MOVIE RECOMMENDATION BASED ON VISUAL FEATURES

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Media Futures

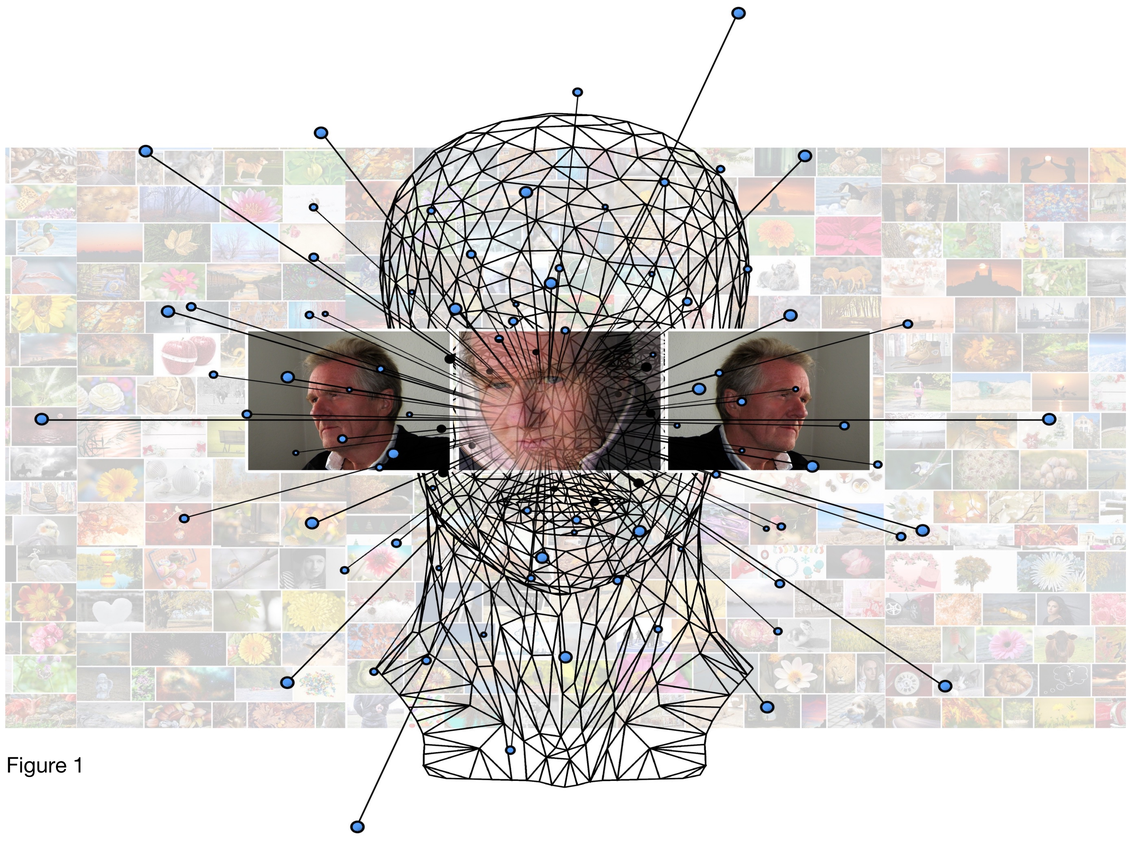

Figure 1

Abstract

Movie recommendation is traditionally done by using humanly annotated metadata about movies and user data. In this thesis I aim to explore if using novel visual features can help solve the new item problem in movie recommendation, as well as improve current solutions by providing novel features to the recommender system domain.

Research questions

1. Is it possible to generate meaningful movie recommendations from novel deep visual features?

2. How can novel deep visual features improve upon the current state of the art recommender systems?

In recent years the movie industry has gotten an influx of new movies, which is making finding, and noticing, a "good" movie all the more difficult. Movie recommender systems are tools used to recommend movies to users based on their personal preferences. These systems observe user behaviour by collecting data on the users such as likes, dislikes, reviews etc., to learn about a user's preferences. There are two main techniques used to recommend movies to the users; collaborative and content based filtering.

Collaborative filtering revolves around the similarity between user preferences, and content based filtering focuses on the similarities between the movies. The common denominator between both of these techniques is that they both require data, either about the users or the movies. Nowadays loads of movies are uploaded to platforms every day that do not have any user interaction, or suffer from a lack of item metadata such as a description or a genre tag. Thus lacking the data required to make adequate recommendations.

This thesis will focus on solving this issue by building a movie recommender system that generates recommendations based on automatically extracted "stylistic" visual features. These features can be different visual features such as hand-crafted features (such as colours within movies, and light, etc) and deep learning based (such as objects within movies, and facial expressions, etc). The recommender system could help solve difficult recommendation scenarios where there is a lack of adequate data, as well as help with existing recommender systems by using new novel features that have yet to be explored.

Supervisors

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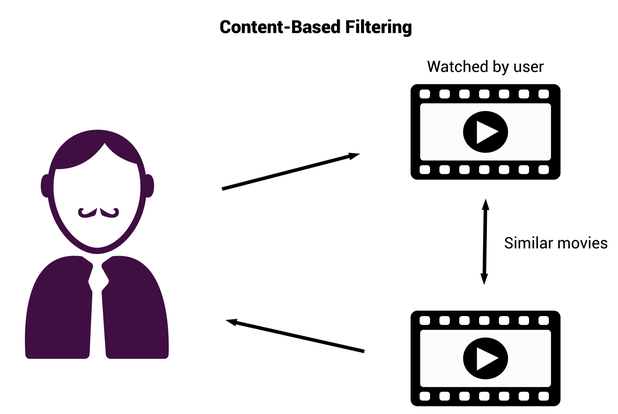

Figure 2

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FUNDER

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FIGURES

Figure 1 available at: https://www.maxpixel.net/photo-3859537
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