عنوان مقاله:

Merging Similarity and Trust Based Social Networks to Enhance the Accuracy of Trust-Aware Recommender Systems

محل انتشار:

دوفصلنامه مجله کامپیوتر و رباتیک, دوره 8, شماره 2 (سال: 1394)

تعداد صفحات اصل مقاله: 9

نویسندگان:

Leily Sheugh - *Faculty of Computer and Information Technology Engineering, Qazvin Branch, Islamic Azad University, Qazvin, Iran*

Sasan H Alizadeh - *Faculty of Computer and Information Technology Engineering, Qazvin Branch, Islamic Azad University, Qazvin, Iran*

خلاصه مقاله:

In recent years, collaborative filtering (CF) methods are important and widely accepted techniques are available for recommender systems. One of these techniques is user based that produces useful recommendations based on the similarity by the ratings of likeminded users. However, these systems suffer from several inherent shortcomings such as data sparsity and cold start problems. With the development of social network, trust measure introduced as a new approach to overcome the CF problems. On the other hand, trust-aware recommender systems are techniques to make use of trust statements and user personal data in social networks to improve the accuracy of rating prediction for cold start users. In addition, clustering-based recommender systems are other kind of systems that to be efficient and scalable to large-scale data sets but these systems suffer from relatively low accuracy and especially coverage too. Therefore to address these problems, in this paper we proposed a multi-view clustering based on Euclidean distance by combination both similarity view and trust relationships that is including explicit and implicit trusts. In order to analyze the effectiveness of the proposed method we used the real-world FilmTrust dataset. The experimental results on this data sets show that our approach can effectively improve both the accuracy and especially coverage of .recommendations as well as in the cold start problem

کلمات کلیدی:

cold start, coverage, accuracy, trust-aware recommender system, multi-view clustering