and connotation. At present, in order to cater to consumers, most cultural and creative products ignore cultural heritage and practical functions, blindly pursue beauty and novelty, resulting in the lower added value of cultural and creative products and a significant decline in consumers’ consumption desire. Therefore, based on design psychology, the research puts forward suggestions on the design of cultural and creative products in order to improve them, hoping to improve the cultural connotation of cultural and creative products, stimulate consumption, and also play a positive role in the dissemination and promotion of China’s traditional culture.

**Research objects and methods**: 20 students majoring in art design in a university were selected to design cultural and creative products. Collect consumer satisfaction and purchase intention of cultural and creative products in a cultural and creative product trading website.

**Study design**: 20 students were randomly divided into two groups with 10 students in each group. One group carries out cultural and creative product design based on design psychology, which is recorded as the research group. The other group was created freely and was recorded as the control group. Each group of students designed 20 cultural and creative products for consumer evaluation. The satisfaction of consumers is quantified as 1-5. The greater the satisfaction value, the higher the consumer’s recognition of the cultural and creative product.

**Methods**: Using Excel software and SPSS22.0 software to process and analyze relevant data.

**Results**: Consumers’ satisfaction with the design of cultural and creative products based on design psychology was higher than that of freely created cultural and creative products in terms of aesthetics, function, and connotation, as shown in Table 1.

<table>
<thead>
<tr>
<th>Index</th>
<th>Research group</th>
<th>Control group</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taste</td>
<td>3.42±0.45</td>
<td>3.03±0.57</td>
<td>5.324</td>
<td>0.037</td>
</tr>
<tr>
<td>Function</td>
<td>4.03±0.48</td>
<td>3.14±0.41</td>
<td>6.711</td>
<td>0.009</td>
</tr>
<tr>
<td>Connotation</td>
<td>4.57±0.33</td>
<td>2.76±0.64</td>
<td>8.725</td>
<td>0.001</td>
</tr>
</tbody>
</table>

**Conclusions**: Creative products are cultural and creative products, which are high value-added products. Good cultural and creative products need to have three characteristics, namely aesthetics, function and connotation. At present, in order to cater to consumers, most cultural and creative products ignore the cultural heritage and practical functions, resulting in the lower added value of cultural and creative products and a significant decline in consumers’ consumption desire. Therefore, we need to find a way to improve the current design of cultural and creative products. Based on design psychology, the research puts forward suggestions on the design of cultural and creative products in order to improve them. The results show that consumers’ satisfaction with the design of cultural and creative products based on design psychology is higher than that of freely created cultural and creative products in three aspects: aesthetics, function and connotation. Therefore, the design of cultural and creative products based on design psychology can improve the cultural connotation, stimulate consumption, and also play a positive role in the dissemination and promotion of China’s traditional culture.

* * * * *

**PSYCHOLOGICAL RESEARCH BASED ON THE INTERNET PLUS INTERACTION DESIGN**

Jinghao He

School of Art & Design, Zhengzhou University of Aeronautics, Zhengzhou 450046, China

**Background**: In recent years, with the accelerating process of economic globalization, people’s pace of life is getting faster and faster, and the competition in society, work and study is becoming more and more fierce. Therefore, many people suffer from a mental anxiety disorder. Excessive anxiety will form emotional or physiological diseases, which seriously damage the physical and mental health of patients. Therefore, we need to find an appropriate way to alleviate the anxiety of patients. Under the background of Internet plus, the rapid development of intelligent technology and the increasing demand of users’ experience has made great changes in the content and form of interaction design. The fundamental principle of interactive design is people-oriented, based on user needs, focusing on the usability and user experience of interactive system design. Therefore, the use of interaction design can alleviate the anxiety of patients.
At present, there are still some defects in the interaction design under the background of “Internet plus”, such as immature voice interaction technology, weak emotion recognition and weak expression ability. Therefore, interaction design also needs to be improved and innovated. Design psychology can analyze people’s psychological state and psychological needs, and apply the analysis results to art design. In addition, design psychology also studies the psychological changes of designers in the design process and the psychological impact of design works on social groups and social individuals and applies these to art design, so that art design can more intuitively and appropriately reflect the psychology and emotion of the audience, so as to meet the psychological and aesthetic needs of the audience. Therefore, based on design psychology, the research analyzes the aesthetic and experience needs of users, and then puts forward an interactive design system based on the Internet and artificial intelligence, which designs the interactive forms of touch, voice, and physiological signals, improves the usability of interactive design, improves user experience, and forecasts the development trend of interactive design in the future, promote the development of interaction design industry to a certain extent.

**Objective:** Under the background of Internet plus, the rapid development of intelligent technology and the increasing demands of users on experience have made great changes in the content and form of interaction design. At present, there are still some defects in the interaction design under the background of “Internet plus”, such as immature voice interaction technology, weak emotion recognition, and weak expression ability. Therefore, based on design psychology, the research analyzes the aesthetic and experience needs of users, and then puts forward an interactive design system based on the Internet and artificial intelligence, hoping to improve the user experience, predict the development trend of interactive design in the future, and promote the development of interactive design industry to a certain extent.

**Research objects and methods:** 200 users were invited to experience the interactive design system and evaluate the interactive system. The evaluation value is 1-5. The higher the score, the higher the user experience.

**Research design:** An interactive design system based on design psychology and a traditional interactive design system is installed in a large shopping mall respectively. Users are invited to experience the two interactive design systems and evaluate the interactive system. After the experience, the interactive design system will have a pop-up window to investigate users’ satisfaction with the interactive design system. After all, users experience and check the scores, the evaluation values of 200 users will be counted.

**Methods:** The relevant data were processed and analyzed by software SPSS18.0 and Excel.

**Results:** The user’s evaluation value of the interactive design system improved based on design psychology was significantly higher than that of the traditional interactive design system ($P < 0.05$), as shown in Figure 1.

![Graph](image)

**Figure 1. User evaluation value of interactive design system**

**Conclusions:** The fundamental principle of interaction design is people-oriented, based on user needs, focusing on the usability and user experience of interaction system design. Among them, usability is the most basic and important index of interactivity, which is the evaluation of the overall practicability of interactive system design. At present, there are still some defects in the interaction design under the background of “Internet plus”, such as immature voice interaction technology, weak emotion recognition and weak expression ability, which leads to the lack of user experience. Based on design psychology, this
paper analyzes the aesthetic and experience needs of users, and then puts forward an interactive design system based on the Internet and artificial intelligence. The results of user experience show that the users’ evaluation value of the interactive design system based on the improvement of design psychology is significantly higher than that of the traditional interactive design system. Therefore, the improvement of interactive design systems based on design psychology can improve the user experience and promote the development of the interactive design industry to a certain extent.

* * * * *

ANALYSIS OF SCENE DESIGN IN 3D ANIMATION FROM THE PERSPECTIVE OF DIGITAL MEDIA ART DESIGN PSYCHOLOGY

Guitao Yu¹ & Chun Ma²

¹Department of Art and Cultural Tourism, Chongqing Vocational Institute of Tourism, Chongqing 409000, China
²Qianjiang District Cultural Relics Management Office, Chongqing 409000, China

Background: With the continuous development of computer technology and Internet technology, digital media art also came into being and developed rapidly. Digital media art is a kind of skill and method of artistic processing, processing and creation of various works mainly through information technology. With the wide application of digital media art, more and more industries are involved. Now digital media art plays an important role in various modern designs, such as three-dimensional animation. 3D animation, also known as 3D animation, has the characteristics of comprehensive display, vivid, interesting, convenient modification, convenient use and low cost. It can jump out of the limitations of time and space, conditions and objects, and express complex and abstract things or concepts in vivid, simplified and vivid forms through various forms. Therefore, 3D animation is widely used in military, medical, education, entertainment and other fields. In today's highly developed information technology, the scene design in 3D animation also needs innovation and improvement to bring the audience a better viewing experience. However, the traditional scene design of 3D animation generally adopts the form of hand drawing. In the process of conversion and modification, it has low efficiency and high error rate, which greatly affects the creation of the whole 3D animation. In addition, the original processing technology of 3D animation is relatively single, and the animation and sound cannot be effectively integrated in the scene design, resulting in the low authenticity of 3D animation and reducing the viewing experience of the audience. Therefore, we should find a way to optimize and improve the scene design in 3D animation.

Design psychology can analyze people’s psychological state and psychological needs, and apply the analysis results to art design. In addition, design psychology also studies the psychological changes of designers in the design process and the psychological impact of design works on social groups and social individuals, and applies these to art design, so that art design can more intuitively and appropriately reflect the psychology and emotion of the audience, so as to meet the psychological and aesthetic needs of the audience. The research is based on design psychology to analyze the audience's demand experience for 3D animation, and integrate digital media art into the scene design of 3D animation, so as to improve innovation and provide technical support for the development of subsequent 3D animation. The application of digital media art can improve the performance effect of 3D animation, highlight the connotation of animation, increase artistic appeal and visual impact, and provide a driving force for the development of 3D animation in China.

Purpose: 3D animation, also known as 3D animation, has the characteristics of comprehensive display, vivid, interesting, convenient modification, convenient use and low cost. It can jump out of the limitations of time and space, conditions and objects, and express complex and abstract things or concepts in vivid, simplified and vivid forms through various forms. Therefore, it is widely popular. However, there are many defects in the traditional three-dimensional animation scene design, which reduces the viewing experience of the audience. Therefore, based on design psychology, the research analyzes the audience’s demand experience for 3D animation, integrates digital media art into the scene design of 3D animation, hoping to improve the performance effect of 3D animation, highlight the connotation of animation, increase artistic appeal and visual impact, and provide a driving force for the development of 3D animation in China.

Research objects and methods: Invite 3D animation creators to design the scene of 3D animation. For the scene design of the same three-dimensional animation, the traditional design method is adopted, and the design method based on design psychology and digital media art is adopted. 100 3D animation enthusiasts were selected as the research object to evaluate the scene design of two 3D animation. The