

Personalized Social Resource Recommender Systems on Interest-Based Social Networks

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Abstract : The interest-based social networks, also known as social bookmark sharing systems, are useful platforms for people to conveniently read and collect internet resources. These platforms also providing function of social networks, and users can share and explore internet resources from the social networks. Providing personalized internet resources to users is an important issue on these platforms. This study uses two types of relationship on the social networks—following and follower and proposes a collaborative recommender system, consisting of two main steps. First, this study calculates the relationship strength between the target user and the target user's followings and followers to find top-N similar neighbors. Second, from the top-N similar neighbors, the articles (internet resources) that may interest the target user are recommended to the target user. In this system, users can efficiently obtain recent, related and diverse internet resources (knowledge) from the interest-based social network. This study collected the experimental dataset from Diigo, which is a famous bookmark sharing system. The experimental results show that the proposed recommendation model is more accurate than two traditional baseline recommendation models but slightly lower than the cosine model in accuracy. However, in the metrics of the diversity and executing time, our proposed model outperforms the cosine model.

Keywords : recommender systems, social networks, tagging, bookmark sharing systems, collaborative recommender systems, knowledge management

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