Abstract

Users of the online dating site heartenly.com feel uncertain when they want to choose a target partner. That is caused by so many choices of target pairs available, whereas they have not gotten enough information about the target pairs available. Thus, they need to spend a considerable amount of time observing a large number of target pairs to dig up information.

Utilization of the user recommendation system is deemed necessary to provide comfort to users of the site heartenly.com. The recommendation system is applied based on user preferences, which can be seen from the rating transaction activity of the user. Thus, in this study, a recommendation system is used that can see user preferences based on user rating transactions against other users.

The solution, a recommendation system can be implemented by processing user rating transaction data using collaborative filtering methods. In collaborative filtering itself, there are two commonly used approaches, namely user-based and item-based. In order to find out the best quality of recommendations, in this case, a comparison was made about the two collaborative filtering approaches based on the results of the Mean Absolute Error (MEA) evaluation metric.

The primary outcome of this study is a comparison of the quality of the recommendation system between the 2 CF approaches. The result, in this case, item-based, has an MAE value of 0,204 and user-based of 0,237. Because the smaller the MAE value means, the better the accuracy of the predictions produced, the item-based approach can be said to have a slightly better quality recommendation than the user-based approach for this case.

Keywords: recommendation system, rating, collaborative filtering, *user-based collaborative filtering, item-based collaborative filtering*