Abstract

With the explosion of service based web application like online news, shopping, bidding, libraries great amount of information is available. Due to this information overload problem, to find right thing is a tedious task for the user. A recommender system can be used to suggest customized information according to user preferences.

Collaborative filtering techniques play a vital role in designing the recommendation systems. The collaborative filtering technique based recommender system may suffer with cold start problem i.e. new user problem and new item problem and scalability issues. Traditional K-Nearest Neighbor Technique also suffers with user and item cold start problem. In this paper recommender system generates suggestions for user by combining collaborating filtering on transaction data with rating predicted with user demographics and item similarity. The final rating is weighted sum of ratings computed from transaction data, user data and item data. The advantage of proposed system that recommender system can deal with cold start in case of “new user” or “new item”. and Also system has low MAE and RMSE in comparison of traditional
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collaborative filtering based on K-Nearest Neighbor approach.

References


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Index Terms

Computer Science Information Sciences
Keywords

Recommendation System, Collaborative Filtering, Cold start, demographic filtering, K-Nearest Neighbor Method.