Research on the Application of Computer Digital Information Technology in the Practice of Urban Public Art

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Abstract. With the continuous improvement of the level of urbanization and the iterative progress of social economy, as well as the continuous improvement of people's aesthetic level, the public has gradually become the participants and shapers of urban public art practice. Based on this, this paper first analyses the connotation and role of computer digital information tech, then studies the application of computer digital info tech in urban public art space, and finally gives the optimization of urban public art practice under computer digital info.

Keywords: Computer, Digital Info Tech, Urban Public Art

1. Introduction

With the iterative progress and maturity of computer tech, it has been widely and deeply studied and popularized in many fields, especially in the field of urban public art, which greatly promotes the improvement of urban public art practice [1]. As an art form serving the public, urban public art mainly includes several forms as shown in Figure 1 below. It undertakes the important responsibility of city image building, and plays an important leading role in urban culture and public aesthetics.
The continuous improvement of the level of urbanization and the iterative progress of social economy, as well as the continuous improvement of the aesthetic level of urban public art, make people more willing to be the participants and shapers of urban public art practice. The acquisition of aesthetic experience of urban public art is realized in the interaction with relevant works of art, and in this process, it can effectively promote the public's cognition of public culture [2]. On the other hand, the iterative progress of computer digital info tech gradually highlights its application value in the practice of urban public art, especially the diversified display ability of the tech helps to further enhance the connotation and effect of urban public art.

In addition, computer digital info tech organically integrates and integrates digital media, Internet and info tech, and with the help of the analysis and processing of multiple types of files, constructs a new visual effect of public art [3]. Computer digital info tech greatly broadens the scope of expression of public art, and the city public art in a more direct and vivid form of organic display. It can be seen that the promotion and popularization of computer digital info tech in urban public art design makes the scope of public art further break through the limitation of time and space, and urban public art, as the utilization carrier and platform of computer digital info tech, also broadens the utilization scope and field of digital info.

In short, as an art form serving the urban function and connotation, urban public art realizes the quantification of art info with the help of computer digital info tech, promotes the more intuitive display of art forms, and effectively improves the experience, interaction and diversity of urban public art. With the blessing of digital info tech, the creative right of urban public art is more in the hands of the audience. In the process of interaction with the public, the aesthetic object is freer to play and share [4]. Under the influence and effect of new computer digital tech, the expression mode, presentation form and social force of urban public art have been further enriched, and the theory and works of digital public art have gradually become an important part in the process of urban social and cultural development. Therefore, it is of great practical value to study the organic utilization of computer digital info tech in urban public art practice.

2. The connotation and function of computer digital info tech

2.1. The connotation of computer digital info tech

Through the evaluation and selection of common digital resources and tools, computer digital info tech can effectively manage data process and info resources, creatively solve problems, complete corresponding tasks, and form the ability of innovative works. The process of digital info tech and innovation is to realize the creation of digital info environment, the collection and management of digital info resources, and the utilization and innovation of digital learning resources [5]. Among them, in the process of using info tech to support public art creation, it should first recognize the advantages of network and related resources. Secondly, according to the task of public art to analyze the needs of resources, and use the network to obtain urban public art resources. In addition, with the help of computer digital tools, the design and creation of urban public art works are completed.

2.2. The function of computer digital info tech
First of all, in the practice of urban public art, through the evaluation of commonly used digital tools and resources, and according to the needs of reasonable choice, and according to the specific task of urban public art, it should use a certain digital strategy to manage the practice process and resources of urban public art, complete the task and create the final works. In addition, the practice cooperation of urban public art is carried out in cyberspace to complete the construction process [6]. According to the complexity of urban public art tasks and the characteristics of personalized construction needs, we should reasonably use the digital environment, actively participate in cooperation and collaborative creation, and support personalized resources through independent or cooperative development, so as to realize public art innovation. With the help of computer digital info tech to build a real and virtual mixed urban public art environment, the audience can strengthen and enhance their cognitive ability of art, promote innovation and artistic inspiration.

2.3. Public art innovation of computer digital info tech

In the public art environment with rich tech, it can effectively evaluate the value of diversified digital resources and tools for specific tasks of urban public art. Aiming at more complex tasks, it should use network tools to quickly search, obtain and screen resources, and creatively solve problems on the basis of effective management to form personalized public art works [7]. According to the personalized characteristics of urban public art, the corresponding digital resources and tools are effectively used to improve the creation quality of urban public art. In addition, digital innovation is an important part of the core literacy of info tech [8]. In order to improve the digital and innovation level of public art creation, it should reasonably select the creation methods according to the content and characteristics of public art.

First of all, it should integrate the artistic content into the actual situation of public life, and create the artistic content in accordance with the actual situation. Secondly, the utilization of practical exploration, through the design of specific artistic situation, improves the public understanding and appreciation of urban public art level. In addition, in the real space and virtual space constructed by computer digital info tech, it should abide by public norms and pay attention to the humanistic problems brought by the info tech revolution, so as to realize the scientific development of public art.

3. Utilization of computer digital info tech in urban public art space

3.1. The digital public art of virtual computer info space

The urban public art based on computer digital info tech has several typical characteristics as shown in Figure 2 below. The virtual public space constructed by computer digital tech can give play to the unique value of public art [9]. In exploring the value and artistry of urban public art, with the help of virtual public space created by computer digital info, the public can feel the charm of public art and the change of social operation state without going to the scene where public art is located. The virtual computer tech and Internet info tech in the digital age shape the public space corresponding to the reality of urban public art, and provide a new form and platform for urban public art.
In addition, the virtual public space still has a high nature of communication and sociology. The creative techniques, presentation forms, acceptance and experience of urban public art works in the virtual public space will show their unique characteristics in the form of the whole school, as shown in Figure 2.

3.2. Dissemination and promotion of urban public art based on digital info tech

Urban public art based on computer digital info tech can build a more convenient and efficient art communication community. For example, with the help of the Internet of things to achieve efficient interaction of urban public art in the virtual visual space. The virtual public space constructed by computer digital tech can provide a carrier and platform for the creation, display and interaction of urban public art works, which is not restricted by the external reality of space-time environment. The urban public art of virtual cultural space has gradually become a new art form that can be iterated and upgraded, and it can be experienced repeatedly, and this experience can be diverse. Urban public art based on computer digital info tech is more likely to lead to the discussion of art publicity, as well as the dissemination and promotion.

3.3. The liberalization and marketization of urban public art

With the utilization of computer digital info tech in the field of urban public art, urban public art is gradually moving towards the process of marketization and commercialization [10]. In particular, the inflow of some market-oriented capital has affected the cultural nature of public art. Secondly, the computer digital info tech makes the creation of urban public art more free and extensive, whether in the level of creative content or the level of expression of public art, the degree of freedom of public art creation has been greatly improved. In addition, the active and popular organization of public culture, art and art education has greatly promoted more public participation in urban public cultural activities.

The online presentation of offline urban public art activities integrates the culture, entertainment, interaction and experience of public art, especially the cooperation with relevant network platforms, which promotes the launch of more quality content of urban public art. In this context, the urban public art space based on computer digital info tech will gradually develop into a unique art expression platform and form in the future.

4. Optimization of urban public art practice under computer digital info
4.1. Promote the participation of the public and urban public art

With the continuous enrichment of the creation form and content of urban public art works, the public need to participate in the creation process of urban public art more deeply. Computer digital info tech provides technical support and conditions for the public to participate in urban public art. On the one hand, the graphical and graphical forms of computer digital info help to arouse the public's sense of participation; on the other hand, the interaction and experience of computer digital info tech can trigger the development of urban public art design. Computer digital info has a wide range of public attraction, which can fully mobilize and stimulate the public's sense of participation.

4.2. The public art form and the carrier of city creation

The art carrier and form concept of urban public art are brought by different materials. With the iterative growth of social economy and the iterative maturity of computer digital info tech, new materials and processes are constantly emerging, which makes the creation of urban public art have greater freedom in the choice of materials and make its art carrier more rich and diversified. The art categories of urban public art have their own different material means, which shows the basic law of diversified media forms and operation. In addition, the utilization of computer digital info tech in urban public art design should be based on the principles shown in Figure 3 below, so as to break through the space-time limit of urban public art works expression, and the way of urban public art to obtain new vitality is also the inevitable trend of cultural development.

![Diagram showing the relationship between technological, experiential, interactive quality, and virtuality](image)

**Figure 3.** Utilization principles of computer digital info tech in urban public art design

5. Conclusion

In summary, the promotion and popularization of computer digital info tech in urban public art design makes the scope of public art further break through the limitation of time and space, and urban public art, as the utilization carrier and platform of computer digital info tech, also broadens the utilization scope and field of digital info. Through the study of the connotation and function of computer digital info tech, this paper analyzes the public art innovation of computer digital info tech. Through the analysis of the utilization of computer digital info tech in urban public art space, this paper studies the dissemination and promotion of digital info tech in urban public art. Through the research on the optimization of urban public art practice under the computer digital info, this paper analyzes the strategies of creating new carriers and forms of urban public art.

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