Abstract

An approach for improving quality and performance of collaborative filtering-based recommender systems is proposed in this paper. A slight change on similarity metric is proposed. To obtain more accurate similarity measurement between two users, similarity measurement method needs a well-chosen weight vector. Different weight vectors could be employed based on the recommender system and the taste of users, but only some of them are suitable. To obtain the best results we have to find the most suitable weight vector among all possible ones. A meta-heuristic algorithm has been introduced to find near optimal weight vector. Cuckoo optimization algorithm is used to obtain optimized weight vector. The results are promising and satisfactory. Our results are compared with the results of previous approaches to verify effectiveness of new proposed method.
Improving Results and Performance of Collaborative Filtering-based Recommender Systems using Cuckoo Optimization Algorithm


Index Terms

Computer Science
Artificial Intelligence

Keywords
- collaborative filtering
- recommender systems
- similarity measurement
- cuckoo optimization algorithm
- performance