Abstract

As one of solutions to overcome information overload, recommender system trying to provide item recommendation that may be useful for users based on their preferences. Most used method in recommender system is collaborative filtering. However, it is still not be able to solved some problems in recommender system such as cold start user, data sparsity, and attack by malicious user.

This final project analyze the use of trust in recommender system and do the implementation into a trust-aware recommender system. The use of trust is expected to overcome the cold start user problem, data sparsity, and attack mentioned above. This final project analyze the accuracy and the number of predicted rating provided by trust-aware collaborative filtering and compare them with those provided by pure collaborative filtering.

Using trust in recommender system can increase the accuracy and number of predictions. MAE and coverage resulted from trust-aware recommender system is better compared to pure collaborative filtering. Maximal propagation distance chosen was 3 because it can give MAE and coverage which are relatively better than other propagation.

Keywords: *recommender system, collaborative filtering, trust, trust-aware, cold start user, sparsity*