Application of Digital Media Technology in Product Design

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Abstract: In the context of the rapid development of Internet information technology, the digital media era is gradually coming. With the flexibility and interactivity of digital media technology, innovation in the design field can be promoted. At this stage, digital media technology is widely used in the fields of film and television, corporate image design, etc., but the application in the field of product design is generally insufficient. Based on this, based on the analysis of the status quo of digital media technology, this paper discusses the specific application of digital media technology in the design field. From the perspectives of theme, product image and audience demand, this paper points out the innovative application path of digital media technology in product design, hoping to provide reference and ideas for product design.

1. Research background

1.1 Literature review

In recent years, domestic scholars' research on digital media technology has gradually increased, and a certain scale of literature has been formed. Zhou Ailei analyzes the development trend of digital media technology by studying the basic concepts, characteristics and typical representative technologies of digital media technology (Zhou, 2017). Liu Yuhong mainly discusses the application of digital media technology in the design of guiding system and the various possibilities of digital media technology applied to the design of guiding system (Liu, 2018). For the research on the application of digital media technology in design, Wang Zixin and Zhou Lanxi believe that the interactive product design in the digital media technology era is the penetration and improvement of digital media technology on traditional product design. Therefore, the research focuses on this technology in interactive product design. Application (Wang and Zhou, 2013). Zhang Hui et al. mainly analyzed the relationship between digital media technology and industrial product design, and explained its specific application in industrial product design. Finally, pointed out the development trend of digital media technology in future industrial product design (Zhang et al, 2015). On the basis of analyzing the advantages of digital media technology in the new era, Yang Yan discusses the specific application of digital media technology in industrial product design, and points out that industrial design development measures such as people-oriented and convenient platform should be produced (Yang, 2019). Shen Yanqin analyzes the two principles of digital media technology applied in web design through the interpretation of digital media technology in the context of “Internet +”, and proposes specific application strategies in web design (Shen, 2018).

1.2 Purposes of research

With the continuous advancement of technology, digital media technology has become increasingly mature and has been used in all walks of life. Digital media technology can integrate a variety of information resources, provide a variety of media and technical support for visual communication design, and display more intuitive and visual visual information, thus bringing a new visual experience. Relying on digital media technology, actively exploring the intrinsic value of product communication, fully expressing the information that products need to deliver, can achieve more diversified product information (Sun, 2018). At present, domestic scholars have made research on the research of digital media technology in the field of design, but the research on the application of digital media technology in product design is almost non-existent. To this end, this
paper is based on the research basis of predecessors, and explores the application of digital media technology in product design, in order to supplement the literature in related fields and promote the innovation and development of product design.

2. The characteristics of digital media technology

The introduction of “Internet +” in 2013 has led to the continuous development of various new formats, which has led to the accelerated development of digital media and gradually integrated with various industries. Digital media is a new type of technical tool that processes and records data in binary and transmits and stores various types of information. Digital media technology can transform the interaction between audiences from traditional single paper and text information into vivid, rich graphics, digital text, video and animation. This tool is flexible and interactive, enabling cross-domain integration, and with the help of digital media, it helps to better meet the needs of the audience.

In recent years, the computer has been continuously developed and improved, and its application in the design field has gradually deepened. In this context, digital media technology has gradually entered the design field, and the scope of application has gradually broadened and the number of cases has increased. The related content of digital media technology can make the design of paintings more intuitive, and replace the paper communication with new communication methods such as PPT and photos, which greatly improves the interactivity between users. In addition, the application of digital media technology in the design field can reflect strong creativity, difference and experience, as shown in Table 1.

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<th>Characteristics in the field of design</th>
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<tr>
<td>Creativity</td>
<td>Integrate more ideas into product design and drive product design innovation</td>
</tr>
<tr>
<td>Difference</td>
<td>Demonstrate the individualized elements of the product and enhance the competitiveness of product design</td>
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<tr>
<td>Experiential</td>
<td>Allow users to freely combine and adjust visual, emotional, thinking or action on demand And other factors to improve product design quality and recognition</td>
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3. Application status of digital media technology in design field

After years of development, digital media technology has been integrated into all walks of life. In terms of design field alone, digital media technology has been combined with product design, corporate visual image design and film head design to achieve good design results.

3.1 In the field of product design

As we all know, traditional visual communication media refers to books, newspapers, televisions, etc. Communication is limited by time, place and hardware conditions. The application of digital media technology in the field of modern product design can use computer Internet technology to combine language, text, sound, image and other elements to make the product design work more three-dimensional and rich, giving users a strong visual impact. For example, among the products designed using digital media technology, the most representative one is the mascot “Fuwa”. The appearance design of “Fuwa” combines digital media technology with various visual elements, such
as Chinese characters, sounds, pictures, etc., making the information resources of “Fuwa” more abundant. This not only makes the image of “Fuwa” more vivid and lively, but also greatly improves the interactivity and artistic level of the products, which makes the commercial value of “Fuwa” increase sharply. Therefore, enterprises can use digital media technology as an important marketing tool in the design of commercial products, so that the visual communication effect of products can be expanded from plane to multi-dimensional space. In this way, product expression, artistic charm and aesthetic value are enhanced to increase product sales and market share.

3.2 In the field of corporate visual image design

In the basic system of corporate visual image, digital dynamic logo design has an important position. Specifically, in the basic system of corporate visual image design, the digital standard font should be consistent with the image design of the dynamic logo, and the positive font design has both font recognition function and dynamic aesthetic function. In this way, the corporate image design can achieve effective visual communication and attract consumers' attention. In the application of digital media technology to adjust the color of the corporate dynamic visual image, in order to attract people's attention, the gray-toned color becomes dynamic and bright. When applying digital media technology to design the color of corporate visual image, it is necessary to take into account the viewer's visual experience, do not design too many color types, and the color purity and contrast should not be too high. At the same time, in the corporate visual image design, in order to ensure the personality, integrity and system of the corporate image, the designer can add more rich information and mobile text content.

3.3 In the field of film titles

The application of digital media technology in film production makes the film image generation method become “virtual reality”, enhances the authenticity of the viewer's visual experience, and enriches the audience's aesthetic experience. The application of digital media technology in movies not only enriches the film creation material, but also increases the aesthetic value and artistic value of the film, and enriches the film type. The visual design of the film title mainly refers to the designer's use of digital technology to reconstruct and arrange the visual basic elements according to the needs of the film storyline, so that the title picture appears in accordance with the rhythm change design of the audience's senses. A good movie title has a well-defined visual picture that conveys the subject information and emotional expression of the film. Therefore, when using digital media technology to design a movie title, the visual form of emotional activity can be realized by photoelectric information. At the same time, the film title design should use both virtual and actual images, combining dynamic and static to ensure the visual comfort of the audience, and then realize the emotional communication between the film art and the audience.

4. Application strategy of digital media technology in product design

4.1 Clear product design theme

The rapid development of Internet information technology has enabled people to enter the era of new digital media. In this era, digital media technology has become an important development trend in product design. In product design, the theme of product design must be clarified so that the product can serve the audience better. First of all, the designer should use digital media technology to design and confirm the product theme in combination with the specific content and characteristics of the product. Specifically, companies can form teams to conduct market research and understand the product's audience and style preferences to better identify the theme and design style. Secondly, after determining the product theme, the designer should keep the product clean and clear, avoid product clutter, ensure product features in the product design process, and effectively express the design theme and conception. Finally, product design should pay attention to the timeliness of information, ensure the effectiveness of product theme design and the fit with the
theme, and better enjoy the audience of the browsed products and give full play to the product value.

4.2 Highlight product design image

Product image is the focus that designers must pay attention to. Therefore, in the product image design process, the designer needs to use the digital media technology to highlight the key points of the product, so that consumers can obtain the key points and realize the purchase. In general, the image design of a product includes two aspects, one is information listing, and the other is image display. In terms of information, designers should combine the innovative features of the product and select the appropriate typesetting, LOGO, product name and other typesetting. In this process, the designer should be based on the consumer's visual browsing habits, the most important product information is delivered to the consumer the fastest and most efficient, and pay attention to the primary and secondary. At the same time, it is necessary to make a reasonable arrangement and layout of the information, so that the information is combined into an organic whole, which is clearly and intuitively conveyed, thereby highlighting the effectiveness of the product image design. In terms of image display design, designers should use digital media technology to make outstanding product image design in combination with product features and functions, and attract audience attention, so as to achieve good publicity and enhance product image.

4.3 Combine audience needs

The design of any product can only be considered a successful and good design if it meets the psychological needs and social needs of the audience. Therefore, before product design, designers need to know in advance the aesthetic and cultural background expressed by the product, as well as the occupation, age, and preferences of the audience. Only by fully understanding the product audience can digital media technology be closely related to product works and design objects when applied, greatly improving the efficiency of product information dissemination and expanding the scope of communication. When using digital media technology for product design, it is necessary to accurately grasp the age and characteristics of the product's audience, and clearly focus on product design. For example, for different age groups, design different product styles to ensure the product design is targeted. In addition, companies should fully understand the audience's attitude towards product acceptance and understanding, consider the psychological factors of the audience, and visualize and visualize product information to efficiently complete product design and provide better services to consumers.

5. Conclusion

In recent years, the perfect integration of digital media technology and design has made life richer, fresher and more vibrant. However, at present, the application of digital media technology in the field of product design is still small, and there is still much room for development. Therefore, the future product visual communication design will enter the era of digital design, and constantly carry out innovations in design concepts, links, languages, etc., and gradually develop into diversified and multi-dimensional directions. By clarifying the product design theme, highlighting the product design image and combining the needs of the audience, modern product design is closer to the public, and information dissemination is faster and more effective.

References


