

## **User recommendation algorithm in social tagging system based on hybrid user trust.**

### **ABSTRACT**

With the rapid growth of web 2.0 technologies, tagging become much more important today to facilitate personal organization and also provide a possibility for users to search information or discover new things with Collaborative Tagging Systems. However, the simplistic and user-centered design of this kind of systems cause the task of finding personally interesting users is becoming quite out of reach for the common user. Collaborative Filtering (CF) seems to be the most popular technique in recommender systems to deal with information overload issue but CF suffers from accuracy limitation. This is because CF always been attack by malicious users that will make it suffers in finding the truly interesting users. With this problem in mind, this study proposes a hybrid User Trust method to enhance CF in order to increase accuracy of user recommendation in social tagging system. This method is a combination of developing trust network based on user interest similarity and trust network from social network analysis. The user interest similarity is derived from personalized user tagging information. The hybrid User Trust method is able to find the most trusted users and selected as neighbours to generate recommendations. Experimental results show that the hybrid method outperforms the traditional CF algorithm. In addition, it indicated that the hybrid method give more accurate recommendation than the existing CF based on user trust.

**Keyword:** User trust; Tag; Collaborative filtering.