# Study on the Promotion Effect of 5G Technology on the Construction of China's Grassroots Media Center

Lei Xi a, Zaining Wang b,\*

School of Journalism and Communication, China West Normal University, Nanchong, 637009 Sichuan, China

<sup>a</sup>227468855@gg.com, <sup>b</sup>58993597@gg.com

\*Corresponding author

**Keywords:** 5G Technology, Media Center, Promotion.

**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. This article is based on the strategic position of public opinion at the county level media center and the core application of 5G technology and proposes to solve the problems faced by the construction of the county level media center in China. First, make a retrospective summary of the development of 5G technology, media integration, and research status, and secondly, raise questions from the national strategic status of county media integration. Point out the problems existing in the construction of grassroots public opinion positions in China. Thirdly, in combination with the promotion and popularization of 5G technology, seeking means and methods to solve problems, put forward a series of solutions to solve problems, and provide reference suggestions for the construction of grassroots public opinion positions in China. This article first summarizes the theoretical definition, development status, and research trends of 5G information technology and fusion media. It particularly emphasizes that when the development of current media in China reaches the current stage, it is characterized by the localization and regionalization of fusion media stage.

## 1. Research background and concept definition

### 1.1 Concept of media integration

Broadly conceptually, the Rongmedia Center uses a new type of work pattern to integrate the processes of collecting, collecting, planning, editing, reviewing, and distributing audio and video and manuscripts to form a diverse work system. Rong Media Center is a multi-functional complex integrating "news promotion, resource sharing, government affairs information, convenience services, and public opinion guidance". It has the functions of news publicity and comprehensive information service.

In a narrow sense, financial media is a "compromise" of many official media since the media became popular. In the past in the traditional media era, ordinary people were very passive in watching news. Major newspapers, television stations, and portals have authoritative information. Once upon a time, they all developed their own apps, but it was inconvenient to log in to the news client of traditional media to watch the news.

## 1.2 Features of 5G technology

5G network is the fifth generation digital cellular network, that is, the fifth generation network in the development of mobile communication network. Compared with the previous fourth-generation network (4G), the peak transmission speed of the 5G network reaches 1GB every 8 seconds, which is hundreds of times the transmission speed of 4G. High speed is one of the biggest characteristics of 5G. Compared with 4G networks, 5G networks are faster. 5G also has the characteristics of a strong

network link, which refers to the wide coverage of various extreme areas outside the social life area. For example, high mountain valleys and dangerous operation areas can use 5G technology to deploy networks to carry out tasks such as environmental monitoring, landform change, and earthquake monitoring. 5g also has the feature of deep coverage, which means that 5g can be used in social life areas where network coverage needs to be strengthened. For example, tourist service scenic spots and underground garages can be fully covered by 5G networks. To support large-scale IoT applications, ultra-low-power networks are required. The 5G network minimizes power consumption and allows IoT products to be charged once a week or even once a month, so that the user experience is greatly improved.

# 1.3 Current status of 5G development in China

In June 2019, the Ministry of Industry and Information Technology officially issued 5G commercial licenses to China Telecom, China Mobile, China Unicom, and China Radio and Television. 2019 is therefore called the "first year of 5G". With the support of network operators, various industries and fields have initiated various forms of 5G practical exploration.

In early 2020, an epidemic changed the lives of people across the country and the world. This is the widespread spread of the new coronavirus pneumonia (COVID-19) worldwide. It has caused us to change a lot of common lifestyles. Internet TV and online teaching are also on the agenda during this critical period. At 9pm on February 2, 2020, Hubei Radio and TV Station and the nation's 38 mainstream media established more than 40 ports of the national epidemic epidemic report alliance, through the 5G signal provided by China Radio and Television to broadcast the entire Hubei province's anti-epidemic Press conference. This marks the 700 MHz +4.9 GHz mode of radio and television 5G technology at the forefront of the fight against the epidemic to achieve the world's first practical application. This is also the first time that a live broadcast conference has been held through broadcast and television 5G technology. The broadcast and television 5G technology in 700 MHz+4.9 GHz mode will show the propaganda function of fighting the epidemic at the forefront in practical applications.

With the advent of 5G networks, current people have entered the era of intelligence. In addition to computers, mobile phones and other Internet devices using the Internet, more and more public facilities such as cars, smart home appliances, wearable watches, fitness wristbands and street lights have become smart devices through 5G interconnectivity.

# 2. Network construction of China's grassroots media center

# 2.1 Grassroots network construction has a national strategic position

From August 21 to 22, 2018, President Xi Jinping made important instructions on the topic of media integration and development at the National Propaganda and Ideological Work Conference, proposing that "we must grasp the construction of grassroots media centers to better guide the masses and serve "The masses". This important instruction raised the construction of grassroots media center into a national strategy, highlighting the important position of grassroots network construction in the overall work of the party and the state. Media integration development is the core issue of current mainstream media transformation in China.

The advantages of traditional media are content and channel advantages. However, in the new media era, various forms of new media applications have emerged in an endless stream, which has greatly seized the attention resources of the audience, and to a certain extent has impacted the responsibility of traditional media to guide public opinion. In this context, media integration has been put on the agenda as an important national strategy. The grassroots media center "not only contains media significance, but also has deep social and political significance.

With the advent of the era of high-speed mobile Internet, the in-depth advancement of 5G networks and the popularization and application of 5G products and technologies, the construction of Rong Media Center is bound to face more intense market competition. Facing a new round of technological innovation, the live broadcast, data transmission and processing of the Rong Media

Center will gain more advanced technical support. 5G network technology will bring unprecedented opportunities for transformation and development for the construction of Rong Media Center.

# 2.2 The role of grassroots public opinion position in the construction of grassroots media center

The construction of a grassroots media center is a new initiative to get through the "last mile" of mainstream information dissemination. The constant promotion of grassroots media construction indicates that the development of China's media industry will enter a new field. From technology integration to governance integration, the influence of mainstream public opinion has begun to expand to grassroots governance. This work has created a huge business development space for mainstream news media at the level of technology platform construction and content production, providing conditions for active attention and in-depth intervention. The mainstream news media, through the "central kitchen" —a full media management and command system that has been fully constructed in recent years, relying on the advantages of technical support and editing and editing business to create an integrated system of strategy, acquisition, editing, review, development, storage and evaluation The integrated media system achieves business demonstration, resource integration and technology leadership.

# 3. 5G network technology promotes grassroots network construction

# 3.1 Practical application of 5G technology

5G technology has brought huge prospects for the development of Rong Media Center, and it has also brought about more severe challenges. Faced with new impacts and challenges, radio and television media should actively use 5G network technology to promote the construction of the fusion media center. Big data, cloud computing, artificial intelligence and other new technologies are effectively used in the production and operation of the media center. Making full use of the "two micro-ends" to broaden interactive channels and expand the scale of users will help to improve product production efficiency and thus improve profit-generating media integration. The first is the integration of technology. The integration of technology is the foundation and support. For a long time, who has mastered and applied new technologies and overcome technical barriers is equivalent to seizing the opportunity to build a media center. The key to the integrated development of radio and television media lies in technology. The key to promoting the construction and transformation of the media center is new technologies and hardware facilities.

# 3.2 Create content products suitable for the 5G era

The focus of media integration is content innovation. First, the broadcast media must change their concepts, establish user service thinking, and focus on operating services. The research and development of radio and television media based on 5G broadcast hybrid radio and television services, including program live broadcast, featured on-demand, featured advertisements, social media content, self-media content, etc. The second is to give full play to the professional advantages in the production of content products, and actively grasp the proactive application of 5G network technology. Methods include the development of 5G+VR/AR news, 5G+VR/AR shopping, 5G+VR/AR games and other applications. At the same time, the use of 5G technology to actively build "Broadcasting+Internet of Things", "Broadcasting+Artificial Intelligence", "Broadcasting+Internet of Vehicles" and other ecosystems, and strive to integrate the media center into a leader in the audio and video production industry, improve the spread of media broadcasting Power, influence, credibility. In 2019, CCTV took the lead in applying the "4K+5G+AI" intelligent media layout, and Pirate Technology "5G+8K+VR" and other scientific and technological achievements, providing a leading sample of how to integrate media content.

Interactive news is also known as experiential news. The production method is completely different from traditional news. What the media has to do is to "take" the audience to the news site, rather than "return" the news to the audience through interviews and reports. This means that the technical methods, propaganda thinking, expression methods, and post-production of traditional

news reports must be transformed and even reconstructed according to changes in technical requirements and audience needs. This is a big challenge for traditional news media.

In terms of applications, ultra-high-definition news images mean clearer details, richer colors, and smoother dynamic effects, which will bring a "perfect" and "pore-level" viewing experience, giving people an unprecedented transparency. Sense and presence. In the 5G era, "immersive" will no longer be a "metaphor". The low latency of the 5G network solves the problem that human-computer interaction cannot be completely synchronized in the past. Through the technology combination of "5G+4K+VR/AR", people can not only see infinite details from the news scene, but also choose which pictures to watch independently, and even interact with people or things on the scene. Experiential news not only allows the audience to "see" the news, but also makes people "feel".

# 4. Opportunities faced by grassroots network construction

With the development of the Internet, users of the mobile Internet are increasing day by day, and there are more and more platforms for the public to receive information. Traditional media such as radio and television also urgently need new means of communication in the new era of information explosion. In the future, China Radio and Television Network Co., Ltd., which is State Grid, may have its own number segment, but the network operation ideas of radio and television are different from those of the three major telecom operators. The 5G network of radio and television will be a high starting point and high technology 5G network that brings together modern communication and Internet of Things services. The purpose is to enable users to experience the smart broadcast services represented by ultra high-definition TV, and even the social smart city services. 4K, 8K and other ultra-high-definition video services and other fields are all striving to enable users to watch TV and listen to radio "anytime, anywhere".

Media integration is the general direction of the development of traditional media in recent years. The integration of radio, television and the Internet has enriched the traditional broadcasting industry's communication patterns. From the perspective of the entire media form that has been transformed, the combination of 5G and the radio and television industry will rejuvenate the broadcast and television network.

The rise of the mobile Internet in the new era and the popularity of smart phones have made mobile terminals the primary means of obtaining online information. Grassroots media organizations must keep pace with the times and build integration. Disseminate mainstream voices to enhance the credibility, communication and influence of grassroots media. New media should fully mobilize the enthusiasm expressed by the grassroots in cyberspace, increase their enthusiasm for participating in social activities, and enhance the cohesion of the people. In the Internet era, the role of mainstream media in guiding public opinion is strengthened, and fresh news is sorted out in the online content of false news and vulgar information. Therefore, the construction of grassroots media is imperative.

#### References

- [1] Han Cheng / Han Yue. Research on the ecological evolution of audiovisual communication under the prospect of 5G. [J]. Contemporary TV. 2020-2-1.
- [2] Song Fengjiao. The transformative impact of 5G technology on news communication. [J]. Media Forum / Mingde College of Northwestern Polytechnical University. 2020-1-25.
- [3] Li Limin. Research on the transformation and upgrading of radio and television transmission technology in the 5G era. [J]. Communication World / Shanxi Radio and Television Wireless Management Center 428.
- [4] Will 5G save the film and television industry. [J]. Shanghai Radio and Television Research. 2019-07-15.