Abstract

The amount of information on the Web increasing according to the growth of information and communication infrastructure which resulted in overloaded information, where users have problem to get the information they really needed.

Recommender system is a solution to simplify user searches for information needed. Recommender system is a system that can provides content or items considering the tastes of individual user.

This final task implement recommender system based on memory-based collaborative filtering, by applying the Weighted Difference Entropy algorithm(WDE) for used to process user rating similarity value. The purpose of this final task is to analyze the prediction accuracy of ratings generated by the recommender system after implemented algorithm WDE. The parameters used in the analysis is the weighting parameter in the algorithm WDE, comparison of the training set and test set and neighborhood sizes as measured by the Mean Absolute Error.

The result show that the prediction accuracy produced by Weighted Difference Entropy(WDE) progressively increased with increasing number of co-rated items. On sparse datasets greater neighborhood size generated worse prediction accuracy but instead on dense datasets generate prediction accuracy improved, the value error decreased with increase in the number of training set, in sparse dataset parameters WDE(abs) show the smallest MAE values.

Keywords: *similarity, weighted difference entropy, collaborative filtering, entropy.*