

Research on Artistic Expression Method of Digital Interactive Illustration

Xi Wang

Design and Art School of Xijing University, Xi'an, Shaanxi, 710000

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Abstract: With the development of human science and technology and social culture, artists are constantly trying to use new digital technologies to achieve non-traditional artistic expressions. People's demands for artistic aesthetics are constantly improving, and they are pursuing artistic languages that are more in line with the current context. Therefore, artists have broken the traditional art expression methods, constantly innovating, enriching the diversity of artistic works, and combining the social development status or the future-oriented excellent interactive art works. These works show the audience the diversity and fun of contemporary digital interactive art expressions without exception. At the same time, the continuous development of art and technology in interaction has prompted us to explore more abundant techniques and support the perfect integration of science and art.

1. Introduction

The most prominent feature of digital interactive art is its digital and interactive nature. Digital art works must be fully or partially used in digital technology. Digital art can be purely computer-generated (such as fractal and algorithmic art), or it can be sourced from other sources, such as scanning photos or using vector graphics software to draw with a mouse or tablet. Although technically, the term may apply to art done in other media or processes, but only scanned in, it is generally considered that the text itself, the original audio and video recordings that have been digitized by the computational process are not normally considered Digital art, but can be part of a larger project in computer art and information art. When not created in a similar way to digital painting, using software on a computer platform and digitally outputting images drawn on a canvas, the artwork is considered a digital painting. Andy Warhol produced digital art with the Commodore Amiga, which was unveiled at the Lincoln Center in New York in July 1985. A photo of Debbie Harry was photographed in monochrome by a camera and digitized into a graphics program called ProPaint. Warhol adds color by manipulating images by using flood fills. The rapid development of science and technology has stimulated people to re-recognize their own existence, and people are no longer satisfied with passive acceptance of external information. At the moment, "interactive" and "participatory" have become the development trend of consumer demand. Emotional communication between people and art has also become an indispensable factor in the design process. Whether a work of art can be exhibited, published, and ultimately acceptable to the audience to some extent depends on the media and influences the form and content of the work. However, the development of science and technology and the diversity of media provide artists with multiple solutions. Therefore, we can use relevant scientific and technological achievements as a new medium of artistic creation. Through the design of the works, we can highlight the combination of rational thinking and artistic sensibility of design, and realize the two-way universal effect of the spread of technology.

2. Diversity of digital interactive artistic expression methods

New media art refers to artworks created using new media technologies, including digital art, computer animation, virtual art, online art, interactive art, video games, computer robots, 3D printing, robotics and biotechnology. Its origins can be traced back to the mobile camera inventions of the late 19th century. In the 1960s, new media art experiments were gradually developed under

the development of new video technologies. The development of computer graphics in the late 1980s and the popularity of real-time technology and the Internet in the 1990s contributed to the emergence of various forms of interactive art. The focus on media is an important feature of new media art. The virtual and immersive art works of telematics, Internet art and large-scale urban installations have emerged. New media art usually involves interaction and communication between artists and observers or between observers and works of art. However, as some theorists and curators have pointed out, this form of interaction and communication does not clearly distinguish between new media art and other types of artistic practice. The interconnectedness and interactivity of the Internet, as well as the interests of companies, the game between government interests and the public interest, have spawned today's network and attracted many current new media art projects.

The Flow Wavelet is an interactive light art installation created by Geeksart, a new media art team. They used the change of light to simulate the taste of "flowing" water and added a touch of romance. The main body of the device consists of 1300 induction lamps arranged in an undulating surface. When a participant approaches a "water droplet" with a glowing object, it is immediately illuminated and transmits this light to the surrounding "water droplets." A visible "light wave" continues to extend to the edge of the device, as if you were throwing a stone in the lake. Each drop is shaped like a ball, and it has a custom miniature sensor that analyzes the brightness and color of the light at the same time. Therefore, even during the day, the device can sharply capture a light source different from ambient light; during the transmission of light, it may be "mutated" due to the influence of ambient light, which adds more to the device. Unpredictable mystery. When multiple participants use different color light sources to trigger the device from different positions, the light waves of various colors will collide with each other to form a long-lasting light. The approach to using new media art is a complex area that revolves around several major factors: art categories, scientific and industrial studies, radicalism in political and cultural media, scientists and artists, artists, and technologies that are closer to the art world. artist. There are significant differences between these artists and they have different training backgrounds and technical cultures. Many new media artists' projects also work with topics such as politics and social awareness to engage in social activities through media interaction.

3. Exploration of artistic expression methods of digital interactive illustration

Processing is a Associate Professor of Media and Art Design at the University of California, Los Angeles (UCLA), Casey Reas, and a Ph.D., designer at the MIT Media Lab, and an expert in data visualization, Ben Fry. Co-designed software; Kathy Rees specializes in using code to create works of technological beauty. In 2005, Kathy Rees and Ben Frye won the gold medal in the Austrian Linz Electronic Art Competition, known as the "Oscar of the Computer Art Circle". They also spent many years publishing a classic book on the Definitive Guide to Processing Language, which helped domestic and foreign artists learn to explore Processing. Processing is not only a milestone in the history of computer development, but also significant in the history of information design, visual art, and sociology. It allows designers to create their own painting software through programming code. Processing encourages people to make small repairs on the original works, and this small patch is the first step in artistic and scientific creation. After a small patch, it helps designers to achieve their creativity, easy to learn and use, and can design complex works through Processing. On the Processing website (<https://processing.org/>), you can view and download the works designed by many domestic and foreign artists, and download the code for study. The digital interactive illustration art produced by Processing is more attractive to the art of generation, but it requires a deep foundation in programming technology. In the early stage of the research, the author used Processing to draw a large number of abstract style digital paintings (Fig. 4-1). Using the open source code convenience, the following digital interactive illustration art works were drawn, using the size of the mouse to control the strength of the mouse and the speed of moving the mouse. Fast and slow to draw different illustrations. Mastered the specific operation of Processing through practice and learning. In the beginning, the work with fixed and non-interactive works began, which

provided convenient conditions for the study of interactive illustrations.

4. Digital Interactive Illustration Art Creation Research

Art theory is the science of humanities, and its main content is to help people understand the essential laws of understanding things. Art creation is an art activity. Its main content is to express life and help people to see the depths of the soul and life. It emphasizes the practice of art and explores the laws of personality through practical creation. The development of digital media technology provided the conditions for the development of digital illustration. Nowadays, the art of painting has been combined with the latest scientific and technological achievements such as video, computer, network and digital technology. Various styles of digital painting have emerged and penetrated into various fields of modern art. The new art of digital simulation painting and digital painting has won an important position in the field of applied art with its convenience and impacted modern art. On the other hand, its increasingly sophisticated simulation technology has also exacerbated the traditional shelf painting. Applied features. The purpose of simulated painting is to extend the true feelings of people into the digital environment. Compared with the special analog painting software Painter, the simulation painting function of Adobe Illustrator software is relatively simple, but despite this, we can still feel the digital painting. Features. In addition, with the special effects provided by digital technology, it is also possible to create many works with occasional effects. These effects enrich the expressiveness of the works, and at the same time transcend the digital painting itself, and highlight the characteristics of digital painting. Different from traditional painting, it can be layered in the digital environment, that is, a piece of paper can be divided into multiple layers. Different elements of the layer can be located in different layers, and the elements of one layer can be edited separately. Does not affect the rest of the picture.

From traditional painting to digital painting, from installation art to interactive art, artists pursue a unique personal style in the creation process. The Dutch painter Vincent William van Gogh in the works such as "Star Moonlight Night" and "Sunflower" all use the method of spotting to draw colors, and the picture is full of visual impact. Spanish modern artist Pablo Picasso has many works in his life, and his style has changed from the initial expression of figurative painting to the later abstract expression. The typical representative of abstraction, Vasily Kandinsky, pursues the rhythm of lines in the picture, and most of his paintings are inspired by music. Piet Mondrian, the pioneer of the Dutch geometric abstract painting, is a representative of non-figurative painting. His picture uses geometric basic graphics as the basic elements of the picture, advocates "pure art", and advocates the absolute unity of art and God. The performance of painting should be free from the external form of restraint and purely convey the spiritual will.

5. Conclusion

This is a never-ending topic. Gombrich mentioned in the book "The Story of Art" that "We know that any kind of manual labor is not humble, and it is necessary to draw a good portrait and landscape painting. It's not just that the eyes are good, but the hands are sure. But the art and taste of every era and every society has its prejudice – we are certainly no exception now, and those who study the past wisdom are also considered. The concept of the righteousness makes people feel so interesting, precisely because we have learned to observe ourselves in the same way." The exploration of digital art is endless, the artistic value is endless, and the aesthetics are endless. Therefore, the meaning of pen and ink as the generations has followed, and contemporary is the great environment for the development of science and technology. We must follow the pace of science and make art full of contemporary vitality. In order to reflect on the final development of contemporary interactive illustration art, we should see the combination of socialization, personalization, entertainment gamification and commercialization in the understanding, and the potential charm of art lies in a work of art to the viewer. Produce spiritual pleasure and satisfaction while avoiding art as a single spiritual enjoyment, reducing prejudice and avoiding misunderstandings about digital interactive illustration art. Digital interactive illustration art

involves multidisciplinary and cross-disciplinary research, which can stimulate our impetus for knowledge in various disciplines. It is precisely because interactive art can be realized in different ways and methods. Therefore, research on science and technology is also more imperative.

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