Hybrid POI recommendation system for tourism

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***Abstract*— Due to the increase in amount of available information, finding places and planning of the activities to be done during a tour can be strenuous. Tourists are looking for information about a place in which they have not been before, which worsen the selection of places that fit better with user's preferences. Recommendation systems have been fundamentally applicable in tourism, suggest suitable places, and effectively prune large information from different locations, so tourists are directed toward those places where are matched with their needs and preferences. Several techniques have been studied for point-of-interest (POI) recommendation, including content-based which builds based on user preferences, collaborative filtering which exploits the behavior of other users, and different places, knowledge-based method, and several other techniques. These methods are vulnerable to some limitations and shortcomings related to recommendation environment such as scalability, sparsity, first-rater or gray sheep problems. This paper tries to identify the drawbacks that prevent wide spread use of these methodologies in recommendation. To improve performance of recommendation systems, these methods are combined to form hybrid recommenders. This paper proposes a novel hybrid recommender system which suggests tourism destinations to a user with minimal user interaction. Furthermore, we use sentiment analysis of user's comments to enhance the efficiency of the proposed system.**

***Index Terms*— Personalized filtering, Point of interest, Recommendation system, Tourism recommendation, Hybrid recommender.**

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