

# The Influence of 4G Network Technology on the Development of Broadcast TV and Its Optimization Strategy

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**Abstract:** In recent years, our country's information technology has been continuously developing. From the initial 2G to 3G to today's 4G, network technology is developing at a high speed. It not only brings a technological revolution to mobile phones, but also changes people's lives. The application of 4G network technology also brings new challenges and opportunities for the development of Chinese radio and television. This paper focuses on the analysis and discussion of the impact of 4G network technology on the development of Chinese radio and television, and puts forward the corresponding optimization strategy, providing a reference for the development of Chinese radio and television.

## 1. Introduction

In the information age, network technology has developed rapidly. China has entered an era of network technology revolution. Today's 4G network technology has infiltrated people's lives and production. Its development has greatly promoted the development of new media technologies and brought unprecedented opportunities and challenges to Chinese existing audiovisual ecological environment. Faced with the challenge of the new century, how will Chinese radio and television respond? The article starts from the current situation of the development of Chinese radio and television, and discusses the influence of 4G network technology on the development of Chinese radio and television and the countermeasures.

## 2. Characteristics of Chinese Radio and Television Development

Chinese broadcast television is still a medium that has a wide coverage and strong influence in China. Chinese radio and television networks have evolved from wireless to high-tech radio and television combined with wireless, cable, and satellite technologies. Its transmission system and industry scale are all steadily developing. At the same time, with the development of digitalization and networking, Chinese broadcasting and television are also undergoing continuous development, mainly from the following points [1].

Chinese radio and television transmission network is moving in the direction of IP. IP technology has the characteristics of freedom, standard, and flexibility. With the construction of Chinese next-generation radio and television network and the promotion of triple-play convergence, IP will become a necessary trend for cable TV networks. The key link for conversion is the access point. Its essential nature is controllable and controllable. Adapt to home network, easy to manage and so on. In addition, it must also support potential types of radio and television services.

The transmission mode of Chinese radio and television will be changed from single to multiple. The development of network technology has an important impact on the development of Chinese radio and television. The way of broadcasting and television is also facing changes. Cable TV, interactive Internet TV, and Internet TV will become the mainstream of broadcast television in China. According to relevant data, the utilization rate of interactive TV in China is as high as 6.2%, while the use of Internet TV is as high as 18%. It is expected that in the future, the development trend of Chinese Internet TV will surge, and it is expected to become the mainstream of Chinese radio and television. It can be seen that Chinese radio and television are actively meeting the

challenges of information technology and are moving toward a new path.

The traditional media and new media of Chinese radio and television are gradually being merged. One of the important features of Chinese radio and television development is integration. The broadcast channels of traditional radio and television programs are online broadcasts. Today, the number of hits on the Internet is increasing year by year. It can be seen that the expansion of online broadcast channels is conducive to the development of broadcast television. The traditional broadcast media and contemporary broadcast media are strengthening further cooperation in order to adapt to the development of broadcast television. Through its own network broadcasting platform, broadcasting and television stations use auditioned new media to jointly market programs and advertisements, develop new businesses, and integrate TV stations and online networks to jointly develop the road of convergence [2].

### **3. The Impact of 4G Network Technology on the Development of Broadcast Television**

We reduced the number of users of Chinese radio and television. The development of 4G networks has had a huge impact on radio and television. The original radio and television users will choose to watch videos online because of the advancement of network technology. Traditional broadcast and television users will greatly reduce. 4G network technology is more convenient for users to watch videos anytime, anywhere, and users can choose according to their own preferences. In this fast-paced era, 4G networks seem to be more in line with the needs of young people. Faced with the video of their choice, they can decide on their own time, speed, frequency, etc. Therefore, the development advantage of 4G network is very obvious. Moreover, with the further popularization of 4G network technology, the number of online video is increasing, and the audience size of online video is showing a clear trend of expansion. [3] According to related statistics, the number of online video users in China has increased year by year. This trend will grow with the development of 4G network technology. In the foreseeable future, the users of the Internet will continue to increase.

We challenged the status of Chinese radio and television stations. With the continuous expansion of 4G network users, Chinese traditional broadcasting and television status will be affected. The continuous improvement of 4G network technology will increasingly affect people's lives. Every moment does not appear in people's side. In addition, if Chinese radio and television industry wants to continue to develop, it must innovate and use network technology to improve its own development. In addition, the development of 4G networks has seriously hindered the dissemination channels of radio and television information. More and more users choose to download network video software to watch videos, such as downloading Tencent videos, Youku videos, etc. All these have had a huge impact on Chinese radio and television.

We increased difficulty in the supervision of Chinese radio and television. With the advent of 4G network technology, most users use video software to watch videos. The online and offline viewing of the program has become easy. The convergence of other services related to video is also increasing, which has caused the phenomenon of piracy, thus increasing the difficulty of monitoring the program. First of all, because of the development of 4G network technology, the sources of video programs are becoming more and more widespread, and the platforms for broadcasting are various, and the contents of the programs naturally diversify. Websites can be used to create video programs. Users can upload their own home-made programs to more websites. This expands the coverage of the programs and naturally expands the scope of supervision. As a result, the difficulty of supervision has also increased. In addition, the dissemination of information technology is becoming more and more complicated. In the process of dissemination, users are taking more secrecy about the dissemination of video and the format of video transmission is becoming more and more diverse. The video surveillance department has no means to start. As a result, the quality of video has become uneven and the difficulty of supervision has deepened, and lawbreakers will have an opportunity to take advantage of it.

## **4. Chinese Optimization Measures**

### **4.1 Systematic Reform of Radio and Television**

In order to deal with the challenges of 4G network technology, we must first carry out structural reforms for Chinese radio and television. The network technology of our country is constantly reforming. In the future, 4G network technology will be applied more widely. In order to prevent Chinese radio and television from flooding with the times, we must promote the reform of the radio and television system. Specifically, it should be done in such a way as to improve the management level of Chinese radio and television, and use better management methods to manage Chinese radio and television, so that it has a new vitality. Second, we should expand the channels for listing and financing, optimize capital, and adopt certain management of new media. Only in this way can new media and broadcasting and television be managed in a unified manner to facilitate common development. Third, formulate corresponding incentive systems. While establishing the system, we should also introduce advanced radio and television talents to inject momentum into the development of radio and television.

### **4.2 Specification of 4G networks**

To improve Chinese radio and television status, we must first regulate the management of 4G networks. With the development of 4G networks, more video software has emerged, and network audio and video has become the main source of any information for people. In order to avoid the drawbacks of the 4G network and reduce the impact of the network on Chinese radio and television, the 4G network must be standardized. First, we must adopt regulatory technologies that are more in line with the development of the times, raise the level of supervision over the Internet, and promote the effective development of the Internet. Second, improve relevant laws and regulations and formulate corresponding 4G network specifications so that 4G networks operate in strict accordance with the specifications. Third, to expand the coverage of radio and television programs, so that Chinese radio and television programs spread faster in the context of 4G networks.

### **4.3 Planning for the Construction of Chinese Broadcasting Network**

In order to strengthen network construction, we must first speed up the construction of Chinese cable television network. The application of 4G network is more and more extensive. Most users will choose to watch online video on the 4G network platform. Traditional television services will be greatly affected. Therefore, it is imperative to carry out digital network construction for cable television so as to reduce the loss of users. In addition, we must accelerate the intensive operation of radio and television. Give full play to the main role of China Radio and Television Network Company in the market, and actively integrate the three networks to promote business development. In the 4G network era, it is very necessary to organize and mine user information. Therefore, China must quickly build a data processing center and a computing center for radio and television, develop personalized media services, and improve service levels. Accelerate the construction of Chinese radio and television network.

## **5. Conclusion**

In short, the continuous development of Chinese information technology has also put forward new requirements for radio and television. In order to meet the requirements of the times and television users, Chinese radio and television must be reformed. Make full use of the advantages of 4G network, enhance its own development value and innovate its own development philosophy. Let Chinese radio and television conform to the trend of the times and meet the needs of users, based on providing users with better services. Based on the characteristics of Chinese radio and television development, the article discusses the challenges of Chinese radio and television development, optimizes development strategies, and promotes the development of Chinese radio and television.

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