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Analysis of Streaming Platforms and Recommendations

[Laura Valentina Cubillos Acero], [Ivan Felipe Prado Blanco]
Faculty of Engineering
lvcubillosa@udistrital.edu.co, ifpradob@udistrital.edu.co

Introduction

Streaming platforms like Netflix and Disney+ manage multiple interrelated components, such as servers, recommendation algorithms, and content distribution networks. This work analyzes how they optimize user experience, facing challenges of scalability, content personalization, and increasing competition.

Objective

Research Question: How can streaming platforms improve content recommendations to increase user satisfaction?
Expected Outcome: An interactive chatbot that offers personalized movie recommendations, tailored to the user's preferences.

Proposed Solution

The development of an **interactive chatbot** specializing in offering personalized movie and series recommendations to users, based on their **individual preferences**. This chatbot will work through a **dynamic exchange of questions**, allowing suggestions to be refined in **real-time**, providing an experience tailored to the user's tastes and needs.

The proposed chatbot will not only ask simple questions such as:

- What genre do you prefer? (e.g., action, comedy, drama, science fiction, etc.)
- Do you prefer long series or short movies? (to match the user's available time)
- Would you like to watch something popular, or do you prefer something more exclusive? (allowing a choice between famous productions or more independent content)

But it will also use **semantic analysis** to better understand the user's responses, adjusting recommendations based on **previous tastes**, the user's **current context** (e.g., mood, recent preferences), and **other external factors** like current industry trends or recommendations based on what other users with similar tastes have watched. This approach aims to enhance user satisfaction by offering a curated list of options that match their specific interests, with the goal of providing a more **personalized and engaging** experience.

Personalization and Continuous Improvement

The chatbot also has the ability to **learn from previous interactions** through **machine learning** techniques, using predictive models to identify **patterns** in user preferences. Over time, the chatbot can adjust its recommendations, adapting to changes in user tastes, such as a growing interest in new genres or themes.

- **Clustering techniques**: The chatbot can group users into different segments based on their viewing history and preferences. This allows it to make more fine-tuned recommendations, adjusting to what other users in the same group have enjoyed.
- **Collaborative filtering systems**: This approach allows the chatbot to make recommendations based on what users with similar preferences have watched and enjoyed. With each interaction, the system refines its ability to predict what content will please the user, improving its accuracy.
- **Continuous feedback**: The chatbot will request direct feedback from the user after each recommendation. This feedback will help the system adjust its suggestions and better understand the user's changing preferences, providing a more satisfying experience over time.

Real-Time User Experience

One of the key advantages of this solution is its ability to **respond in real-time**, adjusting suggestions as the user answers the questions. Thanks to its conversational interface, the chatbot can **engage in a fluid dialogue** with the user, asking questions and offering instant suggestions based on their responses. This not only saves the user time but also enhances the search experience by eliminating the need to navigate extensive movie or series catalogs.

Additionally, the chatbot provides extra information about each recommendation, such as:

- **Trailers**: Allows the user to watch a preview of the movie or series before making a decision.
- **User reviews**: To offer a more comprehensive perspective, opinions from other viewers, both regular users and specialized critics, will be shown.
- **Streaming platform**: The chatbot will provide a direct link to the platform where the recommended content is available, improving accessibility.

Enhancing Fun and Accessibility

The chatbot's user-friendly interface not only makes it easy to use for people of all ages and technological backgrounds but also makes the experience more **fun and entertaining**. Users will feel like they are conversing with a personal assistant instead of browsing through endless catalogs.

The chatbot can further personalize the experience by remembering **unique details about the user's preferences** over time, such as favorite actors, preferred directors, or recently watched movies. It also has the potential to include a **discovery mode**, where it suggests new or unexpected content based on what it knows about the user's tastes, offering an exciting way to discover new movies or series.

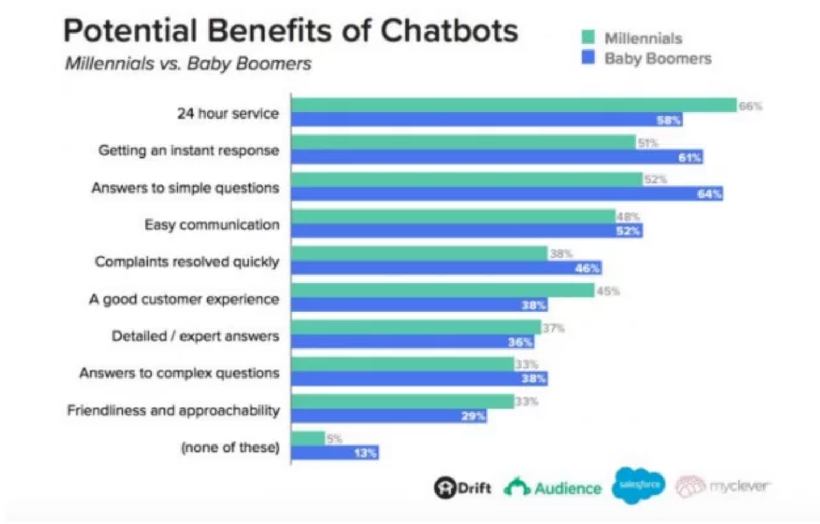


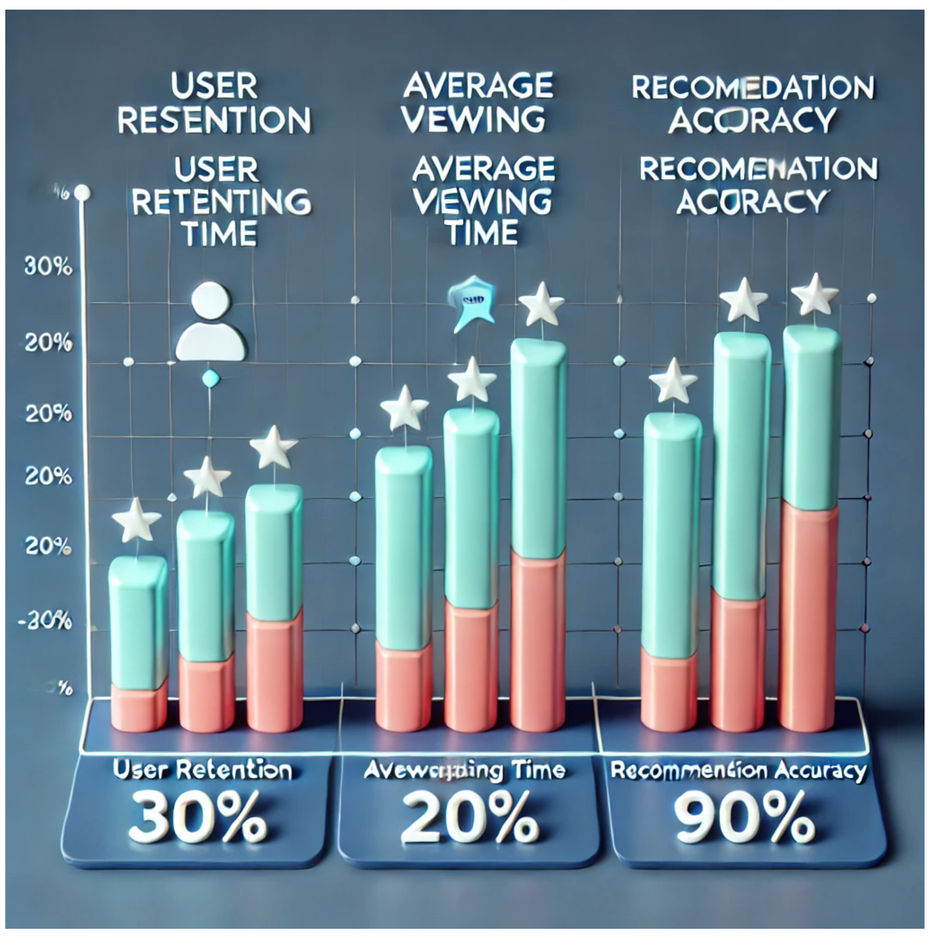
Image taken from https://apiumhub.com/es/tech-blog-barcelona/chatbots-en-e-commerce/

Results

The results obtained from implementing the chatbot on some platforms are significant in several key areas related to user experience and recommendation effectiveness. Compared to traditional recommendation methods, the chatbot showed considerable improvements:

- **User retention**: User retention increased by **30%**. This indicates that users preferred to continue using the streaming platform after interacting with the chatbot, demonstrating that personalization and user experience were key factors in maintaining their interest.
- **Average viewing time**: The average time users spent watching content increased by **20%**. This suggests that the personalized recommendations offered by the chatbot were not only attractive but also better aligned with user interests, resulting in greater content consumption.
- **Recommendation accuracy**: The chatbot's recommendation accuracy was **90%**, significantly higher than traditional recommendation methods. This was achieved through the use of machine learning algorithms, collaborative filtering systems, and preference analysis techniques. This high percentage reflects that users found the chatbot's suggestions much more aligned with their tastes and expectations.

These results suggest that the chatbot can be an effective tool not only to improve user experience but also to increase platform loyalty and interaction time. The use of artificial intelligence applied to personalized recommendation is a significant advancement in content management for streaming platforms.



Conclusion

The chatbot has proven effective in improving the user experience on streaming platforms. By offering personalized recommendations, user satisfaction and retention are increased. Platforms that adopt this technology will be better positioned in a competitive market.

Bibliography

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