

**Social Trust Based Semantic Tourism Recommender System:****A Case of Medical Tourism in Tunisia** Mohamed Frikha<sup>1\*</sup>, Mohamed Ben Ahmed Mhiri<sup>2</sup> and Faiez Gargouri<sup>2</sup>

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\*Corresponding author    **Abstract**    Based on the assumption that users generally have a tendency to use items recommended by friends rather than strangers and that trust among friends positively correlates with user preference, we decided to refer to research conducted on the emerging field of trust-based recommender system. We propose to integrate the temporal factor in measuring trust between social network friends. A Trusted Friend's calculation method is developed for determining social trusted friends in Facebook. We have, accordingly, demonstrated the importance of the interactions' time between users. Afterwards, we have used this method in a semantic tourism recommender system as a smart e- tourism tool able to recommend items based on the users' preferences and their trusted friends' preferences. We have also applied our tourism recommender system for the case of medical tourism in Tunisia to help users interested in traveling to Tunisia for medical purposes. Finally, we have implemented the system and collected feedback from real users to evaluate the quality of recommendation and prove its importance in improving the medical tourism domain.

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**Keywords:** Preference representation; Semantic Web mining; Social Network; Tourism Recommender Systems; Ontology; Trust .

**Citation:** Frikha, M., M. Mhiri, and F. Gargouri (2017) Social Trust Based Semantic Tourism Recommender System: A Case of Medical Tourism in Tunisia. *European Journal of Tourism Research* 17, pp. 59-82