

# Research on Legal Safeguard Mechanism of Communication in Digital Transformation of Cultural Industry

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## ABSTRACT

In recent years, digital transformation has emerged as a breakthrough for development across multiple sectors. Culture serves as the foundation of national progress, and the thriving cultural industry directly reflects the Chinese peoples recognition of excellent cultural heritage. This project will focus on addressing challenges in the digital transformation of the cultural industry, establishing legal foundations to drive deeper and broader digital evolution. Currently, major platforms face issues such as unclear rights and responsibilities, illegal data theft, and backend control compromising data security, which have led to a surge in illegal activities. Therefore, we will take these phenomena as our starting point and entry point, conducting in-depth research into existing problems in the digital transformation of the cultural industry. We aim to propose relevant management measures and innovative solutions, aligning with practical legal frameworks based on survey findings, thereby offering recommendations for improving legal safeguards.

**KEYWORDS:** cultural industry; digital transformation; copyright ownership; data security; legal protection.

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## I. Overview of digitalization of cultural industry

The digital cultural industry is an industrial form that organically combines digital technology and cultural industry. Relying on digital technology, the digital cultural industry utilizes the advantages of digital technology to transform and upgrade traditional cultural industries, forming a series of emerging digital cultural industries.

### 1. Definition of cultural industry

#### A. Definition of cultural industry

According to the data released by UNESCO (UNESCO), cultural industry is a series of activities that produce, reserve and distribute cultural products and services according to industrial standards<sup>[1]</sup>; According to the "Classification of Culture and Related Industries (2018)" released by the National Bureau of Statistics of China, cultural industry is a series of production activities such as creation, production and manufacturing of cultural products to meet peoples spiritual needs<sup>[2]</sup>.

## B. The technical development basis of cultural industry digitization

The technological development foundation for digital transformation in the cultural industry is multi-layered and multidimensional. The accelerated construction of new digital infrastructure provides support for comprehensive integration and digital conversion of cultural resources. Simultaneously, improving the cultural computing system with cloud computing capabilities and supercomputing power ensures cost-effective, wide-ranging, and secure computing services for digital cultural development. Establishing an online-offline integrated cultural service supply system enables panoramic presentation of Chinese culture. Moreover, the rapid advancement of artificial intelligence technology not only achieves content generation automation but also offers intelligent recommendations and personalized customization for digital cultural consumption, thereby promoting the growth of digital cultural consumption.

## C. The practice of cultural industry digitization at home and abroad

### 1. Domestic practice

The digital transformation of cultural industries has seen numerous implementations worldwide. The Dunhuang Academy pioneered the "Digital Dunhuang" initiative, employing advanced technologies to digitally restore the iconic murals of Dunhuang. Their "Digital Dunhuang: Open Resource Library" now provides high-definition digital archives to global communities. Notably, the 2025 Spring Festival, celebrated as the first "Intangible Cultural Heritage (ICH) Edition" celebration, garnered over 10 million views on the international social media platform TikTok.

### 2. Foreign practice

In international practice, the Louvre Museum in France has digitized 15 of its "treasures" and launched an app for smart devices to categorize and browse artworks. A Japanese company specializes in immersive digital art exhibitions, using light, sound, and interactive technologies to immerse audiences in artworks, successfully achieving digital transformation in the cultural industry.

### 2. Analysis of questionnaire survey on communication problems in digital transformation of cultural industry

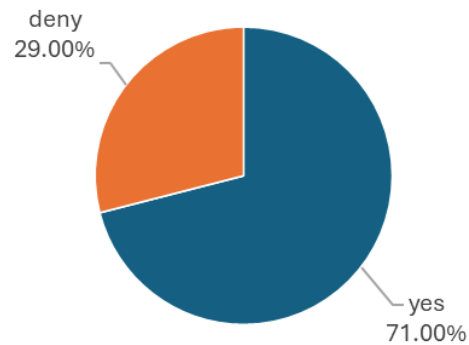
Based on the questionnaire survey, this group conducted a result analysis, and carried out a survey covering multiple age groups on the issues of communication copyright and data security in the process of digital transformation of cultural industry, and put forward innovative ideas to help solve the existing problems.

#### A. Contents of the questionnaire

The questionnaire focuses on the public's awareness of communication problems in the digital transformation of cultural industry. According to these above problems, the surveyers clearly identify the factors that cause communication copyright and data security problems and improve the ways of supervision measures. According to the survey results, the next stage of targeted analysis will be carried out.

#### B. Statistical analysis of questionnaire results

According to the questionnaire survey of 200 questionnaires, 71.00% of respondents believe there are copyright issues in the digital transformation and dissemination process of the cultural industry, while 29.00% disagree with this view (Figure 1). This indicates that the vast majority of respondents acknowledge potential copyright risks during digital transformation, demonstrating that this research topic has garnered significant public attention.

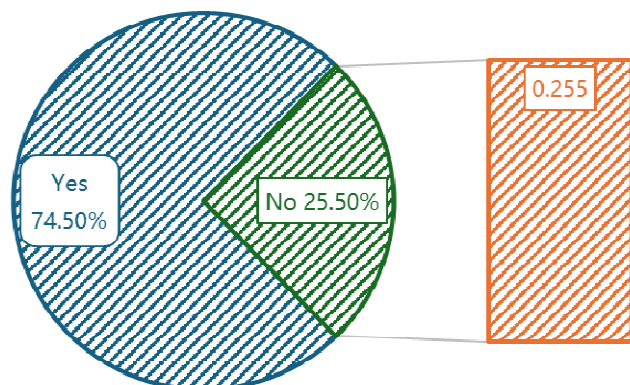


**Figure 1 investigates whether the respondents agree that the digital transformation of cultural industry has copyright issues in communication**

Following the recognition of digital transformation and copyright dissemination, 64.00% of respondents further identified ambiguous copyright practices (Figure 2), while 74.50% expressed concerns about data security risks (Figure 3). These findings reveal widespread skepticism regarding the clarity of copyright definitions and the reliability of data protection in the digital age. This highlights the critical importance of strengthening copyright regulations and enhancing data security oversight during cultural industry transformation.



**Figure 2. Survey respondents believe that there is no ambiguity of copyright issues in the dissemination of cultural industry data after transformation**

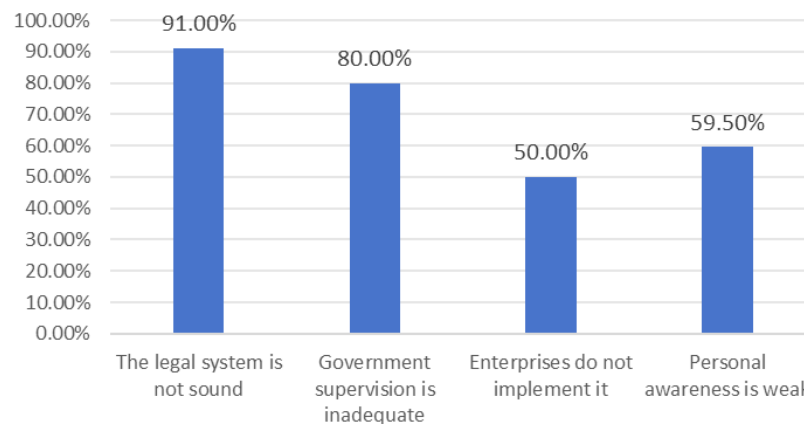


**Figure 3 shows whether the subjects still recognize the existence of data security problems**

Regarding the aforementioned issues, respondents identified three primary factors contributing to

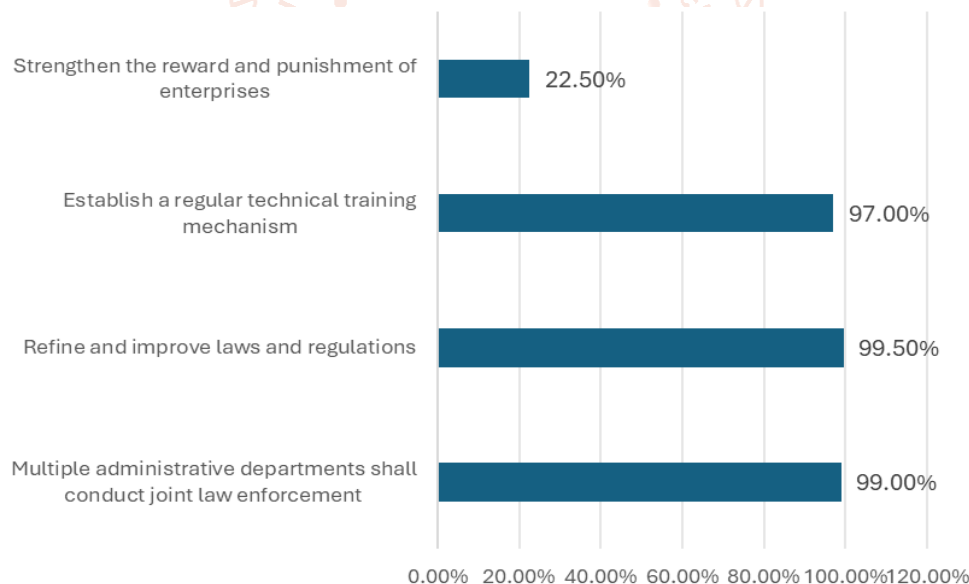
dissemination challenges: an incomplete legal framework (91.00%), inadequate government oversight (80.00%), weak individual awareness (59.50%), and insufficient corporate implementation (50.00%) (Figure 4). The majority of participants emphasized that systemic deficiencies in institutional

frameworks and regulatory mechanisms constitute the core causes of current digital communication data security issues, while also highlighting significant gaps in coordination between enterprises and individuals.



**Figure 4. Factors identified by the survey respondents as contributing to communication security issues**

After further in-depth research, it is found that respondents believe that efforts should be made to refine and improve laws and regulations (99.50%), multi-administrative departments joint law enforcement (99.00%) and establish a regular technical training mechanism (97.00%) (Figure 5), thus concluding the feasibility and practical significance of this groups research.



**Figure 5. Areas where respondents believe regulatory measures should be improved**

### 3. Analysis of communication problems in digital transformation of cultural industry

#### A. Copyright ownership in the digital transformation and communication of cultural industry

When comparing traditional cultural industry communication with digital transformation in media dissemination, the former relies on professional institutions and traditional channels like radio and television, where audiences passively receive content. Copyright management is governed by administrative reviews and industry standards, ensuring clear

traceability of ownership. In contrast, the latter breaks down communication barriers, making self-media platforms key players. Content creators can directly upload materials to these platforms, freely directing publication trends based on personal preferences. However, this approach struggles with content authenticity verification and faces even greater challenges in copyright recognition<sup>[3]</sup>. The harm of ambiguous copyright ownership should not be underestimated. On the one hand, the rights and interests of creators are difficult to guarantee, and the original creators cannot get reasonable returns due to

unclear ownership<sup>[4]</sup> Meanwhile, malicious content exploits copyright ambiguities to spread unchecked. Some social media platforms, in pursuit of traffic, use AI-generated infringing materials to evade legal scrutiny. This not only jeopardizes national security and social stability but also creates a vicious cycle where "bad content drives out good" in cultural dissemination, severely hindering the healthy development of digital cultural industries. Therefore, establishing copyright regulations that align with this new communication ecosystem has become an urgent necessity.

## **B. Data security issues in the digital transformation and communication of cultural industry**

### **1. The national dimension**

The cultural industry carries national cultural sovereignty and ideology, and data security in digital communication is related to cultural security. If the data related to national cultural resources and cultural development strategies are illegally acquired or tampered with by foreign forces, it may threaten cultural sovereignty and weaken the cultural influence of the country.

### **2. Social dimension**

Cultural data serves as a mirror reflecting the social and cultural ecosystem, where security concerns significantly impact this environment. When social media platforms cultural discourse data and consumption patterns are maliciously exploited, they may trigger chaotic public opinion dynamics. False cultural narratives spread through algorithmic precision, misleading public perception and undermining constructive cultural discussions. The misuse of consumption data fosters unfair competition in cultural markets and creates consumer traps, ultimately hindering the healthy development of society's cultural consumption landscape.

### **3. The personal dimension**

The digital dissemination of cultural industries is deeply intertwined with individual cultural lives, making personal data security paramount. When users browsing histories and consumption patterns are illegally collected or sold, it may lead to exposure of personal cultural privacy, trigger targeted cultural harassment, and even be exploited for cultural inducement of consumption or ideological infiltration, ultimately infringing on individuals cultural rights and spiritual freedom.

## **II. Legal protection and application of communication issues in digital transformation of cultural industry**

The rapid advancement of digital technologies, with their extensive impact and long-term prospects,

demands heightened attention to risks in digital communication. The cultural industry urgently requires the establishment and refinement of digital regulatory frameworks. Adopting a "risk-oriented" approach, we must continuously improve laws and regulations to address risks at their source during digital dissemination. This ensures that the industry's digital transformation proceeds within a robust legal framework and achieves comprehensive compliance.

### **1. Guarantee of the digital transformation of cultural industry by existing laws**

China's cultural industry has demonstrated robust growth momentum, with core sectors maintaining steady expansion and public cultural literacy continuously improving. A new cultural development ethos has taken root across society. The newly released "Opinions of the Ministry of Culture and Tourism on Promoting High-Quality Development of Digital Cultural Industries" explicitly advocates prioritizing socialist core values while emphasizing social benefits. Guided by these principles, China's cultural sector is advancing through strategic depth, demonstrating concrete progress in four key areas: maintaining ethical direction, enhancing substantive quality, driving innovation to stimulate market vitality, leveraging data-driven technologies, and fostering integrated development with open collaboration<sup>[5]</sup>.

### **2. The role of legal safeguards in the dissemination of information**

A comprehensive and well-rounded legal framework with broad coverage addresses issues in cultural industry dissemination through targeted analysis and proposes solutions, providing regulatory protection for enterprises, society, and individuals. By establishing laws and regulations to combat illegal cultural dissemination and publishing activities that disrupt market order, the system effectively safeguards legitimate cultural communication. It clarifies legal supervision mechanisms and operational safeguards while implementing a content review mechanism for dissemination projects<sup>[6]</sup> To enable the government and enterprises to reach in-depth communication and cooperation, and ensure that the content of the cultural industry after digital transformation conforms to the law and public order.

## **III. Improve the legal safeguard mechanism for communication problems in the digital transformation of cultural industry**

### **1. Strengthen the construction of laws and regulations for digital transformation of cultural industries**

The Chinese government has introduced a number of policies to promote the healthy development of the



digital content industry. The national development policies and plans mainly promote the development of the digital cultural industry through technical support, content innovation, copyright protection and other ways. In the process of digital transformation of the cultural industry, it is urgent to build a systematic and perfect legal and regulatory system.

First of all, the "Digital Law of Cultural Industry" should be formulated to provide a clear legal basis for digital content production, dissemination and transaction, clearly define the ownership of intellectual property rights, usage rights and infringement liability of secondary creation, and provide clear guidance for the reasonable use of digital content, so as to effectively curb infringement<sup>[7]</sup> This legislation should prioritize addressing legal gaps in emerging sectors such as AI-generated content and virtual reality cultural products, with explicit provisions on copyright ownership for AI-created works. Furthermore, establishing a collaborative governance model for infringement resolution is crucial for building a robust copyright protection framework in the digital age. Through legislative measures, we must clarify copyright attribution for digital content in new industries, set industry-aligned standards of due diligence, and intensify penalties for piracy. Strengthening legal safeguards will not only protect copyright holders legitimate rights but also promote standardized platform development, thereby creating a favorable legal environment for emerging cultural industries<sup>[8]</sup>.

## **2. Improve the construction of legal supervision and guarantee system for digital transformation of cultural industry**

Building on the legal framework and enhanced regulatory capacity for cultural industry digital transformation, establishing a robust legal supervision system becomes imperative. This system should clearly define the rights, obligations, and responsibilities of all stakeholders in practice. The government should strengthen legislation and leverage new media platforms to actively educate creators about relevant regulations. Creators bear primary responsibility for digitalized cultural products, while enterprises must display corporate logos after product approval, fulfill pre-release review obligations, and maintain ongoing post-launch oversight. Governments should implement regular quality inspections of digital cultural products through random sampling, promptly disclose inspection results to the public, and adjust policy guidelines according to evolving social needs to ensure the safety and reliability of post-transformation content dissemination.

This framework establishes clear delineation of responsibilities among stakeholders, refining accountability mechanisms to enhance digital transformation in cultural industries. It provides explicit protection for intellectual property rights of works generated through AI systems. By codifying procedural guidelines through legal policies, it lays the groundwork for future "case-by-case adjudication" and comprehensively strengthens the legal supervision and safeguard system.

## **IV. Conclusions and Prospects**

### **1. Research conclusions**

This study, through systematic analysis of communication challenges in the digital transformation of cultural industries, concludes that robust legal safeguards are crucial for driving this transition. Key legal hurdles include ambiguous copyright ownership and data security risks, which require comprehensive solutions combining legislative improvements with technological empowerment. Moreover, existing legal frameworks lag behind digital technology advancements, making it imperative to establish specialized legislation for emerging fields like AI-generated content. Finally, implementing these regulations demands balancing cultural preservation with industrial innovation – maintaining ethical boundaries while avoiding blanket regulatory measures that could stifle technological progress.

### **2. Research deficiency and prospect**

This study has certain limitations. Firstly, the research on digital compliance capabilities of traditional cultural industry institutions such as museums and publishing houses lacks sufficient depth, failing to fully reflect practical challenges encountered in grassroots practices. Secondly, comparative international studies remain underdeveloped, particularly regarding the need to strengthen reference to advanced practices like the EU's Digital Markets Act and the U.S. Digital Millennium Copyright Act (DMCA)<sup>[9]</sup> Looking ahead, it is suggested to deepen research from the following two aspects: First, explore the establishment of a regulatory sandbox mechanism to allow enterprises to test new digital cultural products such as metaverse cultural tourism projects within a controllable scope<sup>[10]</sup> Second, we should promote the establishment of a global digital cultural governance alliance to jointly address international challenges such as cross-border cultural data flows and NFT infringement. In summary, legal safeguards for the digital transformation of the cultural industry should uphold the principle of balancing baseline regulation with inclusive prudence. Through institutional innovation to unleash

technological dividends, we can ultimately achieve dual objectives: ensuring cultural dissemination security while promoting high-quality industrial development.

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