

Content Ecological Construction and Development Strategies for Live Broadcasts For Persons with Disabilities

Beibei Wang

School of Marxism, East China Jiaotong University, Nanchang 330000, China

Abstract

The focus is on the unique and promising field of live broadcast for people with disabilities. With multi-level and in-depth literature research as a solid support, we conduct a comprehensive and systematic in-depth analysis of the key elements of its content ecological construction. In view of the many complex challenges faced in the development process, the development strategy with clear targeting and high practical feasibility is given. It aims to lay a solid theoretical foundation for the steady, sustainable and benign development of the live broadcast industry for persons with disabilities, provide practical and effective methods and strategies with practical guiding significance, and vigorously promote its more important value in the broad field of socio-economic and cultural exchanges, and promote the comprehensive progress and harmonious development of society.

Keywords

Live broadcast for people with disabilities; content ecology; development strategy.

1. Introduction

With the continuous development of Internet technology and the vigorous rise of the live broadcast industry, live broadcast for people with disabilities has gradually formed an emerging form. As a socially disadvantaged group, people with disabilities often become vulnerable due to physical or psychological defects in many aspects, and often due to the influence of discrimination and prejudice from the public and so on. Through a series of case studies, scholars affirmed the positive impact of the digital economy on the live employment of persons with disabilities, and believed that the Internet platform can break through the limitations of the physical condition of persons with disabilities, and enable persons with disabilities to regain their ability to work through technological empowerment. However, the information change speed of the live broadcast industry is fast, and the traditional live broadcast knowledge and forms are difficult to meet the market demand, and it is easy to be eliminated by the market. In addition, the industry is highly competitive, and in addition to the disabled, more healthy people are also competing on the same live broadcast industry platform, and it is difficult to achieve the sustainable development of the disabled live broadcast with their own ability and knowledge reserves. [1]

2. Analysis of the Current Situation of Live Streaming for Persons with Disabilities

Judging from the research content of the live broadcast of the disabled by some scholars, the first is the analysis of the increase in employment opportunities brought by the platform to the disabled. Live streaming provides a new way for people with disabilities to find employment, breaks down the physical barriers of traditional employment, and provides them with a platform to show themselves and achieve economic independence. By providing flexible working hours and space, the barriers to employment for people with disabilities have been

lowered. Secondly, the skill improvement and self-empowerment brought by live broadcast to people with disabilities were analyzed. Through participating in live broadcasts, people with disabilities can learn marketing skills such as communicating with others and introducing products, which can not only improve their employability, but also enhance their sense of self-worth and self-confidence. In addition, the scholars analyzed how to provide online education and training opportunities to promote career development and empowerment of persons with disabilities. Thirdly, in terms of technology and barrier-free environment, existing studies focus on the application of barrier-free technology in live streaming for persons with disabilities, and discuss how to effectively use big data to provide personalized service content for persons with disabilities. Finally, social support and policy environment, existing studies have emphasized the importance of policy support and social environment for live streaming of persons with disabilities, and how to build an ecosystem to support the live streaming employment of persons with disabilities through community support and industry cooperation. At the same time, the existing research also puts forward some challenges faced by people with disabilities in live broadcasting, such as technical thresholds, social cognitive biases, lack of professional training and guidance, etc., and explores corresponding solutions, such as establishing a more complete training system, strengthening social publicity and education, and providing more resources and support.[2][3]

2.1. Participation Scale and Platform Distribution

Between 2020 and 2023, the number of rural people with disabilities participating in Kuaishou live streaming has climbed significantly from 50,000 to 150,000, with an astonishing annual growth rate of 36.8% (as shown in Table 1). Behind this gratifying growth trend, the key lies in the expansion space provided by the network platform and the convenient and efficient conditions support. However, there are still differences in the level of participation between different regions and various platforms, which also clearly reflects the concrete manifestation and practical embodiment of the digital divide in the specific category of live broadcast for people with disabilities. Different platforms have different user portraits and functional characteristics, which also prompts disabled anchors to be accurately positioned to adapt to the characteristics of the platform and achieve better communication effects. [4][5][6]

Table 1. Changes in the number of rural disabled people participating in Kuaishou live streaming from 2020 to 2023

year	Number of people with disabilities in rural areas participating in Kuaishou live broadcast (10,000 people)
2020	5
2021	8
2022	12
2023	15

Further analysis of the geographical distribution of live streaming platforms for people with disabilities (as shown in Figure 2) shows that 45% of the population is in the eastern region, 25% in the central region, 20% in the western region, and 10% in the northeast region. With its well-developed network infrastructure and abundant resources, the eastern region has attracted more people with disabilities to participate in live broadcasting, while the western region has relatively low participation due to factors such as network coverage and economic development, which intuitively reflects the geographical differences in the digital divide.[7][8]

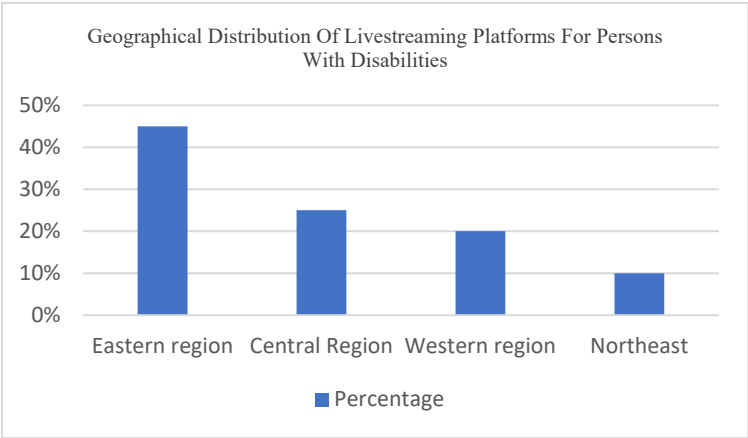


Figure 2. Proportion of live streaming platforms for persons with disabilities

2.2. Content type and audience feedback

At present, the live broadcast content for persons with disabilities mainly includes life records, accounting for about 40%, talent shows, accounting for about 30%, and skill transfer, accounting for about 30%. (as shown in Figure 3).

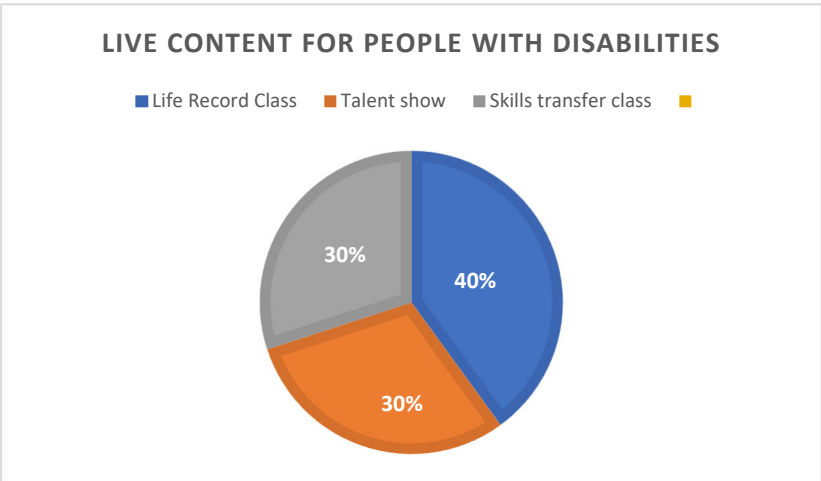


Figure 3. Proportion of live broadcast content types for persons with disabilities

The average monthly income of different types of live broadcast content for people with disabilities (as shown in Table 4) was 3,000 yuan, 4,000 yuan for talent shows, and 6,000 yuan for skill transfer. Due to its practicality and professionalism, the skills transfer category performs relatively well in commercial monetization, while the commercial value of life record and talent show needs to be further explored, which also provides a direction for the follow-up discussion of content innovation and business cooperation strategies.

Table 4. Comparison of the average monthly income of different types of live broadcast content for persons with disabilities

The type of live content	Average Monthly Income (RMB)
Life Record Class	3000
Talent show	4000
Skills transfer class	6000

3. Key Elements in The Construction of A Live Broadcast Content Ecosystem for Persons with Disabilities

3.1. Content Production

Content production is the fundamental foundation for building a content ecosystem. The critical importance of content quality was highlighted. For live broadcasts for persons with disabilities, the actual physical conditions of persons with disabilities and their unique expertise must be fully considered in the content production process. The formula for setting the quality of content production is: $Q = f(S, T, E)$, in this formula, Q stands for the quality of the content, and S refers to the skill level of the disabled anchor, which includes the professional ability of the anchor in the field he is good at, which can be the skills of handicraft production and artistic performance; T refers to the attractiveness of the content theme, and those themes that are unique and novel, close to life, and have social value are often more likely to attract the attention of the audience; E indicates the quality of the production equipment and environment, high-definition and stable shooting equipment, and a good and comfortable live broadcast environment can greatly improve the presentation effect of the content. [9]

Only when these three elements are well balanced and effective can high-quality live content be produced. For example, if a disabled anchor who excels in the field of painting and is good at painting can use advanced and high-end drawing equipment to carry out live broadcast activities with unique and novel painting teaching themes in a quiet, bright and good atmosphere environment, it can attract the attention of a large number of painting enthusiasts. In the whole process of content production, disabled anchors should also attach great importance to the interaction with the audience, and effectively expand the dissemination of content through the mode of social fission, so that more people can access and understand the live content they create.

3.2. Communication channels

Communication channels are a key element of content reaching audiences. By using the new media matrix to carry out communication, the coverage of information dissemination can be effectively expanded, and the actual effect of communication can be significantly enhanced. For live broadcasts for persons with disabilities, in addition to relying on mainstream live broadcast platforms, we should actively and vigorously expand social media, public welfare websites and other communication channels. In terms of social media, we will make full and effective use of the topic popularity of Weibo, the in-depth content push function of the WeChat official account, and the short video drainage role of Douyin to widely disseminate the preview information and wonderful clip content of the live broadcast; Public welfare websites can accurately push the relevant information of live broadcasts for people with disabilities for specific public welfare groups and followers, and build a diversified communication matrix to attract more different types of audiences and meet the habits and needs of different audiences to obtain information. At the same time, it is necessary to pay close attention to the use of accessible technologies in communication channels, and to ensure that persons with disabilities have equal and unhindered access to all types of communication platforms, so that they can access and disseminate information smoothly and without hindrance, and achieve effective communication and interaction.

3.3. Audience interaction

Good audience engagement is a key indicator of an active content ecosystem. We were able to dramatically increase audience engagement by curating our interactions. The formula for setting the interactive effect is: $I = f(P, R, F)$, wherein, I represents the interactive effect, P represents the fun degree of the interactive link, those novel and interesting interactive links

can often instantly stimulate the enthusiasm of the audience, combined with the creative Q&A set of live broadcast content, and the lottery around the limited edition; R said that the anchor responds quickly to the audience's feedback, and can quickly reply to the audience's comments and private messages, which will make the audience deeply feel that they are valued; F indicates the active status of the fan group, and the active fan group will actively participate in the interaction and spontaneously carry out word-of-mouth communication. In the context of continuous upgrading of content consumption, good interaction can effectively enhance user stickiness and promote the content ecology to enter a virtuous circle.

4. Challenges Faced By Live Streaming for Persons with Disabilities

The challenges faced by live streaming for persons with disabilities are mainly focused on the access to and utilization of technical, economic, human, social network and psychological resources. In the field of live streaming for persons with disabilities, the theory of resource mobilization focuses on how individuals or organizations acquire and use resources in social movements to achieve goals, and in the field of live streaming for persons with disabilities, the theory emphasizes the key role of access to and effective use of resources for persons with disabilities to achieve sustainable employment, including access to technical resources, economic resource constraints, shortage of professional human resources, limitations of social network resources, and challenges of psychological resources.

In terms of access to technical resources, live streaming relies on Internet technology, including live streaming platforms, network equipment, assistive technology, etc., and live streaming for persons with disabilities faces barriers to access to technical resources, including appropriate assistive technologies and equipment, such as live streaming assistance software designed for vision or hearing impairments, and unstable network connections, which directly affect the ability and efficiency of persons with disabilities to participate in live broadcasting. In terms of economic resource constraints, for people with disabilities, entrepreneurial capital and operating costs are crucial for their sustainable development, and difficulties in obtaining funds will limit their business expansion. In terms of human resources, people with disabilities lack the skills training required for live broadcasting, lack of team support and guidance from industry mentors, and the shortage of essential skills limits the efficiency and effectiveness of live streaming for people with disabilities. In terms of social network resources, social network resources are critical to the success of live streaming, including fan groups, industry connections, etc., and people with disabilities face challenges in building and maintaining social networks, such as lack of effective social skills or social barriers caused by social bias, which affect the number of viewers and product sales of live broadcasts. Finally, there is the challenge of psychological resources, the high-pressure environment of live broadcast and audience feedback may have an impact on the psychology of people with disabilities, and the lack of psychological support and coping strategies will affect their motivation and ability to continue employment.

At present, the market lacks a complete live broadcast industry chain for the disabled. In terms of the cultivation of professional human resources, there is a disconnect between the live broadcast knowledge and technical training courses provided by the government for persons with disabilities and the practical operation of persons with disabilities, and after the persons with disabilities conduct live broadcast training, most of them are often unable to achieve long-term stable employment by virtue of their individual ability due to lack of technical resources, social network resources, or restrictions on economic resources, and it is difficult to apply for professional live broadcast positions due to social prejudice, and there is a lack of professional live broadcast platforms for persons with disabilities to practice so as to help people with disabilities find employment. Problems such as the insufficient use of government-funded

disability assistance funds by the disabled, the incomplete industrial chain of disability assistance in the market, the lack of connectivity of disability assistance resources among all parties, and the low trust and attention of consumers all affect the stable employment of disabled people through e-commerce.

5. Development Strategies for Live Streaming for Persons with Disabilities

Human resource problems such as insufficient knowledge and ability of live broadcast for persons with disabilities in the process of live broadcast can be assisted by technology. For people with disabilities, the learning and application of professional live broadcast knowledge and technology requires a long process, and on the basis of the construction of the live broadcast base for the disabled, the application of barrier-free technology can be widely promoted, AI assistance for the disabled can be promoted, and technology empowerment for disabled anchors can be carried out. First of all, the application of AI digital humans. AI technology can be used to collect data information on the voice and appearance characteristics of disabled people, and simulate digital human fabrication to create a digital human anchor that can cooperate with the live broadcast of the disabled, and use artificial intelligence technology to cooperate with the live anchor to provide intelligent Q&A, product recommendation, interactive games and other functions, improve the interactivity of the live broadcast, and at the same time relieve the live broadcast pressure of the disabled anchor and increase the interest of the live broadcast room. Second, the application of accessible technologies.

At present, there are disabled people who have tried to use live broadcast all-in-one machines, and with the assistance of live broadcast all-in-one machines, some technical problems in live broadcast for people with disabilities can be easily solved. In addition, the use of technologies such as speech recognition, screen readers, and automatic subtitle generation can also help people with disabilities participate in live events more easily. Finally, distance education and training. Combined with the analysis of public feedback from big data and the collection of user behavior data, we can help the main broadcaster of persons with disabilities to conduct course training and learning in a timely manner to help them grasp the changing trend of market changes and consumer preferences, and help disabled people to carry out training courses in a timely manner according to market changes at any time, help them master live broadcast skills and related knowledge, and improve the ability of anchors to participate in live broadcasts.

The key to technological empowerment lies in understanding the specific needs of disabled anchors and providing personalized and adaptable technical solutions, which not only requires technological innovation and application, but also involves the barrier-free design of live broadcast platforms, the popularization and training of assistive technology, and the support of policies and laws. For example, for the visually impaired, screen readers and speech synthesis software, high-contrast and large-font interfaces can be provided to help them understand the live broadcast interface and functions through voice, and adjustable interface settings can facilitate their operation of live broadcast equipment and software; For the hearing impaired, real-time subtitles, speech-to-text services and vibration feedback devices can be provided to help anchors receive interactive prompts in live broadcasts through vibration reminders. For people with mobility disabilities, they can be provided with a barrier-free live broadcast environment, voice control and eye tracking technology, and operate live broadcast equipment through voice recognition and eye tracking technology, reducing their dependence on limbs and enabling them to broadcast live independently. Through the empowerment of technology, the participation and market competitiveness of persons with disabilities in e-commerce live streaming can be significantly improved, and their social integration and economic independence can be promoted.

6. Conclusions

As an emerging field, live streaming for people with disabilities has great potential for development. By building a sound content ecosystem and adopting effective development strategies, we can overcome the current challenges, achieve the healthy and sustainable development of the live broadcast industry for people with disabilities, provide more development opportunities for people with disabilities, and create more value for society. In the future, with the continuous progress of technology and the support of society, live broadcast for people with disabilities is expected to make greater breakthroughs in content innovation and commercial monetization. In this process, continuing to pay attention to the development direction will provide a steady stream of impetus for the development of the live broadcast industry for people with disabilities.

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