

A Study of Influence Factors on the Spread of Chinese Paper-cut Culture in Short Videos

Sen Zhao^{1,a*} and Yutong Han^{2,b}

¹School of Public Affairs and Administration, University of Electronic Science and Technology of China, Chengdu, Sichuan, China

²School of Foreign Languages, University of Electronic Science and Technology of China, Chengdu, Sichuan, China

^a email: 2938200794@qq.com, ^b email: 1344915081@qq.com

*corresponding author

Keywords: Short Video; Chinese Paper-Cut; Use and Satisfaction Theory

Abstract: This article uses a questionnaire survey method to quantitatively study the influence factors of Chinese paper-cut culture on the short video platform. Based on use and gratifications theory, through the selective contact mechanism of audience, puts forward the research questions, combines short video composition, in order to analyze the factors affecting the dissemination of Chinese paper-cut short videos. It is found that video presentation mode, shooting and editing level and other factors greatly affect its communication effect. At the same time, some suggestions are put forward, such as meeting the needs of users' video themes, paying attention to the way of video presentation, and giving play to the advantages of mainstream short video platforms.

Introduction

As of March 2020, the number of short video users in China reached 773 million, accounting for 85.6% of the total users [1]. Take the official Tik Tok data report as an example, among 1372 national intangible cultural heritage projects, 1275 projects came to Tik Tok and accounted for 93%. National-level intangible cultural heritage short videos have received 3.33 billion likes throughout the year [2]. Short videos make the inheritance of intangible cultural heritage better.

1 Theoretical Basis and Research Hypothesis

1.1 Use and Satisfaction Theory

In the context of new media, some scholars apply use and satisfaction theory which means audiences can choose to use which media according to their needs and medias are also fulfilling their functions to meet the needs of the audience [3] to short video research. Cai Shuting thought: The continuous use motivation of mobile short video users includes cognitive needs, emotional needs, personal and social integration needs, and stress relief needs [4]; Lai Yu thinks: Tik Tok's updated game play and functions bring entertainment satisfaction to users. [5]; Zhang Yunjun thinks: Short videos can provide an effective channel for people to express their emotions, share life skills, and gain recognition from others [6]; Qi Xu's research shows that users' judgments on the usefulness, ease of use, and entertainment of APP will affect users' behavior intentions and usage behaviors [7]. In summary, short video users' impressions of media mainly focus on the three aspects of short video's entertainment, usefulness and ease of use.

1.2 The Audience's Selective Contact Mechanism

The concept of selective contact means that the audience can respond to information according to their own needs to perform selective attention, understanding, and memory. In the audience research of short videos, short videos are favored by audiences because they fully meet the

expression needs and sharing demands of the contemporary public, enabling them to make better use of users' fragmented time; Ma Haiyan's research found that when using software, most of audiences choose to use and obtain satisfaction, and various psychological-driven behaviors will occur in this process [8]. Therefore, the selective contact mechanism of the audience has certain reference value for studying the motivation of short video users to watch Chinese paper-cut short videos.

1.3 Transmission Effect

In the research of short video, a series of measurement indicators suitable for evaluating the effect of short video transmission have appeared correspondingly. Wang Zhen believes that the dissemination effect of the "Bilibili" short video can be quantified using indicators such as "view volume" and "like" [9].

Research on the dissemination of Chinese paper-cut on short video platforms has attracted much attention from scholars. Ning Hailin believes that the dissemination of Chinese traditional culture in short videos needs to be popular, grounded and cross-border integration [10]. Meina believes that the interactive awareness participation and experience of short videos have improved the acceptance of intangible cultural heritage and promoted the dissemination of intangible cultural heritage [11]. Altogether, the above measurement indicators of communication effects and the influencing factors of traditional cultural communication effects provide a reference for this study.

1.4 Research Questions

To sum up, this research is based on the theory of use and satisfaction, the theory of audience selective contact mechanism, combined with literature summary and interviews, and the main content of individual cultural needs, social influence, perceived usefulness, perceived ease of use, and perceived entertainment, the independent variables and the communication effect dependent variables are further refined. According to Yang Yiqian's research, the influence of short video dissemination of traditional handicraft intangible cultural heritage is in the order of individual cultural needs>social influence>perceived usefulness> the possibility of media contact [12]. This research focuses on detailed analysis of individual cultural needs, and the influencing factors of the components of short videos, in order to clarify the specific impact of intangible cultural heritage in the transmission of short videos. Zhang Dingkun and others summarized the components of short video as background music, video subject matter, cover, subtitles, video duration, etc. [13]. This research is expanded and improved on this, and combined with other independent variables. To evaluate the effect of video dissemination, two research questions are finally put forward:

Q1: In the context of short video transmission, what is the motivation for users to watch short videos related to Chinese paper-cut?

Q2: What components of short video will affect the spread of Chinese paper-cut on short video platforms? How is the impact?

2 Questionnaire Design and Analysis

2.1 Questionnaire Design and Data Collection

Questions were designed for the independent and dependent variables. Q1 to Q5 are the demographic characteristics of the sample, including gender, age and education level, etc; Q6 to Q11 are questions about the audience's individual cultural needs, perceived usefulness, perceived ease of use, perceived entertainment, possibility of media contact, motivation for viewing; Q12 to Q14 combine social influence and other perspectives to design questions about communication effects; Q15 adopts a 5-point Likert scale to design questions about the influence factors and levels of short video; Q16 Up to Q18 is the question design of constructive opinions on the dissemination of Chinese paper-cut short videos combined with literature research.

This study uses a combination of convenience sampling and snowball sampling to select survey subjects. A total of 192 questionnaires were collected in this questionnaire. After eliminating the

problematic questionnaires and invalid questionnaires (too short answer time and contradictory options), 154 effective questionnaires were collected, with effective recovery of 80.2%. According to survey statistics, 49.35% of users have contacted or viewed short video related to Chinese paper-cut culture through the short video platform, and 67.11% of users have contacted and viewed Chinese paper-cut through the “Tik Tok” short video platform.

2.2 Reliability Test and Exploratory Factor Analysis

Through the SPSS25 test, the Cronbach's α value of the sample data scale is 0.931, indicating that the reliability of the questionnaire is high. The KMO value of the sample data is 0.849, which is between 0.7-0.9, indicating that the scale in this questionnaire is suitable for factor analysis. The chi-square value of Bartlett's sphericity test is 1107.119, which is a large value, which proves that the corresponding P value (0.000) $<$ 0.001, so the Bartlett sphericity test has significant significance, as shown in Table 1.

Table 1. KMO and Bartlett test

KMO sampling appropriateness number		0.849
Bartlett sphericity test	Bartlett sphericity test	1107.119
	Degree of freedom	153
	eminence	0

On the basis of principal component analysis, the maximum variance method is used to rotate, and finally three independent variable factors are extracted and summarized from the independent variables. From the results of explaining the total variance, it can be found that the three factors can achieve 69.147% of the overall solidity, factor loading The values are all $>$ 0.5, as shown in Table 2. According to related theories and the actual situation of the investigation, the three factors are named in order: the internal influencing factors of short video dissemination, the external influencing factors of short video dissemination, and the evaluation of short video dissemination effect. Among them, internal influencing factors can also be understood as the impact of short video components on short video transmission which can be further expanded to video presentation methods, shooting, editing levels, subtitles other elements; external influencing factors include video evaluation, forwarding volume, likes and shopping links and other perceived entertainment elements; communication effect evaluation includes social impact and perception of short video content evaluation on usefulness and perceived ease of use.

Table 2. Exploratory factor analysis

Observation variable	Rotation component matrix			Observation variable	Rotation component matrix		
	1	2	3		1	2	3
Q15-3	0.921			Q15-12		0.71	
Q15-4	0.876			Q15-8		0.707	
Q15-6	0.872			Q15-11		0.649	
Q15-2	0.838			Q18			0.82
Q15-9	0.786			Q17			0.799
Q15-7	0.667			Q12			0.687
Q15-5	0.655			Q16			0.61
Q15-1	0.619			Q14			0.59
Q15-10		0.722		Q13			0.535

2.3 Linear Regression Analysis

Further explore the relationship between the above factors and the transmission effect of the dependent variable, Q15's “1” to “5” represent the greater the degree of influence. The regression analysis results are shown in Table 3. From the results, it can be seen that the degree of influence of internal influencing factors on the transmission effect is higher than that of external influencing

factors, which also verifies the research by Yang Yiqian [12], but external influencing factors do have a certain effect on the spread of short videos.

Table 3. Linear regression analysis of influencing factors

Independent variable	R	R2	Readjusted R2	Normalized coefficient Beta
Intrinsic influencing factor	0.231	0.053	0.047	0.231**
External influence factor	0.3	0.9	0.084	0.3***

In order to explore the specific factors that can influence the dissemination effect of Chinese paper-cut on short video platforms, a multiple linear regression analysis is focused on the internal influencing factors. The results are shown in Table 4. It can be found that the internal influencing factors have a significant impact on the communication effect of Chinese paper-cut short video. Except subtitles and dubbing which are not significant, by comparing the Beta coefficient, the others are sorted according to the degree of influence: video presentation mode> shooting and editing level> video subject> video copy-writing introduction>Video duration>Background music.

Table 4. Multiple linear regression analysis

variable	Model 1	Model 2	variable	Model 1	Model 2
Control variable			Control variable		
gender	0.107	0.133	Video duration		0.135*
age	-0.072	-0.084	Subtitles and dubbing		0.015
Education	0.016	0.035	Video protagonist image		0.006
Profession	-0.09	-0.083	Video copy introduction		0.104*
Internal factors			R2	0.024	0.153
Background music		0.314***	Adjusted R2	-0.02	0.081
Video subject		0.052**	F test	0.93*	2.118**
Video presentation		0.031***	Δ R2		0.128
Shooting and editing level		0.042**	F test		0.449**

Note: a. The regression coefficients in the table are standardized values; b.* means $P < 0.05$, ** means $P < 0.01$, *** means $P < 0.001$; c. The Δ R2 of model 2 is based on model 1

3 Conclusion and Enlightenment

Through research and investigation, it is found that short videos have a positive influence on the spread of Chinese paper-cut culture. 79.22% of users believe short video are superior to traditional communication methods, and 97.41% of users believe short video are helpful to the spread and development of Chinese paper-cut culture. Therefore, a systematic analysis of the influence of short video components on the spread of Chinese paper-cut culture is essential. The following is the summary and enlightenment of the research.

3.1 Encourage the Creation of Chinese Paper-cut Cultural Knowledge Videos to Meet User' Needs

This study found that understanding Chinese paper-cut culture is the first motivation for users to watch Chinese paper-cut short videos. 59.21% of users choose to use short video platforms to understand Chinese paper-cut cultural knowledge, followed by appreciating exquisite paper-cut and

learning paper-cut skills. And the intention to purchase paper-cutting collections.

Perceived usefulness is an important feature of short video transmission, and cultural knowledge transmission is the social responsibility that short video should bear in today's era. Emphasis should be paid to the cultural knowledge video transmission of Chinese paper-cut to effectively meet the cognitive and emotional needs of the vast number of users, which is conducive to the dissemination and promotion of Chinese paper-cut culture on the short video platform.

3.2 Pay Attention to Video Presentation Methods and Improve Communication Efficiency

Video presentation mode has a profound impact on the audience's acceptance of short video content. As an important part of the promotion and promotion of intangible cultural heritage, on one hand, Chinese paper-cut short videos must show their historical connotations, and on the other, it is necessary to choose the most suitable method for promotion and inheritance. In the field of short video, most of the audiences prefer simple and featured video presentation methods to help them watch and receive information due to their limited education and time fragmentation. For example, adding subtitles can prevent users from misunderstandings caused by dialects, adding voice commentary can slow down the user's effort to watch, easily obtain key information, and adding video filters or features can satisfy users' curiosity and attention. Therefore, the use of rich and entertaining presentation methods is conducive to the spread of Chinese paper-cut short videos.

3.3 Tell Chinese Stories Well and Inherit Intangible Cultural Heritage

Current short videos are generally composed of plot fragments, their story plot design and presentation of story connotation are related to users' engagement and communication effect. Especially short videos of Chinese paper-cut, if the story is single and featureless, it is difficult to attract the audience's attention.

Chinese paper-cut short videos should not only pay attention to visual presentation, but explore the cultural heritage and skills behind Chinese paper-cut. Telling Chinese stories well, and inheriting intangible cultural heritage are core and connotation of Chinese paper-cut short videos. Therefore, the plot layout of short video must conform to the audience's aesthetics and take into account the presentation of Chinese paper-cut elements and the display of paper-cut skills.

3.4 Taking Advantage of Mainstream Short Video Platforms to Promote Paper-cut Skills

According to the survey, 67.11% of users browse or contact Chinese paper-cut short videos through the Douyin, and 26.32% of users browse or contact Chinese paper-cut short videos through the Kuaishou. Therefore, taking advantage of the traffic advantages of mainstream short video platforms to promote Chinese paper-cut culture and skills will also help Chinese paper-cut and contribute to the sound development of related industries.

3.5 Give Full Play to the Influence of Opinion Leaders and Lead the Trend of Intangible Heritage

Opinion leaders have ability to influence the attitudes of others; they intervene in mass communication, accelerate the speed of communication and expand the influence.

The survey results show that 77.92% of users believe that the popular accounts of short video platforms or online celebrity accounts post Chinese paper-cut short video contents will attract or stimulate their learning and understanding of Chinese paper-cut culture. Therefore, the flow of web celebrity or opinion field will be very helpful to the development of traditional Chinese culture. Attaching importance to the role of short video platform opinion leaders and building a good cooperative relationship with them will help the common development of both parties.

References

[1] The 45th Statistical Report on Internet Development in China [R]. Beijing: China Internet Network Information Center, 2018. 4.28.

[2] 2019 Douyin Data Report [EB]. Beijing, 2020, 1, 6.

- [3] Guo Qingguang. Communication Course [M]. Beijing: China Renmin University Press, 2001:166.
- [4] Cai Shuting. Summary of Research on Motivation and Use Intentions of Mobile Short Video APP Users from the Perspective of Use and Satisfaction Theory [J]. New Media Research, 2019, 5 (10): 16-18, 26.
- [5] Lai Yu. Research on the Social Application of Short Video under the Theory of Use and Satisfaction -- Taking Douyin as an Example [J]. Youth Journalist, 2018 (24) : 82-83.
- [6] Zhang Yunjun. Analysis on the Development Status and Trend of Short Video Transmission Characteristics in the New Media Environment [J]. Research on propagation force, 2019, 3 (31): 99-100.
- [7] Qi Xuran. Research on the Motivation and Behavior of Using UGC Mode Mobile Short Video Social Platform -- Taking "Meipai" App as the Research Object [D]. Jinan University, 2016.
- [8] Ma Haiyan. A Study on the Audience Psychology of Short Video Social Software -- Taking Douyin App as an Example [J]. Journalism Research Guide, 2018, 9 (05): 59-60.
- [9] Research on the influencing factors of Bilibili original video propagation. Research of Communication Power, 2019, 3 (26) : 87-88.
- [10] Ning Hailin. Research on the Integrated Communication of "Excellent Traditional Chinese Culture + Short Video" [J]. Modern Communication, 2018, 40 (6): 135-138.
- [11] Mei Na, Chen Xiaojuan. Research on the Transmission Mode of Douyin Short Video for Intangible Cultural Heritage [J]. News Sentinel, 2019 (05): 28-29.
- [12] Yang Yiqian, Zhai Honglei. Research on the Influencing Factors of the Communication Effect of Douyin, a Traditional Handicraft -- Based on the Survey of Wuhan University Students [J]. New Media Research, 2020, 6 (04): 1-5.
- [13] Ding Kun. Research on Influencing Factors of User Promotion of Short Video Social Software [D]. Yunnan University of Finance and Economics, 2020.