Adaptive Movie Recommendation System Based on User Behaviour

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Introduction

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Project goal: to develop a movie recommendation application based on the user's current emotional state.

Motivation: choosing a movie is often difficult, and mood strongly influences how content is perceived.

Assumption: the user selects how they feel, and the system recommends suitable movies.

System description

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- **User:** selects one or more emotions from a predefined list.
- **System:** maps emotions to movie characteristics.
- **Output:** a list of recommended movies with short descriptions.

Emotion Categories

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- Example emotions available in the application:
  - Happiness
  - Sadness
  - Stress
  - Anger
  - Boredom
  - Calmness
- Emotions are selected manually - no image or audio emotion recognition is used.

System Overview / Implementation

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Frontend: interface for emotion selection and displaying recommendations.

Backend / Logic:

- ➢ each emotion is linked to a movie profile (genre, pace, emotional tone),
- ➢ a simple matching algorithm based on feature similarity.

Data: movie database with metadata (genre, mood, pace).

Recommendation Algorithm

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1. The user selects an emotion.
2. The system assigns weights to movie features.
3. Movies are scored based on emotional compatibility.
4. The highest-scoring movies are recommended.

System Demonstration

Results and Discussion

Results and discussion

- most users rated the recommendations as relevant
- highest ratings were given for happiness and stress categories

System Limitations

System limitations

- subjectivity of emotional states
- limited number of emotion categories
- dependence on the quality of movie metadata

Conclusion

Conclusion and development options

- Future work could include personalization, more emotion categories, and machine learning.

Thank you