

Building Scalable and Accurate Hybrid Kernel Mapping Recommender

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Abstract : Recommender systems uses artificial intelligence practices for filtering obscure information and can predict if a user likes a specified item. Kernel mapping Recommender systems have been proposed which are accurate and state-of-the-art algorithms and resolve recommender system's design objectives such as; long tail, cold-start, and sparsity. The aim of research is to propose hybrid framework that can efficiently integrate different versions— namely item-based and user-based KMR— of KMR algorithm. We have proposed various heuristic algorithms that integrate different versions of KMR (into a unified framework) resulting in improved accuracy and elimination of problems associated with conventional recommender system. We have tested our system on publically available movies dataset and benchmark with KMR. The results (in terms of accuracy, precision, recall, F1 measure and ROC metrics) reveal that the proposed algorithm is quite accurate especially under cold-start and sparse scenarios.

Keywords : Kernel Mapping Recommender Systems, hybrid recommender systems, cold start, sparsity, long tail

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