.

H1a. Different ICH have their own unique original and core cultural and artistic values and need to be presented in different forms of we-media to achieve the best dissemination effect.

Chapter 6.1 of the research examines the ICH content and development trends across various we-media platforms from multiple dimensions. The findings indicate that the results do not support the H1a research hypothesis presented in this article. According to the analysis in Chapter 6, achieving effective dissemination on we-media platforms largely depends on the user base of each platform. In practice, many ICH contents are disseminated simultaneously across multiple platforms to maximize reach. Furthermore, the research concludes that, from the theoretical perspectives of cultural value and communication studies, the creation of we-media content for ICH should incorporate customized strategies tailored to the unique cultural characteristics and values of different ICHs, thereby enhancing their dissemination effectiveness.

H1b. For the evaluation criteria of the dissemination effect, attention, sharing and like are the most direct quantitative indicators. Relatively high indicators above, indicating that the content gets a higher frequency of "multi-stage dissemination".

Chapters 6, 7, and 9 of the research verify this hypothesis through data scraping, data analysis, and experimental data evaluation. The dissemination effect of we-media content exhibits a strong correlation with interactive behaviors such as attention, sharing, and liking. Furthermore, these effects are shaped into phased dissemination characteristics by the algorithmic mechanisms of we-media platforms.

H2a. As an information service form, we-media can improve the we-media service system related to shadow puppetry by applying the service design theory model, in order to meet the audience's needs and realize the cultural function of shadow puppetry in contemporary society.

Chapters 8 and 9 of the research validate the above hypotheses through experimental studies and evaluations. By integrating the cultural value of shadow puppetry with the

user demands on TikTok, a service design theory-based model for creating shadow puppetry short video content was developed. The experimental results demonstrated its effectiveness in achieving favorable outcomes.

10.3 Contribution

In the era of rapid digitalization and informatization, leveraging these technologies for the protection and inheritance of ICH has emerged as a critical issue. Particularly, the rise of we-media platforms has introduced new opportunities and challenges for the dissemination and safeguarding of ICH.

- By integrating the theoretical perspectives of sociology, communication studies, and service design, this research constructs an analytical framework of "cultural function - communication characteristics – audience needs" for the dissemination of ICH via we-media. This framework provides an interdisciplinary theoretical perspective for research on ICH protection in the we-media era.
- Through interviews, questionnaires, data mining and other research methods, this research analyzes the development dilemma faced by Huaxian shadow puppetry in contemporary society from the perspective of cultural function theory, as well as the cultural function and communication value it can serve in the we-media era.
- A service design model for ICH content creation on we-media platforms was constructed. Experimental results validated both the usability of this service design model for creators and its effectiveness in producing ICH-related we-media content that meets audience needs.

10.4 Limitations

Although there are important discoveries revealed by this research, there are also some limitations.

First, at the same time when this research was conducted, inheritors and practitioners of Huaxian shadow puppetry promoted its dissemination via we-media using their own methods and achieved positive results. However, this research could not track their progress in real time. The Huaxian shadow puppetry short video creation service model

developed here can serve as an innovative tool to enhance their creative abilities and validate the research findings through application, addressing this limitation.

Second, regarding the feedback on the use of the creation service model, during the period when this research was conducted, the feedback on the practice of the creation service model was insufficient due to the influence of COVID-19. Additionally, the practice process still requires creators to master a certain level of video filming and editing techniques, which sets a threshold for use. Thus, this research has not assessed the impact of different video creation abilities on the final results.

Third, this research optimized the dissemination effect of shadow puppetry on short-video platforms through service design. However, due to the limited research time, it is necessary to further explore in subsequent researches how such dissemination effect optimization can promote the protection and inheritance of shadow puppetry or ICH, and what quantitative connections exist between cultural dissemination via we-media and cultural inheritance.

10.5 Future plan

Due to limited research time, this research failed to obtain more feedback from video creators and ICH inheritors during the final experimental stage. In subsequent research and practice, the researcher hopes to utilize this service model in the we-media practices of more ICH inheritors. The researcher aims to test and optimize the service model from multiple perspectives. Simultaneously, during the short video creation process, the researcher will create an account to undertake a series of cross-border content creation attempts. From a cultural function perspective, the cultural value of Huaxian shadow puppetry and ICH culture will be more comprehensively presented through the short video platform in a contemporary context.

In the realm of ICH cultural inheritance and development, the urgency of inheriting and protecting Huaxian shadow puppetry is evident. As the older generation of shadow puppetry inheritors passed away, the number of next-generation inheritors decreases. This research proposes solutions to address the pressing issues faced by Huaxian shadow puppetry in its current state. To ensure the survival of Huaxian shadow puppetry culture, further research will focus on enabling a gradual transition from "survival" to "conservation", "inheritance", "cultural reconstruction", and ultimately

form a "new culture" (See figure 10.1). This will involve integrating new technologies, introducing innovative approaches, and aligning interests among various stakeholders, including government entities, users, platforms, and inheritors.

Future research will not only further deepen and broaden the exploration in the shadow puppetry domain but also leverage the innovative research framework established in this research, which integrates Cultural Function Theory, UGT, and Service Design methodologies for cultural and new media communication. By incorporating advanced technologies such as AI, VR, and XR, future studies can extend to other ICH categories. The research directions may include: 1) integrating the unique cultural characteristics of ICH categories; 2) utilizing technological tools for creating and presenting novel content; and 3) developing an operational creative model grounded in the service design paradigm.

As research progresses and experimental scope expands in depth and breadth, two primary limitations may arise: 1) intellectual property protection and 2) the preservation and transmission of ICH. The challenge in intellectual property protection stems from the inherent tension between innovation and tradition. ICH inheritors strive to balance the innovative dissemination of their works with robust intellectual property safeguards. This conflict often constrains the ability of we-media practitioners to fully harness their creative potential in we-media ICH promotion. To address this limitation, it is essential to refine the ICH intellectual property protection system and establish clear intellectual property authorization guidelines for we-media platforms.

Regarding the preservation and dissemination of ICH, while technological empowerment undoubtedly plays a positive role, there remains a lack of universally recognized research methods or theoretical frameworks for evaluating the effectiveness of such efforts. Ensuring the reliability of research outcomes requires long-term tracking and observation. However, the extended time frame introduces complexities due to the interaction of multiple factors that may influence results, making it challenging to draw precise qualitative.

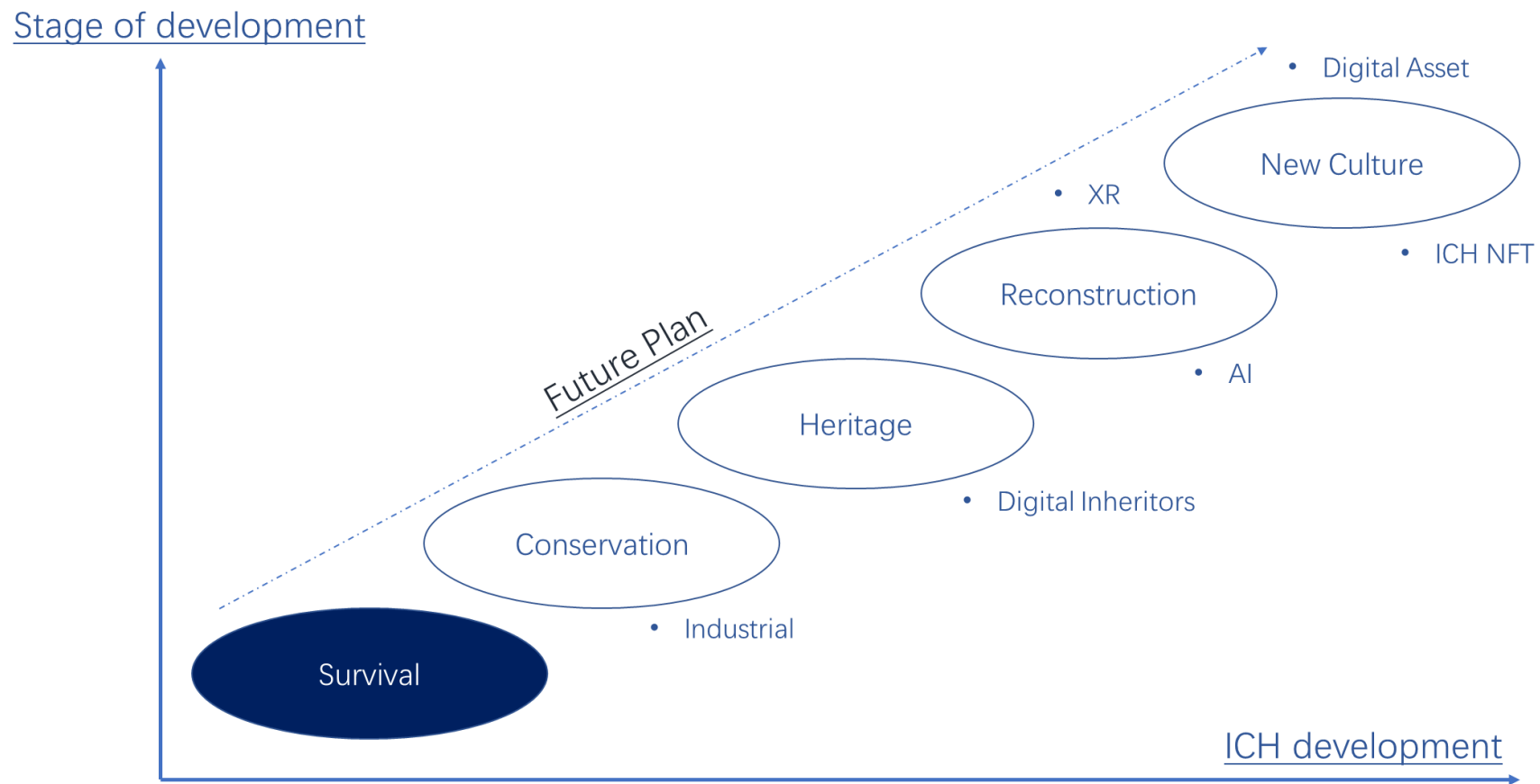


Figure 10.1 Future Plan

Source: Author, 2024

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Appendix 1: Questionnaire

Questionnaire

Dear Sir/Madam:

Thank you for participating in this research. This academic questionnaire focuses on "enhancing the dissemination of ICH through short video media in the context of shadow puppetry." Please remember, there are no right or wrong answers. Fill in the blanks based on your actual experiences. We will use all information solely for academic purposes. We guarantee strict confidentiality and will protect your personal privacy. Your insights are crucial to the outcomes of this research. Thank you!

1. Are you using or have you ever used a short video mobile app? (Such as Tik Tok, Kuaishou or WeChat Video Channel)

☐ Yes ☐ Never used

If you choose "Yes", please continue to fill in the form, if you choose "Never used", please finish the form, thank you for your cooperation!

2. Your gender

☐ Male ☐ Female

3. Your age

☐ 6-17 years old ☐ 18-24 years old ☐ 25-30 years old ☐ 31-35 years old ☐ 36-40 years old ☐ 41 years old and above

4. Your academic qualifications

☐ Junior high school or below ☐ High school/technical school ☐ Junior college
☐ Undergraduate college ☐ Master and above

5. What is your current occupation?

☐ School student ☐ Government official/civil servant ☐ Enterprise manager (including junior and senior manager) ☐ General staff (Office/office staff) ☐ Ordinary worker (e.g. factory workers/manual laborers) ☐ Business service worker (e.g. sales staff/shop staff/waiters, etc.) ☐ Self-employed/contractor ☐ Freelancer ☐ Workers in agriculture, forestry, husbandry and fishing ☐ retire ☐ temporary unemployment ☐ Others

6. Are you a shadow art related practitioner?

☐Yes ☐No

7. If you are a practitioner related to shadow puppetry, which of the following categories of practitioners do you belong to?

☐ shadow inheritors ☐ shadow enthusiasts ☐ shadow performers ☐ shadow industry managers ☐ shadow-related business trades ☐ others

8. Which platform do you mainly watch short videos on?

☐ TikTok ☐ TikTok Volcano ☐ Kuaishou (快手) ☐ Watermelon Video ☐ Good-looking Video ☐ Weishi (微视) ☐ Suike (随刻) ☐ Bobo (波波视频) ☐ WeChat Video ☐ Others

9. How often do you usually use short video software?

☐ More than 2 times per day ☐ 1 time per day ☐ 2-6 times per week ☐ 1 time per week ☐ 2-3 times per month ☐ 1 time per month ☐ Others

10. How long do you usually spend watching short videos in a day?

☐ 30 minutes or less ☐ 30 minutes - 1 hour ☐ 1 hour - 1.5 hours ☐ 1.5 hours - 2 hours ☐ More than 2 hours

11. On which of the following occasions do you often use short video software?
(Multiple choice question)

☐ Commuting on the bus or underground ☐ eating ☐ waiting in line ☐ taking a break ☐ bathroom ☐ other times

12. What types of short videos you often watch? (You can choose 3 options)

☐ Singing, Dancing, Talent ☐ Sports ☐ Pets ☐ Handsome guys and beauties ☐ Funny segment ☐ Stars ☐ Documentaries ☐ Film editing ☐ Food and beauty category ☐ Professional Knowledge ☐ News ☐ Beauty wear and match ☐ Sensibilities ☐ The curious story type ☐ Games ☐ Automobiles ☐ Science and Technology ☐ Others

13. What are the forms of short video you often watch? (You can choose 2 options)

☐ Selfie-taking ☐ Film editing ☐ Graphic narrative ☐ Animation ☐ Specific effects AR class ☐ Documentary ☐ Live broadcast ☐ Others

14. The main reasons why you use short video software? (You can choose 2 options)

☐ Pass the time, relax ☐ Friends are using it, have a common topic ☐ Learn relevant knowledge ☐ Rich and interesting ☐ Explore new things ☐ Understand the news ☐ Catch up with the trend ☐ Other

15. Have you ever watched short videos about ICH and interacted with them through likes, comments, shares, etc.?

☐Yes ☐No

16. If yes, what is the reason behind your liking, commenting, and sharing of short videos related to ICH?

☐ The content is novel ☐Emotional resonance ☐Acquired new knowledge ☐Funny and creative ☐Involving popular topics that one cares about ☐Supporting traditional culture

17. Do you have any interest in following livestreamers who focus on ICH?

☐Yes ☐No

18. If yes, please specify the accounts of the livestreamers you followed

Please enter _____

19. Have you actively searched for videos related to ICH?

☐Yes ☐No

20. If yes, what is your purpose for searching for short videos on ICH?

☐A friend recommended searching for a certain video ☐Out of curiosity ☐Seeing others share, I hope to gain a deeper understanding ☐I hope to further understand by watching related videos ☐I have long-term interests that I pay attention to personally ☐Recommended search topics related to hot trends ☐Others

21. Watching videos related to ICH can increase new and interesting knowledge, broaden horizons, and satisfy curiosity.

☐Strongly disagree ☐Disagree ☐General ☐Agree ☐Strongly agree

22. Watching videos related to professional types of ICH can help acquire useful knowledge.

☐Strongly disagree ☐Disagree ☐General ☐Agree ☐Strongly agree

23. After watching short videos about ICH, I hope to actively learn more information or participate in related activities through other channels.

☐Strongly disagree ☐Disagree ☐General ☐Agree ☐Strongly agree

24. I think watching videos related to ICH on Tik Tok can provide knowledge and make me feel fulfilled.

☐Strongly disagree ☐Disagree ☐General ☐Agree ☐Strongly agree

25. I believe that watching videos on Tik Tok that combine ICH with popular topics is to keep up with the trend.

☐Strongly disagree ☐Disagree ☐General ☐Agree ☐Strongly agree

26. I like or share short videos about ICH in the hope of getting more people to support traditional culture and feeling a sense of honor myself.

☐Strongly disagree ☐Disagree ☐General ☐Agree ☐Strongly agree

27. I will start following the creator of a video because of my love for that particular video.

☐Strongly disagree ☐Disagree ☐General ☐Agree ☐Strongly agree

28. I will share videos of ICH that evoke emotional resonance on my Moments or other social platforms.

☐Strongly disagree ☐Disagree ☐General ☐Agree ☐Strongly agree

29. I will share videos of ICH that evoke emotional resonance on my Moments or other social platforms, along with my thoughts on the video.

☐Strongly disagree ☐Disagree ☐General ☐Agree ☐Strongly agree

30. I think watching videos related to ICH on Tik Tok is a way to have common topics with friends.

☐Strongly disagree ☐Disagree ☐General ☐Agree ☐Strongly agree

31. I saw short videos related to ICH on Tik Tok that combine my interests. I will share the videos with friends who have the same hobbies.

☐Strongly disagree ☐Disagree ☐General ☐Agree ☐Strongly agree

32. I will participate in discussions in the comments after watching videos related to ICH.

☐Strongly disagree ☐Disagree ☐General ☐Agree ☐Strongly agree

33. If I come across videos related to ICH that I have absolutely no understanding of, it puts pressure on me and prevents me from watching them in their entirety.

☐Strongly disagree ☐Disagree ☐General ☐Agree ☐Strongly agree

Appendix 2: Application for ethical review



To	Yu Gino Tu (School of Design)		
From	Ng Po Ling, Delegate, Departmental Research Committee		
Email	bobo-pl.ng@	Date	04-Nov-2021

Application for Ethical Review for Teaching/Research Involving Human Subjects

I write to inform you that approval has been given to your application for human subjects ethics review of the following project for a period from 01-Sep-2018 to 31-Jan-2023:

Project Title:	A Strategic Design for the Improvement of Chinese Shadow Puppetry Dissemination on We-media Platforms with a study focus on Huaxian, Shaanxi Province
Department:	School of Design
Principal Investigator:	Yu Gino Tu
Project Start Date:	01-Sep-2018
Project type:	Human subjects (non-clinical)
Reference Number:	HSEARS20211021003

You will be held responsible for the ethical approval granted for the project and the ethical conduct of the personnel involved in the project. In case the Co-PI, if any, has also obtained ethical approval for the project, the Co-PI will also assume the responsibility in respect of the ethical approval (in relation to the areas of expertise of respective Co-PI in accordance with the stipulations given by the approving authority).

You are responsible for informing the PolyU Institutional Review Board in advance of any changes in the proposal or procedures which may affect the validity of this ethical approval.

Ng Po Ling

Delegate

Departmental Research Committee (on behalf of PolyU Institutional Review Board)

Appendix 3: Interview questions

1. Interviewee Information

1.1 Identity

1.2 Employment time

1.3 Age

1.4 Gender

1.5 Affiliated organizations

2. General issues

2.1 About the shadow puppetry past

- When did you first begin working in shadow puppetry? What significant turning points in the development of shadow puppetry art do you believe you have encountered since starting your career? What were the causes of these changes? What transformations have occurred?
- What are the biggest differences between how shadow puppetry has developed in the past and today? What changes have happened in the sources of income? What changes have occurred in the forms of transmission?
- What is the importance and value of shadow puppetry in Huaxian in the history of shadow puppetry development in China?
- What are the most characteristic features of Huaxian shadow puppetry compared to other shadow puppetry?

2.2 About shadow puppetry nowadays

- What do you think are the bottlenecks in the development of the shadow puppetry art in Huaxian in the contemporary context? What are the reasons for this?
- What are the specific problems facing the inheritance of shadow puppetry art?

- What do you think are the opportunities and challenges for the development of shadow puppetry art in Huaxian at present? How to grasp the opportunities? How to deal with the challenges?
- What do you think are the core cultural and economic values of shadow puppetry?
- What opportunities does the development of we-media bring to the dissemination of shadow puppetry?
- Have you felt the positive or negative impacts of we-media on the dissemination of shadow puppetry art? What are the specific aspects?

2.3 About the future of shadow puppetry

- The future of shadow puppetry needs innovation, but the process of innovation may also affect the protection of tradition, how do you see the conflict between protection and innovation?
- For shadow puppetry in Huaxian, if innovation is needed, what do you think can be innovated? What needs to be protected?
- What suggestions do you have for the future development direction of shadow puppetry? What do you think about the direction of shadow puppetry towards high-end and popularization?
- Have you considered disseminating shadow puppetry through we-media? What kind of content do you mainly want to show?
- Which form of we-media do you think is more suitable for the dissemination of shadow puppetry?

Appendix 4: Extract of the Main Content of the Interviews

WANG Tianwen (汪天稳)

1. The difficulties facing the inheritance and development of Huaxian shadow puppetry.

Author: Are there still such shadow puppetry performance troupes in Huaxian now?

Wang: Nowadays, there are very few people, all over 70 years old. There aren't many young people.

Author: Is the current shadow puppetry performance mainly set in the context of weddings and funerals?

Wang: Very few. Nowadays, performances all require bands or something like that. In Huaxian County, at most, only two troupes can be assembled.

Author: Many people mention that the biggest challenge faced by Huaxian shadow puppetry is the problem of being hot among other Chinese regions even foreign countries and cold in Shaanxi. Do you have this feeling?

Wang: Not long ago, there was a conference on protecting ICH. Since I am a national-level inheritor of ICH, everyone asked me to put forward a proposal. The government provides a lot of financial support for ICH, but the money is not used effectively. The funds are approved at each level, but very few of them can actually be used for the inheritance and protection of Huaxian shadow puppetry. So, you can see why there are fewer and fewer people engaged in shadow puppetry nowadays.

Author: As a national-level inheritor of ICH, compared to ordinary shadow puppetry artists, what are your responsibilities and commitments in your point of view?

Wang: National ICH inheritors are required to train at least 2-3 apprentices per year. Additionally, there must be a designated inheritance base, which is a requirement set by the government.

Author: If people want to study shadow puppetry under your guidance, how long will it take to become a master?

Wang: This field is highly intricate and profound, requiring continuous learning throughout one's career. Shadow puppetry represents a comprehensive art form where carving is merely one component. To excel in this art, practitioners must possess a deep understanding of costumes, facial makeup, and opera traditions while thoroughly analyzing and interpreting the characters.

Author: Apart from the issue of income, what other reasons are there for young people's dissatisfaction?

Wang: In contemporary society, individuals often exhibit a lack of patience, with few demonstrating the dedication required to commit themselves to arduous study. This issue has also resulted in a scarcity of successors within my own practice. Additionally, the emergence of mechanized production poses a significant challenge to traditional shadow puppetry craftsmanship. For instance, while an artisan may produce 10 puppets manually, automated systems can generate hundreds within the same timeframe. Furthermore, pricing disparities are evident: handmade puppets priced at 500 yuan each face competition from machine-made alternatives sold at 20 yuan each. Consequently, consumers are more likely to opt for the more affordable option rather than the higher-priced, handcrafted alternative.

2. Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory.

Wang: In the past, shadow puppets were solely for shadow puppetry performance. But now, they have become diverse. It's not necessarily true as some people say that shadow puppets can't survive without shadow puppetry performance. If shadow puppets lose their connection with shadow puppetry performance, I can create my own path by collaborating with modern brands, decorating them, and combining them with animation as well.

3. The cultural functions of Huaxian shadow puppetry in the contemporary era.

Wang: Shadow puppetry serves as an educational medium. For example, it conveys moral lessons by depicting scenarios where individuals committing misdeeds are sent to the 18th level of hell. If a character refuses to admit their wrongdoing, they may be

confronted with a "magic mirror" that reveals the truth. Many cultural and ethical values were historically imparted through shadow puppetry performances.

Wang: Initially, shadow puppetry was utilized for tourism promotion in the Shuyuanmen (书院门). Foreign tourists visiting Xi'an showed a strong appreciation for shadow puppets, making this period primarily focused on catering to international visitors. Subsequently, shadow puppets began to evolve into decorative art pieces and eventually became official government gifts. Furthermore, the art form has engaged in cross-sector collaborations with renowned brands such as Hermès, Fendi, and Baidu.

Wang: In the 2017 Venice Biennale, Huaxian shadow puppetry represented Chinese culture through both live performances and traditional carving demonstrations. The event attracted a full house of audiences who were captivated by the performances. Following this, exhibitions were also held at the Shanghai Zhendan Museum and the Beijing Contemporary Art Museum.

WANG Ke (王可)

1. The difficulties facing the inheritance and development of Huaxian shadow puppetry.

Author: In terms of organizational form, did Huaxian shadow puppetry used to be performed by a troupe? Are there still such troupes now?

Wang: Rarely. Previously, there were 6 troupes in one township. Now, it might require several townships to gather those old artisans together to form one puppetry troupe.

Author: How long did you follow your master?

Wang: Learning shadow puppetry first requires making the tools. It took 3 months to make the tools. Only after having the tools, one can start trying to carve. I learned for nearly 4 years in total.

Author: Has the income source of shadow puppetry practitioners changed after each turning point in its development?

Wang: In the past, during my apprenticeship with my master, there was no familial relationship between us, and it was uncommon for masters to accept outsiders as apprentices. Traditionally, these veteran artisans relied on their skills for livelihood and generally refrained from passing down their techniques to non-family members.

Author: Has the production of large quantities of shadow puppets by machines caused any harm to those who insist on creative handwork?

Wang: On the positive side, the productivity has increased, allowing the whole of China to learn about Shaanxi's shadow puppetry. Now, it's almost impossible to find hand-carved shadow puppets on the market. The shadow puppets that can be seen are mostly laser-carved.

Author: Do the inheritors still have some exchanges? Have you communicated or interacted with other carving artisans?

Wang: Rarely. We are all exploring on our own.

Author: Apart from the relatively few young people learning it, what other problems do you think Huaxian shadow puppetry has encountered in its inheritance and development?

Wang: There are no good masters. The masters are generally getting older and no longer teach apprentices. It takes at least 4 years to train an apprentice. No good master can teach students from scratch completely because the students can't be guaranteed not to give up halfway. Now, many people can't persist for 1-2 months.

Author: What groups are mostly interested in shadow puppetry now?

Wang: Cultural practitioners. Ordinary audiences can't understand the singing and lyrics of the shadow puppetry performance and get tired after a few minutes.

2. Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory.

Wang: The carving techniques and patterns of shadow puppets should remain traditional as much as possible. Any innovation would lead to the loss of the aesthetic value of shadow puppets.

Wang: Currently, those who are still engaged in carving are mostly serving some collectors.

3. The cultural functions of Huaxian shadow puppetry in the contemporary era.

Wang: The apprentices I currently have are mostly those who share the same interests as I did when I was learning. They all like shadow puppetry carving.

Wang: Currently, most of the shadow puppetry artists can create the puppets based on the designs provided to them. The main reason is for the profit.

4. The development of we-media presents an opportunity for the preservation of shadow puppetry

Author: Are you planning to share more shadow puppetry-related content on TikTok in the future?

Wang: Indeed, I have plans for this. For example, this winter, I aim to reconstruct the missing parts of the Crystal Palace or the White Snake Legend, produce a complete version, apply colors, and document each step as a series of short videos.

XUE Hongquan (薛宏权)

1. The difficulties facing the inheritance and development of Huaxian shadow puppetry.

Author: You established this exhibition park. Did the government provide any support for its development?

Xue: The level of support has been minimal. Currently, I have invested all my earnings into the park, and the loan remains unpaid. Additionally, I am responsible for paying nearly 40 employees' salaries, which creates significant financial pressure.

Author: You mentioned earlier that you also operate a shadow puppetry store in the county town. How is the sales performance there?

Xue: Compared to previous years, sales have declined somewhat. This is partly due to policy changes. In the past, shadow puppets were considered representative ICH gifts

and could be purchased by official entities for gifting purposes. However, they were later categorized as luxury items, making such purchases no longer permissible. As a result, shadow puppetry, despite being a folk art, has been placed in the same category as luxury goods, leading to reduced sales in recent years.

Author: I understand that you began learning shadow puppetry at a young age. Since then, how many key stages of development has the art form undergone?

Xue: Following the reform and opening-up period, the influence of foreign cultures gradually led to the decline of shadow puppetry.

Author: In your view, regarding the preservation and inheritance of Huaxian shadow puppetry, apart from the lack of successors or governmental policy support, are there other challenges worth noting?

Xue: The primary issue lies in funding, which is closely tied to policy direction. For example, in Haining, Zhejiang Province, the local government provides inheritors with 100 annual performances, allocating approximately 350,000 yuan annually. This not only stimulates creative enthusiasm but also ensures a basic standard of living, significantly aiding in the preservation and promotion of the art form. Conversely, when young people observe their masters struggling financially and lacking social recognition, it becomes difficult to attract them to pursue this craft.

Author: Are there established channels for communication and collaboration among shadow puppetry inheritors? Have efforts been made to collectively promote the preservation of this art form?

Xue: Communication and collaboration among inheritors remain largely non-existent. Many national-level inheritors in my area are approaching 80 years of age and are physically unable to engage in creative activities or adapt to market demands. Furthermore, many traditional artists are illiterate and unfamiliar with musical notation, relying solely on memorized scripts for their performances.

2. Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory.

Xue: The inheritance and development of shadow puppetry art must embrace innovation. Numerous experts in the field of ICH protection argue that ICH should remain unaltered; otherwise, it may lose its authenticity and original characteristics. However, this conservative approach has led to an undesirable outcome, where many ICH projects are eventually relegated to museums, losing their vitality and connection with contemporary society.

3. The cultural functions of Huaxian shadow puppetry in the contemporary era.

Xue: Shadow puppets can serve as decorative elements. Large-scale shadow puppet artworks can be created for the lobbies of hotels and guesthouses. Shadow puppets are no longer merely theatrical props; they have now entered the realms of handicrafts and fine arts.

Xue: Shadow puppets are considered to be the precursors of animated films. Today, their original functions are being revived. After viewing my animated film featuring the character Nezha, audiences can engage in hands-on experiences. Furthermore, my theater is equipped with two television screens and backstage cameras that transmit real-time footage of the performance operations, enabling audiences to observe the intricate processes involved in shadow puppetry.

4. The development of we-media presents an opportunity for the preservation of shadow puppetry.

Author: Which type of we-media platform do you believe is most suitable for disseminating shadow puppetry?

Xue: I believe TikTok is currently the most effective platform for enabling young people to understand and appreciate shadow puppetry. Additionally, I plan to leverage the TikTok platform to promote my shadow puppetry performances. Once it gains popularity, I intend to develop a series of cultural and creative products based on this performance as an intellectual property (IP) brand.

ZHANG Jiaxiao (张嘉效)

1. The difficulties facing the inheritance and development of Huaxian shadow puppetry.

Author: Will the government provide any subsidies or supportive policies?

Zhang: Currently, there are no direct subsidies or support policies. However, when research teams or students visit, the government often refers them to Xi Peng Zhai for further engagement.

Author: Are there many young people like you currently involved in shadow puppetry in Huaxian?

Zhang: There are approximately nine young inheritors and practitioners in Huaxian. Performances are relatively infrequent compared to carving, which is easier to learn due to the availability of video tutorials. In contrast, performing requires a deeper personal understanding and artistic perception.

Author: Are there still many experienced artisans practicing shadow puppetry in Xi'an today?

Zhang: Very few traditional artisans remain active in Xi'an. Most performances now rely on a single individual using audio equipment to repeatedly play pre-recorded plays, lacking the depth and authenticity of traditional performances.

Zhang: For innovative productions, PVC materials have largely replaced traditional cowhide, and facial designs have shifted from the classic Side view face to more modernized representations, altering the traditional aesthetic significantly.

Author: Have the criteria for selecting apprentices changed over time?

Zhang: Historically, masters carefully selected apprentices based on their potential and dedication. Today, however, there is little choice as fewer individuals are willing to learn this craft.

Author: What are your future plans for the development of Xi Peng Zhai?

Zhang: Our primary focus remains on preserving and continuing the family tradition, driven by a strong sense of cultural mission. While we recognize the potential for brand development, we currently lack the resources and expertise to effectively manage such an endeavor.

2. Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory.

Zhang: The Yutian Society has made substantial contributions to the promotion and development of Huaxian Shadow Puppetry by facilitating its transition toward industrialization. Nevertheless, this endeavor did not yield a successful outcome due to various challenges encountered during implementation.

3. The cultural functions of Huaxian shadow puppetry in the contemporary era.

Zhang: During festivals and holidays, we develop a range of cultural and creative products to promote traditional art forms.

Zhang: Shadow puppetry is closely associated with traditional theater and offers valuable insights into social history.

Zhang: We showcase the shadow puppets from our collection through an exhibition hall format, providing a platform for scholarly exchange and public engagement.

Zhang: The transformation of the rural environment has a profound and intrinsic connection with the evolution and development of shadow puppetry.

4. The development of we-media presents an opportunity for the preservation of shadow puppetry.

Zhang: In comparison to the older generation of inheritors, younger practitioners may demonstrate greater proficiency in aligning shadow puppetry with market demands. Leveraging we-media and internet platforms such as WeChat and TikTok enables us to significantly enhance the reach and dissemination of this traditional art form.

Zhang: The rapid advancement of we-media is certain to create new opportunities for the development of shadow puppetry. For example, TikTok 's massive user base allows

individuals from diverse backgrounds to gain exposure to Huaxian shadow puppetry, potentially fostering cross-platform collaborations and opening up innovative avenues for growth.

Zhang: By capitalizing on trending topics or humorous content, we can engage users across various demographics, thereby amplifying the effectiveness of promotional efforts.

LIU Hua (刘华)

1. The difficulties facing the inheritance and development of Huaxian shadow puppetry.

Author: Many people suggest that shadow puppetry enjoys greater popularity abroad than domestically, creating a notable contrast. Do you share this observation?

Liu: As the saying goes, "Local goods may not always thrive locally."

Liu: Currently, shadow puppetry performances in Xi'an have been simplified to a one-person performance, where pre-recorded music is played while a single performer manipulates the puppets. Several such performances exist in Xi'an, all operated by individuals from Huaxian County.

Author: I've observed that you occasionally transcribe some old scripts. Could you elaborate on this practice?

Liu: In the 1990s, the director of the Culture Bureau in Houma, Shanxi Province, acquired all the old shadow puppet trunks from Huaxian County with the intention of establishing a shadow puppet museum in Houma. This acquisition included numerous scripts, musical instruments, and puppet trunks from Huaxian. At that time, some performers had ceased their activities due to financial difficulties and sold their materials. Consequently, younger generations who wished to learn Huaxian shadow puppetry were left without access to original resources.

Author: In your view, are there any challenges or issues regarding the inheritance and preservation of shadow puppetry today?

Liu: Shadow puppetry has gradually lost its connection with the general public. Despite a desire among audiences to experience shadow puppetry performances, opportunities to do so have become increasingly scarce.

2. Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory.

Liu: During the process of shadow puppet carving, cowhide must be used. And the singing style must be mainly in the Wanwan Cavity.

3. The cultural functions of Huaxian shadow puppetry in the contemporary era.

Liu: Between 1995 and 2007, Huaxian shadow puppetry reached its peak. During this period, I traveled abroad multiple times for performances and cultural exchanges. In Japan, audiences were particularly fascinated by stories involving Emperor Taizong and Princess Yang. In countries such as Germany, France, and Italy, characters like Sun Wukong and Zhu Bajie garnered significant interest. Additionally, the sales of shadow puppets were notably strong in foreign markets.

Liu: In the past, rural individuals who lacked food and clothing often turned to learning the art of shadow puppetry as a means of livelihood. Today, it is predominantly wealthier individuals who pursue this art form. Without a certain level of economic stability, it has become increasingly difficult to engage in the study and practice of shadow puppetry.

Liu: Shadow puppetry is deeply intertwined with Taoism, Buddhism, and traditional Chinese culture, forming an inseparable whole.

WEI Jingquan (魏金全)

1. The difficulties facing the inheritance and development of Huaxian shadow puppetry.

Wei: For example, Qin Opera from Shaanxi Province is performed in the local Shaanxi dialect, which limits its accessibility primarily to people from Shaanxi. Consequently, this characteristic can be considered a limitation, as it represents a regional cultural phenomenon with restricted outreach.

Wei: Qin Opera cannot easily transcend its regional boundaries due to its unique tonal and linguistic features. While preserving these elements is essential for maintaining authenticity, it also creates a barrier for broader audiences who may not understand the dialect. This presents a paradox: altering the traditional elements risks losing the essence of the art form, yet retaining them limits its accessibility and potential for wider promotion. Additionally, many experts in ICH now advocate for shadow puppetry to become more relatable to everyday life, enabling greater public understanding and acceptance. However, this approach conflicts with the core principle of preserving ICH, which emphasizes maintaining the original, authentic traditions passed down through generations—akin to preserving one's cultural lineage.

2. Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory.

Wei: The transformation of ideas and artistic approaches in shadow puppetry involves a gradual process of understanding. While young people are increasingly engaging in this traditional art form, they tend to adapt more readily to modern influences. However, there remains a noticeable gap in their performance skills compared to seasoned practitioners. Additionally, many individuals today pursue shadow puppetry primarily for profit-driven motives, which can sometimes lead to deviations from its authentic essence. This phenomenon is not uncommon; when profit becomes the primary objective, the methods and approaches employed may lack the authenticity characteristic of ICH preservation. As a result, audiences may perceive that traditional culture loses some of its original charm. Certain societal trends are difficult to alter once established. These challenges may stem from broader societal factors or personal limitations of the artists themselves. When artists encounter internal issues, it can pose significant risks to the integrity and sustainability of the art form.

3. The cultural functions of Huaxian shadow puppetry in the contemporary era.

Wei: The absence of traditional cultural education has led to a lack of understanding among many young people regarding the cultural heritage passed down by their ancestors. This has resulted in some individuals expressing themselves recklessly without due respect for tradition. Recognizing this issue, the country now acknowledges the significant role that shadow puppetry plays in preserving and promoting culture.

Shadow puppetry integrates elements of traditional painting, calligraphy, and literature, creating a rich tapestry of artistic expression. To illustrate, the scripts of these performances often contain profound content that is both captivating and thought-provoking. In fact, much of this content surpasses the literary comprehension of many contemporary young people, highlighting the depth and sophistication of traditional art forms.

Wei: The integration of shadow puppetry into educational institutions represents an important step toward fostering cultural awareness among younger generations. For instance, workshops and courses have been conducted at universities such as Shaanxi Normal University and specialized schools like the Aerospace Art School. Additionally, shadow puppetry has been featured in various large-scale events, including collaborations with entertainment platforms and media outlets such as Tencent Video. These efforts aim to broaden the reach of shadow puppetry beyond traditional settings, adapting it for modern audiences while maintaining its cultural authenticity. In practice, this evolution has manifested in several ways, such as transitioning from full-length operas to shorter segments tailored for contemporary performance contexts. Furthermore, the traditional experience of listening to and watching performances has evolved, with modern presentations often incorporating host introductions inviting audiences to "Please enjoy."

4. The development of we-media presents an opportunity for the preservation of shadow puppetry.

Wei: On TikTok, I have observed numerous high-quality shadow puppetry performances. For instance, the "Dragon in the Sky" troupe led by Lin Zhonghua and his wife Wang Xi has gained significant recognition. Based in Beijing, they started their endeavors relatively early and strategically targeted their audience effectively. The main recruitment target is for people with dwarfism to serve as employees. Benefiting from Beijing's favorable cultural policies, they operate within a large-scale artistic park spanning dozens of acres, reflecting their substantial resources and influence. Their success can be attributed not only to government funding support but also to their dedication and innovation. Similarly, Master Qin Ligang from Hubei Province has also demonstrated remarkable achievements in preserving traditional shadow puppetry through his solid and authentic performances, which are widely accessible online.

Wei: While we-media platforms such as TikTok have undeniably contributed positively to the dissemination of shadow puppetry, there remain notable challenges. Some content creators produce low-quality material that lacks authenticity and educational value. These performances often lack proper technique and fail to adhere to traditional standards, undermining the art form's integrity. For example, some videos labeled as "shadow puppetry" consist merely of random and disorganized movements, with little resemblance to genuine performances. Such practices risk misleading audiences about the true essence of shadow puppetry and its rich cultural heritage.

HOU Xinmin (侯新民)

1. The difficulties facing the inheritance and development of Huaxian shadow puppetry.

Hou: In the future, regional dialect performances may become increasingly difficult for the majority of audiences to comprehend. This presents a significant challenge. To address this issue, it is necessary to adapt these performances by incorporating Mandarin versions while preserving their cultural essence. The goal is to ensure that audiences can at least grasp the core content of the performance. While full comprehension may not always be possible, achieving an approximate understanding would suffice. After all, if an audience member listens attentively but cannot understand the content, the value of the performance diminishes significantly.

Hou: The production of a shadow puppets involves considerable labor and material costs. Assuming a daily wage of 200 yuan, crafting a single shadow puppet requires three days of work, resulting in a labor cost of 600 yuan. Additionally, materials and other expenses further increase the total cost to at least 800 yuan per puppet. When such puppets are introduced to the market, consumers often question their high price. However, upon closer examination, the cost reflects the craftsmanship and time invested. In contrast, machine-made shadow puppets can be purchased for as little as 10 to 15 yuan, but they lack the artistic value and intricacy of handcrafted pieces.

2. Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory.

Hou: In the context of cultural industry innovation, our primary focus is on Huaxian shadow puppetry, which is recognized as an ICH. First and foremost, the character designs of our shadow puppets must remain unchanged. For instance, if we consider wood as the traditional material and replace it with iron, can it still be considered wood? Clearly not. Such a change would merely represent a modification rather than authentic Huaxian shadow puppetry, as this art form does not incorporate such alterations.

Hou: To promote development and innovation, it is essential to modernize both language and music while preserving core elements. The Wanwan cavity should remain intact, and its music can continue to be utilized. However, in terms of language, adopting Mandarin versions will enhance accessibility without compromising the essence of the art form. It is crucial to note that the singing style must remain unaltered to preserve the authenticity of Huaxian shadow puppetry.

3. The cultural functions of Huaxian shadow puppetry in the contemporary era.

Hou: During this process, gradually, it was moving towards internationalization, just like in foreign countries. This is the evolution process of shadow puppetry. Why did I say before that there were few people learning shadow puppetry? The key reason was that they didn't go abroad. The cultural market was depressed, and the skills learned by people couldn't be put into practice. So, people learned less. Now it's different. After the development of the tourism market, some young people are learning a lot now. I have a student born in 90s, and there is also a student born in 2000. They have basically mastered the skills (and can now graduate) and are going to take an exam at Shanghai Theatre Academy this year to perform with our shadow puppetry. I told them, I guarantee that you will pass 100% of the exam. Now they might take the exam in December. Our shadow puppetry can spread like a wildfire.

4. The development of we-media presents an opportunity for the preservation of shadow puppetry.

Hou: Yes, I think so. On May 18th, a team from TikTok visited Shanghai to film our shadow puppetry performances. We collaborated with TikTok to post several videos on their platform due to its rapid dissemination capabilities and extensive user base, enabling a broader audience to appreciate this traditional art form. Additionally, I

maintain my own account where I regularly share content related to shadow puppetry. To date, I have amassed over 27,00 followers. Initially, my intention was not promotional; rather, I found the process enjoyable and engaging.

LI Shijie (李世杰)

1. The difficulties facing the inheritance and development of Huaxian shadow puppetry.

Li: There is no security or salary. Even after spending 3 to 5 years learning and becoming capable of performing, who would invite you to perform? Where would your workplace be? Who would act as your supervisor? Due to these uncertainties, fewer people are willing to take up the shadow puppetry. For example, there is a shadow puppetry troupe in ShaoHua Mountain that I am familiar with, but such opportunities are rare and unstable.

Li: Now that the Deqing Society no longer exists, it is difficult for individuals to sustain this practice on their own. In the past, when someone profited from performances, they might only give me 20 yuan out of every 100 yuan earned. Eventually, I stopped performing with the Deqing Society because there was no stable job or subsidy. After studying for three to five years, one can start signing in plays, but there's still no job available. It's better to work outside. No one is learning shadow puppetry anymore.

2. Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory.

Li: Nowadays, many young people struggle to understand the lyrics and melodies of traditional plays, don't they? While they may still comprehend local dialects, some performers sing with unclear articulation or poor enunciation. This issue is also prevalent in Qin Opera, where the instrumental music may sound beautiful, but the audience often cannot grasp what is being sung due to the lack of clarity in vocal delivery.

LIU Ting (刘婷)

1. The difficulties facing the inheritance and development of Huaxian shadow puppetry.

Liu: I believe that for traditional art forms, especially those practiced by veteran artists, more financial support should be provided. Despite applying for funding to take on apprentices, many artists have not received such resources, at least not to my knowledge—I've only seen mentions of it online. Therefore, I would like to try and secure some funding for my master, as training an apprentice is indeed a challenging and resource-intensive process.

2. Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory.

Liu: Making a living is not easy, but I believe it is important to focus on building your reputation. During the learning process, there is no income, and after completing your training, performance opportunities are limited. For example, in tourist attractions like those in Xi'an, there are only a few venues available. Even though commercial performances have increased in recent years, they are still insufficient for newcomers without established networks. My master has many clients now because of his seniority and accumulated connections over time. However, as someone who is just starting out, people do not yet know me, so how can they seek me out? Building these relationships takes time and effort. In the meantime, while working on establishing yourself, you must first address practical survival issues.

3. The cultural functions of Huaxian shadow puppetry in the contemporary era.

Liu: If we were to perform in a fully authentic and traditional manner, it would simply not be feasible. It would be difficult to gather enough performers, and the cost of hiring experienced artists would be prohibitively high. Moreover, ticket prices could not be raised significantly to cover these costs, as even at 20 yuan per person, some audience members still negotiate for lower prices. During the peak season, work hours can extend from 10:00 AM to as late as 11:00 PM, which is physically demanding for elderly artists who cannot endure such long hours. Currently, during the off-season, our schedule is more manageable, with work ending at 9:00 PM. However, during holidays, we often work until 11:00 PM and do not return home until midnight. Given that there are only a few holidays throughout the year, from the boss's perspective, the income remains consistent regardless of the season. The more the boss earns, the more we earn as well.

Conversely, during the off-season, daily workloads are minimal, leading to reduced earnings.

4. The development of we-media presents an opportunity for the preservation of shadow puppetry

Author: Have you ever posted these performances on TikTok or other we-media platforms?

Liu: I haven't specifically focused on posting them. Occasionally, I do share videos of my own performances, but I haven't systematically created content for these platforms yet. This is because performing shadow puppetry requires someone to film while I perform, and it's impossible for one person to handle both tasks simultaneously. While a highly professional team isn't necessary, at least two people are required to collaborate effectively—one to perform and another to record.

Author: Do you think the development of TikTok and other we-media platforms could bring benefits or opportunities for the promotion of shadow puppetry?

Liu: Absolutely. For example, some people who have never experienced shadow puppetry might stumble upon it through TikTok and become interested enough to come watch live performances. Additionally, tourists who attend our shows might share their experiences via we-media platforms like WeChat Moments. When others see these posts and inquire about the location, they may be inspired to visit when they pass by. A friend's recommendation can often lead to curiosity-driven visits, such as someone thinking, "I remember my friend mentioned watching shadow puppetry here. I should check it out too."

ZHOU Lang (周郎)

1. The difficulties facing the inheritance and development of Huaxian shadow puppetry.

Zhou: It is not that the Shaanxi dialect is difficult to comprehend, but rather that the chosen theme has become disconnected from contemporary society. For instance, the concept of selling sundries—a common practice in the past—is now unfamiliar even to

children. Such a mode of commerce no longer exists in modern times. Therefore, I believe the primary distinction lies in the theme's purpose: to criticize vice and promote virtue while serving an educational function.

Zhou: Many students find this art form challenging to master. In our studies, we have covered extensive material, and I personally find it particularly demanding.

2. Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory.

Zhou: When observing shadow puppetry, one notices that while there are numerous scripts, they all revolve around a shared theme: punishing evil and promoting good. Unlike films with complex plots involving elements such as pornography or violence, shadow puppetry avoids these themes entirely. Its central focus remains on moral education through the promotion of virtue and the condemnation of vice.

Zhou: However, in contemporary times, its impact appears to be gradually diminishing. This is partly because the content lacks appeal for modern audiences and some of the themes feel outdated. For example, traditional scenes depicting activities like selling sundries may leave viewers confused if they lack prior understanding of the historical context. Without this knowledge, even after watching, one might struggle to fully comprehend the narrative.

3. The cultural functions of Huaxian shadow puppetry in the contemporary era.

Zhou: I believe the core essence lies in its educational function. In ancient times, when movies and television shows did not exist as they do today, storytellers and opera performers served as the primary means of educating the public through their performances.

LIANG Sijuan (梁思娟)

1. The difficulties facing the inheritance and development of Huaxian shadow puppetry.

Author: In your opinion, what are the key turning points in the development of Huaxian shadow puppetry, and what are the underlying reasons for these changes?

Liang: Between 2018 and 2019, policies were introduced that categorized shadow puppets as local specialty items. As a result, government agencies were prohibited from purchasing them, leading to a significant decline in government-driven demand for shadow puppets.

Liang: The inheritors of Huaxian shadow puppetry primarily focus on preserving traditional craftsmanship but lack the vision or strategies to integrate their art form with modern practices.

Liang: To date, there has been no significant effort in Huaxian to promote shadow puppetry through e-commerce platforms. This is due to several factors: limited technical knowledge among practitioners, competition from machine-made shadow puppets that offer lower prices, and the absence of professional teams or effective We-media promotion strategies.

Author: What forms of social capital have been involved in the preservation and promotion of shadow puppetry so far?

Liang: While the government actively encourages investment from social capital, the current situation remains less than ideal. Despite numerous promotional efforts by the government, very few investors have shown genuine interest in supporting the development of shadow puppetry.

Liang: Over the past two years, the number of skilled artisans engaged in shadow puppet carving has steadily declined, with many choosing to seek employment elsewhere. This trend reflects a severe loss of talent. On one hand, there is a desire to promote shadow puppetry, but on the other hand, the entire industry chain has fragmented, resulting in insufficient production capacity to meet market demands.

2. Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory.

Liang: As people's material living standards improve, shadow puppets have evolved to become more visually appealing. They are now not only used for performances but can also be displayed at home as artistic crafts or even valued collectibles. The transition of

traditional shadow puppetry props from performance tools to collectible items represents an innovative avenue for the art form's development and preservation.

3. The cultural functions of Huaxian shadow puppetry in the contemporary era.

Liang: Currently, national policies actively support the integration of ICH into school curricula and encourage the organization of ICH-related study tour activities.

Liang: Many innovative plays, such as "The Mouse Stealing Oil," incorporate dual layers of meaning. On one hand, they introduce novel approaches to shadow puppetry performance; on the other hand, they serve as educational tools for promoting integrity and ethical values.

WANG Yumin (王裕民)

1. The difficulties facing the inheritance and development of Huaxian shadow puppetry.

Author: What was the initial trigger that led you to focus on Huaxian shadow puppetry?

Wang: I became acquainted with Master Zhang Huazhou around 2012 or 2013, which was relatively late in my journey. This encounter occurred shortly after I returned from Germany, where I had received an award. At that time, I was firmly committed to exploring a distinctive artistic style—a unique aesthetic that truly represented Chinese culture. While we possessed the technical skills to adapt and modify various art forms, and our work had already been validated over time, there remained one critical area we needed to address: the artistic quality and visual style. After meeting Master Zhang, I discovered his deep involvement in shadow puppetry, particularly in the creation and carving of puppets. I believe that carving represents the essence of artistic creation, as it is fundamentally tied to visual artistry. Although performance is also a form of creative expression, the considerations involved in performance differ significantly from those in carving. Carving is inherently an artistic endeavor, while performance focuses more on theatricality and presentation. These are distinct aspects of the craft. Following our acquaintance, Master Zhang and I engaged in numerous discussions about shadow puppetry. However, we did not immediately pursue collaborative projects. Why? During those years, our development faced certain challenges. Our

organization relied on revenue-generating activities to sustain non-profit initiatives like cultural preservation. Objectively, such endeavors would ideally be undertaken by research institutions or universities, as they align more closely with academic and cultural missions. However, enterprises must prioritize survival and growth. Despite these constraints, my personal interest in shadow puppetry motivated me to occasionally reflect on how we might contribute to its promotion. Unfortunately, during that period, circumstances were particularly challenging, and I eventually set the idea aside due to limited time and resources.

2. Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory.

Wang: I believe the key lies in interdisciplinary collaboration. It is unrealistic to expect veteran artists to drive innovation, as their primary role is to preserve and pass on traditional practices. Let them focus on safeguarding this cultural heritage, while entrusting the task of innovation to younger generations like ourselves. Moreover, innovation should ideally be undertaken by individuals who are not officially designated as inheritors, as these inheritors often face constraints imposed by tradition. They may feel bound by established norms and believe that certain changes are unacceptable. However, times have changed. Unlike the rigid adherence to tradition depicted in Chen Kaige's *"Farewell My Concubine,"* today even veteran artists are more open-minded. They now recognize the importance of innovation and believe that as long as the essence of shadow puppetry remains intact and the art form continues to appeal to audiences, various forms of creative exploration are permissible. Of course, such innovation must avoid excessive exaggeration that could distort the core characteristics of shadow puppetry. In light of this evolving context, I believe the current moment presents an ideal opportunity for us to engage in cross-disciplinary experimentation. Our approach aligns perfectly with this need. For instance, achieving similar innovation in traditional opera might prove far more challenging.

3. The development of we-media presents an opportunity for the preservation of shadow puppetry

Wang: Consider this—it's much like a game. Why do so many people enjoy playing games? Do games inherently possess emotions? I believe not. Instead, it is the players

who project their own emotions onto the game. When you become deeply engrossed in a game, it is often because your personal emotional connection to it grows stronger over time. You may develop admiration for certain characters and eventually extend that admiration to the entire game itself. In this way, you gradually become more invested in the experience. Regarding the artificial intelligence you mentioned earlier, I think my initial skepticism stemmed from overlooking the perspective of the general public. At the time, I was viewing the issue solely from my own standpoint and found it difficult to accept. However, since I began working with TikTok, I've realized its appeal lies in its directness and simplicity. Unlike traditional television broadcasts, where viewership rates are calculated based on passive consumption, TikTok provides immediate and active feedback through features such as likes and comments. This feedback mechanism feels more objective and genuine, as users actively choose whether or not to engage with content. For example, when it comes to shadow puppetry performances, the key may simply lie in presenting the art form itself. As long as the performance showcases shadow puppetry, it might be sufficient to capture an audience's interest without requiring excessive emotional depth. After all, these performances tend to follow similar patterns unless there is something unique about the singing style or other elements of the presentation.

REN Hua (任华)

1. The difficulties facing the inheritance and development of Huaxian shadow puppetry.

Ren: In the past, many shadow puppet works were either burned or destroyed. A descendant of an artist once shared with me that his family had owned a complete set of "Fengshen Yanyi" (Investiture of the Gods), including the Yellow River Array. There were over two to three hundred pieces just for the Yellow River Town section alone. Unfortunately, not only were the physical puppets lost, but the scripts were also burned, leaving no pictures or records behind. This makes it incredibly difficult to fully comprehend the richness and complexity of these works today. Our museum currently houses some remnants of the "Fengshen" series, but these pieces represent only a small fraction of the original collection and are far from complete. For example, key elements such as the mounts of the gods and major disciples are entirely missing.

Why were these shadow puppets not widely known in the past? The primary reason was that they were monopolized by private collectors, who kept them stored away in their homes—under beds, in cabinets, or locked inside trunks. After returning to China, I encountered numerous wealthy individuals, yet none of them showed interest in investing in the preservation of shadow puppets. Instead, they preferred to spend their money on luxury items like expensive cars or designer bags worth tens of thousands of yuan. It seems that very few people at the time recognized the cultural value of shadow puppets or considered preserving them for future generations. I think in places like Hong Kong, Taiwan and Macao, people might be more interested in Chinese culture. Because it is far away from this land, it is cherished all the more. But when you are in this place, you don't cherish it.

Author: You are now teaching at a university. Are the post-2000s generation interested in shadow puppetry culture?

Ren: While there is some interest, it remains limited. The younger generation tends to be pragmatic, as learning shadow puppetry does not provide a clear path to financial stability or career advancement. They struggle to envision a future in this field due to its lack of economic prospects. In China's current environment, artisans and performers often hold a relatively low social status compared to other professions. Society places greater emphasis on academic achievements, admission to prestigious universities, and high annual incomes. We-media platforms like WeChat Moments frequently showcase trivial aspects of daily life rather than cultural heritage. As Li Shijie noted, "Shadow puppets are often dismissed as worthless. Few people love or wish to learn about them. For instance, no one teaches traditional instruments like the bowl-shaped string instrument at Xi'an Conservatory of Music. Instead, students predominantly focus on Western instruments, leaving ancestral traditions neglected."

Author: Is our shadow puppet museum operated as a public welfare initiative? Does the government provide support?

Ren: Yes, the museum operates primarily as a public welfare project. While the government offers some subsidies, the funding is minimal unless the museum gains significant fame or international recognition. Much of the effort is self-driven, with additional support from friends and collaborators.

Author: What role do you think the government should play in preserving and promoting shadow puppetry? In what areas could more support be provided?

Ren: Sufficient funding would enable us to hire researchers and experts to conduct in-depth studies on shadow puppetry. It would also allow for the acquisition of shadow puppet collections from private collectors, ensuring their preservation. Unfortunately, few individuals or organizations are willing to undertake such efforts. Many ICH inheritors lack the resources or skills needed to design effective preservation strategies.

Author: What do you foresee as the future trend for shadow puppetry culture?

Ren: Shadow puppetry will likely face extinction. The primary reason is the lack of young enthusiasts willing to learn and preserve this art form. Modern lifestyles have shifted dramatically; rural residents no longer live in traditional earthen houses with breathable walls but instead reside in concrete structures with ceramic tiles. This change affects the emotional connection and authenticity of performances, as the atmosphere and acoustics differ significantly. In today's mobile phone and digital age, where attention spans are shorter and entertainment options are abundant, I believe the tradition of shadow puppetry is destined to fade away without substantial intervention.

2. Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory.

Ren: Some individuals approach shadow puppetry purely as a commercial venture, which often results in vulgar or overly simplified interpretations. By directly setting up stalls at tourist attractions, they reduce the art form to mere merchandise. This practice, in my view, undermines and dissects the profound artistic value and cultural depth of shadow puppetry.

Ren: Consider, for example, those who engage in antique collecting. Their focus is predominantly on potential profits rather than appreciating the intrinsic beauty, craftsmanship, or design elements of these artifacts. Such an attitude overlooks the cultural significance embedded in traditional art forms.

3. The cultural functions of Huaxian shadow puppetry in the contemporary era.

Ren: The primary goal of establishing this museum is to engage more young people in various capacities—whether through research, artistic modeling, or adapting shadow puppetry into illustrations, picture books, or animations. I aim to create a platform that encourages participation from both domestic and international individuals who are passionate about preserving and promoting this cultural heritage.

Ren: A valuable art form is one that brings joy and fulfillment to those who interact with it.

Ren: Art education in China has experienced significant disruptions over time.

Ren: Shadow puppetry is an art form deeply rooted in local traditions. Its creators may not have formally studied drawing, art, or design, yet they produce vivid works that reflect their observations of daily life. These creations serve as visual records of their experiences and convey the stories and emotions they wish to express.

Ren: In the long term, shadow puppet culture has the potential to become a universal language that transcends borders and connects people across cultures.

Ren: Shadow puppetry serves as a powerful educational tool—a model for teaching cultural values and a living textbook that offers insights into traditional Chinese society and aesthetics.

4. The development of we-media presents an opportunity for the preservation of shadow puppetry

Author: Have you considered using digital technology to bring some of the works in our shadow puppetry museum to life?

Ren: I have indeed considered it, but I haven't been able to find the right collaborators. Many of the options available are overly commercialized, which doesn't align with the cultural and artistic values we aim to preserve.

JIANG Guoqing (江国庆)

1. The difficulties facing the inheritance and development of Haxian shadow puppetry.

Jiang: Germany is home to seven shadow puppet museums, and the finest collections in these museums predominantly originate from China. Among these, there is also the so-called "grey shadow puppet," which represents a unique category of shadow puppetry classified by region into east, west, south, north, and central styles. My personal collection encompasses all these regional variations. Specifically, the grey shadow puppet originates from Qainxian (乾县) and belongs to the central style. Unfortunately, this particular art form has been lost over time. The existing grey shadow puppets are extremely rare, dating back to the late Ming and early Qing dynasties. Only one batch was ever produced, and after the artisan responsible for their creation passed away, the technique vanished. Despite numerous attempts to recreate it, success has eluded us thus far.

Jiang: For example, the opening sequence of the American film "Kung Fu Panda" incorporates elements of shadow puppetry. However, this traditional art form receives insufficient attention within China, particularly in Shaanxi Province. Around seven or eight years ago, I was offered a villa near the South Lake in Qujiang as a preliminary site for establishing a shadow puppetry museum. The villa came fully equipped with furnishings and landscaping. However, funding for subsequent stages of the project was contingent upon securing additional resources independently. Ultimately, the project was not approved due to shifting priorities—ostensibly focused on cultural development but in reality driven by real estate interests. As a result, the initiative stalled, and I was subsequently appointed as the art director at Yutian Company, a role that entailed significant personal sacrifices.

Jiang: Later, Shaanxi established the Museum of Ming and Qing Shadow Puppetry Art. Regrettably, the state provides only 100,000 yuan annually for its operation, an amount insufficient even to cover basic expenses such as rent in Qujiang, where costs are exceptionally high. Consequently, the majority of operational expenses must be borne privately.

Jiang: Mastering the technique of "The knife remains stationary while the cowhide is being pushed during the carving process (推皮走刀法)". In this technique, the carving requires considerable dedication and skill. This intricate process, particularly involving the use of the middle finger, demands three to five years of practice to achieve

proficiency. The practitioners often develop blisters on their hands. These traditional techniques are gradually disappearing because few individuals are willing to invest the necessary effort. Moreover, learning this craft necessitates a certain level of talent. Another challenge lies in the scarcity of suitable leather, which can only be prepared during spring and autumn due to climatic constraints. Winter temperatures are too low, causing the leather to freeze and become unsuitable for processing, while summer heat risks spoilage if not carefully managed. The slow and labor-intensive nature of leather preparation further exacerbates material shortages.

Jiang: It would be highly beneficial if academic institutions incorporated shadow puppetry into their ICH programs and explored its potential applications in animation and related fields. However, this valuable tradition remains underappreciated. In contrast, countries like Germany have established six or seven dedicated shadow puppet museums, underscoring their commitment to preserving and promoting this art form.

2. Problems of shadow puppetry inheritance and development in Huaxian under the perspective of cultural function theory.

Jiang: Since the exhibition in 2004, I have been continuously expanding my collection. At that time, the estimated value of these collections reached tens of millions. Although I consider myself a spiritual millionaire due to my passion for preserving cultural heritage, I still do not own property or a new car—my vehicle is second-hand.

Jiang: My collection includes complete sets of musical instruments, which complement the shadow puppetry tradition. The director of Prince Gong Mansion once visited and remarked on the comprehensiveness of my collection, which encompasses not only shadow puppets but also related artifacts such as traditional musical instruments, performance scores, and play scripts. Among these items are rare early scores, also known as drawing scores. These were not inherited from my ancestors but rather passed down by my teacher's uncle. In the late 1980s, my teacher's uncle visited me and expressed his hope that I would establish a museum to preserve these cultural treasures. He entrusted me with the drawing scores during this visit. At the time, I had 1,000 yuan on hand, which I gave to him as a token of gratitude.

3. The cultural functions of Huaxian shadow puppetry in the contemporary era.

Jiang: Shaanxi Normal University has successfully secured national funding for the shadow puppetry project and has been designated as the official base for this initiative in Shaanxi Province. Currently, the university organizes regular training sessions with structured course schedules. I am invited to deliver lectures in each session, contributing my expertise to these programs.

Jiang: To excel in shadow puppetry, one must enrich their understanding through extensive study and practice. Without a deep foundation of knowledge, it is difficult to create meaningful designs. Many traditional shadow puppet designs have evolved over centuries, originating from imperial court artists rather than folk artisans. These court artists, who were responsible for creating portraits of emperors, also designed shadow puppets. This explains why many of these works are unsigned—artists were not permitted to sign their names when creating imperial portraits. The exquisite craftsmanship of Shaanxi shadow puppets reflects their origins in the imperial court. For instance, there are over 3,600 unique facial designs, though only about 2,000 are currently visible in collections. These designs were originally modeled after prototypes of court officials, military figures, and imperial concubines. When these designs transitioned to the folk tradition, they were adapted for broader audiences across the country. However, the quality of shadow puppets outside Shaanxi cannot compare to those from Shaanxi. The designs elsewhere tend to be simpler and less refined due to their focus on general shapes rather than intricate details. This artifact was exclusively crafted for imperial use, characterized by its elegant design and exquisite craftsmanship. It was intended for the enjoyment of the emperor and his inner circle. The question arises as to why Shaanxi shadow puppets are relatively small in size. This is because, when viewed at close proximity by the emperor and his entourage, a smaller scale suffices for clear visibility, making larger dimensions unnecessary. Consequently, when this art form was disseminated to the general populace, shadow puppets in other regions were made larger. This adjustment catered to the needs of a broader audience, ensuring that the puppets remained visible to all spectators despite the loss of intricate detail. Thus, the earliest Shaanxi shadow puppets were originally designed for the imperial court rather than for public consumption.