

The Development and Changes of Film and Television Media under the Innovation of 5G Technology

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Abstract: In 2017, China's "Internet + culture" information transmission service scale involved nearly 800 billion yuan. This growth rate is as high as 34.6%, far higher than the overall growth rate of the cultural industry of 12.8%. In 2019, most mobile phone manufacturers in China have launched 5G mobile phones. This also means that the competition for the traffic of film and television companies under the 5G network has officially started from now on. The media should grasp the mainstream and essence of 5G technology, the core is to grasp the needs of the audience, and adhere to the subjectivity of the audience. Where the needs of the audience are, the center of the media is. This article aims to put forward the changes in the development of film and television media brought by the 5G era through the analysis of the current status of the 5G technology information era. This article believes that the improvement of film and television loading speed, the improvement of content production, the changes in the needs of communication objects and the diversification of communication platforms are the media development changes brought by the current 5G era. Therefore, the channels and directions for the future development of 5g technology are high-speed, high-reliability, and low-latency. Content upgrade production and the needs and requirements of communication objects change quickly. It is very meaningful to complete the prospect of the development of film and television media in the 5G era.

1. Introduction

5G is an important milestone in the information age. 5G will enhance the role of mobile networks, not only interconnecting people, but also interconnecting and controlling machines, objects, and terminals. Video streaming in the 5G era will become the main form of information expression. Live streaming will be everywhere. As a new generation of mobile communication technology with large broadband, low latency, and large connection, 5G will push people's mobile broadband experience to a new height, while greatly enriching people's working life and entertainment experience.

5G will bring a strong change in the concept of time and space. There is no longer any distance between people, people and things. 5G will completely push down the wall between TV and audience. In the 5G era, the content of communication, communication channels, communication forms, communication objects and their needs have changed. The development trend of film and television media in the 5G era is what media people should be aware of.

The biggest feature of 5G networks is high speed. The high rate is not only as simple as downloading 30 movies per second. VR, AR, and cloud technologies are seamlessly connected to life. High reliability and low latency make driverless and remote operations no longer distant. The large number of terminal networks will form a broader and open Internet of Things, making smart homes and smart cities possible. 5G will enhance the role of mobile networks, not only connecting people with people, but also connecting machines, objects and terminals. It will achieve a higher level of performance and efficiency, giving new user experiences and connecting new industries. 5G will provide peak rates of up to several Gbps, ultra-low latency, huge capacity, and a more unified user

experience. 5G will redefine many connected industries, from retail to education, from transportation to entertainment and all industries in between. In the current environment of continuous innovation and development of the media, looking forward to the future development trend and constructing an emerging media industry is the top priority under the continuous development of the 5G era.

2. Changes in film and television media brought by the 5G era

2.1 Film and television loading speed increased

Whether it is in the 3G or 4G era, watching TV series or movies may have such confusion-slow loading speed, and video playback is irritating. The advent of the 5G era will greatly improve the phenomenon of video freeze. The 4G network delay is 20-30 milliseconds, while the 5G network transmission speed can reach up to 10Gbit / s, which is at least 10 times faster than the 4G technology. The delay of the 5g propagation technology has also been shortened to 1 ms. The ultra-fast loading of film and television videos not only accelerates the progress of the film and television industry, but also meets the requirements of the audience in daily life for more advanced and fast film and television videos. In 2019, a video taken by a Weibo user through a 5G mobile phone received a lot of attention, among which was the experiment of extremely fast network transmission speed under 5G technology. He proposed that "the popularity of 5G will greatly optimize the current network experience and cloud storage". People also know more about 5G through this video.

2.2 Improved content production

The 5G era will bring about great changes in technological development. For a long time, domestic special effects production has not been able to meet the audience's rich demand for film and television content. Roughly made content forms also make the effect of film and television programs greatly reduced. With the advent and development of the 5G era, the development of content and form production of film and television works will surely welcome a great improvement. The phenomenon that popular novels and animations have been adapted into movies and TV series has always been a great craze. But many viewers expressed dissatisfaction after watching. Dissatisfaction is nothing more than two points: special effects and content. In the 5G era, special effects production will definitely be upgraded. Therefore, in the future, on the premise of ensuring the content, film and television producers must keep up with the needs of the times and the demands of the audience, and continuously improve and correct.

2.3 Changes in demand for communication objects

As technology improves, the form of communication will change, as will the content, so the viewing needs of the communication objects will change and improve accordingly. The immersive viewing experience brought by AR, VR, and MR can also satisfy the communication object to realize the interactive experience, and create a realistic sense of realism. Under the influence of exquisite film and television production, the vision and appreciation level of the communication objects are gradually improved, which is worth the excitement. The target of communication represents the film and television market, and the satisfaction and vision of the audience will make rough-made film and television works invisible, and the domestic film and television production level will also be raised to a higher level.

2.4 Diversification of communication platforms

When 4G technology arrived, it brought popular short video content to the audience. China's short video platforms are emerging in a short period of time. There are endless short plays of varying quality. At one time, everyone could become a short video expert, and everyone could be an actor or director. Live broadcast anytime, anywhere has become the most outstanding achievement in the 4G era. Webcasting has made ordinary people in countless lives popular. Celebrities spotted the traffic brought by the short video and made the traffic precise. When the 5G era comes in full swing, the film and television media should seize this opportunity and move to a

new level. 5G technology will flood life, realize diversified and open platforms, continuously disseminate cultural information to communicators, and achieve diversified penetration of communication platforms.

3. Changes in media elements under 5g technology

3.1 5G era propagation path becomes wider

4G changes lives, 5G changes society. 5G will usher in another revolution in the smart era. Industry experts pointed out that 5G will empower unmanned driving, Internet of Things, Internet of Vehicles, industrial Internet, etc., promote the digital transformation of many industries, and spawn trillion-scale digital markets. In other words, 3G and 4G are all connections between people, and 5G will realize the connection between people and things, and things.

3.2 Demand changes of communication objects in the 5G era

5G has the advantages of high speed and low latency, and people can order or broadcast ultra-high-definition content online, such as panoramic VR, 8K film and television, 3D content and even AR film and entertainment. With the advent of the 5G era, people will further embrace the mobile terminal and enjoy the superior experience of leisure entertainment under the mobile network. AR, VR, ultra-high-definition film and television, and media application scenarios in the 5G era have changed.

3.3 Changes in the content and form of communication in the 5G era

In the 5G era, video streaming will become the main form of information expression, live broadcasting is everywhere, and no one is not broadcasting. The mainstream population in the 5G era will be the post-millennial generation. 5G will promote "video" and "super video". The development of mobile Internet short video and live broadcast applications in the 4G era has led to unprecedented large-scale growth of UGC content. 5G will affect the development of all mobile Internet application services towards the trend of "video streaming" and the development of "super video" including virtual reality. As a new generation of mobile communication technology with large broadband, low latency and large connection, 5G will push people's mobile broadband experience to a new height, greatly enriching people's working life and entertainment experience.

In 2018, the era of 5G information is fierce. From "Internet +" to the Internet of Everything, 5G has undoubtedly spawned a powerful Internet information system. This shows that the emergence of 5G will bring about major changes in the development of film and television media. With the development of science, making a movie may no longer require a crew or an actor. In the future, perhaps only a virtual operation can complete a large production. Whether the technological advancement brought by 5G will affect the entire film and television industry is unknown. Therefore, the film and television media must make progress together with science and technology, constantly adapt to social development, and combine it well with science and technology to achieve great gains and development. It is very important to promote the good combination of radio and television and online media.

4. Current status of film and television development in the 5G information age

5G provides technical support for UHD video, making UHD video industry a hotspot in the industry. According to data provided by CUVA, it is expected that in 2020, the overall size of China's ultra-high-definition video industry will exceed 4 trillion yuan, and the number of users will reach 200 million. Ultra-high-definition video can be said to be a major industry where 5G helps break through. In addition, the "5G+4K" technical standard brought by the 5G era has also been applied. In 2019, CCTV adopted 4K ultra-high-definition cameras, ZTE 5G mobile phones, and video conversion boxes to achieve mobile live broadcasting. In such a live broadcast scene, the image is clear, the picture is smooth, the color is saturated, and the compression damage is low.

Film and television practitioners can directly upload the film and television images and images immediately behind the scenes and then start post-production, or post them in real time via the Internet. The live images of all programs can be displayed in front of the audience quickly, with high definition and low cost.

The advent of the Internet era has driven the development of a series of industries, including the film and television industry. What film and television need most is change and development. From the virtual idol in the variety show "Son of Tomorrow" to the role of "green" in the online TV series "Three Thousand Crows Kill", the role of artificial intelligence reflects the emerging development of the film and television industry. The emergence of new coronaviruses in 2020 has enabled countless programs to launch an online "cloud recording" format. During the Hunan Satellite TV "I am a singer" cloud recording process, real-time shooting and real-time transmission technology has been very mature. 5g technology has also spawned a more powerful film and television shooting system. At the beginning of 2019, the movie "Wandering Earth" opened a new door to Chinese science fiction movies. I believe that with the support of 5G information technology, China's film and television industry will reach a new level.

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