This paper deals with the process of recommending movies for groups of people in a mobile, decentralized scenario. Many participating peers exchange their individual rating vectors and build up their own internal prediction model. A stationary device allows a group of peers to receive group recommendations and input explicit group ratings. After a brief introduction into the field of recommender systems, we show in particular the problems of group recommender systems and their evaluation. We propose two different approaches for generating movie recommendations to a group of people and introduce an extension to the usual datastructure of rating vectors in form of weighting factors in order to be able to take into account different types of rating information. An offline analysis of the presented algorithms by means of the MovieLens dataset is conducted afterwards and the results are presented and discussed. The paper concludes with a few recommendations on algorithm design based on our findings.
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