

## Research on Late-stage Technology of Film and Television Based on Digital Media

Feng Xie

Neosoft Institute Guangdong, Foshan City, Guangdong Province, 528225, China

xiefeng@nuit.edu.cn

**Keywords:** Digital Media, Film and Television Post-Production.

**Abstract:** With the continuous development of digital technology, China has gradually entered the background of digital media. Based on this, this paper briefly introduces the development process of film and television post-production technology, expounds the characteristics of film and television post-production technology based on digital media, and analyzes the specific application of film and television post-production technology based on digital media from three D of application of technology in film and television post-production, the application of synthetic technology in film and television post-production and the application of digital storage technology in film and television post-production, respectively.

### 1. Development History of Film and Television Technology

With the rapid development of digital technology, it plays a very important role in film and television post-production, changing the previous recording method, organically combining material with digital equipment, can carry out multi-function special effect processing of material, reduce the difficulty of film and television post-production, and the prospect of application is good.

#### 1.1. Traditional Post-Examination Techniques

In the past, the processing content of the later technology is jumbled, the processing process is more cumbersome, and can not achieve the overall toning and overlapping painting, the effect of production is not very ideal. In the past production mode, due to the limitation of material, manpower and technology level, there are many deficiencies in the post-production of film and television works.

In the past, film and television materials have been uniformly stored in the film, during the production of the sample film, the first step needs to develop the film to obtain the negative film, and then manually cut and glue these negatives, the second part, according to the effect of the clip table to expand the repeated clip. Traditional post-production belongs to nonlinear editing, which has some limitations when used, and the efficiency of post-production is very low. With the continuous development of technology, TV editors come into view and improve some shortcomings, that is, the non-linear editing that people say, first with the help of combination editing to sort the film and television materials, to produce a coherent video of the picture, and then use the method of insert editing to make corresponding processing for the content that needs to be modified. Although compared with the previous post-production, television editors have some progress, but can not delete or add material, if repeated changes will seriously reduce the quality of the video, there are still many drawbacks. It is also affected by human factors, the consumption of manpower and material resources is relatively large, and the efficiency of work is not high[1].

#### 1.2. Digital Film and Television Post-Technology

In recent years, digital technology has been widely used in examination-oriented post-production, which effectively makes up for the shortcomings of some traditional production methods, but also can improve the efficiency of film and television production, but also can ensure the good quality of film and television works, so that the performance of film and television works greatly improved.

## 2. The Post-Film Technology Based on Digital Media

In recent years, digital media has been well developed, and the film and television industry has been greatly affected by digital art and digital technology. Computers can complete the original work of manpower and equipment, whether it is the electrostatic blockbuster of the courtyard line or the advertising of the streets and lanes. Digital media is everywhere and is widely used in all aspects of life. In the past, there were people specializing in material editing, and the production of films usually took place outside the imagination of the audience. With the gradual development of digital media, new technologies, new software, new tools and so on have been brought into public view, which can help the public understand the process of film production.

In the post-production process of film and television, if you want to harvest unexpected film and television effects, usually need the support of professional equipment, and the price of these equipment is very high, the difficulty of operation is also relatively large, need to have special care of people. So it is very difficult for ordinary people to see the style, this equipment for the professional level of users is very high. With the continuous development of digital media, the former large residential equipment gradually replaced by computer software, for those film and television production enthusiasts opened the way.

Under the background of digital media, the three-dimensional animation technology in the post-production of film and television is gradually well known to ordinary computer users, which simplifies the process of video operation, reduces the cost of use, and can also improve the efficiency of film and television production, and provides a wider and freer creative space for the users of software. Especially digital synthesis technology, it can accurately grasp the characteristics of time and space, systematically control the overall picture, greatly enhance the flexibility of film and television post-production. Nevertheless, excellent film and television works can not be separated from the support of professional equipment and high standards of professional equipment. Although the threshold of film and television production seems to be lowered, providing an opportunity for non-professional people to create film and television, most of them simply learn the use of software and the rational application of these technologies, can not accurately grasp the animation itself, usually only grasp the two-dimensional or three-dimensional film and television production technology, artistic accomplishment is still relatively backward.[2].

## 3. The Application of the Post-Film Technology Based on Digital Media

### 3.1. Application of 3 D Technology in Post-Production of Film and Television

Presumably we don't know much about post-production technology as film and television professionals say. If we mention the special effects of classic blockbusters, we believe we will not be unfamiliar. Besides the plot, the most eye-catching images in a film are usually made from three D of technology. For example, you can use D 3 technology to set a virtual role. For example, Jurassic World, the dinosaur in the film is the image created by three D of technology, vividly and vividly depicts the things that have ceased to exist in reality, as shown in figure 1. Some disaster films, for example, include images of airflow, the universe, or D big bang, and three technologies, such as the big bang in "the end of the earth ", the tsunami in the film " the day after tomorrow ", or special effects such as magic and mana in the mythological film, are the product of three D of technology, which have been used many times in the film "king of the rings ".



Figure 1 Jurassic world picture

After Star Wars became popular, the post-production of the film gradually took the stunt lens as a means to attract the audience's attention, which has been widely used in many films. Although the technology is different from its method, D effect is blue. In some videos ,3 technology also needs to apply the model, but it is easy to modify later, and it can create more fantastic virtual image, as shown in Figure 2[3].



Figure 2 Special effects in star wars

### 3.2. Application of Synthetic Technology in Post-Production of Film and Television

3D technology brings convenience to film and television post-production, but also brings some problems. After all, the image created by 3D technology is virtual, how to make the virtual image and real characters to achieve docking? synthesis technology can effectively solve this problem.

The synthesis technology can put the film and television material cut and paste together, beautify and decorate the film and television video, involve many application software, and the advantages of different software applications are different, which can provide great convenience for the film and television production, and further improve the effect of the film and television production. For example, the TV series "Huanzhu GE" inside the picture of Xiang Fei and butterfly dancing, the characters are real, butterflies are shaped by the use of three D of technology, the use of digital synthesis technology to combine virtual and real things, add the aesthetic sense of the lens, achieved different artistic effects. For example, the TV series "Diao Xia Lu ", the protagonist Yang Guo and the perfect match of God Diao is also the application effect of digital synthesis technology. In the film "Forrest Gump ", there is a picture of Forrest Gump shaking hands with the president, this lens is also obtained by using digital synthesis technology , " Harry Potter" inside, Quidditch competition, the Goblet of Fire and the dragon's tangle are all used synthetic technology to get the lens, as shown in figure 3. The application of digital synthesis technology can not only improve the synthesis accuracy of traditional technology, but also reduce the difficulty of modification, inject people's fantastic ideas into film and television works, and then produce one excellent film and television works after another. 3D the steady development of technology and synthetic technology, some remarkable application results have been achieved, and the scope of influence is also becoming wider and wider. Whether it is film and television blockbuster or product advertising, it can bring a greater visual impact to the audience, so that the performance of the work is greatly improved.



Figure 3 Harry Potter and the Goblet of fire

### **3.3. Application of Digital Storage Technology in Post-Production of Film and Television**

In the past, there were two main forms of storage of film and television materials, one is film, the other is tape, the storage space occupied is relatively large, and relatively easy to damage, over time, will produce a lot of unexpected things, in addition, affected by human factors, will damage the storage medium, affect the security of film and television materials. With the application and popularity of digital storage technology, video materials can be compressed, and these processed materials can be stored on hard disk, optical disk or Internet platform, which can not only expand the storage of materials, but also save storage space. Moreover, with the continuous development of cloud storage technology, the application of virtual space storage method has effectively improved the efficiency of film and television material storage[4].

### **4. Conclusion**

To sum up, film and television post-technology with the support of digital media, has been well developed, a variety of new technologies, new software, new tools continue to emerge, can create a more fantasy characteristics of the virtual image, to achieve virtual image and real characters docking, reduce the difficulty of post-production, add color screen, to ensure the quality and effect of film and television post-production.

### **References**

- [1] Gao, Yunmeng. A Study on Post-Movine Technology in Digital Media. *Technology Communication*, vol. 10, no. 15, pp. 87-88, 2018.
- [2] Liangliang, Cao. A Study on the Late-stage Technology of Film and Television under Digital Media. *Art Technology* , vol. 29, no. 11, pp. 123, 2016.
- [3] Honaga. A Study on the Post-Movine Technology in Digital Media. *Scientific Popular (Science Education)*, no. 03, pp. 182, 2016.
- [4] Wang, Cheng., Shi, Yujie., Huo, Zheng. Film and television post-technology based on digital media. *Popular Arts* , no. 21, pp. 184, 2015.