

Research on the Influence Mechanism of Artificial Intelligence Technology on the Career of Animation Practitioners in the Future

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Abstract: In the future, artificial intelligence technology will replace a lot of repetitive work, and in the process of animation creation, many are repetitive work, such as character animation, light rendering, physical effect simulation and so on. The difference between artificial intelligence technology and true human is emotion and imagination, and animation is a way to express human emotion through different roles and stories. Only by constantly exploring how to express role emotion through a good story can let future animation practitioners meet the needs of future animation development.

Keywords: Artificial intelligence; Animation production; Animation

The future is an era of digitization and intelligence. As the representative of digitization and intelligence, artificial intelligence technology will gradually integrate into all aspects of our life. This study is mainly to explore the impact of artificial intelligence technology on animation practitioners and explore the animation creation process to adapt to the future in line with the trend of social development.

1. Research status in China

Y2019 is called the first year of the application of artificial intelligence, before Y2018, artificial intelligence is mostly in the research and development stage and has not been widely used. In Y2019, the artificial intelligence products of many companies gradually enter people's vision. Such as intelligent speakers, driverless technology, unmanned aerial vehicles and unmanned vehicles. The epidemic situation in Y2020 has accelerated the application of artificial intelligence technology in medical treatment and other aspects. AI technology researchers mainly works in the large Internet companies, and most of the research in this field is distributed in hot fields. Due to the late start and short development time of animation industry in China, the application of artificial intelligence technology in the field of animation is still relatively less. At present, some domestic front-line animation companies rarely have a lot of funds and technology to invest in the development of artificial intelligence technology. Only some institutions and individual animation lovers have developed some weak artificial intelligence applications, but there is still a certain distance from the application.

According to statistics, at present, China's animation investment has decreased since 2017, and the demand for animation talents has shown a downward trend since 2020. The main reason is that the market heat is declining, people have higher and higher requirements for the quality of animation, the industry lacks comprehensive high-end talents with comprehensive technology, and the requirements for creators are higher and higher due to the progress of computer technology.

2. Current situation and trend of European and American Research

The concept of artificial intelligence was put forward in Y1956. After half a century of development, it has been widely used in computer science, face recognition, fingerprint recognition, machine learning, text and image understanding and so on. As an animation industry that relies on computer technology, the application of artificial intelligence technology in the field of animation is also relatively advanced. For example, a well-known animation company developed a system in 2019 that directly turns text scripts into animation. Although the system is not perfect in terms of creativity, it can already serve as a practical tool for creators. The bone binding automation method based on artificial intelligence technology developed by a foreign university solves the problems of model to bone binding and character action adjustment. This technology can widely set the key parts and character animation of different types of characters, although the system is not perfect, however, this method has solved the problem that the skin and character animation of traditional animation 3D characters rely on a large number of producers. In the future, huge personnel motion data will be obtained through the motion capture system, and the motion design can be completed automatically as long as there is a model.

With the application of artificial intelligence technology in the field of animation, the application research of artificial intelligence technology in the animation industry will be gradually enriched. Using artificial intelligence technology to complete the creation of animation will gradually become a trend and style. In the animation industry, the work that is relatively simple and needs a large number of people to complete will gradually be replaced by artificial intelligence.

3. What impact does AI bring to Chinese animation practitioners at present

Artificial intelligence saves time and cost for animators and original painters. At present, the application of artificial intelligence is still weak artificial intelligence, which can only deal with some simple work, such as the supplement of two-dimensional animation middle sheet, animation image design, background generation and so on. At present, there are no commercial products in the application of three-dimensional animation. Most of them are in the research and development stage, and it will take some time to push them to the market. However, with the gradual development of computer technology, animation creation has been produced by the first large company and gradually transformed into studio mode.

4. Which animation practitioners can be replaced by artificial intelligence technology in the future

Artificial intelligence is based on a large amount of data to judge and imitate human behavior, but they have no consciousness and no way of thinking. They can only imitate the existing human behavior. Human creativity can combine things with human emotions, making people easier to accept and more humanized. Research shows that AI technology will replace relatively single jobs in the future, such as customer service and bank staff. Creative work like music creation cannot be replaced by artificial intelligence.

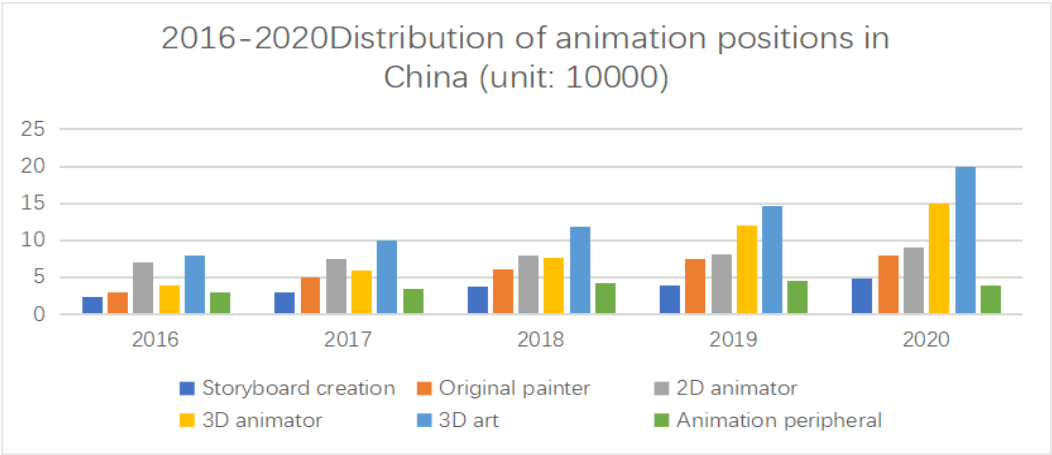
By comparing the prospect of the animation market with the number of animation practitioners, we can judge which part of the employees in the animation industry will be gradually replaced by artificial intelligence technology in the future development, such as intermediate frame makers

Figure 1 shows the occupational distribution of animation practitioners in recent years. Due to the change of market demand and the intervention of new technology, the demand for some occupations is declining. In the future, with the improvement of living standards, people will pay more attention to spiritual and cultural life. This form of animation can meet the interests of all kinds of people and bring more spiritual food to everyone.

Figure1

5. Animation production process under artificial intelligence technology

The impact of artificial intelligence on animation process in the future is related to the two types of animation mentioned above. The first type is artificial intelligence. As long as our needs are directly communicated with artificial intelligence devices, people can wait for the final results. There is no need for personnel to participate in the whole process. All processes are completed by artificial



intelligence. Such creation is more suitable for individuals or small teams; The second is the hybrid type. In the original animation creation process, optimize the creation structure, save creation time, give full play to their respective advantages and cooperate with each other to complete the creation of animation.

6. How do anime people cope with such changes

To sum up, the intervention of artificial intelligence technology has not only changed the distribution of occupations in the whole animation industry, but also changed the process of animation creation and production, reducing the threshold of animation creation and production, and gradually developing from professional animation companies to individual users.

In the future, animation talents are more inclined to be creative. Telling stories well and using script and lens language well have become its development direction. As an anime person, we should gradually adapt to its development trend in time, and appropriately improve and adjust ourselves to meet the development needs of the industry in the future.

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