

ABSTRACT

The growth of information on the internet very rapidly lead to the availability of information become more numerous and difficult for users to obtain accurate information as possible will lead to a lot of irrelevant information. To overcome these circumstances, it takes the system: Recommender System. Recommenders System is able to provide recommendations or predictions an item (songs, books, movies, news) to a user in accordance with the characteristics of the user based on the behavior of other users as well as information about the item.

Collaborative filtering is one method used in the Recommender System, this method works by collecting feedback from users in the form of ratings on the item then use the similarity of some user in determining how to recommend an item. Many other users has rated possible similarity value the better and the similarity value will be smaller if other users little has rated is call sparsity. The deal was developed based Collaborative filtering recommender systems using a recursive prediction algorithm. This algorithm will give the estimated value to users that do not perform on an item peratingan recursively so that in this way can help a user to obtain a more accurate prediction.

Tests on the algorithm designed by using training and test data sets from movielens. To measure the accuracy of this thesis is done by using the Mean Absolute Error (MAE). Results from testing show that the recursive prediction algorithm based Collaborative filtering is able to overcome the sparsity problem with a high level of sparsity. There are parameters affecting the selection of nearest neighbor, the level of recursion, and the value of the weight threshold.

Keywords : *Recommenders System, Collaborative filtering, Recursive prediction*