Research on the Integration of Art Production and Education and Urban Ecosystem Construction Based on Digital Media Technology

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Abstract. The development speed of digital media technology is increasing year by year. However, the lack of artistic talents in digital media is a serious problem. In many schools, the upper limit of the level of digital art graduates is very low. The integration of production and education of art has become the main research direction of scholars. In order to effectively implement the green city rectification policy, the State advocates the construction of urban ecosystem. However, the traditional theory of ecosystem construction has been ignored. Many scholars put forward the construction of urban ecological circle with the integration of digital art illustration and teaching. This paper analyzes the characteristics of the integration of art production and education in digital media. On this basis, this paper puts forward the construction path of urbanization ecosystem.

Keywords: Digital Media, Art, Integration of Production and Education, Urban Ecosystem

1. Introduction
In fact, the development time of digital media technology in China is short. After that, it was just put forward, it was widely welcomed by people. However, people were not satisfied with the use of digital media at that time [1]. The emergence of computer image processing technology has helped the operation of digital media. On this basis, digital media began to enter a comprehensive period of progress. At the same time, it helps the development of digital art. It promotes the wide application of digital media art technology in animation industry, film industry and game industry. The society gradually appeared the different industrialization digital media art professional demand. In the face of this form, people have adopted the practical method of integration of production and education of art.

In recent years, the world's environmental protection organizations have put forward the concept of coexistence of man and ecosystem. After that, the environment-friendly ecological environment has become an important goal of urban renewal (see Fig 1). The concept of eco city has planted seeds in people's hearts. In the 21st century, people have gradually accelerated the pace of urban ecological construction. Many cities have built a green ecosystem of forests and other environmental protection equipment. People regard this construction mode as urban ecosystem. At present, the construction of
the ecosystem is gradually on the way to innovation. Around the digital media art industry education integration mode of urban ecosystem construction has become a hot topic for researchers.

2. The characteristics of the integration of production and education of digital media art

2.1. Sharing of art resources
The biggest characteristic of digital media is data sharing. It can help the transmission of data resources through various ways of information transmission. The data resources of the integration of production and education in art specialty are very rich. Some other enterprises need to spend a lot of human and financial resources in the process of obtaining art resources. Through the sharing of art resources of digital equipment, it can not only shorten the distance between interests and main enterprises, but also help enterprises save a lot of costs.

![Figure 1. The construction of urban ecosystem based on the integration of art production and education.](image)

2.2. Joint development of practical exploration and professional education
Digital media technology is the forefront of the world. We can not deny that the study of digital theory is important. However, the professional training of practical exploration is also necessary [2]. The integration of production and education helps scholars understand the application of the knowledge system of professional education in practical exploration. This way can promote the joint development and progress of practical exploration and theoretical education.

2.3. Innovation breakthrough of digital art specialty
The integration of production and teaching adopts the combination of practice and theory to help students learn the professional knowledge of digital art. This learning model is based on the cooperation between enterprises and colleges. Schools must adopt innovative talent training strategies to adapt to the recruitment standards of enterprises. Enterprises must formulate innovative recruitment standards according to the actual training objectives of school graduates. There is no doubt that the integration of production and education in art major is a breakthrough in the innovation of digital specialty.

2.4. It increases the connection between college and society
The employment basis of digital art specialty is the accumulation of work experience. If there is no practical experience, the superposition of theoretical knowledge can not prove the strong comprehensive ability of talents. The art graduates trained by many schools can not meet the needs of the society. This proves that the foundation of traditional art talent training is divorced from the society.
The integration mode of production and education solves this problem well. It increases the connection between college and society.

3. The establishment standard of the mechanism of production education integration of digital media art based on urban ecosystem

3.1. General summary of standard establishment
The main goal of the integration of production and education of digital art is the overall reform of education. It mainly involves four aspects. They include the reform of education, the training mechanism of talents, the innovation and transformation mechanism of enterprises and the mechanism of adapting to the development of society. It is necessary to make sure that the interests of schools and enterprises coexist. The revision of the proposed principles should also be based on the operation of the four mechanisms mentioned above.

3.2. Clarify their respective interest relations
Most of the reasons for the improper implementation of the mechanism of the integration of industry and education are not clear about the interests. The basis of the integration of production and education is the construction of urban ecosystem [3]. The construction of urban ecosystem needs the talent support of enterprises. The enterprise gains profits through the implementation of the project. The college benefits from the supply of talents. To clarify the relationship among the three parties, we can avoid the interference of other factors. In this way, we can ensure the smooth implementation of the integration of production and education.

3.3. Schools should make good use of high-quality enterprise resources
It is difficult to study the theory of digital media. However, it is also difficult to improve its practical skills. In order to cultivate high-quality talents of digital specialty of ecological circle construction, the school needs to cooperate with high-quality enterprise resources. Schools should learn to make good use of high-quality enterprise resources. There is no doubt that the optimal allocation of resources is the core element of the integration of production and education and the main road for its future development.

3.4. It is necessary to drive the reform of education and the transformation and development of enterprises
We will find that the vocational skills of students majoring in digital art in many schools do not meet the needs of the society. This is the failure of our educational system. The goal of urban construction is to build an ecological circle. The establishment standard of the integration mechanism of production and education of digital media art needs to drive the reform of education. On the other hand, in order to improve the economic level of the country, the integration of production and education of art should also promote the transformation and development of enterprises.

4. Research on the construction path of urban ecosystem based on the integration of digital media art production and education

4.1. Regional selection of ecosystem based on digital analysis technology
We know that the area where the ecosystem is built is usually in the outermost part of the city. However, the choice of the region for the construction of the ecosystem is not random. Using digital analysis technology, we can analyze the characteristics of plants in various areas of the city. According to the statistics of the data of the ecosystem plants, we can decide to set up the ecosystem in the appropriate position. This practice can ensure that the ecosystem does not destroy the ecological balance of urban plants (see Table 1).
4.2. Design of ecosystem environment model based on 3D modeling
The construction of ecological environment is very important. It is related to the quality of the landscape of the whole city. The construction of the environment also ensures the ecological balance of the city [4]. Before using digital art to build an ecosystem, we can use the computer's digital three-dimensional software to build a model of the ecosystem environment. Designers can change the landscape design in the model at any time. The establishment of ecosystem model can help designers find out the mistakes in design.

4.3. Digital design of plant shape based on artistic features
On both sides of the traffic road inside the city, we can see many different shapes of plants. The shapes of these plants are made according to different design inspiration. In the process of ecosystem construction, in order to ensure the beauty of the ecosystem, we can use digital application to design the shape of plants. In a computer, we can make a model of it. According to the model, we can see the beauty of the shape of the whole plant.

4.4. Simulation based on digital disaster
One of the functions of the ecosystem is to protect the city and the plants inside the city from the natural environment. It can protect against wind and sand. It can regulate the climate of the city. It can also stabilize water resources. Before the ecosphere project, we can use digital simulation technology to simulate the occurrence of natural disasters. We put natural disasters in the ecosystem's environmental model. We can find the effect of the ecosystem environment on resisting natural disasters.

Table 1. Research on the construction path of urban ecosystem based on the integration of art production and education based on digital media.

| Traditional route                        | Digital route                        | Innovation       |
|-----------------------------------------|--------------------------------------|------------------|
| Random selection of area                | Digital analysis of ecosphere region  | Equilibrium      |
| Focus on the pattern of environment     | 3D environment model                 | Fault-tolerant   |
| Regardless of plant shape               | Digital plant shape design           | Beautiful        |
| General disaster prediction             | Digital disaster simulation          | Test             |

5. Summarize the methods and principles of urban ecosystem construction based on digital media

5.1. The ecosystem should be integrated into the natural geography of the city
The ecosystem must conform to the natural geographical environment of the city. Before the ecosphere project is launched, designers need to investigate the historical, cultural and physical geography of the city. Designers also observe the characteristics of the plant landscape throughout the city. According to the research of these characteristic data, the designer should complete the landscape planning of the ecosystem. In addition, the urban human landscape is also an important feature to be considered.

5.2. Promoting biodiversity
The value of biodiversity is to improve the stability of urban environmental system function. The design of biosphere must be based on biodiversity [5]. Through the alternate growth of natural plant communities, the ecosystem can gradually form a complex structure of vegetation. This can not only enrich the ecological community structure of the city, but also provide more habitat for endangered species. It also makes full use of the space and resources of the city.

5.3. Promote the integration of ecosystem and non renewable resources
At the city's borders, non renewable resources include soil, groundwater and trees. Of course, it also includes some ancient places of interest. These resources cannot be destroyed. Otherwise, they will not be able to regenerate. In the construction of ecosystem, we should promote the integration of natural
environment and non-renewable resources. This can not only protect the ecological environment, but also protect non-renewable resources.

5.4. The ecosystem should meet the needs of residents as much as possible
The ecological characteristics of different cities are different. Residents in different cities have different views on the ecosystem. Therefore, the selection of ecosystem functions should also meet the specific needs of residents. One of the functions of the ecosystem must be to prevent the erosion of wind sand if the residents around the ecosystem are damaged by wind sand all the year round. In addition, demand is not unchangeable. Designers also need to change the plant characteristics of the ecosystem according to different needs.

6. The practical significance of the construction of urban ecosystem

6.1. It can improve the landscape and environment of the city
The city's landscape determines the development direction of the city's tourism. The urban environment determines the quality of life of residents. Progress in tourism can help cities improve their economic systems. The improvement of residents' quality of life can help to enhance the happiness of living in the city. The construction of urban ecosystem can not only improve the natural landscape of the city, but also improve the natural environment of the city. It ensures that the city has enough green space.

6.2. It can resist the natural disasters around it
According to the above description, we understand that the ecosystem can prevent the invasion of sandstorms and protect water resources. In addition, it can also improve the living environment of animals and plants in the city. It can be used as a solid ecological barrier to protect the ecosystem inside the city. According to the foreign research, scholars found that the construction of the ecosystem can increase the species of organisms in the city. It can also stabilize ecological effects.

6.3. It can slow down the rate of global warming
The main culprit of global warming is the high level of carbon dioxide. We know that vegetation can absorb a lot of carbon dioxide. Not only can the inner air quality of the city be increased, but also the air quality of the city can be increased [6]. Although the amount of carbon dioxide absorbed by one ecosystem is small, more carbon dioxide can be absorbed by multiple ecosystems. Therefore, the construction of the ecosystem can alleviate global warming.

7. Conclusion
Nowadays, the development pattern of urban ecosystem is more traditional. It is necessary to study the innovation of the ecosystem of art production and education integration based on digital media. It can not only improve the natural environment of the city, but also improve the happiness of the residents. The innovation of ecological circle construction is conducive to the implementation of the sustainable development strategy of the city.

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