

Live and Personalized: AI recommendation algorithms to find the hidden gems of streaming

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1. Abstract

In the rapidly evolving landscape of digital entertainment, live-streaming platforms have emerged as a cornerstone of interactive media consumption. These platforms present unique challenges for content recommendation due to the dynamic nature of live content, the diversity of user preferences, and the temporal variability of live streams. This research paper introduces an innovative recommendation system designed specifically for live streaming platforms, focusing on personalized content delivery and adaptability to the fluid nature of live streams.

Our research paper aims to understand how AI systems can leverage real-time analytics, viewer interaction data, and advanced machine learning algorithms to generate personalized content recommendations. The algorithm will be able to map each user's profile with their preferences serving highly personalized content. Additionally, our objective includes adapting our system to support streamers involved in lengthy streaming sessions by implementing an adaptive mechanism. This mechanism will detect shifts in live stream content, a key feature for streamers who regularly change their content focus or partake in extended streaming. It ensures that the recommendations stay relevant and captivating over time.

The core of our approach lies in a hybrid recommendation model that combines collaborative filtering, content-based filtering, and temporal dynamics analysis. This model is capable of processing complex viewer data and streaming content changes in real-time, offering recommendations that are not only personalized but also contextually aware. The system will be tested through a series of experiments conducted on real-world data from a prominent live-streaming platform.

Our research contributes to the field of recommender systems by addressing the specific challenges presented by live-streaming content. The proposed system not only enhances the user experience by delivering more relevant and timely content but also supports streamers by promoting their dynamically changing content to a broader, more interested audience. This paper paves the way for future advancements in live-streaming recommendation systems, highlighting the importance of adaptability and personalization in the age of interactive online entertainment.

In conclusion, our research demonstrates the effectiveness of AI-driven algorithms in delivering personalized content recommendations by leveraging real-time analytics and user interactions. This methodology represents a considerable advancement in nurturing a dynamic digital ecosystem that not only empowers content creators but also significantly enhances the user experience.

2. Justification with Atmanirbhar Bharat

Research in AI recommendation systems will help India's leadership in live content creation platforms. In addition, it would support the nation's artists, and we can strengthen the digital ecosystem by utilizing this independent technology.