

عنوان مقاله:

A fuzzy approach to review-based recommendation: Design and optimization of a fuzzy classification scheme based on implicit features of textual reviews

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خلاصه مقاله:

In the design of recommender systems, it is believed that the set of reviews written by a user can somehow reveal his/her interests, and the content of an item can also be implied from its corresponding reviews. The present study attempts to model both the users and the items via extracting key information from the existing textual reviews. Based on this information, a fuzzy rule-based classifier is designed and tuned, which aims to predict whether a typical user will be interested in a typical item or not. For this purpose, the set of all reviews belonging to a user are mapped to a vector representing the user's interests. Similarly, the set of reviews written by different users over an item are merged and mapped to a vector representing the item. By conjoining these two vectors, a longer vector is obtained which will be used as the input of the classifier. To optimize the classifier, an adaptive approach is suggested and rule-weight learning is carried out, accordingly. The performance of the proposed fuzzy recommender system was evaluated on the Amazon dataset. Experimental results narrate from the promising classification ability of the proposed recommender system compared to state of the art.

کلمات کلیدی:

Recommender systems, review-based, Fuzzy classification, Rule weighting

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