‘Solving the apparent diversity-accuracy dilemma of recommender systems’

ABSTRACT

Recommender systems use data on past user preferences to predict possible future likes and interests. A key challenge is that while the most useful individual recommendations are to be found among diverse niche objects, the most reliably accurate results are obtained by methods that recommend objects based on user or object similarity. In this paper we introduce a new algorithm specifically to address the challenge of diversity and show how it can be used to resolve this apparent dilemma when combined in an elegant hybrid with an accuracy-focused algorithm. By tuning the hybrid appropriately we are able to obtain, without relying on any semantic or context-specific information, simultaneous gains in both accuracy and diversity of recommendations.