

Research on the application of Motion Graphics in UI interface design

Xiong Lu

Academy of Fine Arts, Yangtze Normal University, Chongqing, 408000, China

Keywords: MG; UI interface design; Visual process

Abstract: MG design is a branch and extension of graphic design. It is a new type of animation. It has the advantages of simple picture, small and clear communication. Under the promotion of digital technology, with its unique visual performance ability, it effectively improves the effectiveness and creativity of information transmission. Because of its unique advantages, MG design is applicable to various fields, such as DEMO display of products, UI interface of mobile phones, data display in web pages, popular science apps, etc., and is sought after by audiences and users in various fields and industries, and its visual communication value is immeasurable. In recent years, the flattening of design concepts, the diversification of broadcast finals, and the gradual increase in audience acceptance have created a great market demand for this animation form of MG. This paper analyzes the application research of MG in UI interface design from the perspective of visual process design.

1. Introduction

"Information is transmitted through certain media. The era of rapid increase in the amount of information or the era of high-speed and simple processing of a large amount of information is called the "information age." Information society is a society with network as its characteristics and media. The resources and information on the network are developed and reused to realize information sharing on a smooth network. In the current information society of "internet plus", every industry, department, job, post and family can not be separated from information, which leads to the rapid growth of information, which requires the relevant staff to process information at a higher speed, record information at a higher density and transmit information with a larger capacity [1]. With the development of digital technology, in order to make the reception and transmission of information more instantaneous, the network is not limited to computers. At present, mobile phones, iPads and other devices have also become typical representatives of mobile platforms [2]. MG is abbreviated as MG, which is translated into MG or motion graphics. Broadly speaking, it is a visual expression that combines the language of film and graphic design and is designed based on the flow of time [3]. Since the 1990s, with the rapid innovation of computer and network technology, more and more visual effects have been created for MG dynamic image design. In a more efficient and intuitive way, various visual languages in MG animation enable people to more clearly understand the information that the expressor wants to convey. The visual information material is made of MG, It plays an important role in culture and education [4]. The value of MG design in visual communication is immeasurable, and it is applicable to various fields, such as DEMO display of products, U interface of mobile phones, data display in web pages, popular science apps, etc. Moreover, some studios and teams have created a series of animation products, such as "Flying Dish Theory" produced by Shanghai UFO Vision Media Technology Company, and "How Leaders Are Made" created by Fuxing Road Studio, etc. [5].

2. The visual process of MG and UI interface design

With the rapid development of information technology, UI design is developing rapidly. UI design includes graphical interface design, interaction design, and user testing. It is not a simple static design, but a dynamic design that combines a series of design processes. At present, UI design is gradually changing to simplicity, and the borderless design of the interface is a typical

representative. The borderless design of UI interface is to change the fixed dividing border between different areas into a new visual language expression form of interface, which is formed by the content itself. For interactive application system, the establishment of user interface is very time-consuming, a lot of programming work is consumed in the user input processing, output information display and other user interface design. Pattern design system is also a typical system with strong dependence on user interaction, which allows users to dynamically locate and pick up graphics and image objects and perform various operations on them. In addition, the open pattern design platform also allows developers to integrate applications into the basic platform to meet some special requirements. The interactive design, feedback and final display have high requirements, so the development cost is higher and the cycle is longer. The so-called visual process refers to the spatial movement of people's sight according to certain rules. There are limitations in human eye observation, it is not possible to have a panoramic view of the observed things at the same time, and can only read one by one in a certain order. Therefore, in the typesetting design of the interface, the designer should arrange all kinds of information regularly according to a certain process and clues, so that the interface information presents a sense of order, flow and beauty on the whole. In this way, the audience can browse according to a certain visual process and obtain information efficiently.

(1) MG

The early MG design started from the movie titles. In these movie titles, the words occupied most of the content, which intuitively expressed the information that the creative subject wanted to convey, so that the audience could understand the work at a glance. Later, the MG design was applied to music MTV, program packaging design, network animation video, etc. In these types of works, although the words no longer occupy a heavy space, they are still one of the components that cannot be ignored. Compared with other elements, text is an accurate and direct information carrier, allowing the audience to obtain the corresponding information at a glance. As shown in Figure 1 and Figure 2, in the opening of the movie "Escape into Nothingness", in order to show the feast of Tokyo at night, the large fonts are combined with fast flashing neon elements. The text on the screen flashes while changing colors at an extremely high speed. Soon, when the audience sees these words, combined with the pictures, they can intuitively understand the relevant content of the movie.

The basic elements of visual language in motion graphic can be summarized as: graphics, color, and motion mode. Different visual language can create unique dynamic image works. According to various artistic creation needs, artists choose corresponding materials and forms of expression, apply certain principles and methods, control and adjust the relationship between various elements within a certain range, and finally form an image language that can convey specific information. Especially in the production of moving images and movies, the picture is the main narrative means. Creating a strong atmosphere in the work that can attract the audience's attention mainly depends on the use of visual language.



Figure 1 One of the opening shots of the movie "Escape into Nothingness"



Figure 2 The second screenshot of the opening title of the movie "Escape into Nothingness"

3. Application of MG in UI interface design

MG design is directly translated from the English "motion graphic design". It is a new visual design form full of motion, which is characterized by the dynamic transformation of graphics, text and color. As the name implies, MG mean "moving graphics" or "moving figures". To be precise, they are "shapes that change with time", that is, the dynamic changes of graphics in time dimensions. English "MG" is a literal translation of MG in Chinese, but it is difficult to find out the accurate definition of "MG". MG are widely used in the development of digital media industry, and are closely related to the history of movies and animation. The initial performance is the research on the motion state of graphics. MG design styles are flexible and changeable. Designers will design MG design works with prominent visual design colors according to different types and styles, emphasizing the characteristics of text, graphics, color and other visual language, as well as the sense of movement and rhythm of the picture Sense, and strive to show the designer's own visual aesthetics. MG design is basically made by designers relying on computer-related technology.

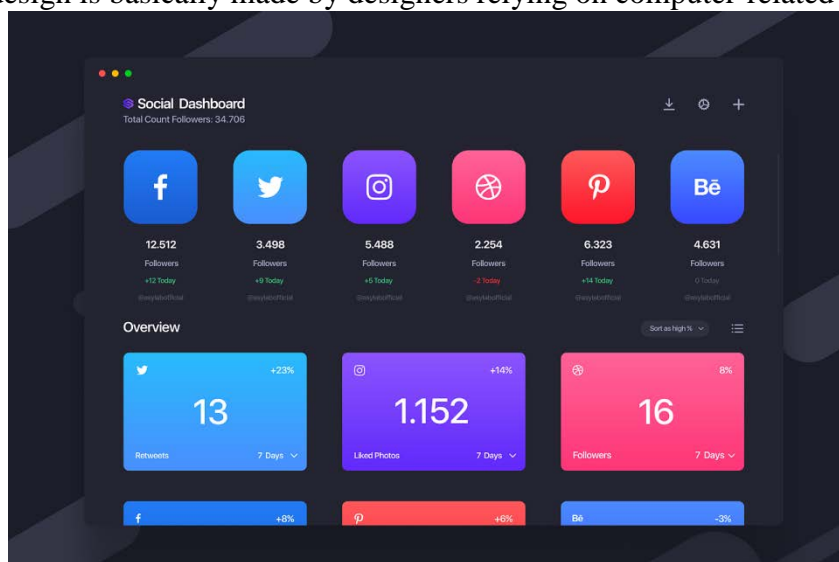


Figure 3 UI design of the background interface

Designers skillfully use these computer software to design MG design of text, graphics, characters, scenes and other visual elements. Moreover, designers will freely and freely spread their creative thinking according to the requirements of the content and effect of the picture, and finally present a broader performance space and richer performance effect. In many cases, borderless interface design needs to use words, graphics and images as the means to guide visual flow. Therefore, designers should handle the relationship between information dissemination and visual

guidance. The most important thing in interface design is information dissemination. Designers should focus on improving the efficiency of information dissemination and pay attention to the relationship between them. Compared with the traditional interface design, the borderless interface design reduces the design language and design elements of the interface, and the content-based design expression is likely to cause the problem of interface homogeneity. In the case of interface homogeneity, if designers want to attract the attention and browsing of the audience, they must pay attention to the personalization and uniqueness of the interface design on the basis of improving the efficiency of information dissemination, and grasp the audience's visual focus.

4. Conclusions

MG design with its unique and flexible visual language, and small memory, dissemination of information and other communication advantages, gradually adapt to the current development needs. With the development and progress of digital technology, MG design also has a broader space for visual creative expression. The visual language of MG design plays a unique artistic charm in this vast space, which can attract the attention of the audience, trigger a strong aesthetic effect, and then produce appeal and influence, It makes the MG design get more effective communication effect. Borderless interface is a new mode of interface design development, which simplifies the original interface design language and improves the utilization efficiency of pictures. However, in the borderless design of UI interface, the expression languages of visual process are still diverse, including the traditional expression ways and new expression skills. All the expression languages serve the effective dissemination of interface information. From the perspective of the development trend of digital media, the MG design with both static visuality and dynamic rhythm is a sensory container that contains infinite vision, creativity and story. From the stage of style setting, it carries unlimited imagination, and different visual language constructions and Expression can realize the aesthetic concept constructed in imagination, and each person's interpretation and application can show his unique character.

References

- [1] Cheng Zehang. The ease of use of MG design in user interface interaction design[J]. Journal of Heihe University, vol. 11, no. 10, pp. 152-154, 2020.
- [2] Ma Chi. Application and Trend Analysis of Motion Effects in Graphic Interface Design[J]. Design, vol. 32, no. 20, pp. 115-117, 2019.
- [3] Wang Dongchen. Research on the value of visual communication in MG design[J]. Popular Color, no. 2, pp. 114-115, 2020.
- [4] Wang Yingquan, Zhang Zongyuan, Li Chaoyu, et al. Research on MG characteristics in digital media interface [J]. New Media Research, vol. 4, no. 10, pp. 118-119, 2018.
- [5] Li Rubing. Analysis of MG features in digital media interface[J]. Popular Color, no. 8, pp. 138-139, 2019.