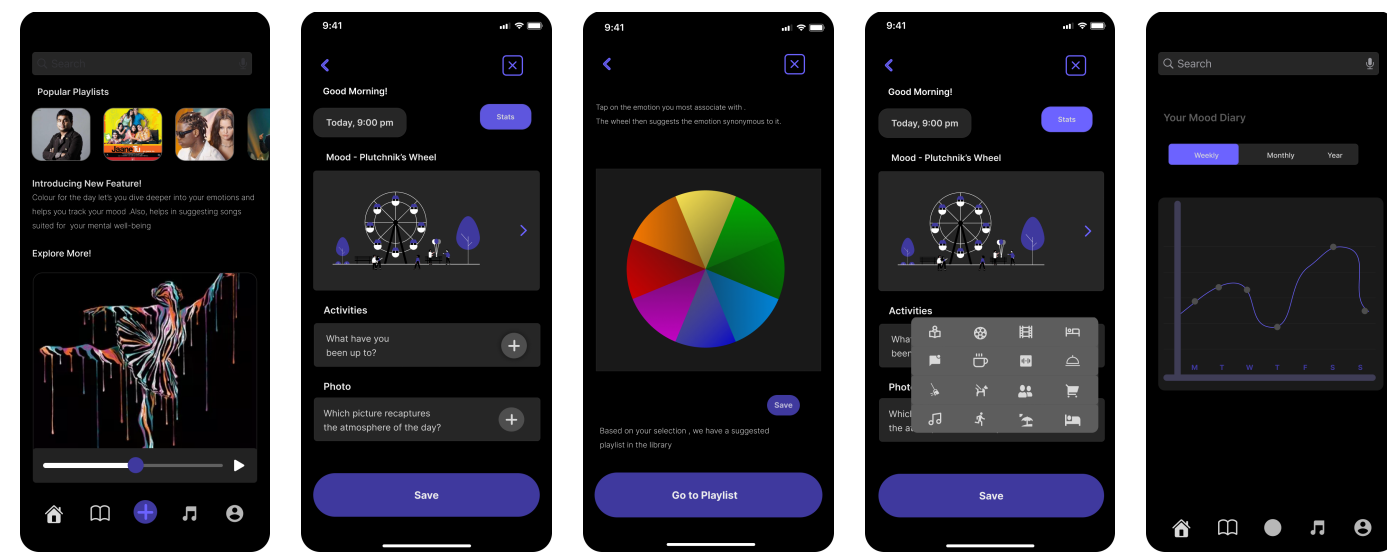


Enhancing the Musical Experience: The Integration of Music-Colour Philosophy & Synesthesia in Music Apps

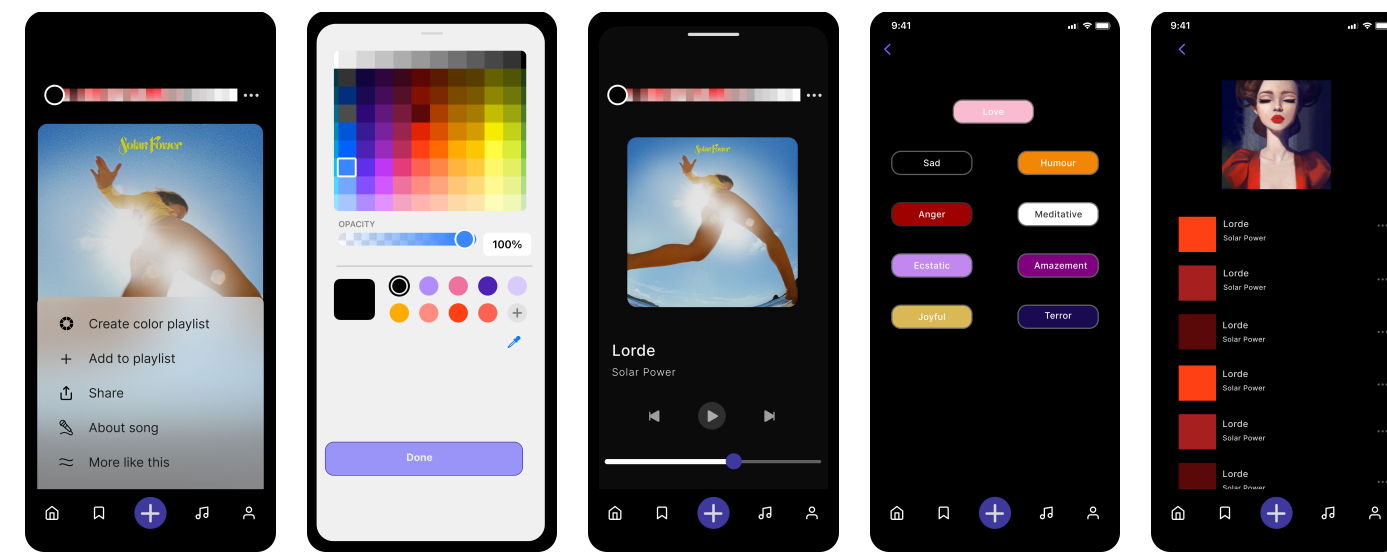
Abstract

This research examines chromesthesia, a synesthetic phenomenon where sounds trigger involuntary color experiences. While synesthesia is uncommon, affecting 4-5% of people, the study explores connections between music, emotion, and color to enhance music app experiences for all users. Two new app features are proposed: 1) A mood tracking system that analyzes the user's emotions and curates playlists to improve their mood. 2) Labeling songs by color to improve music selection and playlist creation.

Design



Feature 1



Feature 2

Testing & Evaluation

A preliminary pilot testing composing of an eye-tracking event followed by a Participant feedback on both features were held. Heat maps and Fixation points were mapped to get an idea about User attention and gaze.

Preliminary feedback reveals the following data:

1. 81.82% preferred having customization included in Feature1 and 54.55% for Feature2
2. User flow rating were appreciated more by Females than Males for both features
3. Preferred Feature 1 > Feature2

Introduction

This dissertation topic discusses about the phenomenon synesthesia and how it can be leveraged in Music Apps. Exploring the triadic relationship between Music-colour and Emotion through the lens of Synesthesia in music apps holds immense promise for transforming the way listeners engage with and explore music. By incorporating synesthetic elements, music apps have the potential to provide users with a synesthetic experience, where they can visualize and interact with music in a novel and captivating manner. Chromesthesia, as a feature within music apps, could enable users to associate various tracks, melodies, or even entire playlists with specific colors, creating a personalized, visual-rich auditory journey.

Research Methodology

My investigation into the topic began with **Literature review** to understand the state of the Art in the field of Synesthesia, Music and Art. After gathering studies around the field, I conducted a **Historical Case Study** to understand how synesthesia has an influence on art and their artists. After that I conducted a **Comparative analysis** on existing trending Music Apps. Followed by a set of **Quantitative and Qualitative research** to understand User Patterns and User behavior's so that I could find answer to my Research Question: **"Can we label Music Under colours?"**

Future Works

The scope of my research had to be limited due to the time constraint and less participants available from the synesthetic spectrum. Hence a second round of comprehensive evaluation with synesthetes should be considered. Therefore, I propose that future works should include:

1. Revision of existing design to a version 2 after incorporating feedback and data analyzed from pilot studies
2. User testing on Version 2 and further integration of AI models into the feature 1 and feature 2 for improved performance and collection of metadata.
3. Further research focusing on feedback from more synesthetes