A Brief Discussion on How Memetics Guides the User Experience Design of Cultural and Creative Products

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Abstract. The purpose of this paper is to explore the connection between memes and user experience from the perspective of memetics, and to correspond the three levels of culture with the three dimensions of user experience, so as to construct a new idea for the user experience design of cultural products. This paper takes the cultural and creative products of the Palace Museum as an example for analysis, and classifies the culture they convey. This paper argues that memetics can provide a new perspective and method for the user experience design of cultural and creative products, and help designers better understand and meet the needs of users in terms of senses, behavior and cognition, and create more valuable and attractive cultural and creative products.

Keywords. cultural and creative products; user experience; memetics

1. Introduction about memetics

Memetics is a new theory based on Darwin’s theory of evolution, proposed by British biologist Richard Dawkins in 1976 in his book The Selfish Gene, to explain the laws of cultural evolution. It refers to the ideas or notions that are imitated and spread among people in the cultural field, and are passed down from generation to generation. Meme (meme) uses a pronunciation similar to gene (gene), meaning similar due to the same gene, so meme refers to cultural gene.

Dawkins believes that memes are units of information that can be transmitted from one brain to another through various channels, and undergo evolutionary mechanisms such as variation, selection and inheritance in the process of transmission. Memes can be anything that can be copied, spread and preserved, such as language, customs, beliefs, art, technology, etc. Memes can be divided into three levels in the cultural level: material culture, behavioral culture and spiritual culture. Material culture refers to the manifestation of memes in material form, such as architecture, clothing, crafts, etc.;
behavioral culture refers to the manifestation of memes in human behavior, such as
etiquette, habits, customs, etc.; spiritual culture refers to the manifestation of memes in
human thought, such as beliefs, ideas, values, etc. There is a relationship of mutual
influence and restriction between different levels of memes, forming a complex meme
syste.

2. Introduction about user experience

User experience is the subjective impression that a product creates in the user during its
use. This experience can be categorized into three areas: sensory, behavioral, and
cognitive. The user's perception of product appearance, color, sound, smell, and other
sensory factors, including aesthetics and comfort, form the basis of sensory experience.
User's perception of product function, performance, operation, and other behavioral
aspects make up behavioral experience. User's perception of product meaning, value,
emotion, and other cognitive traits constitute cognitive experience.

User experience is a crucial factor impacting product satisfaction and loyalty, as
well as a strong indicator of product quality and competitiveness. User experience design
entails a user-centered approach, studying user needs, expectations, and behavior to
design products that align with their psychology and emotions. The field of UX design
spans several subject areas, including psychology, sociology, human-computer
interaction, and industrial design. The objective is to enhance user satisfaction and
product loyalty, boost interaction and communication between users and the product,
ultimately generating greater value.

User experience design holds particular significance in the realm of cultural and
creative product design, given that such products represent not solely material goods, but
cultural symbols as well. Quality cultural and creative products prioritize the aesthetic
and emotional needs of the user. Creative products should not only impart information
and knowledge but also evoke emotions and values. Therefore, the use of scientific and
effective methods to enhance the user experience design of cultural and creative products
is a crucial concern for the cultural and creative industry.

3. The Connection between Memetics and User Experience Design of Cultural and
Creative Products

The connection between memetics and user experience design of cultural and creative
products is that both involve understanding how users perceive, interact with, and
respond to the products, and how the products can influence the users’ culture and vice
versa.

So, how to connect memetics with user experience, how to guide user experience
design with memetics. This section will explore the connection between memetics and
user experience design from three aspects, namely material culture and sensory
experience, behavioral culture and behavioral experience, and spiritual culture and
cognitive experience. The relationship between them is shown in Figure 1.
Physical culture corresponds to sensory experience. It serves as the initial touchpoint for users to engage with cultural and creative products, providing the foundation for users to develop their sensory experiences. Designers of cultural and creative products should take into account users' sensory needs and preferences. Careful selection of appropriate materials, colors, shapes, and textures can elicit beautiful, comfortable, and pleasant experiences through sight, sound, smell, and touch. At the same time, it is important for cultural and creative product design to take into account the unique characteristics and connotations of culture, while carefully selecting representative and symbolic elements. This approach enables users to experience a sense of cultural resonance in their sensory encounters.

Moreover, behavioral culture is complementary to behavioral experience. Behavioral culture pertains to the expression of human behavior patterns when utilizing cultural and creative products, and is crucial in shaping users' behavioral experiences. To ensure positive experiences, the design of cultural and creative products must take into account users' behavioral needs and habits. This includes selecting appropriate functions, interaction methods, and other features to optimize the user experience. In the present era of rapid technological development, cultural and creative products should incorporate behavioral and cultural design to provide users with innovative experiences while also taking into account cultural heritage.

The cognitive experience corresponds to spiritual culture, which encompasses various modalities of human thought, including beliefs, concepts, and values. Spiritual culture serves as the foundation for users to comprehend and assess cultural and creative products. Additionally, it is a key area of focus for users to develop their cognitive experiences. The most significant aspect that should be conveyed to users through cultural and creative products is its underlying cultural significance. Users comprehend and perceive the cultural significance conveyed by a cultural and creative product during the cognitive experience. The cognitive experience is an integral part of the user experience and is intertwined throughout the entire process, similar to storytelling. A well-told story utilizes both sensory and behavioral experiences in tandem, expanding the sensory behavioral experience to a spiritual level through association.
4. User Experience Design Analysis of Cultural and Creative Products of the Palace Museum

This section analyzes the cultural and creative products of the Palace Museum. The collections of the Palace serve as inspiration for the Palace Museum's cultural and creative products. Representative and symbolic elements, such as dragons, phoenixes, longevity characters, and eight treasures, are creatively incorporated into the product design to give them a distinct style and aesthetic appeal.

Take The Palace Calendar as an example. It serves as a cultural business card for the Palace Museum and is a representative product of the Palace Press. The publication has been in circulation for 15 consecutive years and sold over 5 million copies. On September 14, 2023, The Palace Calendar: Book and Painting Edition - 2024 was officially released.

From a sensory perspective, The Palace Calendar offers a unique experience. Painting and Calligraphy Edition - 2024 showcases the intricate details and distinctive characteristics of traditional Chinese painting and calligraphy. The edition presents themes of flora, fauna, and nature that are representative of the four seasons including flowers, birds, grasses, insects, fish, and dragons, as well as vegetables, fruits, and beasts. Each theme is accompanied by distinctive traditional Chinese colors like Obi, Xueqing, Turmeric, and Yuhai Blue (refer to Figure 2) and unique fragrances, specifically tailored to each of the four seasons. The four characters on the cover of the Forbidden City Calendar feature the small seal script from the cover of the 1934 edition (refer to Figure 3). The background features an auspicious cloud pattern, symbolizing good fortune and happiness in the coming year. This reflects respect for and a desire to inherit history. The antique paper used has a delicate texture and soft color that enhance the calligraphy and painting. The design of the Forbidden City Calendar adheres to these elements. Painting and Calligraphy Edition 2024 provides a visually engaging experience for users. The calendar allows for the appreciation of artistry through its carefully curated collection of paintings and calligraphy pieces. Its stimulating visuals promote a sense of comfort and pleasure as users interact with the calendar by seeing, touching, and turning its pages.

In terms of behavioral culture, The Forbidden City Calendar: Painting and Calligraphy Edition-2024 offers several interactive and educational features, including audio explanations, AR video animations (refer to Figure 4), and scent experiences. Painting and Calligraphy Edition-2024 includes extras such as a Fire Cloud Dragon Badge, bookmarks, and bookmarks, enabling users to appreciate the calendar and other cultural and creative products simultaneously. The 2024 Book and Painting Edition calendar aims to provide users with an enjoyable and engaging experience.

These features not only enhance users' understanding and appreciation of the calligraphy and painting works but also increase their interest in utilizing and collecting the calendar. The 2024 Painting and Calligraphy Edition expresses the spiritual and cultural values of traditional Chinese culture, including nature, harmony, beauty, and virtue. Thematic style designs for the paintings and calligraphy works, along with skillful interactive communication, convey these values to users. The Forbidden City Calendar provides a platform for this expression. Painting and Calligraphy Edition- 2024 selects Obi, Snowy Green, Turmeric, and Jade Hairpin Blue, which are traditional Chinese colors, to correlate with the four seasons theme. Additionally, the company tailors Plum Blossom Scent, Lotus Scent, Osmanthus Scent, and Pine and Cypress Scent to the various seasonal themes. These colors and scents can stimulate the user's visual and
olfactory senses. With the assistance of emerging technologies, such as the Internet and AR, users may fully immerse themselves in the charms of Chinese culture.

The Forbidden City Calendar conveys elements of material culture. The 2024 Painting and Calligraphy Edition showcases small seal script, auspicious cloud patterns, traditional Chinese colors, and other patterns featuring birds, flowers, and animals. The conveyed behavioral culture includes painting, calligraphy, flower appreciation, and festive customs. The spiritual culture predominantly comprises Chinese concepts of festivals and family, as well as the Chinese people's appreciation for time, life, and aesthetics.

5. Conclusion

This paper briefly discusses the connection between memetics and user experience design. User needs and motivations are the key factors that drive user experience design. The goal of user experience design for a cultural and creative product is to meet users' needs for appreciation and understanding of the culture carried by the product. Therefore, before designing a cultural and creative product, we need to conduct a comprehensive research and analysis of users’ needs for culture. And through the perspective of meme, we can use a new method to understand users’ needs for cultural and creative products. The general idea is as described in this paper, to select cultural memes and apply them in the corresponding user experience design, to enhance users’ experience in using cultural and creative products, and to achieve better cultural communication and inheritance. This paper also has many shortcomings, such as only proposing a design thinking of memetics guiding user experience design of cultural and creative products, which needs to be refined in terms of design methods. In addition, in the new era, the needs of ordinary people for cultural and creative products are changing, such as customization and personalization. How to solve these problems requires more in-depth and extensive research in the follow-up design theory and practice.

References