

How to guarantee users' user experience in AI video recommendation systems

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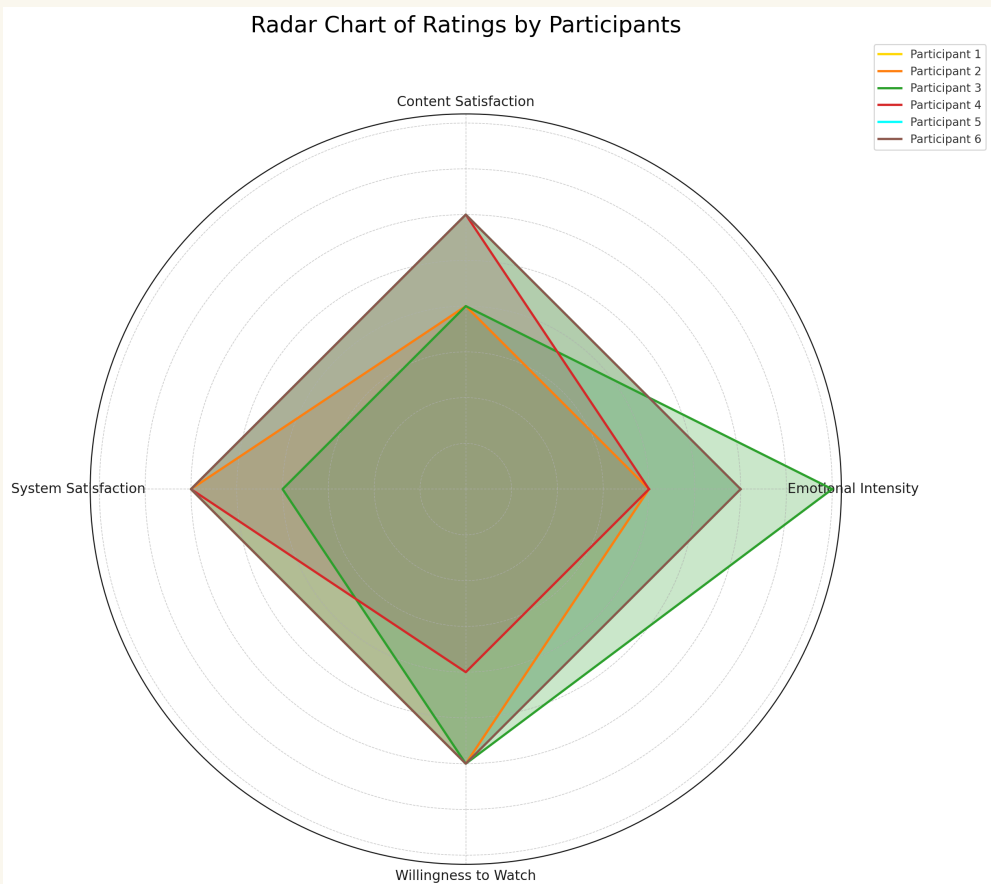
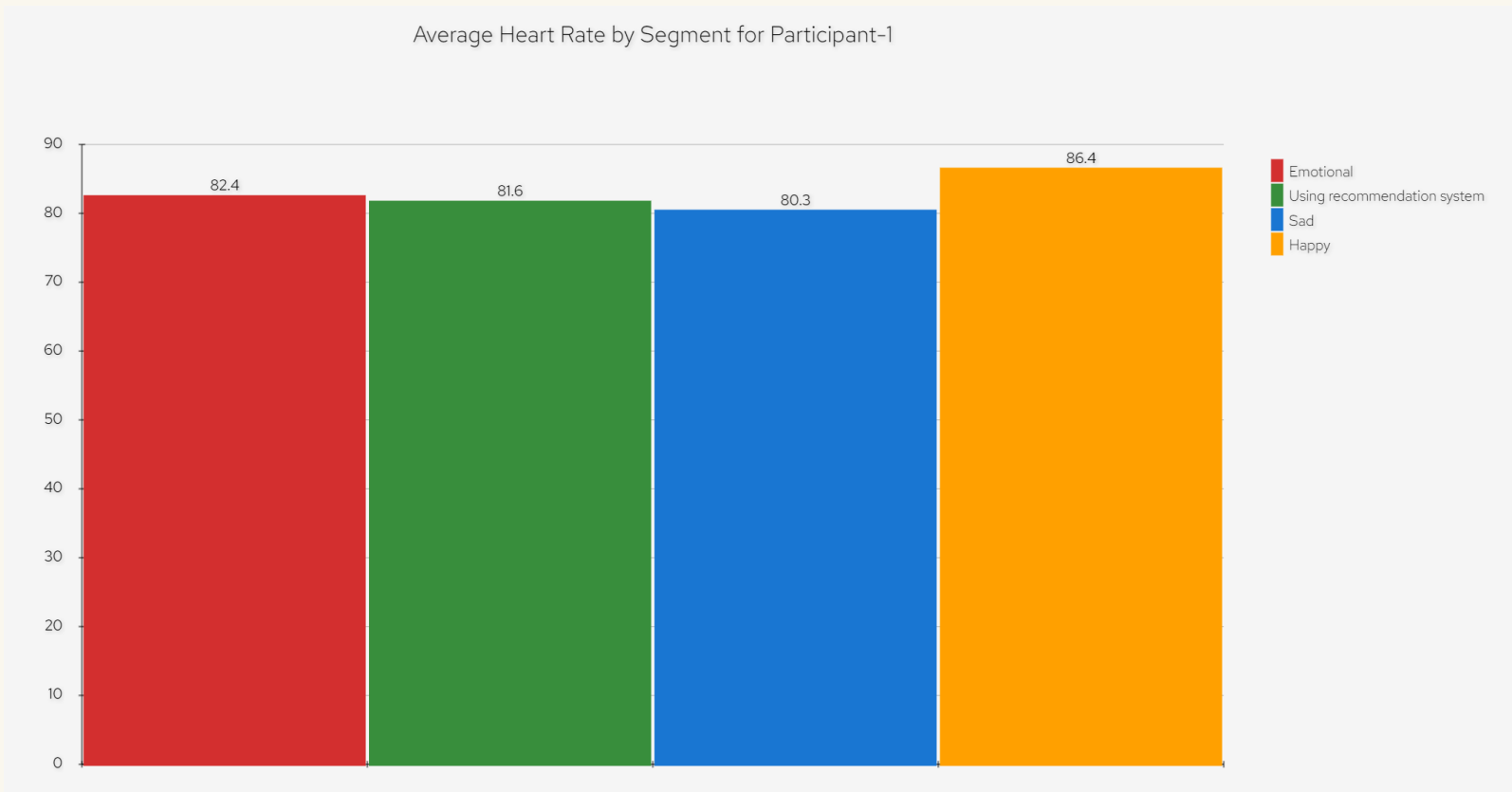
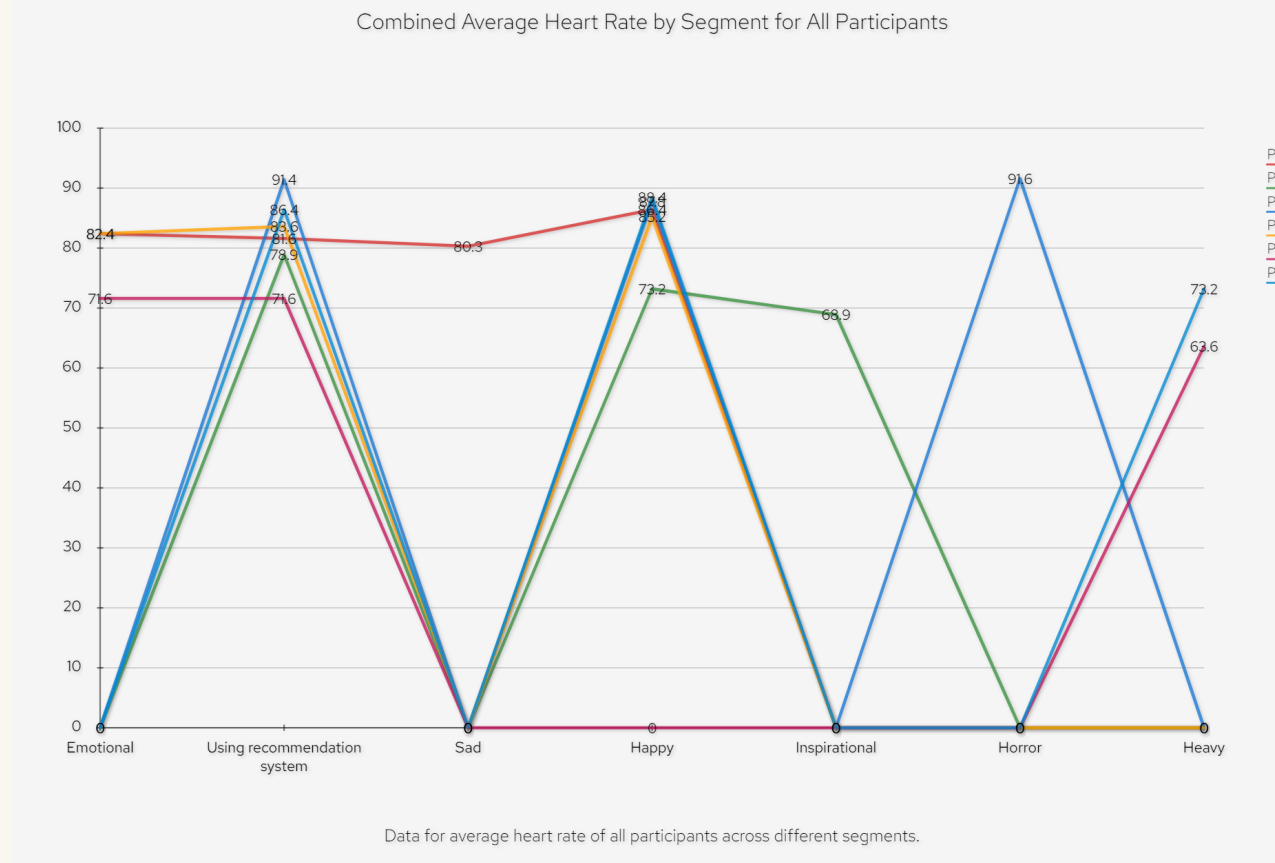
Abstract

AI video recommendation systems on platforms such as YouTube and Netflix use content-based collaborative filtering techniques. However, their lack of clarity erodes trust if recommendations don't meet user expectations. Emotions play a key role in the user experience. Matching recommendations to a user's emotional state builds trust, while mismatching reduces trust. The aim of this study is to understand the link between emotion and user experience so that we can plan for subsequent optimisation.

Introduction&Background

AI video recommendation systems, like those on YouTube and Netflix, use content-based and collaborative filtering methods. However, their opacity can cause user mistrust, especially if suggestions miss the mark. This project examines how emotions impact user trust in these systems, aiming to guide the development of emotion-sensitive algorithms.

Diagram / Design



Study Methodology

- 1.Literature Review &Interview
- 2.Data Statistics
- 3.test
- 4.Questionnaire

Testing & Evaluation

The study aimed to investigate the connection between emotional intensity and heart rate variability during user interactions with an AI video recommendation system. Strengths of the study included the use of diverse film clips for varied emotional responses, detailed quantitative data collection on heart rate, and a feedback mechanism for understanding user perceptions. However, the study's limitations were its small sample size of only six participants, inconsistencies in viewing times, and varying initial emotional states of participants. While the study offers valuable insights, there are areas for improvement in the research method, and further studies should address these limitations for more definitive results.

Reserch Result

This study aimed to explore the link between emotions elicited when users interact with an AI video recommendation system and their satisfaction levels. Six males aged 18-25 participated. They watched film clips to induce various emotions, followed by interaction with the AI recommender. Data included heart rate measurements and user feedback on emotional intensity. Preliminary findings hint at a possible correlation between emotional intensity and heart rate changes, but more in-depth statistical analysis is needed. Satisfaction with the recommender system varied, suggesting its accuracy and relevance could be enhanced.

Conclusions & Future Work

Conclusions:

1. A significant link exists between emotions evoked by movie clips and heart rate variations.
- 2.Satisfaction with AI-based recommendation systems varies among users.
3. Emotional intensity correlates with heart rate changes, suggesting its potential in refining recommendation algorithms.

Future Work:

- 1.Expand the study to include a larger and more diverse sample size for more reliable results.
2. Use a wider array of movie clips to evoke diverse emotions.
3. Utilize advanced statistical and machine learning tools for deeper data analysis.
4. Design recommendation systems that adapt in real-time to users' physiological reactions.