

Art and Design Communication and Interaction in the Context of Social Media Era

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Keywords: Art and Design, Communication and Interaction, Social Media, Traditional Crafts, Food Culture

Abstract: In the art communication environment of social media, how to better utilize the advantages of social media, convey information to the audience, and achieve better communication effects is an urgent problem that needs to be solved. This article took social media short videos in a social media environment as an example, taking "China" as an example, and applied the theory of "symbolism" to sort out the narrative methods of "China" cultural symbols and "China" stories used in social media short films. After investigation, social media short videos are based on traditional Chinese cuisine and craftsmanship. Through visual symbols such as dietary symbols, traditional craft symbols, natural symbols, character symbols, and written symbols, as well as auditory symbols such as music, homophones, and dialects, the rich traditional cultural temperament of China was presented, and the diverse cultural images of food, writing, and music in China were also presented. The image of a hardworking, simple, and harmonious nation was also presented. The proportion of traditional crafts in the selected videos was 30.6%; the proportion of delicious food was 61.8%; the proportion of others was 7.6%. This article helps to actively explore various interactive channels to enhance the effectiveness of artistic exchange and interaction.

1. Introduction

In today's society, with the development of society, people's pace of life has become faster and more frequent, and their communication has also become more frequent. This article selects social media as the research object and organizes and analyzes it. Based on the above analysis, this article presents the shortcomings and countermeasures of art website interaction in the social media environment. In response to the current problems and future development trends, some suggestions and prospects are proposed, and in-depth discussions are conducted on how to make the dissemination and interaction of art and design a hot topic in the context of social media era. This

article analyzes the aesthetic fatigue and insufficient user stickiness that arise from the dependence of today's audience on new media such as Weibo and WeChat from the perspectives of social media and information exchange. Based on the influencing factors, corresponding countermeasures have been proposed. The research results of this article provide certain reference significance for the development of other industries.

In the process of information dissemination, art design and interactive communication can effectively promote communication between people, and enhance user experience and the market competitiveness of popular cultural products in a social media environment. Lin Yihang's design transformation and dissemination of art derivatives can meet the needs of the general public for artistic and cultural appreciation. On this basis, he proposed the design of art derivatives with Chen Xiao's works as the background, with the aim of achieving innovative design of art derivatives. The combination of Chen Xiao's art works and products can creatively design an artistic derivative that reflects both Western and Eastern cultural characteristics. The use of new media and cross-border platforms for the dissemination of art derivatives can enable the joint development of the art derivative industry and the art exhibition industry [1]. Lu Guojun believed that the application of digital media technology has greatly changed the communication form, thinking space, language expression, and classification methods of modern art and design, bringing new vitality to art and design. Through digital media technology, the effects of modern art and design were expressed more directly, thus creating the true meaning of modern art and design. He mainly discussed from three aspects, namely: the connotation and characteristics of digital media technology, the advantages of combining digital media technology with modern art design, and the profound impact of digital media technology on modern art design, in order to reference and draw on in practice [2]. Zhang Jingwen took digital media art design as a reference, and used numerous excellent and successful designs as examples to analyze the performance and dissemination related to digital media design. She also pointed out the differences between traditional graphic design and digital media design, and highlighted and analyzed the advantages and disadvantages of new media. With the arrival of the era of big data and artificial intelligence, people are no longer satisfied with writing their thoughts and ideas on paper, but need to use new media technology and other new intelligent media to achieve their expression and dissemination. Therefore, people have innovatively combined video with "digital media", greatly improving the convenience of communication and bringing more visual experiences to people [3]. Their research did not provide an introduction to relevant platforms for art and design, nor did they conduct preliminary discussions on the further development of the art and design industry.

After analyzing the relevant content of service design theory, this article also conducted in-depth research on the theory of digital media and media integration. In terms of interdisciplinary theory, relevant theories and case studies on social media art and design were carried out. The current situation and degree of application of interactive media design theory in related integrated media in different industries were explored, and the similarities and differences between the two were compared. At the same time, the value and significance of interactive media art design in building an integrated media platform for the advertising signage industry were analyzed. From the overall construction framework, some design highlights and feasible touchpoints were identified, and combined with relevant theories, they were explained and studied.

2. Social Media and Art Design

2.1 Social Media

The rise and development of social media have provided a new discourse space for cross-cultural communication of China's image. The development of network technology has accelerated the

"visualization" of social media, bringing human society into an era of "visualization" [4-5]. Visual symbols are a form of representation of visual symbols, which have concrete and intuitive qualities that cannot be compared to written symbols, making it more accurate and efficient in conveying information [6]. The advent of the "visual age" has brought about significant changes in the world's communication ecology and has led to new cross-cultural communication concepts. Visual symbols are a "world language" with distinct expressive power. When conveying a country's image, they can better provide a stronger visual sense of touch to international audiences, making the meaning conveyed more three-dimensional and clear [7-8]. As a new form of visual media, online short videos, with their relaxed and joyful atmosphere, rich and diverse content elements, and rich and cool effects, have enriched and transformed the public's entertainment methods, and have penetrated into the world's politics, economy, society, and people's daily lives [9].

In a broad sense, "interaction" refers to the interaction between people in nature and natural things in society, while in a living environment society, it depends on the organizational and operational mechanisms of society. In information art design, interactive behavior mainly refers to the interaction between people [10-11]. Human machine interaction is rooted in cognitive psychology and based on software engineering and design methodology. Traditional art design emphasizes two major principles: "self made things, deductive changes," and "functional supremacy". The most important aspect of current art design is to give people a feeling. The interactivity of digital information platforms is manifested as the process of feedback between people and the information presented by the media. Digital products can receive changes in external interactions such as human actions, behavior, and language, and can also generate certain psychological interactions, thus achieving two-way interaction between people and information. The basic characteristic of interactive media is interaction, and designers must grasp the user experience as a whole [12].

Social media integration is the act of integrating traditional media with emerging media. By using new communication technologies and new forms and means, the same content is presented in different ways through different modes on different media platforms, resulting in new media products. In this way, there are new mechanisms and new cooperative relationships. In the process of its formation, media integration has resulted in many different classification methods due to the ontological nature of media and the varying degrees of integration between them.

In social media art design, mask equations can be used to implement masks to change specific parts of an image without affecting other parts of the image [13-14]:

$$U(m, n) = I(m, n) * X(m, n) + [1 - X(m, n)] . Y(m, n) \quad (1)$$

$U(m, n)$ is the output image; $I(m, n)$ is the input image; $X(m, n)$ is the background image.

In social media art design, linear blending models can be used to achieve gradient, smooth transition, and blending effects [15]:

$$h_x = (Q_1 y_1 + Q_2 y_2) / (Q_1 + Q_2) \quad (2)$$

Among them, h_x is the mixed color.

2.2 Art and Design

The so-called artistic design is a design that organically coordinates and unifies the functionality, comfort, and external beauty of a product [16-17]. Art design is a way of combining art with factors such as culture, technology, and market, and reproducing it in people's lives, so that a work has both aesthetic and practical value [18]. Once, it involved many attributes, such as design art, aesthetic design, industrial design, and so on. Among these names, industrial design is the most well-known.

To this day, numerous art and design schools have formed various ideological systems, which

have permeated every aspect of social life and become the main source of competitive advantage for a company or even a nation [19]. Among them, environmental design, graphic design, clothing design, multimedia design, product design, etc., are independent and highly comprehensive and practical [20]. It differs from traditional art categories in terms of research content and service objects, covering various factors such as production, behavior, economy, technology, and demand. With the changes in these factors, the aesthetic level of art and design also changes accordingly. Art and design emerge from life and play a huge role in people's lives, and its most prominent feature is "service". The diversity of art comes from the independent, rich, enduring, and constantly developing variety of creations in life. At the same time, a large number of themes are also convenient, comfortable, and aesthetically pleasing. A good artwork can change the entire world, just like Steve Jobs' "Apple" series.

Art design is a comprehensive design process. Artistic creation is generally solved by one person alone. Having too many people is not only unhelpful, but also hinders the expression of artistic viewpoints. No matter which type of artistic design it is, it is impossible to rely solely on these two disciplines to complete. In the implementation stage, it is an industrial process, and the ideas completed on paper can only be a concept. Once made, it is almost impossible for one person to complete it. At this time, it requires the support of theories and technologies from other disciplines in various aspects. Therefore, the research on various materials, the application of computer and network technology, the analysis of big data, the production and manufacturing, and the sales of products are all practical issues that are inevitably faced in art and design. Such a huge system engineering cannot be completed solely by passion. Therefore, in addition to possessing a certain creative talent, art designers also need to have a spirit of cooperation and the ability to scientifically control the entire process.

"Everything artificial means design." When humans created the first stone, design had already begun. It is obvious that the origin of design and human origin appeared almost simultaneously. The purpose of making tools is to meet people's most basic living needs. From this point, it can be seen that the essence of artistic design lies in meeting needs. In addition to basic usage functions, it also includes multiple aspects such as viewing, experiential, and service-oriented. The fundamental goal of design is to meet the needs, that is, through reasonable and reasonable design, to improve the functionality and ease of use of products, such as customer relationship management, product innovation, user experience, cross-border design, etc. "dominant demand" is the ultimate goal of design, which is to guide consumers' needs with a "forward-looking" design.

2.3 Short Videos and Cross-cultural Communication Networks

With the development of visual culture, short videos, an emerging communication method in the era of social media, have increasingly expanded their influence due to their diverse technological advantages. At the same time, short videos with visual expression and fragmented dissemination characteristics have seen explosive growth in the era of social media, as they are more suitable for the audience's daily media usage habits. For today's public, short videos are a way of expression that is lifestyle oriented, convenient, and highly effective in dissemination. As a new darling of the social media era, although short videos originated from the public, they have been continuously improving themselves with their own advantages and influence, gradually developing towards public communication, and demonstrating strong effectiveness in the international communication field. In summary, it is necessary to continue to seek new breakthroughs in enhancing China's soft power. With the advent of the era of social media, the cross-cultural communication ability of a country's image has been fully utilized, and online short videos are an important blue ocean for improving China's image and international influence. However, current research on the

dissemination of national image mostly focuses on traditional mainstream media, lacking a systematic examination and analysis of how new media affects national image, and also failing to incorporate the interaction between new media and the audience.

On the basis of collecting relevant reports on the phenomenon of short video live streaming, this article analyzes the structure of the reports on the phenomenon of short video live streaming, and analyzes the image of "China" reflected under these structures. Through analysis, it can be seen that the media coverage of short videos in other countries mainly focuses on three aspects, namely the mirror image of rural life, the improvement of China's soft power, and disputes over food culture. Other countries' media generally believe that China has rich cultural resources, but the level of China's "soft power" still needs to be further improved. Therefore, China should actively change its external discourse mode, create a favorable atmosphere for the growth of China's "internet celebrities", and enable them to better leverage their advantages in enhancing China's "cultural soft power".

In the context of the continuous development of social media globally, new media videos such as short videos are used to awaken, activate, and reproduce traditional Chinese culture, enhance the cultural confidence of the public and enterprises, and thus generate a positive awareness of cultural dissemination. Especially, as a business entity, driven by economic interests, companies actively investigate consumption trends in the international market and discover potential elements of consumer value in their own country's traditional culture. They utilize the unique advantages of their own country's culture to satisfy the nostalgic and novelty seeking consumer psychology of audiences from other countries. Therefore, using the power of capital to motivate enterprises to produce high-quality products with Chinese cultural characteristics, and enabling Chinese culture to exit China under the promotion of the market, is an effective way for China to improve its cultural soft power in the context of new media.

3. Art and Design Exploration Experiment and Results

Art and design exploration experiment:

(1) The classification and determination of survey subjects are mainly aimed at relevant industry professionals who have had contact with the advertising and logo industry, relevant participants in the art and design industry, and college students majoring in related fields, as reported in the previous survey. Among these people, the questionnaires are distributed, and their own experience can bring more authentic and effective information to the questionnaires.

(2) After the sender of the survey questionnaire has been basically determined, specialized survey questions can be conducted for the corresponding survey subjects. The specific process is as follows.

1) Research method: A questionnaire survey is used as the main method, and data on the relevant population is collected. Then, a certain number of individual interviews are conducted with some effective questionnaire survey subjects and relevant groups. This survey is conducted online, which is convenient, fast, and environmentally friendly, and the relevant information for the survey is also relatively easy to obtain.

2) Research question setting: Specific questions related to the research are designed based on factors such as the life characteristics, cultural background, and educational level of the research subjects, and corresponding, challenging, targeted, and hierarchical questions are designed. Targeted and adaptable interviews are conducted from different perspectives, targeting mainstream users in the industry and stakeholders in the advertising signage industry.

(3) Conducting research record statistics: By allowing the surveyed group to output relevant language data and retain audio and video related data, various forms such as photography and

recording are used to assist in recording data, ensuring the authenticity of the data.

(4) Summarizing the problems and improving the analysis: After the basic survey, the feedback results of the questionnaire are sorted out, screened, and visualized, and compared and analyzed in a unified content format to provide some data basis for the future construction of social media platforms.

The characteristics and impact of research on art design communication and interaction in the context of social media era are shown in Table 1. This article combines user interaction and innovative practices to further explore the content of social media communication. The characteristic of user interaction is high user engagement, and art and design have become more interactive.

Table 1. Characteristics and impacts of research on art design communication and interaction in the context of social media era

Aspect	Characteristic	Influence
Social media communication	Rapid dissemination and widespread reach	Expanding the Audience range of art and design works
User interaction	High user engagement	Art and design becoming more interactive
Innovative practice	Multimedia expression form	Promoting innovative experiments and practices in art and design
Cultural sharing	Spread across time, space, and regions	Strengthen artistic and design exchanges between different cultures
Data driven	Data analysis and personalized recommendations	Provide personalized art design experience and display recommendations

The gender composition of YouTube audiences in the context of the social media era is shown in Figure 1. It can be used to summarize some characteristics and impacts of art and design communication and interaction in the context of social media era. In actual research, there may be more detailed characteristics and impacts to consider. The male audience accounts for 34%, while the female audience accounts for 66%.

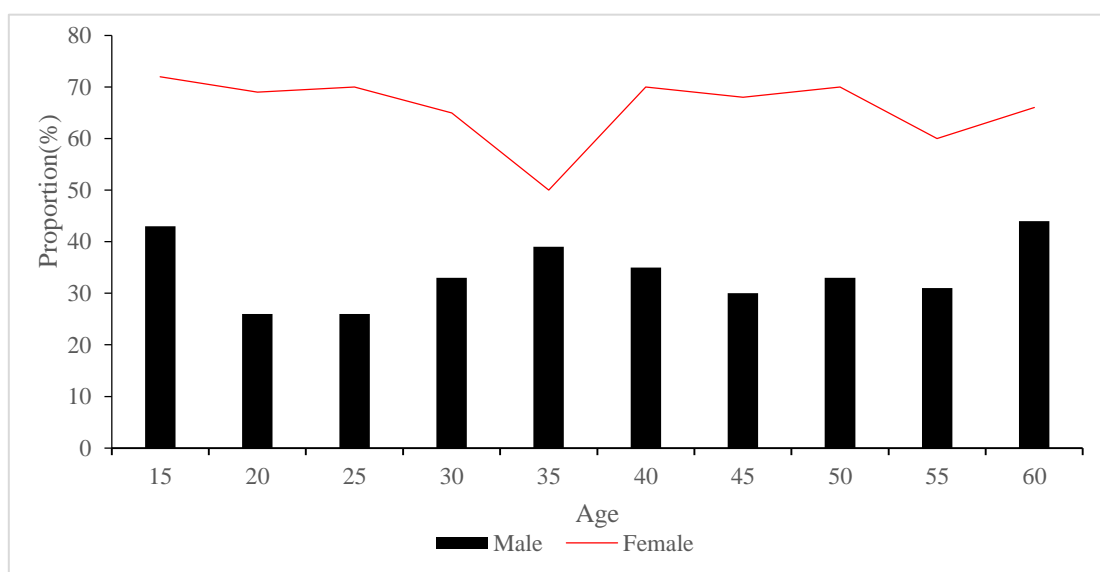


Figure 1. Gender composition of YouTube audience in the context of social media era

As an emerging form of information dissemination, short videos are gradually becoming a new favorite of international public opinion due to their many advantages, opening up a new space for cross-cultural communication of national images. 1000 short videos are randomly selected and divided into 10 groups. Among them, traditional craftsmanship accounts for 30.6%; cuisine accounts for 61.8%, and others account for 7.6%. The classification of short video content is shown in Figure 2.

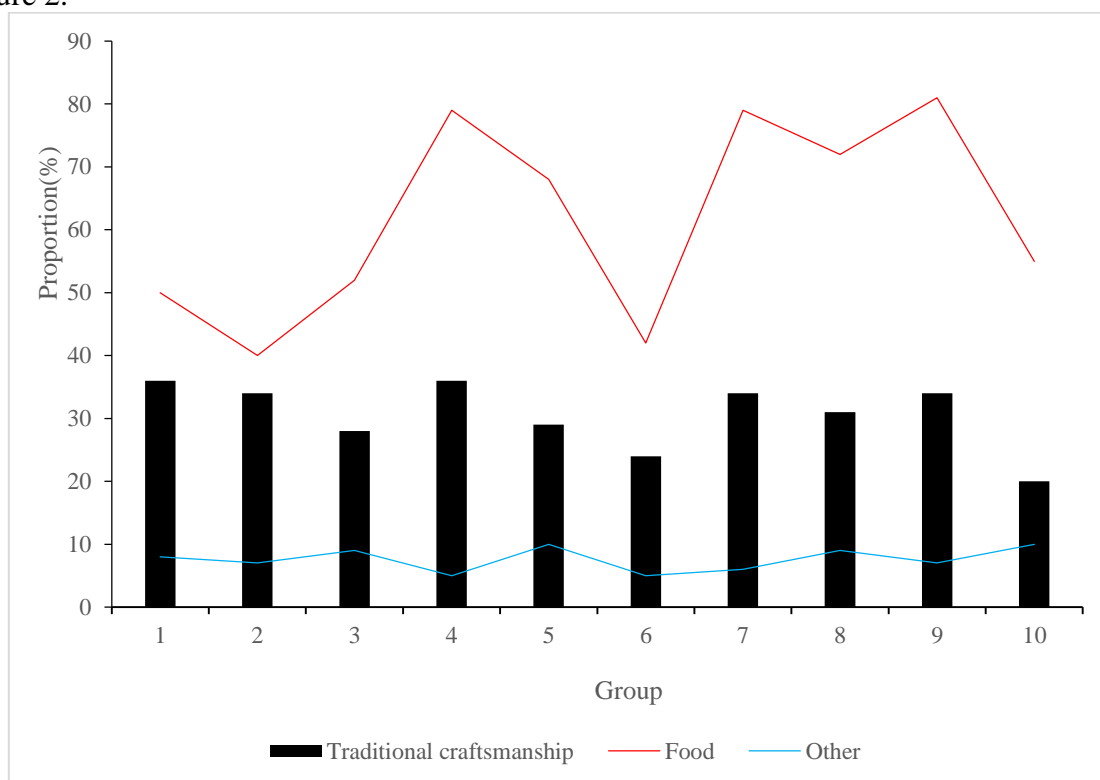


Figure 2. Short video content classification

The spirit of craftsmanship is an indispensable part of traditional Chinese creative culture. The craftsmen used their intelligence and hands to forge the brilliant material civilization of China. The "Craftsman's spirit" is a concentration, persistence, innovation, and pursuit of perfection demonstrated by craftsmen through long-term production labor and meticulous craftsmanship. As a new type of cultural creation practice platform, short videos have great carrying capacity in the dissemination, display, and storage of "local" culture. These short films, themed on traditional handicrafts and handicrafts, showcase the forgotten side of Chinese history in the form of "life" and are an innovation of traditional culture. Traditional handicraft symbols and old elements are organically integrated with short video technology to concretize, innovate, and artistically present traditional cultural elements on the screen. In the video, the logo of traditional handicrafts accounts for a large part. Exquisite visuals, large-scale craftsmanship, and simple yet vivid language are used to showcase the Chinese people's diligent thinking and hardworking craftsmanship spirit, as well as their wisdom, to the audience. Chinese handicraft videos are searched and divided into 10 groups for analysis, covering ancient clothing (28.6%), production of daily necessities (31.2%), creation of traditional technology (24%), calligraphy art (16.2%), etc., showcasing the carving and formation of Chinese handicrafts. The video content of Chinese handicrafts is shown in Figure 3.

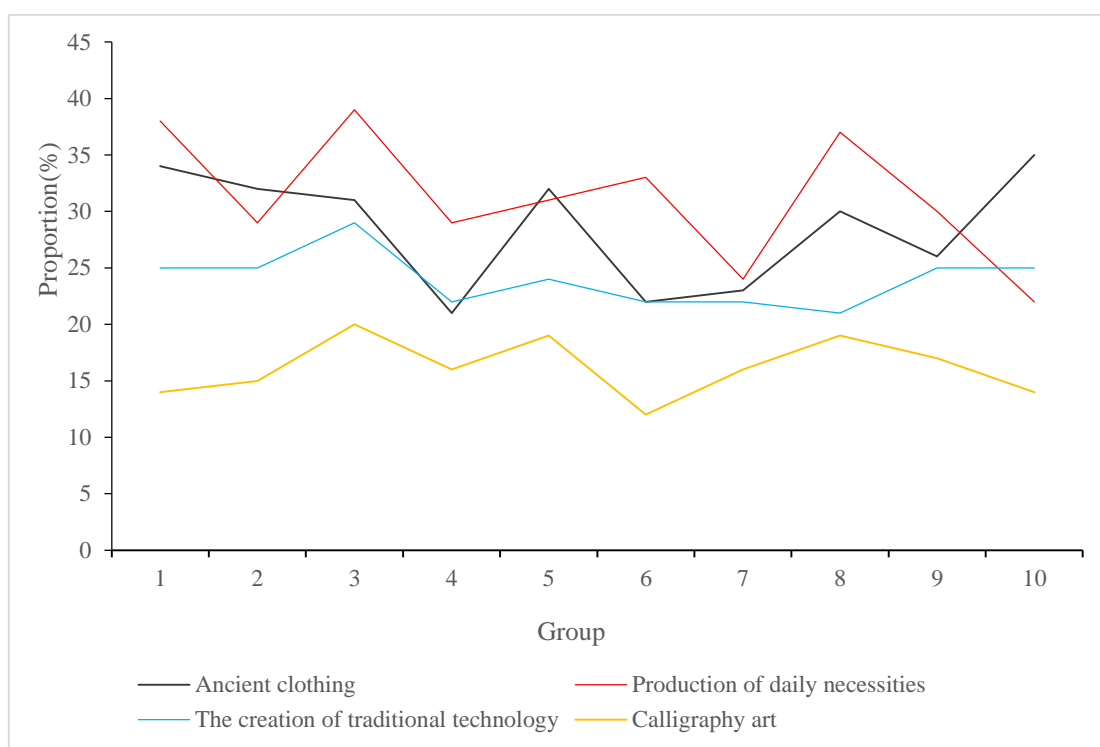


Figure 3. Video content of Chinese handicrafts

4. Conclusions

This article adopted various data collection methods and provided a multidimensional interpretation of the research content from multiple perspectives such as short video texts on social media, short video reports, audience interviews, and audience evaluations on short video platforms. However, in the context of socialized media, the theme of Chinese image art and design communication has more connotations and broader meanings. Taking short videos as an example, examining their dissemination ecology and laws in new media from their unique perspective has corresponding research value. Social media is thriving, and its communication effectiveness would continue to be unleashed with the progress of technology. In the new era, the cross-cultural dissemination of China's image still needs to continue exploring and researching new key points. In the future, with the continuous development of new era and technology, people's visual interest and aesthetic awareness would be rapidly improved. This is not only a huge challenge but also a huge opportunity for social media art design. This article can provide certain reference value for the future industry's own integrated media construction and other related industries' transformation and development of integrated media construction, and help future designers design a social platform visual feast that can satisfy the public.

Funding

If any, should be placed before the references section without numbering.

Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Conflict of Interest

The author states that this article has no conflict of interest.

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