Grouvie

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Watching a movie with a group of people is an activity that many people enjoy. However, the level of enjoyment of the activity is often tempered by the acrimony in trying to settle on a movie acceptable to every member of the group. Often, it is either very difficult to come up with a movie that everyone would enjoy, or it is impossible to choose a movie that everyone would enjoy and which everybody hasn't seen. To improve the movie selection process for group settings, multiple services have arisen. One such service is MovieLens, developed by researchers at the University of Minnesota. While it has a good recommendation engine for groups, it has some significant shortcomings. It's not very accessible, as it's a website that looks like it's from the 1990s, and it requires you to be connected to every member you want to include in the recommendation, even though in group setting it's often not the case that everyone considers everyone else friends. Finally, it doesn't allow group members to make suggestions or vote on the movies to watch. Another service is Foundd, an iOS app that allows users to form a group of up to four other Facebook friends to get group recommendations. While it's a good start, it is quite limited in that it requires users to be Facebook friends to form a group, it is limited to 5 people, and does not include automatic syncing with Netflix ratings or Facebook movie preferences.

Grouvie is a mobile application that aims to make selecting a movie to watch in a group setting painless – and maybe even fun. Aimed at casual movie watchers and movie buffs alike, it uses seamless integration with services such as Netflix and IMDB to allow any group of people to settle on a movie to watch. When a group decides to watch a movie, one user will be the "host" and start a "Grouvie party" using the Grouvie app. The other members of the group can open the Grouvie app on their phone and select to join the party from a list of nearby parties. If other members do not have the Grouvie app, they can quickly download and create a Grouvie user accounts and join the party. Creating an account will be quick and easy – all that is needed is a username and a connection to the user's services that contain data about the movies the user likes (such as Facebook and Netflix). If a user does not have either of these accounts, s/he will be asked to rate a handful of movies in order to build a profile of movie tastes quickly and easily. When they join a party, they answer two simple questions – whether they are okay with seeing a movie they've seen before and what genre they most feel like watching. The host can also ask up to three users to be "cohosts", users who will have the ability to add one or two movies to the recommended list. Once the group is formed, the host can choose to get recommendations or add particular movie options to the list. Using the Grouvie recommendation engine, a list of five movies, plus the ones selected by the host or cohosts, appropriate for the group is compiled. The host can adjust options for the recommendation system such as only considering movies that are available on a specific platform (Netflix, Hulu Plus, etc.) or movies from a particular time period. Once the final movie list is ready to go, the host begins the vote and each user anonymously chooses their top three preferences in order, and the Grouvie app displays the final result, along with available methods of watching (Netflix, Hulu, Amazon, DVD, Blu-ray, etc.). The group can then sit back to watch a movie, confident that it has been uniquely chosen for their tastes and preferences.

Grouvie has a relatively simple software architecture. The mobile application will have different modes for hosts and guests. One necessary module is one that will use location services

to figure out nearby parties that users can join. There will be a data integration component that will pull in a user's movie ratings form the Netflix API, movie information from the IMDB database, and possible media methods through the CanIStreamIt API. This data will be used by the group recommendation system to choose the appropriate list of five movies. Grouvie is an interesting project technically because it involves integrating data from multiple services and using the data in a group recommendation system, which will be challenging to successfully implement. It will also require allowing the cohosts to concurrently access the movie list. Out of these technical challenges, the most serious challenge is implementing the group recommendation system. The system will require the development or use of special algorithms and the use of machine learning. This risk can be mitigated through the comparison of results with other services, such as MovieLens and Foundd. Such a comparison will allow the developers to make sure that the system is behaving correctly.

The time-consuming and acrimonious process of choosing a movie amenable to all members of a group is eliminated by Grouvie. Watching a movie in a group is fun again!

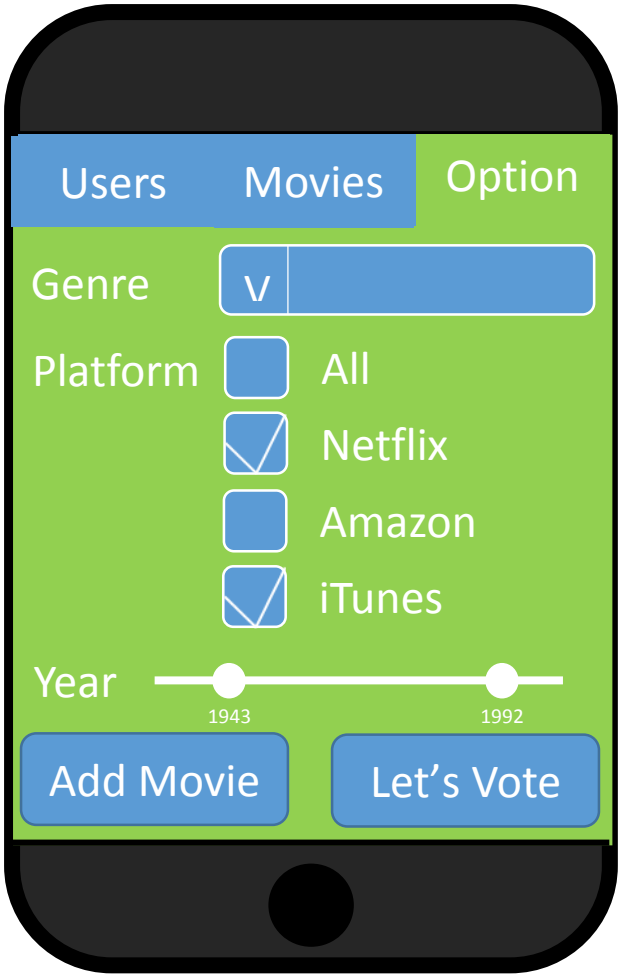

Figure 1: The options screen the host encounters to limit which movies to choose from.