

ML CASE STUDY

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Data Science, Machine Learning Case Study

You are a data scientist/machine learning engineer and is tasked to build a niche social network for a particular segment of Indian population. Choose a segment and come up with detailed planning for a social network. Your target users can be as niche as 'Hindi Movie Lovers'.

For creating a niche social network we should be aware about our target audience because everyone has different taste for movies. Some watches romantic movie while some watches comedy, action movies and so more. We are surrounded by every taste of people so we should have an idea about everyone for creating RDBMS which will hold all the information and we can apply machine learning algorithm for finding the right choice for the person whenever our target audience who are 'Hindi Movie Lover' came to our social niche platform. A person comes on social platform to watch a movie of his choice but there are other movies which can be better than the movie for which the person came. As a Data Scientist, We should have so much data that he can make a algo for predicting movies and preferring him more movies based on his choice.

Q1) What Kind of data will be collected from the users?

Segmenting the audience based on the below factors:

- ➔ Demographic Factor and social economic factor – For segmenting the users we will need data which includes age, gender, education, profession, Location etc.
- ➔ Behavioural Factor- People online behaviour how much a user is socially active in the era of internet.
- ➔ Geographical Factor- Where do the audience live, which culture they follow the most and there identity.
- ➔ Movie Ratings- How much user gives rating to the watched movies.
- ➔ We can also collect the data of the movies that the user has watched earlier and use it for future predictions.
- ➔ Genre of the movie.

Q2) How you plan to use that data to help the users?

Before using my collected data I will try to study about the competitors in the market because I will not be the only one who will be bringing the social niche network. I will try to find the insights about the competitors social network and will study on their weak points in their network means where they are lacking so that my social niche network will overcome their all weak points and it will be the best social network in the market because audience whenever comes to get a service they always want that they get the best service which others are not giving.

After doing complete study about the competitors in the market, I will use my data to give my audience that content which others competitors are not giving which will make my social niche network unique. I will keep engaged my audience to my social niche network. My social niche network should always be updated. My social niche network should always give better recommendations whenever a user comes to the social niche platform, he should always have list of movies as per his filtration. ML algo which will give list of movie for the users should be accurate. It should not be like a user comes to watch action movie and our social niche network is recommending him comedy movies or other movie.

Q3) What data products will be offered?

- 1.) Movies Categories: Providing all the categories of the movies whenever a user comes to the the social network so that user can know about all the categories. Sometime users come with the category of their choice but when they see other category there choice switches to the other.
- 2.) Recommended Movies: Based on the early watched movies by the user, social niche network will suggest more movies.
- 3.) Top Movies: Based on the IMDB rating,newly released movie user will get suggestions.
- 4.) Exclusive Movie: Sometime there are some time which are exclusively available on one network then the user will get that movie which will available on that only.

- 5.) Continue Watching: Sometime a user watches a movies for some minutes then continue watching will be available to the user where he can start the movie where he stopped watching movie.
- 6.) Download: User can also download movie if he wants to download rather than done online streaming because of network problems.
- 7.) Membership/Subscription: It enables user to watch video in better quality which they are not able to watch in non-subscription plans. They can use there account in multiple devices also or multi screen.

Q4) How you plan to measure user engagement with the platform?

To track the engagement of the user on the platform we will see:

1. Checking on the user feedback whether the user gave any feedback, comments, reactions.
2. How much time daily a user spends on our platform.
3. No. of time a movie is played by the user.
4. To how many people user shared the movie after watching it.
5. How many movies user download in a day/week/month.

Q5) What predictive and prescriptive analytics will be used?

Predictive Analytics: Social niche platform will use statistics, machine learning algorithms to predict which movie will user watch next. As we know machine learning mimics the human behaviour means they also learns from the mistakes or misclassification done by the earlier algorithm. If a algo predicts that the user will watch from its predicted movies but the user did not watch from its suggestion then the algorithm will learn from the wrong suggestions, user new choices. The w machine algo will be trained again to give better predictions.

Prescriptive Analysis: Based on the user previous choices, feedback , watch time in the particular category of movie etc., prescriptive analysis will help in giving the movie names when the user will login to the social niche platform.

Q6) How do you plan to use churn analysis in retaining making users loyal to the platform?

We will plan churn analysis to make better version of our social niche platform after resolving all the below issues:

- 1.) Studying about the users why they started leaving the social niche platform. We can do this by floating a auto-generated feedback forum related to services given by the social niche platform.
- 2.) There may be reason that we have stopped analysing about the competitors in the market and users switched to other social niche platform because they are getting better services than our social niche platform.
- 3.) We are not doing improvement in our social niche platform after taking feedback from the audience.
- 4.) May be users are not getting proper updates for there movies.
- 5.) Due to limited number of movies under his category users starts leaving our platform.

Q7) How do you plan to monetize the platform?

- 1.) Changing social niche platform from free to premium. After taking premium plan users will get extra benefit which they will not get in free plan.
- 2.) In-App purchases- Doing promotions of other contents like on facebook,instagram rather than posts We can promotion of selling goods. Affiliated links can be attached acc. to user needs.
- 3.) Running ads of third party which will pay us for this.
- 4.) Collabarating with the brands for their promotion.
- 5.) Affiliate Marketing- On every download we will get money.