

Emotion-Driven Movie Evaluation with Wearable Tech

in cooperation with **MoveMe**

Goldsmiths
UNIVERSITY OF LONDON

moveme

Designer: Zechao Tong
Supervisor: Yoram Chisik

Abstract

The project aims to enhance **MoveMe** platform's **recommendation accuracy** to users by utilizing **objective data**. Users contribute to this by wearing wearable devices that monitor their heart rate (ECG) during movie watching, allowing analysis of **emotional fluctuations**. This data is used to generate comprehensive movie summary reports, enabling users to provide **accurate ratings** based on objective metrics.

Introduction & Background

Online movie ratings have become a common practice among users in today's internet society after watching films. However, research indicates that users' memories of movies tend to **fade over time**, potentially leading to **inaccuracies in ratings** due to viewing habits and memory effects. To enhance the accuracy of algorithmic recommendations, **addressing the memory biases** in the user rating process becomes crucial.

Study Methodology

#1 Literature Review



Smart watch detect Heart Rate, analyze user Emotions

#2 User Survey



Viewers will forget about the content of the film

#3 User Interview



Users want content hints when rating films

#4 Persona & User Journey Map



Improve the user experience when watching movies and rating

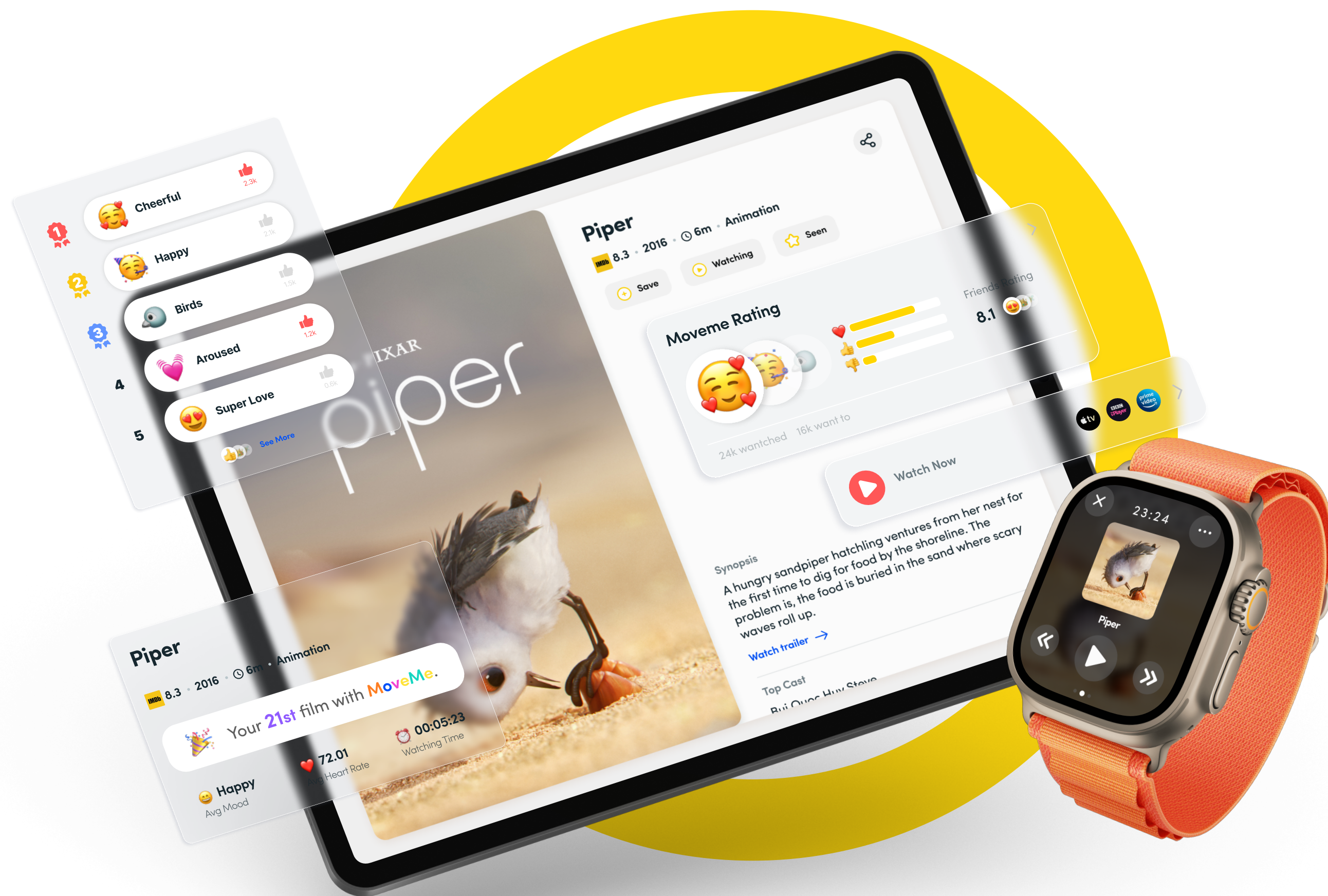
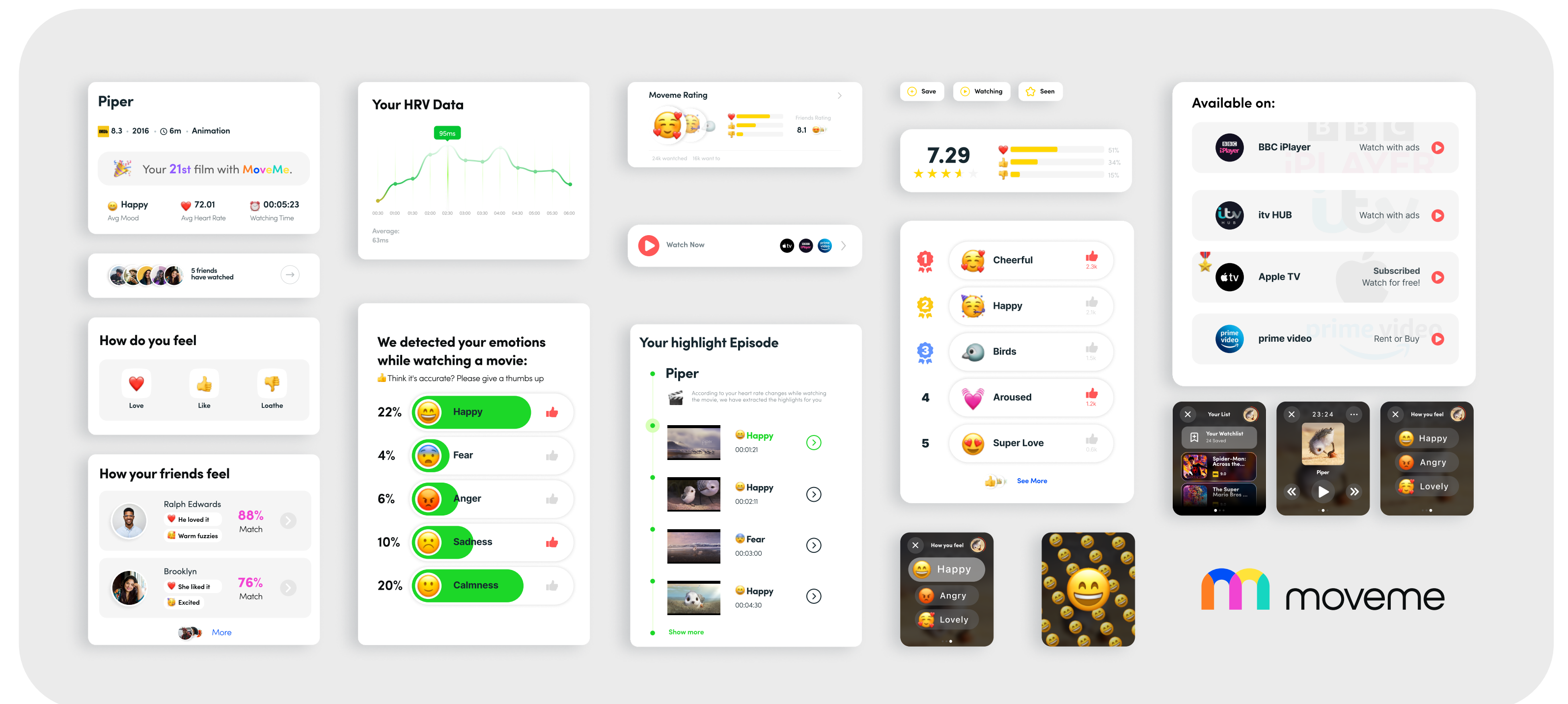


Diagram / Design



Testing & Evaluation

#1 Testing Purpose

- Problems encountered by users in the process of using the product
- The user's attention in the process of using the product
- Initial product users are content with functions to retain or troubled by features requiring improvement.

#2 Testing Methods 8-People



Eye-Tracking Glasses
Analyze user attention and eye movement trajectories

User Interview
Dig deep into user needs and causes of problems



#3 Testing Results

- Optimize the way to switch to streaming media sites
- Bullet chat can be adjusted or closed
- Viewing report content and module rearrangement

Conclusion

The project aims to utilize a smartwatch for detecting users' emotional changes during movie viewing, aiding them in more accurately rating the movie's progression. This assists the **MoveMe** in refining **recommendation accuracy**.

Multiple research approaches were employed to understand genuine user needs. This involved collecting **84** survey responses, conducting **18** user interviews, performing tests with **8** participants, and redesigning based on feedback.

Future Work

- Explore more detectable emotions.
- Assist film producers in enhancing future productions through user's emotional shifts during movie watching.
- Enhance emotional analysis dimensions to better aid user understanding of films.