A brief analysis of the application research of digital media technology -- taking digital film and television as an example

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Abstract: with the development of Internet science and technology, art has a broader space for improvement. The nonlinear change of computer hardware and software makes digital media technology become one of the widely used technologies in digital film and television. Under the guidance of science and technology, digital film and television art is at the forefront of art. This paper makes an in-depth analysis and research on the development of digital media technology, and puts forward scientific and reasonable solutions to its development prospects in the digital film and television industry, aiming to further promote the in-depth integration of science and art.

1. Development prospect of digital media technology

1.1. Development space of digital media
In the process of historical development, science and technology constantly promote the progress of social links and the prosperity of economic construction, while the transformation of digital media and the modernization of cultural forms also begin to change in the process of transmission. Digital media store and transmit information through electronic devices and gradually infiltrate into every aspect of our daily life. For example, computer animation, computer games and print advertising models are built through digital media. It has many characteristics, such as digitalization, integration, interestingness, interactivity and the integration of art and technology, etc., providing broad and diversified entertainment and communication space for ordinary people's life and promoting the further integration of art and science and technology

1.2. Development connotation of digital media technology
In the process of development, dissemination and application of digital media technology, Internet information and communication technology are often taken as the main means, and a series of different forms of media information such as voice, image and text are centralized and specific processing. Its application scope and field not only involves advertising industry, education industry, medical industry, but also has a more common application in the field of film and television special effects and digital
animation. The market value and development prospect of digital media technology have gradually become one of the important technologies and core industries in China's socialist market economy and national economy. Its advantages and characteristics are summarized as follows, as shown in figure 1.

| Dominant characteristics | Areas involved       |
|--------------------------|----------------------|
| digitalize               | Advertising industry |
| Integration             | Education industry   |
| Interesting             | Medical profession   |
| Reciprocity             | Film and TV effects  |
| Fusion                  | Digital animation   |

Figure 1. Advantages and areas of digital media technology.

2. Application research of digital media technology in digital film and television

2.1. Subject areas of digital media technology

Digital media technology covers a wide range of professional disciplines. It contains the following aspects of the actual content. Firstly, the function of information storage and protection in digital media management; Secondly, digital media is transmitted through p2p technology and streaming media transmission technology. Third, digital media technology can be used for the creation and design of digital 2d and 3d animation content; Fourth, basic application of digital media technology, acquisition, calculation, editing and creation of digital images; Fifthly, the speech coding and editing of digital audio are carried out. Sixth, it is also the most common in digital film and television, that is, to carry out the early technical processing of video and the later special effects processing. Therefore, to sum up, the above six parts are the most common and widely used fields in the field of digital media technology design [2]. The following figure shows the framework flow of streaming media technology for readers to understand more intuitively.

2.2. Application analysis of digital media technology in digital film and television industry

In the 1960s and 1970s, computer network and information and communication technology began to develop rapidly. Based on the emergence of image compression technologies such as digital projector and digital editor, relevant researchers in the industry also began to explore and analyze the development of digital media technology in digital film and television. And constantly drive the extension of digital media technology from production to release. It can be said that the whole process of film and television production cannot be separated from the support and help of digital media technology. To put it simply, at the beginning of the presentation of traditional film and television works, film and television works
will be stored and edited with the help of film and other relevant materials. But with the deepening of the digital media technology, on the basis of this way of storage, can through digital photography camera and other related equipment, on the second shooting and editing, and through the Internet information technology and communication technology, to constantly spread and popularization, the digital television show through screening and other forms in front of the eyes of ordinary people. Therefore, in the process of mass popularization of digital media technology, a relative digital film and television has been formed.

3. The value and significance of digital film and television relying on digital media technology

The birth and development of digital film and television, through film special effects and other ways, can be unable to show or restore the large scene in real life, real show in the eyes of the general public, let the audience in the magical digital film and television scene based on, more deeply shocked by the peculiar special effects in the film. Digital film and television has successfully led a number of new industry development, including digital TV, digital film, digital network media and mobile TV and other industries.

Under the foil of digital media technology, digital film and television begin to show a new development situation, and bring diverse production space for TV and film production. First of all, in the production of film and television works, digital films greatly save and reduce the investment and cost in the production of traditional film and television films. Through more convenient editing and processing methods, the time and energy spent in film and television production are also maximally improved. Moreover, the integration of digital media technology in digital film and television can scientifically process and present the visual contents and visual effects that cannot be presented in traditional film and television, increasing the ornamental and artistic value of digital film and television. In the process of digital film and television post-release, simultaneous release and simultaneous viewing can be achieved through the application of digital media technology, which is undoubtedly an effective measure for investors to save money. Indirectly improve the profits brought by digital film and television. It is worth mentioning that the effective formation of digital film and television chain system also avoids the damage to the picture quality content in the process of copying and transmission of film and television works. For film and television works, the value of collection and permanent preservation has also been improved. It further promotes the prosperity and development of film and television industry. Finally, in the process of releasing digital film and television works, it can not only provide more high-quality and clear pictures for the general public, but also form effective interaction with the audience, greatly improving the freedom of viewers in the process of watching films. In order to display the connotation of digital film and television more intuitively and clearly, See figure 3, Application Diagram of Digital Media.
4. **Formation and development of digital media technology major**

With the development of science and technology and the improvement of people's living standards, digital media technology has become a new generation of professional fields. Its main characteristics are: digital art as an auxiliary role, technology as the main role of the new exhibition industry. In general, the study of this major requires not only a certain theoretical basis in the field of communication, but also specific skills in the production and processing of digital media technology. Through my own mastery and understanding of artistic accomplishment, I can solve the problems in the field of digital media technology. The birth and formation of digital media technology major is not only to provide more exquisite film and television works for the general public through the Internet new media technology, but also to help them master the latest technology on the basis of cultivating their own artistic and aesthetic cultivation, and to become interdisciplinary talents with multiple abilities of creation and design. Students majoring in digital media technology also have a very broad development prospect in the future social development. They can be engaged in not only Internet media design, but also graphic design, video editing, animation production and other fields.

5. **Conclusion**

To sum up, digital media technology provides more convenient operation and development possibilities for different fields in the process of continuous development and application. For digital film and television, the digital processing and transmission technology has become the core driving force of film and television industry development, not only for the ordinary people from the form and content provides a more elegant visual enjoyment, digital media technology with its unique advantages in the digital film and television industry occupies more and more important role and status, become a important measure to promote the development of film and television industry overall.

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