

# Project Description

MOVI3HALL

CS4500

Thien Nguyen, Amit Palkovic, Sajid Raihan, Jean Paul Torre, Amrita Vadhera  
01/26/2018

## Overview of the Problem

The expected client for this project is a stealth startup. Specifically, this is a start-up that avoids public attention almost completely in order to hide information from competitors. Employees will have to sign an NDA with the company and will be expected full confidently. Being a stealth startup will also lessen the pressure the project receives from the general public and investors, allowing the developers to create the project exactly the way intended. The client is internal to the organization, and basically represents the people from the organization who want this application to be created.

The project managers came to a conclusion that popular currently used platforms like Rotten Tomatoes and IMDB are too general, and don't serve the users as well as they could. The reviews presented on those platforms are too wide spread and impersonal which cause them to not be as meaningful or useful to the users. The idea behind this startup is that if the recommendation comes from someone that is actually connected to the users - whether it be a direct friend, family member, or a verified account - the users would be more likely to take that review seriously. These recommendations would be more meaningful when the people that are a part of person's actual network will contribute their thoughts in a public, easily-accessible way.

The client's goal is specifically to make it easier for people to get a more specific opinion on what people who are close to them enjoy watching. In addition to that, the webapp created will allow users to take a peek at what celebrities or athletes watch on a daily basis (and what they recommend watching) which is a perspective users are clearly already looking for (e.g. stories of celebrities on Snapchat/Instagram, and being able to follow celebrities on Twitter). Therefore, it seems to be the case that the client is seeking an interface that allows them to easily search for and click on a person to see their list of content. The client's overall goal here is to connect people in a way that currently is not being explored.

Although applications like Netflix collect data on what people's friends are watching, which contributes to their recommendations, this information is not public. In addition, websites like IMDB and Rotten Tomatoes do a good job of giving a general rating from critics and the general public. However, people do not feel a connection to either of those sources other than the fact that they provide data from reputable critics. The client hopes to enter a new niche quickly, and well enough that Netflix cannot simply add a new feature and remove them from the market. By being able to easily search a person's interests in this way, they hope that this product can bring the world together. Additionally, this project refers to the fact that those using the application should be able to view ratings in other countries besides the one they reside in. This idea serves people so they can look at additional, international perspectives and by that to appreciate what other countries are enjoying.

Moreover, the more data that they have on what type of content people consume in groups, the more they can monetize it. By aggregating data about how people of specific demographics and zipcodes are using their data, the client hopes to sell this data for a profit. This is part of the monetization for the application, in addition to advertisements.

## Background

Currently, there is no legacy within the client's company that this project needs to consider extending. This will be a completely new webapp. The system built will be operated daily by the company employees, who will maintain all necessary aspects such as software additions and updates, database maintenance, marketing and advertising and any other operating needs that come upon a daily basis.

However, in terms of recommendation systems that appeal to people, IMDB, Netflix, and Amazon Prime have all worked out ways for to set up their interface in a way desirable to the public. The object of the client is to emulate this the intuitiveness of those interfaces. Specifically, people should *want* to use the application to discover new recommendations each time because it is: easy to use, fun to look at, and has useful features.

This entire process of collecting this type of data definitely exists within the resources of a company like Netflix, the difference is that the goal of this company is to connect users on a more friend-to-friend level, when compared to Netflix. There aren't that many known ways to buy this system as this should not be an open-source software (the client is a stealth startup). Those who should operate this system includes the client, and we who are initially developing the software.

## Scope

The internal deliverables would mainly be features that will be attractive to the users and will focus on the functionality of the webapp, while the external deliverables would focus on the legal and the marketing sides of the company, which users will not be a part of the user interface of functionality for the most part. From a high level, the internal deliverables will include a useable webapp.

What this entails is a system where people can friend other users and recommend movies to them. People should also be able to post lists of movies and change the contents of the lists. These lists are public and customizable by the users. Users should also be able to easily recommend a specific movie to a friend. The interface of the movies should make the action of recommending a movie to a friend easily accessible.

People should also have movies recommended to them by the website. This should be presented to them in a way such that users can skip a recommendation if they do not wish to view it at that time. Users will then eventually be recommended that movie again. If the user simply never wants to see the movie again, they can just dismiss the movie, and our system would know to never recommend that same movie again to that specific user.

Users will be able to make their opinions heard by rating movies and giving reviews. The user will be able to see all of their friend's interactions with movies as well. We want to be the go to social media platform for moviegoers. For this reason we are implementing personalized groups of friends as well. Within these groups multiple users can discuss movies they liked or disliked and coordinate when to watch a movie.

This website will be a welcoming environment for all types of moviegoers. We want to bring people together, but with that come some challenges. We do not want users to use our platform to create a negative environment. For this reason we will have bots that recognize spam or inappropriate posts. And if unusual activity continues to persist, the result will be the automatic deletion of the user.

One of the missions for this project is to bridge the gap between people and movies from different countries. We will have a specialized section for movies that a user might like from all around the world. On top of this, there will be a specialized section for international movies. For example there will be a row of movies that display the top 10 recommended movies in India that offer subtitles in the user's language.

The website's user base will consist of people with many different backgrounds. However what all will share will be a common love for movies. For this reason the website will have a movie news section where users can go to get the latest news on up and coming movies. The movie news feed will contain new trailers released, interviews with cast of movies, news articles about movies, and much more! Best of all it will be personalized to the specific user.

Outside of what the website can offer to users looking for movie content. The website will also be offering a service to third parties (most likely movie studios and advertisers). This will be in the form of a rich flow of data from our user base. Some of the data that might be of interest to movie studios are: demographic data of people who liked or disliked a movie, demographic data of people who said they wanted to go watch a certain movie, ect.

The external deliverables of the webapp will include legal concerns such as: terms and conditions for registering, and the collection and selling of users demographic data to third party companies. When a user registers an account they will have to accept the company's terms of service. It will be up to the company (client) to have their legal team furnish the content that will be displayed in the terms of service. The website admin will be able to add or update the terms of service whenever necessary. The external deliverables will also include the purchase of ads for marketing purposes.

The challenges that are expected while working on the project are: a time challenge - getting the deliverables for the new app time in time (about two and half months). Technical experience is another issue that is expected since none of the current team members have previous experience creating a similar project. Team members will have to depend on research as well as the guidance of TAs and instructors in order to bypass certain technological issues.

Moreover, another technical issue the team members are expecting to have is the fact that none of the members have actually created a full on working web application completely from the ground up before, so balancing specific requirements from clients to assumptions made by developers will present itself as a challenge. It is important to meet frequently to with TAs and Professors to ascertain whether the correct product is being developed.

Some other challenges include creating a working algorithm that will be able to correctly recommend movies to its users. This is specifically an issue because no team members have engaged in a machine-learning type issue such as this before, hence it could take time to learn how to exactly optimize the algorithm so that incorrect recommendations are not made.