

On the Integration and Development of Artistic Creativity and Digitalization

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Abstract. In the era of digital technology, the development of information technology and art culture helps to enhance artistic creativity through digital technology. New forms of art emerge from the parallel between art and "digitization": This article discusses digitization in artistic creativity, and theoretically discusses and summarizes the creativity generated by the integration of artistic ideas and digital art in the current digital era in China. Digitization is a brand new mode of production and economic form, which has become an important standard of modern economic development. At the end of 1980s, the rapid development of digital technology and information technology made digital art appear in the world. Based on computer and Internet technology, it has created a space for digital development, and provided a new platform for artists to create digital art in all aspects of digital technology and application ability. At present, digital art is growing into a new art form in the art and creative industry of the 21st century.

1 Digitization in artistic creativity

1.1 Artistic thinking and digitization

Artistic thinking mode is a way of thinking related to creative thinking, focusing on imagination, innovation and expression ability¹. Emphasizing creativity and expression, digitization provides a platform for innovation and expression. The combination of artistic creativity and digital creativity can promote innovation and differentiated competition in the process of digital transformation, and deliver brand value and stories through visual, audio, video and other multimedia forms, so as to realize a unique brand experience.

Artistic thinking, with the thinking mode applicable to the field of art, has a certain content of artistic thought and the consistent way of thinking. Artistic thinking mode encourages innovation and jumps out of the traditional framework, while digitalization provides the tools and technological platforms for innovation. Artistic thinking emphasizes the resonance with users' emotions and needs, while digitalization provides more opportunities to interact with users. By artistic thinking mode into digital transformation, we can pay better attention to user experience, design more creative and personalized digital products and services, and improve user satisfaction.

Digital technology provides more creative tools and platforms, so that artists can create and express themselves more conveniently, and use another kind of digital artistic thinking to think about problems. For example, computer painting software can simulate the

effect of various painting media, digital music software can simulate the timbre of different instruments, and virtual reality technology can create an immersive artistic experience.

1.2 Artistic innovation thinking and digitization

Digital technology provides new ways to experience the art, such as virtual reality, augmented reality and other technologies that can create immersive feelings for the audience. In addition, digital technology also provides audiences with the opportunity to experience participatory art, who can interact and cooperate with art works through interactive installations, gamification, etc.

The digital transformation of artistic thinking mode has brought more possibilities and innovation space for artistic creation and appreciation, and promoted the development and change of art². Compared with the traditional artistic thinking mode, digital transformation pays more attention to the integration of technology and art, encouraging artists to jump out of the shackles of tradition and have the courage to explore and try new forms of artistic expression and experience.

1.3 Cross-border integration and multiple thinking

Artistic thinking mode is not sticking to one pattern, and can span different fields and industries and absorb inspiration from different ways of thinking. In the digital transformation, the integration of artistic thinking can bring more diverse thinking and creativity. By introducing artistic thinking, we can break the traditional thinking framework,

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examine problems from different angles, and create unique solutions.

The development concept of the integration of artistic thinking mode and digital transformation mainly includes innovation and creativity, user experience and emotional connection, cross-border integration and multiple thinking, and creative expression and brand building. This integrated development can bring more creative and differentiated digital solutions to enterprises, and promote greater success in the transformation and competition of the digital era.

2 Artistic creativity and digitalization merge together

2.1 Breaking boundaries and merge

The mutual integration of artistic creativity and digitalization refers to the combination of digital technology and artistic creation, which makes artistic creativity more rich and diversified, and opens up new ways of artistic expression. Artistic thinking focuses on interdisciplinary and cross-border cooperation and integration, and digital transformation also requires the cooperation and cooperation between professionals in different fields. Artistic thinking can promote the exchange and collision of knowledge and experience in different fields, provide new ways of thinking and creative paths, and help enterprises break traditional boundaries and achieve greater digital transformation innovation effect.

The digital age has encouraged artists, designers and engineers in different fields to create innovative and forward-looking works of art together. They use digital technology and scientific knowledge to combine art with science and technology, engineering and other fields to break the boundaries of traditional artistic creation and open up new areas of creation.

Digital technology provides more tools and media for artistic creativity. Through digital tools and software, artists can do image processing, audio editing, 3D modeling, etc., to create unique works of art. Digital technology can also expand the forms of art, such as virtual reality, augmented reality, so that audiences can interact with the works and get a richer experience³.

2.2 Strengthen digital expression and creation

Digital transformation provides new ways of expression and creation, and artistic thinking can help people to make better use of digital tools for creation and expression⁴. Artistic thinking can inspire creators' artistic inspiration, guide them to create art through digital technology and media, and create unique digital artworks and works.

Digital technology has changed the process and way of art creation. Traditional artistic creation relies on manual or traditional production process, and digital technology enables artists to create more quickly and

efficiently. The trial and error and modification of artistic creation are also more convenient, and artists can adjust and perfect their works at any time, which improves the flexibility and freedom of creation. In addition, digital technology brings brand-new opportunities for the dissemination and consumption of works of art. Artists can quickly spread their works to a global audience through platforms such as the Internet and social media, gaining wider influence and visibility. Digital technology has also brought new business opportunities and models to the art market, such as digital art, online auction, etc., promoting the exchange and transaction of artistic creativity.

The integrated development of artistic thinking mode and digital transformation can bring opportunities for enterprises and individuals to achieve innovation, breakthrough and expression. Artistic thinking can help digital transformation to focus more on user experience, provide creative solutions, and promote integration and collaboration across disciplines. At the same time, digital transformation also provides new expression and creative tools for artistic thinking, and expands the boundary of artistic creation. The mutual integration of artistic creativity and digitalization not only expands the boundaries and possibilities of art, but also provides artists with more creative opportunities and ways of expression. The development of digital technology will continue to promote the innovation and development of artistic creativity, so that art and technology can promote each other, and bring a richer and more diversified artistic experience to the audience.

3 Creative ideas derived from the integration of artistic thinking and digital art

3.1 Art in the traditional model

3.1.1 Overview of traditional art

Traditional art can be analyzed from painting, sculpture, furniture decoration, theatrical stage performance, literary poetry.

Painting is one of the most common traditional art forms. Traditional painting can use a variety of media, such as paper, cloth or drawing board, and combine different painting tools and techniques, such as watercolor, oil painting, gouache, drawing, etc. A painting can express the artist's feelings, imagination, and observations through elements such as color, line, shape, and texture.

Sculpture is the creation of a work of art with a three-dimensional form by carving, shaping or constructing materials. Traditional sculpture usually uses wood, stone, metal and other materials to express the creativity and intention of the artist through techniques such as cutting, carving or casting.

Traditional furniture and architectural design is also an important artistic expression. They demonstrate the artist's pursuit of aesthetics and function through the selection of materials, the layout of structures and the treatment of decorations.

Traditional drama and stage performance convey stories and emotions through elements such as role playing, music, dance, sets and costumes, as well as the choreography and performance techniques of the plot. These forms of performance play an important role in cultural traditions.

Literature and poetry are written art forms that express feelings and ideas through language, image, and rhythm. Traditional literary and poetic works, with their unique narrative and expression styles, show the talent and perception of the author.

The expression techniques of these traditional arts have been passed down and evolved from generation to generation in history, representing the treasures of human creativity and cultural traditions. They express the ideas and spirit of the artist in their own unique ways, and at the same time bring the audience the space to enjoy the beauty and think.

3.1.2 Integration of traditional art and digitalization

Traditional artistic creation often needs to rely on manual or traditional production technology, and digital technology allows artists to create more quickly and efficiently. The trial and error and modification in the process of artistic creation are also more convenient. Artists can adjust and improve their works at any time, which improves the flexibility and freedom of creation.

Traditionally, artists may use tools such as brushes, paints, and canvases to create paintings. However, with the development of digital technology, artists can now create art works by using techniques such as electronic drawing boards, computer software, and virtual reality.

Under the concept of traditional art, combined with the elements and techniques of traditional art, with the help of digital tools and software to create unique retro style art works. Through digital processing and presentation, traditional art is combined with modern technology to bring a new aesthetic experience to the audience.

The combination of digital painting and traditional painting can give rise to new art forms. On the basis of traditional painting, the use of digital technology to innovate. You can use digital painting software to create and output the finished product through a printer or other digital device. The combination of this technology can not only improve the efficiency of creation, but also realize more creative possibilities. Use augmented reality technology⁵ to give dynamic effects and interactivity to flat paintings. By scanning the paintings, viewers can trigger the stories hidden in the images, enriching the viewing experience⁶.

Under the development of projection technology and VR technology, the traditional dance is combined with virtual reality technology, and the audience is brought into the virtual stage space through devices such as head-mounted display devices. The audience can observe the dancers' movement details up close while interacting with virtual elements to create a more rich and immersive dance experience.

It combines traditional art forms with digital technologies in innovative ways to bring new artistic experiences to the audience. This integration can not only open up the boundaries of artistic creation, but also promote the development and innovation in the field of art.

3.2 Art in the digital age

3.2.1 Overview of digital art

In the digital age, art is facing new challenges and opportunities, showing a development trend of diversification and innovation. Through digitization, artists can use computer software to create more accurate and detailed works⁷, and they can use virtual reality technology to appreciate art works personally. In addition, the digital transformation also provides artists with more creative tools and ways, such as using data visualization technology to create works of art and transform complex data into visual images.

Virtual reality and augmented reality: Digital technologies such as virtual reality (VR) and augmented reality (AR) provide a whole new way of expression for art. Through VR technology, the audience can immerse themselves in a virtual art environment and interact with the works, while AR technology adds virtual art elements into the real world, enabling the audience to perceive and experience the art works in a new way. Big data and information technology in the digital age allow artists to transform abstract data into visual works of art. Data visualization art special data and art combined, through charts, images, animation and other forms, let the audience more intuitively understand and perceive the meaning and value of data.

3.2.2 Application of digital art

Social media platforms in the digital age have become an important channel for artists to spread and display their works. Artists can share their creative process and works through social media to interact and communicate with the audience. Social media platforms also provide wider opportunities to engage and participate in the arts. Digital transformation has also changed the way art is spread. Artists can display and sell their art through online platforms, instead of relying on traditional galleries and art exhibitions. In addition, the digital transformation also enables art works to be appreciated and shared by more people, and spread through channels such as social media.

In the digital age, virtual reality technology is used to create a new art exhibition experience and promote the development of virtual art exhibitions. The audience can immerse themselves in the artwork through virtual reality equipment, interact with the artist and explore the infinite possibilities of art.

Interactive digital art installations, combining sensor technology and interactive design, create digital art installations that can interact with the audience. The audience can manipulate the works of art through touch, sound or body movements, participate in the creation of art, and become part of the art.

To bring art into a new digital realm, bringing audiences a richer, more interactive and innovative art experience.

Through artistic thinking, we are able to explore unlimited creative possibilities and inject new vitality into the development of the digital art field.

4 Concluding Remarks

General Secretary Xi Jinping stressed, "I hope you will have the courage to innovate and create, and use exquisite art to promote cultural innovation and development." This points out the direction for literary and art workers, and innovation must be integrated into the whole process of literary creation to ensure the vitality of the new art in the new era. Artistic thinking mode focuses on innovation and creativity, while digital transformation requires a constant search for new business models, services and products. By introducing artistic thinking into the process of digital transformation, the innovation potential of the team can be stimulated and enterprises can promote continuous innovation in the digital field.

Artistic creativity in the digital integration can stimulate people's innovative thinking and creativity. Through the unique perspective and creativity of artists, new and unique ideas and innovative applications can be explored in the field of digitalization. Artistic creativity in digital integration promotes cross-border cooperation and innovation between different fields. Collaborations between artists and digital technologists can lead to new mindsets and collaboration opportunities that drive innovation. Artistic creativity infuses the elements of creativity and beauty into the digital field, and promotes the development of digital integration in a richer and more dynamic direction.

Digital technology provides artists with more creative tools and media. Artists can use digital technology to create new art forms, experiments and ways of expression. Through digital technology, artists can combine traditional art forms with digital elements to create more diverse works of art. The significance of the integrated development of artistic creativity and digitalization is to promote the diversity and innovation of artistic creation, expand the communication channels and audience groups of art, and promote the development of the art market and the prosperity of the art industry. Digital technology has opened up new possibilities for art, bringing a richer and more convenient art experience to artists and audiences.

The digital age has brought some creative tools and expressions to art. Artists can use digital technologies, virtual reality, augmented reality and so on to create more innovative and interactive works of art. At the same time, the digital age also provides artists with broader communication channels and opportunities for the audience to participate in it, and promotes the diversified and global development of art.

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