

# The Development of Interactive Art Design under the Influence of Digital Technology in the New Media Era

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**Keywords:** New media, Interactive art, Digital technology

**Abstract:** New media art design is the product of the combination of the rapid growth of information technology (IT) and art, and the study of its formal characteristics, related theory and knowledge structure is an important link in the growth of this discipline. New media art design is the product of the combination of the rapid growth of IT and art, and the study of its formal characteristics, aesthetic theory and knowledge structure is an important link in the growth of this discipline. Every scientific leap-forward progress will have a great impact on the art field, and at the same time, it will also bring new vitality to the growth of the art field. Interactive design is a combination of technology and art. Using interactive design to serve digital media can bring great advantages to digital media users. To understand the concept and characteristics of interactive art, we must combine the historical background, technological development and social trends at that time. This article is devoted to promoting the growth of digital media technology, analyzing the influence of interactive design on the growth of digital media technology, and exploring the interactivity of digital art design.

## 1. Introduction

In the new era, with the application of Internet and IT in various fields, various industries are constantly transforming and upgrading, and traditional media art has accelerated the pace of reform and innovation under the influence of digital technology[1]. New media art design creates a brand-new artistic experience through digital technology, and its manifestations include but are not limited to digital painting, interactive devices, virtual reality, video art, etc[2]. The staff of the Art Research Center believe that a work of art needs to show the artist's ideas first, and then it can be completed by the most ingenious and clever way of technology application[3]. With the support of digital technology, new media art design not only expands the possibility of artistic expression, but also provides viewers with a richer and more interactive experience[4]. The audience can not only passively appreciate the works of art, but also interact with the works through participation and even influence the expression and content of the works. With the continuous progress of society, it has a unique evolution trend, and it has different meanings in different social periods[5]. Works of art are closely related to the thinking mode of every art designer. The creation that people's ideas promote people's behavior is artistic creation, and the creation that relies solely on technology cannot be called artistic creation.

New media art design is the product of the combination of the rapid growth of IT and art, and the study of its formal characteristics, aesthetic theory and knowledge structure is an important link in the growth of this discipline. The combination of media art design and digital art has gradually become a new form of expression, and science and technology can promote the perfection of art design form[6]. The integration of digital technology and new media art design brings a broad space for new media art design, and digital art has become one of the main manifestations of current art[7]. The combination of interactive design and digital media technology makes digital media by going up one flight of stairs. The fields it touches include computers, digital communication, information transmission and many other fields. Digital multimedia technology mainly includes digital information processing technology, electronic computer and digital network communication technology[8]. Interactive design is an effective comprehensive technology and art, which plays a positive role in promoting the growth of digital media technology. Art works are closely related to

the thinking mode of every art designer. This article will start with new media and explore the interactivity of digital art design.

## 2. The Characteristics of New Media Art

The growth of new media art design is quite different from that of traditional art design. Traditional art design has technical limitations due to the reasons of the times, and because of the imperfect technology, it is not as rich in visual sense as it is now, and the sense of picture is relatively unprofessional, so the technology of art design has very obvious defects. There are different views on new media art in different periods, and it is difficult to give it a definite definition. Because the growth of society and technology is in the exploratory stage, art forms often undergo fundamental changes because of a certain change in science and technology[9]. The biggest difference between new media art design and traditional art design is the use of digital media technology. The combination of digital media technology and aesthetics has strengthened the research on aesthetic design and made great progress in this respect. Multimedia can be used in a wide range of fields, and interactive digital media is a collection of computer, communication and art design fields, which effectively integrates various technologies such as words, images, sounds and videos, enabling people to communicate and conduct business activities more intuitively. The collaborative interaction structure of new media graphic image design is shown in Figure 1.

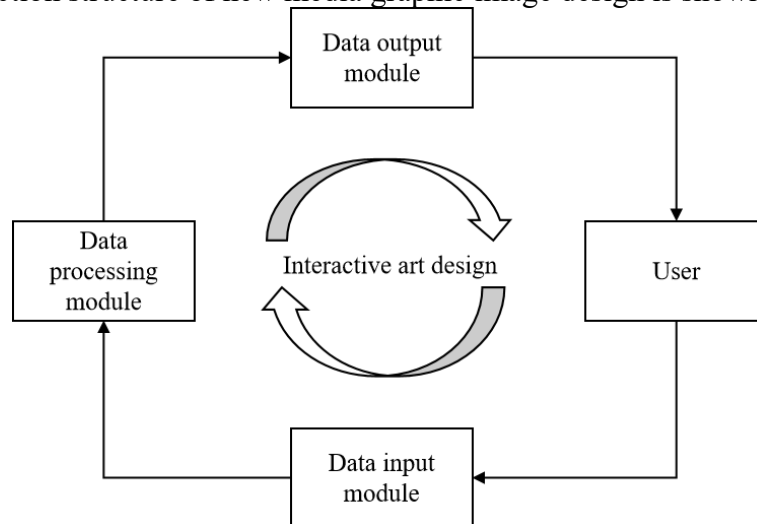


Fig.1 Collaborative Interaction Structure of New Media Graphic Image Design

Compared with the traditional art design, it is richer and more inclusive. The new media art contains many advanced technologies and scientific and technological achievements, and its content is very rich, and it is in the process of continuous improvement. When people watch words and pictures, they will no longer feel dull, but full of artistry, combined with light, sound and film, so that words and pictures have visual impact[10]. The development approach of new media art design needs to start from the original traditional media art design, build on the traditional media art design, gradually form a more perfect style according to the basic aesthetic theory, find out the most suitable and excellent development plan of new media design, establish a more perfect system, and focus on strengthening the training and organizational learning of new media art talents. In the information media industry chain, interactive digital media plays an important role, and interactive design has a great impact on digital media. Based on interactive design, digital media technology can be better developed to meet the needs of modern society.

## 3. The Process and Influence of the Combination of Art and Digital Technology

### 3.1 The Process of Combining Art with Digital Technology

New media art design is the product of the times, which is advanced in the times, with richer

forms of expression, more information and more scientific and contemporary[11]. Therefore, innovative traditional design theory system is needed in new media design, and this new discipline must be improved according to its characteristics such as the form of information dissemination, the complexity of media and communication, the comprehensiveness of disciplines, and the digitalization of technology. Interactive design is to effectively plan and describe the behavior of things, and then effectively convey this behavior. Interactive design is a comprehensive technology and art, which allows users to participate and both parties can interact effectively. The combination of digital technology and art is a very important process, and this process also needs the cooperation of all aspects to achieve the best results. Science and technology need to make progress together with art, develop together in a coordinated way, and constantly promote each other's growth, so as to achieve better artistic presentation effect. At the same time, the cooperation between science, technology and art has enriched people's pursuit to a certain extent and continuously met people's needs. Electronic media art is to combine information such as graphics, pictures, sounds and words, and use computers to effectively process and control information resources, so that the IT organization mode has interactive operation function.

### **3.2 The Influence of the Combination of Art and Digital Technology**

Due to the growth of computer, based on users' various feelings and behaviors, combined with certain calculation methods, it interacts with computer environment, greatly improving the efficiency of human-computer interaction. From the perspective of traditional media art design, under the guidance of aesthetic design theory, new media is constantly innovating and improving. With the improvement of relevant systems and the strengthening of personnel training, the new media art design team in China is also expanding rapidly, and the comprehensive strength of the new media digital art design team is constantly improving[12]. Science and technology need to make progress together with art, develop together in a coordinated way, and constantly promote each other's growth, so as to achieve better artistic presentation effect. At the same time, the cooperation between science, technology and art has enriched people's pursuit to a certain extent and continuously met people's needs. Digital media mainly relies on the powerful processing power of computers to process pictures, sounds, words and videos, forming a huge digital language system. Under this development background, digital media can help other industries. The improvement of science and technology has accelerated the growth of digital technology to a certain extent, and has brought great influence on the information industry. Science and technology should develop together with art and coordinate with each other in order to present the best artistic effect.

### **4. Interactive Art Design under the Influence of Digital Technology**

In order to promote the continuous growth of new media art, it is necessary to integrate digital technology and art and follow the principle of rationality. The combination of digital technology and art has brought many beneficial effects, and this technology has promoted the research and growth of many high-tech products. Because of the superiority and characteristics of new media art, most high-tech products have many practical advantages, which have been loved by the public to a great extent. When using digitalization to render artistic effects, we should also pay attention to the digitalization of artistic design, fully integrate the two, optimize artistic design, such as using three-dimensional digital software and virtual technology to design and solve various problems arising from the combination of art and digital technology. See Figure 2 for the interactive aesthetic feeling in the visual design of new media.

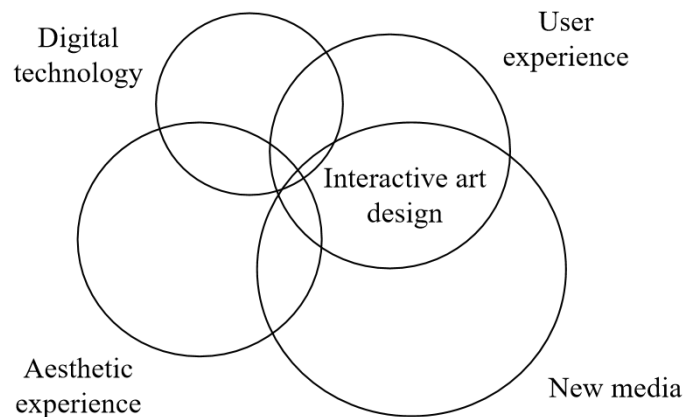


Fig.2 Interactive Aesthetic Feeling in Visual Design of New Media

The growth of digital technology and new media has enriched the connotation and expression of art, at the same time, it has brought opportunities and challenges to the art design of new media and raised the requirements for modern technology. There are different types of interactive art works, in which sound elements play the role of content and form. A good work should make full use of sound to enrich the content and form of the work, which can also enrich the work. For the continuous growth of new media art, schools and society should give full play to their advantages, so as to better face the possible problems in the teaching process and output high-quality new media art talents for the society.

## 5. Conclusions

Due to the growth of IT, digital technology has appeared in people's field of vision and gained popularity. The combination of digital technology and art forms new media art, which enriches people's spiritual world and improves people's quality of life. In the application of digital media technology, the integration of interactive design and digital media technology can effectively give full play to digital media and related technologies. Digital media based on interactive design is more convenient for people to obtain information and shortens the time for people to obtain information. The application of interactive design to digital media has a profound and lasting impact on digital media. Due to the growth of digital media technology under interactive design, information has a high artistic and visual impact, so as to better develop digital media technology and meet the needs of modern society. Designers need to constantly update their knowledge and skills, master new technologies and methods, cross-border integrate elements from different fields, and cultivate innovative thinking and practical ability, so as to constantly innovate and develop in the design field in the digital media era.

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