

Post-net Era: Research on the Streaming Media Communication and User Experience Optimization of Movies

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ABSTRACT

Based on the post-net era, this paper discusses the streaming media communication and user experience optimization of movies. Firstly, the paper analyzes the concept of streaming media communication. Secondly, it discusses the main communication modes of movie streaming media in the post-net era. And finally, it puts forward specific strategies on how to promote the streaming media communication and user experience optimization of movies, which respectively are insisting on content being king and building a high-quality movie library, paying attention to technical innovation and improving the playback quality and fluency, as well as implementing personalized recommendations and enhancing user stickiness.

KEYWORDS

post-net era; movies; streaming media; communication; user experience; optimization

In the 21st century, with the rapid development and wide application of Internet technology, the movie industry has entered the post-net era. In this era, the communication of movies has undergone major changes, and streaming platforms have become the main channels for people to obtain and watch movies, which has not only changed the distribution model of movies, but also put forward higher requirements for user experience.

1 Overview of Streaming Media Communication

Streaming media refers to the technology of transmitting and playing audio and video data in real time, which enables users to start watching or listening without waiting for the file to download. The core of streaming media communication lies in real-time transmission and playback. When the user requests to play a piece of streaming media content, the server will send the data to the client in the form of a stream one by one, and the client will decode and play it synchronously^[1].

2 Streaming Media Communication Modes of Movies in the Post-Net Era

2.1 Online Video Platform

With the development of Internet technology, a number of online video platforms, including

internationally renowned platforms such as Netflix and Amazon Prime Video, as well as Chinese platforms such as Youku, Tencent Video and iQiyi, have risen rapidly and become one of the important channels for movie streaming media communication in the post-net era. It has a great impact on the traditional way of film distribution. These platforms not only provide a large amount of movie and television content, but also provide users with more accurate content recommendation through personalized recommendation algorithms, which greatly improves the user experience. In addition, the competition among platforms has promoted the improvement of content quality and the optimization of services, and a series of features such as high-definition display, ad-free viewing, and multi-terminal synchronization have been launched to meet the needs of different users.

2.2 Social Media

Social media plays an important role in streaming media communication of movies in the post-net era. Weibo, Wechat, Tiktok and other platforms are not only important channels for users to obtain information, but also important positions for movie publicity and promotion^[2]. Before the movie is released, the producer will release trailers, posters, behind-the-scenes look and other contents through social media to attract fans' attention and form discussion topics, thus increasing the popularity and influence of the movie. At the same time, the high interactivity of social media has brought new opportunities for movie marketing. Users can participate in the discussion of movies through comments, sharing and other ways to form the word-of-mouth effect and have a positive impact on the box office of movies. In the process of social media helping movie transmission, key opinion leaders (KOL) and Internet celebrities on social media are important forces for movie promotion, and their recommendations can often quickly attract the attention of a large number of fans and promote the rapid spread of films.

2.3 Mobile Terminal Device

The popularity of mobile terminal devices has greatly changed the viewing habits of users. Smart phones, tablet computes and other devices are not only portable, but also powerful in functionality, which can support the high-definition video playback, and enable users to watch movies anytime and anywhere. According to statistics, mobile devices have become one of the main ways for users to watch movies, and especially in the young group, the group of mobile viewing is significantly larger than other groups. The diversification of mobile terminal devices also provides more distribution channels for movie streaming platforms. In addition to traditional applications, many platforms have also developed small programs, web versions and other forms to facilitate users to use them in different scenarios. Nowadays, with the application and popularization of 5G, the network transmission speed has been significantly improved, which solves the lagging problem that may be encountered during mobile viewing, and makes the video loading speed faster and the picture quality clearer.

3 Strategies to Promote the Streaming Media Communication and User Experience Optimization of Movies in the Post-Net Era

3.1 Adhere to the Principle of "Content is king", Create a High-quality Movie Library

As an important part of the entertainment industry, streaming platforms are faced with multiple tests such as the diversification of user needs and the fierce competition environment. In order to

stand out in the fierce market competition and provide a better viewing experience, the platforms should adhere to the development strategy of “content is king” and attract and retain users by creating a high-quality movie library.

The first is to introduce diversified content. With the increasing diversity of audience tastes, a single type or style of content is no longer enough to satisfy everyone’s needs. Therefore, streaming platforms must strive to expand content sources. First of all, movie streaming platforms should actively introduce different types of domestic movies, such as action, comedy, drama, science fiction, etc., to meet the needs of different users and improve user satisfaction and stickiness. Secondly, these platforms should actively introduce international movies, and especially classic and new movies from North America, Europe, Asia and other places, which can not only broaden the range of users’ choices, but also promote the cultural exchange and integration. Finally, they should focus on the subculture. For some niche but uniquely charming cultural contents, such as art movies, documentaries, etc., the platforms should give sufficient attention and support. Although these contents has limited audience, but often they can attract a group of loyal fans, and form a unique community atmosphere.

The second is to strengthen the original movie production. Original content is an important part of the core competitiveness of streaming platforms, and investing in high-quality original movies can attract more users to subscribe, and improve the platform’s brand image and loyalty. First, the platforms should increase investment in original content, and support and encourage excellent directors, screenwriters and actors to create more high-quality original movies. Secondly, the platforms should relax the restrictions on employing people, and discover and cultivate potential new directors and works by holding movie festivals and competitions, so as to inject new vitality and creativity into their film production. Finally, the platforms should establish a cooperation mechanism. Streaming platforms can establish long-term and stable cooperative relations with movie and television production companies, professional producers, etc., to jointly develop high-quality original content.

3.2 Pay Attention to Technical Innovation, Improve the Playback Quality and Fluency

With the popularity of smart phones and tablet computers, people are no longer limited to the traditional movie-watching experience in cinemas, but are turning to more flexible and convenient movie streaming platforms. However, while enjoying this convenience, users have put forward higher requirements for video quality and fluency. Therefore, movie streaming service providers must constantly explore and apply new technological means to improve playback quality and viewing experience.

The first is to introduce the intelligent coding technology. Intelligent coding technology is a method to optimize coding efficiency by analyzing video content^[3]. Traditional coding methods often use fixed parameters to compress the whole video, but intelligent coding can identify the static scene or complex action scene in the video, and adjust the compression parameters according to different scenes. By introducing this technology, movie streaming service providers can significantly reduce the file size and reduce the bandwidth required for transmission on the premise of ensuring video image quality, so as to improve the loading speed and playback fluency of videos. It is conducive to improving user viewing experience.

The second is to apply adaptive streaming technology. Adaptive streaming technology allows the bitrate and resolution of the video stream to be automatically adjusted according to the user’s real-time network condition. The core of adaptive streaming technology is to monitor the user’s network connection speed in real time and select the video version that is most suitable for the current network environment accordingly. It means that even in the case of poor network

conditions, users can watch movies smoothly, which is conducive for users to obtaining a high-quality viewing experience.

The third is to use the content delivery network (CDN). CDN is a distributed server system designed to deliver content quickly and efficiently to users worldwide^[4].

In the movie streaming industry, the role of CDN is particularly critical, and this technology can significantly reduce the time and distance of data transmission and improve the loading speed by deploying a large number of edge nodes around the world to cache video content to the server closest to the user.

In addition, CDN can also effectively deal with the high concurrent access. When a large number of users watch the same video online at the same time, CDN can use the load balancing mechanism to distribute requests to different nodes, avoid the overload of a single server, and ensure that every user can watch a smooth and clear video.

3.3 Implement Personalized Recommendations, Enhance User Stickiness

In order to promote more targeted streaming media communication of movies and effectively meet the movie-watching needs of different types of users, the platforms should introduce emerging technologies to implement personalized recommendations, enhance user stickiness, and effectively improve user engagement and satisfaction.

The first is to implement big data analysis. As the cornerstone of personalized recommendation system, big data analysis can help streaming platforms collect and process massive user behavior data. The platforms can accurately depict the interest graph of each user through in-depth mining of the user's browsing history, viewing habits, residence time, search keywords and other information. In addition, the platforms can use data visualization tools and technologies to gain insight into the changing trend of overall user behavior patterns from a macro perspective, so that the content strategies and service modes can be adjusted in time, and the platform content can be rich and attractive.

The second is to introduce the interactive feedback mechanism. Although relying solely on algorithmic push can effectively improve the initial conversion rate, to maintain a high level of user satisfaction in the long term, it is necessary to introduce a more flexible interactive feedback mechanism. Therefore, the platforms should not only pay attention to static data indicators, but also pay attention to the active expression of users. For example, the platforms can set up a rating system for users to rate the movies they have watched, or launch bullet screen reviews to encourage viewers to share their experiences. Alternatively, they can regularly hold online viewing activities or live interviews with well-known directors/actors to stimulate the enthusiasm of discussion among the audience, thus forming a dynamic virtual community atmosphere and further enhancing the user experience.

4 Conclusion

In the post-net era, the wide dissemination of movies through streaming platforms has become an irreversible trend. In the face of this change, on the one hand, movie producers need to make full use of the advantages of modern information technology to constantly optimize the content distribution mechanism and service model, and enhance user satisfaction and loyalty. Movie producers should pay attention to potential issues such as copyright protection and data security brought about by technological development to ensure the healthy and sustainable development of the industry.

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