Discussion1

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Now that we have covered basic techniques for recommender systems, choose one commercial recommender and describe how you think it works (content-based, collaborative filtering, etc). Does the technique deliver a good experience or are the recommendations off-target?

IMDB was established on October 17, 1990. IMBD has a total of around 4.7 million titles and about 83 million users. IMDB recommendations work by analyzing movies, or tv shows the user has rated or added to their watchlist. The data is then compared to another user with the similar tastes, and a recommendation is given. The IMDB system uses collaborative filtering for making its determination and also uses a weighted rating formula to provide the movie score. The weighted Rating formula has to be similar to the below.

$$WeightedRating(WR) = (\frac{v}{v+m}.R) + (\frac{m}{v+m}.C)$$

where,

v is the number of votes for the movie; m is the minimum votes required to be listed in the chart; R is the average rating of the movie; And C is the mean vote across the whole report

Personally, I believe the technique delivers a good experience because the system can also provide a list of movies upon the recommendations were based.

Source Datacamp

Attacks on Recommender System

Read the article below and consider how to handle attacks on recommender systems. Can you think of a similar example where a collective effort to alter the workings of content recommendations have been successful? How would you design a system to prevent this kind of abuse?

A way that I consider effective in handling attacks is by using multiple filtering techniques to show recommendations. For example, combining content filtering and collaborative filtering. I believe this approach while not perfect will reduce biases generated by fake reviews etc.

The article mentions that reviews of the movie where inserted before the film was released. To reduce the effect of unwanted reviews, IMBD could restrict users from rating movies that have not had a release. Additionally, the creation of fake accounts and usage of high or low ratings will not work on neighbor-based recommenders.

Sources

Attacks on Recommender Systems

IMDB Ratings

IMDB Recommendations

Datacamp