

# ***Digital Media Intervenes in an Immersive Exhibition in Interactive Scenes***

## ***— Mode of Perception and Interaction in the New Era***

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**Abstract:** This paper will discuss how the combination of digital media and immersive art exhibition can bring new interaction and participation experience to the audience under the reform of art media, as well as the significance of this combination in artistic expression, exhibition design and audience perception. Using a case study of teamLab in Japan. This paper evaluates the immersive exhibition of digital media intervention from four aspects: transformation, integration, cases, and reflection. It is found that while the emergence of digital media technology provides a new way of display and creative means for art exhibitions, there is also a certain contradiction between artistry and technicality in such exhibitions. It is necessary to balance the relationship between art and technology in order to achieve mutual promotion and common development of the two.

**Keywords:** communication media, contemporary art, interactive perception, immersion.

## **1. Introduction**

With the rapid development of science and technology, the communication media of contemporary art is also constantly evolving. From scientific to technical, the creation and presentation of art have undergone profound changes. As an important part of contemporary art, the new media art brings a brand-new artistic experience to the audience with its unique interactivity and dynamics. The era of "everything can be immersed" is derived. With immersion as the core, relying on the changes in digital media art form, multi-sensory experience juxtaposes the artists' thoughts with the narrative of digital art images. Through the reinterpretation of the works by digital media artists, the audience walking in the space is endowed with a multi-dimensional perspective. Forming a unique artistic experience.

## **2. The transformation of the art communication media**

For more than 100 years, Chinese art has gone through a magnificent turn from scientific to technical. In the baptism of the changes in the late Qing Dynasty, the new fine art emerged from the power of science, and pushed the Chinese traditional fine art to the peak of realism[1]. During this period, western realism and modernism are competing, highlighting the great influence of science. Until the 1980s, this trend of thought remained in a dominant position, essentially in integrating mathematics,

physics and other principles into the art discipline. In the 1990s, video art led the rise of new media art, and the tide of technology surged. New media art has become a new art form with animation, interaction, 3 d visual video games, computer image processing and other technical means, which subvert the tradition. The rise of new media marks the opening of the era of technological art, and the change of media has become the driving force of the evolution of visual mode.

According to McLuhan's theory, "the medium is the message", which means that the medium itself transmits information, but also shapes our cognition and understanding of the world[1]. Media is not only a tool to convey information, but also a powerful force that influences the way we think and behave. In the development process of human society, the change of media is always accompanied by the progress of technology and the evolution of culture. This visual revolution is embodied in two dimensions:

### **2.1. From static to dynamic dimensions**

In traditional art, static media such as painting and sculpture occupy the dominant position, while in new media art, dynamic media becomes the mainstream. The integration of dynamic media has revolutionized artistic expressions by transcending the traditional two-dimensional plane. Through advanced techniques such as three-dimensional modeling and virtual reality, artists can now generate more immersive and lifelike visual experiences, effectively redefining the boundaries of creative expression and audience engagement in contemporary art[1]. This visual effect not only has a strong sense of dynamics, but also allows the audience to appreciate the work from multiple angles, so as to obtain a richer aesthetic experience.

### **2.2. From the one-way to the interactive dimensions**

One of the biggest features of virtual reality is to give the public a multi-sensory experience effect such as vision, hearing and touch. It can interact in virtual space in time and without space restrictions, and is now a commonly used venue space design, with two advantages of displaying virtual scenes to break the visual restrictions of exhibits and other visual restrictions and break through space restrictions[2]. Traditional art works are often the expression of the creator's personal emotions, and the audience can only passively accept the information conveyed by the works. The new media art breaks this boundary. Through interactive technology, the audience can participate in the creation process of the works, so as to form a two-way interactive relationship between the works and the audience. This interactivity not only enhances the interest and participation of the work, but also enables the audience to have a deeper understanding of the connotation of the work and the intention of the creator.

## **3. Unbounded integration of digital media and art communication**

With the rapid development and popularization of digital media technology, people are gradually getting tired of and expecting a change in the traditional exhibition methods. The traditional exhibition method can no longer meet people's needs. They only provide display, and the audience can only view the art from outside the glass frame, unable to deeply understand and feel its connotation and value. In addition, the traditional exhibition mode lacks interactivity and sense of participation, and the audience often only passively receives information from the exhibition sign and manual, and cannot truly integrate into the exhibition[3]. Therefore, people expect a new way of exhibition, which can break the limitations of traditional exhibitions and bring more in-depth experience to the audience. Therefore, the emergence of digital media began to assist art exhibitions, through the integration of multiple media, to provide the audience with a more comprehensive and richer content display. When curators use new means of exhibition design to enhance interactivity,

convey meaning, and tell stories, they can create exhibitions that have a greater impact on society[4]. The essence of new media art is a kind of immersive experience art or interactive media art. The audience can realize instant interaction with digital art works through the senses of sight, hearing, touch and smell, and thus achieve full integration, experience, immersion and emotional communication[5].

The term immersive design came into being after the 2010s. What really became popular among the Chinese public were the Van Gogh Film Festival and teamLab Digital Media Art Exhibition in Japan introduced from abroad after 2015[6]. Instead of being titled "immersive", the term "immersive" continued to rise after 2017.

### **3.1. Extended artistic expression of power**

In traditional exhibitions, artists often can only present their works through static display methods. The audience may only rely on their eyes to appreciate the art, only a few lines on the exhibition sign can not understand what the artist wants to convey. The immersive exhibition with the help of digital media provides a more direct display platform for artists. Artists can display their works more vividly by means of holographic projection and digital multimedia technology, so as to better convey their emotional feelings. The audience may also feel the artist's works through various senses such as touch and hearing, and the artist and the audience can have more in-depth communication through interactive links. This way of communication can enable the audience to have a deeper understanding of the artist's creative process and ideas, so as to more accurately understand the artist's emotional feelings.

### **3.2. A new dimension of interaction, perception, and experience**

Marshall McLuhan mentioned that "When technology amplifies our perception, our new sensory categories emerge. When the category changes, what was previously clear may suddenly blur." When he talks about the category of our perception, he does not necessarily refer to vision or smell, but more importantly to cultural and social sensitivity, how all these senses change due to the disruption of technology or media.

In this kind of immersive exhibition, "truth" is the basic feature of the two artistic conception elements of feeling and scene[6]. The means are virtual in many cases, but the emotions caused by the experienced person are indeed real. Through holographic projection, digital multimedia technology and other means, the immersive exhibition creates an immersive experience for the audience, so that the audience can feel as if they are in the exhibition, and have a closer connection with the exhibits. This way of experience can enhance the audience's sense of participation and experience, and give the audience a deeper understanding of the content covered by the exhibition theme.

### **3.3. Cross-media narrative and emotional expression**

Cross-media narratives can bring richer and deeper emotional experiences, mainly due to their diversity and interactivity. By combining text, images, audio, video and other media forms, the cross-media narrative can provide a more comprehensive expression of the story, allowing the audience to understand and feel the plot and characters of the story from multiple perspectives. This diversity not only increases the appeal of the story, but also allows the audience to experience the emotion and atmosphere of the story more deeply.

In the exhibition, the theory of "my me" and "no self", which generally corresponds to the realistic creation method refers to the writing environment. However, the extreme writing environment will also excessively squeeze the creativity of the artist, and the artistry of the works will be greatly

reduced. The authenticity of an artistic image is the mutual integration and unity of writing and building. With authenticity, the audience's experience can be more accurate. Wang Guowei put forward the point of "truth" in human Ci. His "vision" is to measure all art, including digital media art, immersive scene design[7].

#### **4. New dimensions of audience participation and innovative exploration of interactive experience(Case Analysis — Japan team Lab)**

##### **4.1. Subject interaction realizes immersion**

Artists groups based in Japan are good at combining some traditional art and technology with interactive presentation methods. Their work may be influenced by Japanese culture, giving the viewer a fleeting feeling. Apart from the fleeting nature of "butterfly, water flow, flower", a large part of the reason is that their works are not infinite repetition, but infinite change[8]. This is a device space that can really respond in interaction with the audience. Unlike some immersive exhibitions with digital media, it only presents the effect of light and shadow to the audience and plays the pre-recorded video repeatedly. teamLab Real-time feedback will be given according to the behavior of the visitors. Let the viewer experience that each change is caused by their own participation and interaction to make the work have unique changes, which is a bit of the influence of Japanese aesthetic surprise silence.

In their most classic "Unbound" exhibition, the work breaks the boundaries between artist and visitor, visitor and the work. Because their work encourages the visitors to explore the interactions, making the visitors themselves a part of the work, breaking the line between the artist and the visitor. At the same time, it also breaks the boundary between the works and the works in the traditional exhibition. The whole exhibition does not provide a map, but connects the works by interweaving elements such as butterflies and water flow[8]. The work will move in each space by itself, and the work will connect with the people present. Finally, it breaks the line between real and virtual. Everything in the real world has boundaries, but when the viewer walks into the exhibition, it will be surrounded by mirrors and glass, infinitely reflecting everything around the viewer, there is an illusion of infinite outward extension.

##### **4.2. Present and incarnation**

Description of nature and elements of interaction, the way people come together in a space. How all of these elements are used in a consistent digital art practice is produced by a large number of people working together with a true collective. teamLab Is designed to give people attention and respect for the materials they try to represent nature and Japanese tradition, and what they call a subjective, immersive space. Experiences in the digital media immersive scene, can also be said to be in both the real and virtual worlds. In this process, the experiencer can feel the daily familiar self, but also can feel a sense of self-separation. At the same time, there are two bodies in the intuitive consciousness of the experiencer, one is the physical body, and the other is the embodiment of a large number of colorful particles and spots of light.

The inherent experiential nature of immersive exhibitions poses challenges in communicating the full depth and breadth of the artistic encounter. While efforts may be made to convey these experiences through various forms of media such as pictures, text, and video, the lack of physical presence often results in a diminished impact on the recipient. In the context of digital media art and immersive scenes, the intricate interplay of emotions, sensory perceptions, and interactivity cannot be fully replicated without the physical and psychological engagement that stems from direct, firsthand experience.

## 5. Modernity reflection

There is a close relationship between artistry and technology in digital media art exhibitions. The emergence of digital media technology has provided new means of exhibition and creation for art exhibitions, enabling artists to achieve more abundant and innovative forms of artistic expression through technology. It can not only simulate traditional painting, sculpture and other art forms, but also create new artistic experiences, such as virtual reality art, interactive installation art, etc. Of course, the application of digital media technology in art exhibitions has also further promoted the innovation and development of technology. In order to meet the needs of artists and audiences for the quality and effect of art exhibitions, technicians need to constantly explore new technical means and implementation methods, so as to provide a steady stream of power for the wide application of digital media technology in art exhibitions. However, there are also some contradictions between the artistry and the technology in the digital media art exhibition. Some artists worry that digital media technology will weaken the purity and originality of art, making works of art more mechanized and commercial. Some technicians believe that an excessive emphasis on art will hinder technological progress and innovation. There are also many marketing personnel who do not pay attention to the inner emotion that the art wants to convey, but blindly create floating on the surface. There is no denying that this does bring more audience to the art, but the emotion it was originally intended to convey is ignored. With exhibitions regarded as a medium, when people are bound by science and technology, humanism will eventually collapse, and human beings will no longer be the center.

In general, many installations were originally designed to create more intimate connections, but they also end up sometimes becoming an Internet celebrity photo background. This can be very frustrating. But the truth is that new media art, installation art, or immersive art isn't really the culprit. The same phenomenon can be seen at the Museum of Modern Art. Even in the face of Van Gogh's work, people would him. But in my opinion, this is a broader impact, the impact of technology on our lives, the feeling of isolation from our mobile devices. Technology, both tangible and virtually, is changing our lives. We should at least be aware of the use of technology and new media in practice, focusing on connecting with our future environment, and focusing on our traditions, our connection with objects, humans and nature. Let people interact more with them with installation art that is not suitable for photography.

## 6. Conclusions

The communication medium of contemporary art has undergone profound changes. As the product and representative of this change, the new media art has brought a brand-new artistic experience to the audience with its unique interactivity and dynamics. In the future, with the progress of science and technology and the development of society, new media art will play a more important role in the field of contemporary art and promote the innovation and development of art. Virtual reality, augmented reality, artificial intelligence and other emerging technologies will provide more creative tools and platforms for artists, making the expression and appeal of new media art more powerful.

Immersive experience shows that there are no boundaries and connections between people and others, and between people and art. The development of immersive scenes must pay attention to the coordination relationship between science and technology and art, the deep sublimation of ideas and emotional integration. Digital media technology provides artists with a new means of creation and display, but also provides a steady stream of power for the innovation and development of technology. In digital media art exhibitions, it is necessary to balance the relationship between artistry and technology in order to realize the mutual promotion and common development of both.

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