Research on Circular Promotions of Graphic Advertising Design and Computer

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Abstract: Graphic advertising design is developed on the basis of advertising and design, mainly aiming at strengthening sales. Traditional advertising design is mainly published in newspaper bulletin boards and presented to people in a plane form. With the rapid development of social economy and the continuous progress of science and technology, the graphic advertising design is constantly innovating and perfecting, which is embodied in the use of special ways to realize digital image processing. The special methods mentioned here include computer technology, digital technology and so on. It can be seen that under the background of information age, the computer system will have an impact on the effect of graphic advertising design in different degrees. Based on this, this paper will make an in-depth analysis of the development process of graphic advertising design, study the specific application of computer technology in graphic advertising design, and explore the circular promotion relationship between them, hoping to provide reference for professionals.

1. INTRODUCTION
Under the background of the new era, the development speed of science and technology is accelerating, which promotes the application scope of computer technology to be gradually widened, and provides sufficient technical support for graphic advertising design. As we all know, graphic advertising design is a profession aiming at strengthening sales. In the design process, it is necessary to make full use of visual elements to meet the needs of advertising project communication. Its design quality is not only reflected in innovation, but also reflected in whether it can be accurately transmitted to advertising project demands[1]. Therefore, in the design process, designers need to plan and design the graphic advertising reasonably from the aspects of copy, color, lines, arrangement, etc., so as to ensure that the information of the graphic advertising is simple and clear, and can catch people's eyes at the first time. In the design process, computer technology plays an indispensable role. Only by properly handling the relationship between computer technology and graphic advertising design can we create graphic advertising with a sense of the times, novelty and unique expression techniques.

2. OVERVIEW OF THE DEVELOPMENT PROCESS OF GRAPHIC ADVERTISING DESIGN

2.1. Concept of Graphic Advertising Design
Graphic advertising is developed on the basis of objective facts, that is to say, truth is the soul of advertising. In the process of advertising communication, we must rely on the media to play a propaganda role. As mentioned above, advertising is a means to strengthen sales, and it can also be used as an art of persuasion to attract public attention and guide the audience to buy products. It
involves a wide range of disciplines, including aesthetics, psychology, informatics, etc. In the design process, it is necessary to take planning as the main body, culture as the foundation and creativity as the core, and use computer technology to shape the product image. Under the background of the new era, graphic advertising is no longer a simple hawking activity, but also a tax-paying activity to spread economic and cultural information. Through graphic advertising, we can guide consumption, establish modern consumption concept and promote social and economic development. Figure 1 shows a toothpaste graphic advertising design.

![Figure1. Graphic Advertising Design of a Toothpaste](image)

### 2.2. Classification of Graphic Advertising Design

According to different classification standards, graphic advertising can be divided into multiple types. Specifically, according to the purpose of advertising, graphic advertising can be divided into three types: image, concept and promotion advertising. According to the scope of advertising activities, graphic advertising can be divided into three types: international, domestic and regional advertising. According to the classification of advertising audience, graphic advertising can be divided into three types: middlemen, producers and consumers advertising. According to the sensory experience of advertising, graphic advertising can be divided into three types: hearing, sight and smell. According to the classification of advertising communication methods, graphic advertising can be divided into newspapers, impurities, broadcasting, examinations, posters, internet and other ways. According to the visual forms of advertising, graphic advertising can be divided into three types: three-dimensional advertisements, flat advertisements and behavioral advertisements.

### 3. Development Process of Graphic Advertising Design

According to historical records, the original graphic advertising originated from the ancient Egyptian city in 3000 BC, when some people found a papyrus with the names of fugitive slaves and the amount of reward in the ruins of Thebes. In ancient Greece and Rome, business places also needed to have specific signs, for example, pine cone sign represent hotels and goat sign represent dairy factories.

China has a long history in advertising development. In ancient times, businessmen attracted people through signboards or covers, which was also the initial form of graphic advertising design. However, this form of advertising will be limited by space, and the scope of communication will be small. After that, with the wide popularization of papermaking and printing, graphic advertising was further developed. As we all know, China is the earliest inventor of papermaking and printing, so it is also the origin country of graphic advertising.

Western countries have also experienced a long period of development in graphic advertising design. In 1473, a British printer printed a prayer book sales advertising, which was widely posted in London. In 1625, an author from Florence, Italy, published a book succinctly in the Weekly News, which was regarded as the first newspaper advertising in the world. After that, with the deepening of the industrial revolution and the continuous improvement of western mechanization, advertising became an important way to promote commodity circulation. Under this development background, the advertising industry has made epoch-making progress, and some advertisements appear in front of people in the form of painting and photography.
With the development of modern times, computer technology has been widely popularized, and graphic advertising design has gradually developed towards specialization. Advertising art has been innovated in concept and theory, and advertising design has become a new discipline and profession. Around 1960's, the visual identification program that emerged in the United States was widely spread around the world, which promoted the design of graphic advertising to become one of the cutting-edge work in the world design.

4. APPLICATION OF COMPUTER TECHNOLOGY IN GRAPHIC ADVERTISING DESIGN

With the rapid development of the times and the continuous progress of society, the popularization of computer technology is becoming wider and wider. As a new discipline, graphic advertising design is constantly optimized and improved under this development background, and makes full use of computer technology. Especially in recent years, the computer system has made great progress in both hardware and software, which provides technical support for the design of graphic advertising and promotes the development of graphic advertising design towards specialization. At the same time, applying computer technology to design graphic advertising can also save costs and improve design efficiency and level. Therefore, it is necessary for the future development of advertising design industry to apply computer technology to graphic advertising design. This also puts forward higher requirements for designers' comprehensive quality, which not only requires designers to have professional ability and aesthetic taste, but also fully master computer operation skills and be able to skillfully use Windows system. At present, more and more graphic advertising design software based on computer technology has emerged, including Photoshop, freerhand and so on. These softwares can not only simplify the design process of graphic advertising, but also enrich the design effect of advertisements, which is conducive to designing graphic advertising that do not lose their generality and are suitable for popular aesthetic needs.

5. SPECIFIC REQUIREMENTS OF GRAPHIC ADVERTISING DESIGN FOR COMPUTER SOFTWARE SYSTEM AND HARDWARE FACILITIES

The computer system is mainly composed of software and hardware. Under the background of the new era, all walks of life have realized the importance of advertising, and graphic advertising is pervasive in every aspect of people's daily life. Graphic advertising is not only a way of propaganda, but also a way to lead the consumption concept and establish a scientific consumption view. Under this development background, the graphic advertising industry is constantly rising, and the workload of advertising design is also greatly increased. As an important part of advertising design, computers are also facing the need of upgrading software systems and hardware facilities, so as to meet the requirements of high-intensity and high-quality graphic advertising design. Specifically, it can be analyzed from the following aspects: First, in the process of graphic advertising design, it is necessary to scan pictures with output and input devices. In order to improve the scanning effect and ensure the clarity and accuracy of images, it is necessary to apply hardware devices that meet the standard performance. Secondly, in the design process of graphic advertising, it is necessary to save the design steps and finished products through computer hosts and storage devices. In order to improve the scanning effect and ensure the clarity and accuracy of images, it is necessary to apply hardware devices that meet the standard performance. Third, various types of computer software need to be applied in the design process of graphic advertising[4]. Common software can be divided into two types, one is system software, and the other is professional software for graphic advertising design. The former is the software of computer system, which is mainly used to support the related software of graphic advertising design. The latter is a software that provides auxiliary functions for graphic advertising design, that is, it strengthens the design effect of graphic advertising by special processing methods such as processing images and arranging words.
6. **CIRCULAR PROMOTION RELATIONSHIP BETWEEN GRAPHIC ADVERTISING DESIGN AND COMPUTER**

6.1. **Graphic Advertising Design Promote the Continuous Development of Computer Hardware**

In modern society, graphic advertising has been filled in all aspects of people's life and work, and the demand for graphic advertising design in various industries has gradually increased. As the basic condition of graphic advertising design, computer technology should be improved and perfected under this background. As the foundation of supporting the stable operation of computer system, hardware facilities should keep pace with the times and lay the foundation for the smooth development of graphic advertising design. Specifically, in the process of upgrading the hardware facilities of computers, it is necessary to continuously optimize the output and input devices. The main reason is that the modern graphic advertising design is put in more and more areas, which puts forward higher requirements for design accuracy and needs to ensure that the printed images have higher definition. The definition of image is directly related to the scanner performance. If graphic advertising design units adopt advanced scanner equipment, they can better present the details of advertising design, which can not only meet the needs of users and people's aesthetic taste, but also help design enterprises to establish a good social image and strengthen their core competitiveness. In addition, computer storage equipment should be continuously optimized and improved. In modern society, people's aesthetic standards are gradually developing towards diversification, which puts forward higher demand for graphic advertising design. In order to meet the needs of users, designers need to modify the graphic advertising many times, which also brings great pressure on the storage of computer equipment, and it is necessary to ensure that the storage system is large enough to meet the design requirements of graphic advertising [5]. At the same time, graphic advertising design has a long working cycle, which requires computer host equipment to run for a long time. This requires the host equipment to have enough stability, and it is necessary to constantly upgrade the host to lay the foundation for graphic advertising design. In addition, the continuous optimization and improvement of computer hardware equipment will also effectively improve the efficiency and effectiveness of graphic advertising design, which can give people a bright experience.

6.2. **Graphic Advertising Design can Promote the Continuous Development of Computer Software System**

The design of graphic advertising can not be separated from the support of computer software system. In essence, the relationship between design work and computer software is complementary and progressing together. Specifically, with the increasing effect and quantity of graphic advertising design from all walks of life, various types of design software have emerged, which have different functions and performances and can turn some innovative elements into reality. At present, there are two kinds of computer software commonly used in the design of graphic advertising in China, one is bitmap and the other is vector diagram. No matter what kind of design software, it needs to be combined with a variety of computer technologies. It can be seen that the graphic advertising design software has professional characteristics, which requires designers to operate in strict accordance with the software program, so as to meet the requirements of advertising design. Therefore, in the process of graphic advertising design, it is necessary to continuously increase the development and research of software system to ensure the compatibility between software and computer system, so as to improve the safety and reliability of graphic advertising design. In addition, some graphic advertising have low design requirements, and only a single software is needed to complete the design content. However, for this type of software, its performance requirements are more stringent, and it is necessary to ensure that the accuracy, clarity, chroma and other indicators meet the design requirements of graphic advertising, so as to better present the graphic advertising content. In order to enrich the design effect, the software also needs to have a variety of special effects, so as to attract people's attention, satisfy people's aesthetic taste and ensure that graphic advertising achieve the desired design effect. In addition, different types of graphic advertising have different requirements in fonts, typesetting, colors, etc., so it is necessary for R&D
personnel to continuously innovate the design software in combination with the design requirements of graphic advertising, thus laying a good foundation for the design work.

6.3. Computer Technology Promotes the Further Development of Graphic Advertising Design

In recent years, the wide popularization of computer technology has provided a better development space for graphic advertising design, and promoted more and more forms of graphic advertising to emerge at the historic moment, making advertising an important way to spread economic information and cultural information in all walks of life. As mentioned above, the continuous updating of computer software enriches the expression forms of graphic advertising design to a certain extent, and can make some designers' creativity better presented. For example, using software to change the advertising color and arrange the text can improve the aesthetics of graphic advertising on the basis of highlighting the key points. Moreover, the rational use of computer software can effectively improve the work efficiency and quality of designers. In the past design process of graphic advertising, most of the work needed to be drawn manually by designers. This method is not only inefficient, but also unsuitable for modification, which can't fully meet the requirements of graphic advertising design in the new era, while computer technology can well solve the shortcomings of manual drawing. However, the use of computer technology puts forward higher requirements for designers' informatization level, which requires designers to master computer operation skills skillfully. Especially in today's society, people's aesthetic standards are becoming more and more diversified, which makes the design of graphic advertising more difficult. The application of computer technology to some complicated graphic advertising design can not only strengthen the expressive force, but also make the picture achieve real and vivid effects, which is conducive to promoting the further development of graphic advertising design [6].

7. Scientifically Handle the Relationship Between Graphic Advertising Design and Computer Technology

At present, computer technology has become an indispensable basic support for graphic advertising design, and there is a relationship between them that complements each other and makes progress together. As mentioned above, the continuous optimization and improvement of computer technology, software system and hardware facilities will improve the efficiency of graphic advertising design to a certain extent, enrich the design effect at the same time, and help promote the continuous rise of graphic advertising design industry. At the same time, the increasing number and form of graphic advertising design also promotes the further improvement of computer software system and hardware facilities. In order to give full play to their coordination role, it is necessary to handle the relationship between them. In the process of graphic advertising design, designers need to fully understand computer technology and master various operation skills of design software. If the information level of designers is not high, they can't make good use of computer software to present their innovative thinking and creative ideas in advertising design, and naturally they can't play a promoting role between graphic advertising design and computer technology. In addition, under the background of the new era, with the continuous development of science and technology, computer technology will inevitably be further optimized and improved, and play an irreplaceable role in people's lives and work [7]. Therefore, in the future development process, experts and scholars need to increase research and development efforts, rationally develop computer technology, and better apply it to graphic advertising design, so as to provide guarantee for the further development of computer technology and lay a good foundation for the continuous progress of graphic advertising design industry.

8. Conclusion

To sum up, from the dialectical and unified point of view, this paper makes an in-depth study on the promotion relationship between computer technology and graphic advertising. Through the study, it can be found that upgrading and improving computer technology is conducive to improving the efficiency and level of graphic advertising design, thus promoting the healthy development of the design industry.
In addition, the continuous rise of the graphic advertising design industry will also promote the continuous improvement of computer software systems and hardware facilities, which complement each other, promote each other and make common progress. With the continuous development of modern society, computer technology will be continuously optimized, which requires experts and scholars to increase research efforts and better apply it to graphic advertising design, so as to lay a good foundation for leading the social consumption concept.

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