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**A WEIGHTED MULTI-ATTRIBUTE-BASED RECOMMENDER SYSTEM
USING EXTENDED USER BEHAVIOR ANALYSIS**

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ABSTRACT

A new *weighted multi-attribute based recommender system* (WMARS) has been developed using extended user behavior analysis. WMARS obtained data from number of clicked items in the recommendation list, sequence of the clicked items in recommendation the list, duration of tracking, number of tracking same item, like.s/dislikes, association rules of clicked items, remarks for items. WMARS has been applied to a movie web site. The experimental results have been obtained from a total of 567 heterogeneous users, including employers in different sectors, different demographic groups, and undergraduate and graduate students. Using different weighted sets of the attributes' parameters, WMARS has been tested and compared extensively with collaborative filtering. The experimental results show that WMARS is more successful than collaborative filtering for the data set that was used.

Keywords: Collaborative filtering; evolutionary algorithms; recommender systems; relevance feedback; user behavior analysis.

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