

Collaborative Filtering Recommender System: Overview and Challenges

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This paper is to present an overview of Collaborative Filtering (CF) recommender system and show the major CF challenges. In general, the recommendation systems are the best way to help users to overcome the information overload issue. The CF approach is one of the most widely used and most successful methods in the recommendation system, such as e-commerce. This paper introduced a brief description about recommender's approaches which are: content-Based, collaborative filtering and hybrid approach. Next, defined the main challenges which have clearly impact on the performance and accuracy of CF recommender system. The major finding of this paper is the CF main problems: Data sparsity, Cold-star, and Scalability. By presenting of these challenges the quality of recommendations can be improved by proposing new methods. The paper ends with conclusion summarizes the limitations of the existing methods and recommendations.

Keywords: Recommendation system, Collaborative filtering, Sparsity, Scalability