RECOMMENDATION SYSTEM FOR MY NEWS

Mr.Dastane Aditya P.[1], Mr.Chirmade Sarang R.[2], Mr.Hritik Miskeen[3]

1.Student, Information Technology, PREC Loni, Maharashtra, India
2. Student, Information Technology, PREC Loni, Maharashtra, India
3. Student., Information Technology, PREC Loni, Maharashtra, India

ABSTRACT

In today's age of information overload era it has become very important to exactly show the users only the things they need to see. In this paper we are presenting the users the news as they wish using the android app named my news. Online news reading has become very popular as the web provides access to news articles from millions of sources around the world. The news recommender process is based on collaborative filtering and dynamic updating policy. Lot of news articles comes into the view from Internet usage. We are entering the information overload era .So to find the required news we proposed my news recommendation system is a system which is used to find the news that users requires urgently. In this system we are gathering interest of user. Through study of their interests, we can realize my news recommendation for different people. This method is combination with collaborative filtering algorithm to form a hybrid recommendation algorithm. With use of this news algorithm, we can generate recommended lists and realize my news recommendation.

Keyword :- *My news recommendation, hybrid recommendation algorithm, collaborative filtering algorithm, association rules.*

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1. INTRODUCTION

With the rapid growth of the amount of information, people are faced with an urgent and serious problem which is called information overload. Through the analysis of three levels webpage links about news statistics for People's Daily online in one day, they find more than 5000 pieces of news are browsed. This is just the amount of news in People's Daily online. Now there are many mainstream news portals, such as, TOI ,Dainaik bhaskar ,Mango news, Daily news the global times and so on. The number of news browsed on these websites over a day will reach more than 100000. Facing so much news, most people prefer to receive some headlines passively instead of taking initiative in paying attention to them. Under this circumstance, personalized news recommendation appears. It is based on the browsing history of many users. Through the analysis of their interests, we can analyze the personalized news recommendation for different people. So it can help them to find the news they are interested in and save much time. With the rapid development of Internet in recent years, the theories and algorithms about recommendation become better and better, such as collaborative filtering algorithm, content-based algorithm, graph- change over time, which brings new opportunities and challenges to the recommender. Therefore, we can discover user's browsing patterns and variation law of news through analysing user's browsing behaviour with time tagged, and design an accurate recommendation system to forecast the news that users would browse in the future.

1.2 Document Purpose -The purpose of this document is to state the problem statement as well as dene the scope of the project. This document also intends on explaining the proposed work with respect to the schedule of work as well as the plan of action. The document also shows assumptions made on the basis of the work done till now, which is mostly related to modules designing and studying of various concepts related to recommender system for personalised news using android application.

1.3Motivation - Based on the current scenario we are building a model form a users past behaviours as well as similar decision chosen by users. This model is use to predict news that user may have interest in.

1.4Need - Recommender systems have provide same in recent years, and are developed in a various of platform : some popular applications include movies, music, books, research articles, and search queries, social tags, and

products in general. The personalized news recommendation system provides the news to the user more precisely.

1.5Basic Concepts - The main idea is to develop a system building a model form a users previous action and similar decision select by users. This model is use to filter news that user may have happy to choose. The recommendation system typically produce a recommendation in collaborative filtering. Collaborative filtering approaches building a model from a user past behaviour (items previously purchased or selected and/or numerical ratings given to those items) as well as similar decisions made by other users this model is then used predict items (or ratings for items) they user may have an interest in news in content based filtering approach which is combined in hybrid recommender system.

2. Literature survey-

2.1 Based on Collaborative Filtering Approaches

The term collaborative filtering (CF) was invent in 1992 by Goldberg et al who proposed that information filtering can be most effective when people are involved in process of filtering. The concept of collaborative filtering is understood today was introduced two years after by Ransack et al. Their theory was proposed on the likeminded users, here group of two or more users are considered based on the there like and the list is recommended to the likeminded users Compared to CBF, CF offers three advantages. First, CF is content independent, i.e. no error prone item processing is required Second, because people do the ratings, CF takes account of real quality assessments Finally, CF is supposed to provide serendipitous recommendations because recommendations are not based on item similarity but on user similarity .

2.2 Based on Hybrid Recommendation Approaches

Many of the approaches have some hybrid characteristics. For instance, several of the CBF approaches use global relevance attributes to rank the candidates, or graph methods are used to extend or restrict potential recommendation candidates. This type of hybrid recommendation algorithm is known feature augmentation. Due to less form of hybrid recommendation technique, since the primary technique is still dominant. In true hybrids, the combined concepts are similarly important. From the reviewed approaches Approaches of the previously introduced recommendation classes may be combined in, only some of the TechLens approaches may be considered true hybrid approaches.

3. Problem Definition

Implementation of my News Recommendation System by using Hybrid recommendation algorithm and Collaborative filtering algorithm on the basis of click stream analysis. My news recommendation is a system which is used to find the news that users want to get urgently.

3.1 Scope

Recommendation system is the technique of recommending the things to the users based on his or her selection criteria in the recommendation system there are nearly about three to four algorithms based on which the recommendation works i.e .

1.**The Content based filtering** : Where the contents are represented to user on the basis of the selection of contents and the past selection where history matters.

2.**Collaborative filtering** : here the user are recommended the data on the basis of the future contents based on the previous choices of the user where the user choices are predicted and the things are recommended for the users choice of selections. Where the help of two association rules are given ie the support and confidence.

3.**Hybrid filtering**: It is the combination of two or more algorithm use in combination for better efficiency and result.

4. Proposed System Architecture

4.1 Working

In this paper we are proposing the my news recommendation by using the collaborative filtering and hybrid recommendation algorithm where the algorithm is based on the no of users instead of the contents and using the association rules such as support and confidence .Using these association rules we can find the best news recommendation.

4.2 Mathematical model

System S= { News for user Handling of daily news}

 { C =c1,c2,c3 , including "world", "sports", and "entertainment".

In our log analysis, we computed the click distribution over the set of topic categories for individual users as well as the group of users in a country.

System S= {S1, I, d, O}

I= { news details }

d= function

O= Output

d1= news details information

d2= Store(news api for user handling)

d3= user details

O= news details when it comes

 We divided the time period into 14 months.

 Then, for each user u , we computed the distribution of her clicks in every month t , tuD , represented as a vector over the set of topic categories:

 total n total : tuD = , where $\sum = i$ itotal NN (1)

iN is the number of clicks on articles classified into category i made by user u in month t . total N is the total number of clicks made by the user in the time period.

Thus, tuD represent the proportion of time the user spent

reading about each topic category and reflects the interest distribution of the user in that month.

5. CONCLUSIONS

we mainly use the hybrid recommendation algorithm which combined with collaborative filtering algorithm and improved association rules to achieve the personalized news recommendation

6. REFERENCES

1. [Xuejiao Han, Wenqian Shang 2015] The Design and Implementation of Personalized News Recommendation System 1 july 2015978-1-4799-8679-8/15/$31.00 copyright 2015 IEEE ICIS 2015, June 28-July 1 2015, Las Vegas, USA
2. Billsus, D., Pazzani, M. J., User Modeling for Adaptive News Access, User Modeling and User-Adapted Interaction, v.10 n.2-3, p.147-180, 2000
3. Carreira, R., Crato, J. M., Gon?alves, D., Jorge, J. A. Evaluating adaptive user profiles for news classification, Proceedings of the 9th international conference on Intelligent user interfaces, 2004.
4. Xuejiao Han, Wenqiann Shang china The Design and Implementation of Personalized News Recommendation System, Proceeding of the ICIS 2015, June 28-July 1 2015, Las Vegas, USA
5. Billsus, D., and Pazzani, M. A hybrid user model for news story classification. In Proceedings of the Seventh International Conference on User Modeling. 1999.