**System Goals for an Online Film Database AI-Enabled System**

Introduction

In this report, I'll outline the system goals for an AI-enabled online film database similar to IMDb. The aim is to create a platform that not only offers personalized film recommendations but also aligns with our broader organizational objectives. I'll break down the goals into organizational objectives, leading indicators, user outcomes, and model properties, and discuss how they all relate to each other.  

Organisational Objectives

1. Boost User Engagement and Retention - We want to keep users hooked by providing personalized and engaging content that makes them spend more time on our platform and keeps them coming back. Increased engagement leads to higher ad revenue, more subscription renewals, and a stronger community around our platform.

2. Expand Our Global Presence - Our goal is to reach a diverse, international audience by offering support for multiple languages and culturally relevant recommendations. Growing globally not only increases our user base but also positions us as a leading platform in the film industry worldwide.

3. Increase Revenue through Targeted Advertising and Partnerships - By understanding our users better, we can offer targeted advertising opportunities and partner with content creators and distributors for mutual benefit. Targeted ads are more effective, boosting ad revenue, while partnerships can bring exclusive content, attracting even more users.

4. Stay Ahead with Innovation - We'll invest in the latest AI technologies to continually improve our recommendation system and overall platform performance. Being innovative keeps us competitive and ensures we meet and exceed user expectations in a rapidly evolving market.

5. Maintain Ethical Standards and Compliance - It's crucial for us to comply with data protection laws like GDPR and CCPA and to promote ethical use of AI throughout our platform. Compliance prevents legal issues and builds trust with our users, which is essential for long-term success and reputation.  

Leading Indicators

1. New Users Joining - We'll track how many new users sign up over time. This shows how effective our marketing efforts are and how appealing our platform is to potential users.

2. User Engagement Metrics - Metrics like daily active users, session duration, and interaction frequency with recommendations. High engagement indicates that users find value in our content and features.

3. Acceptance of Recommendations - Measuring how often users add recommended films to their watchlists or actually watch them. This helps us assess the effectiveness of our recommendation engine in predicting user preferences.

4. User Churn Rate - Monitoring how many users stop using our platform over a given period. A rising churn rate can signal user dissatisfaction, prompting us to investigate and improve.

5. Net Promoter Score (NPS) - Gauging how likely users are to recommend our platform to others. A high NPS reflects strong user loyalty and positive word-of-mouth, which is invaluable for growth.

User Outcomes

1. Enhanced Personalisation and Satisfaction - Users receive recommendations that closely match their tastes and preferences, making their experience more enjoyable. Satisfied users are more likely to stay longer, return frequently, and become advocates for our platform.

2. Effortless Content Discovery - Users can easily find new films through intuitive search features and smart filters. This saves users time and reduces frustration, leading to a more positive overall experience.

3. Community Engagement and Interaction - Features like reviews, ratings, and forums enable users to connect and engage with each other. Building a community fosters user engagement and loyalty, enriching the platform's ecosystem.

4. Control Over Privacy Settings - Users have clear and accessible options to manage their data and privacy preferences. Empowering users with control over their data builds trust and may encourage them to share more information for better personalization.  

Model Properties

1. High Accuracy in Recommendations - Our AI model should precisely predict films that users will enjoy. Balancing the model to avoid being too narrow (overfitting) or too broad (underfitting) is key.

2. Adaptability and Continuous Learning - The model should learn from user interactions in real-time to keep recommendations relevant. Techniques like reinforcement learning can help the model adjust to changing user preferences.

3. Fairness and Diversity - Ensuring the model doesn't inadvertently favor certain genres or overlook lesser-known content. Incorporating fairness algorithms promotes a diverse range of recommendations.

4. Scalability and Efficiency - As our user base and film library grow, the model should maintain quick and efficient performance. Optimizing algorithms and utilizing distributed computing can help manage increased loads.

5. Robust Privacy Protection - Implementing methods that safeguard user data within the AI processes. Approaches like federated learning allow for personalization without compromising privacy.

How the Goals Relate to Each Other

Our organizational objectives are deeply connected to both user outcomes and model properties, creating a cohesive strategy:

- Boosting User Engagement is heavily reliant on our model's High Accuracy in Recommendations, which enhances Personalization and Satisfaction for users.

- Expanding Our Global Presence requires our model to be Fair and Diverse, offering recommendations that resonate with users from different cultures, thus improving Effortless Content Discovery on a global scale.

- Increasing Revenue through advertising and partnerships depends on strong User Engagement Metrics and Acceptance of Recommendations, which are bolstered by satisfying User Outcomes and an effective AI model.

- Staying Ahead with Innovation ensures we address Adaptability and Continuous Learning in our model, directly impacting User Churn Rate by keeping content fresh and relevant.

- Maintaining Ethical Standards and Compliance is tied to our commitment to Robust Privacy Protection, affecting Control Over Privacy Settings for users and positively influencing our Net Promoter Score.

Prediction errors like false positives (suggesting irrelevant films) and false negatives (missing films users might like) can harm User Satisfaction and increase the Churn Rate. That's why continually refining our model's Accuracy and Fairness is essential.

Privacy issues are also critical. Mishandling user data can lead to loss of trust and legal troubles, negatively impacting our User Base and Reputation. By embedding Privacy Protection into our AI processes, we safeguard user data and build confidence in our platform.

Conclusion

Aligning our organizational goals with user needs and technical capabilities is key to the success of our AI-enabled film database. By understanding how each aspect influences the others, we can create a platform that not only thrives in the competitive market but also delivers genuine value to our users.

References

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