Abstract
Place Recommendation Systems (PRS's) are used to recommend places to visit to World Wide Web users. Existing PRS's are still limited by several problems, some of which are the problem of recommending similar set of places to different users (Lack of Personalization) and no diversity in the set of recommended items (Content Overspecialization). One of the main objectives in the PRS's or Contextual suggestion systems is to fill the semantic gap among the queries and suggestions and going beyond keywords matching. To address these issues, in this study we attempt to build a personalized context-aware place recommender system using semantic-based user profile modeling to address the limitations of current user profile building techniques and to improve the retrieval performance of personalized place recommender system. This approach consists of building a place ontology based on the Open Directory Project (ODP), a hierarchical ontology scheme for organizing websites. We model a semantic user profile from the place concepts extracted from place ontology and weighted according to their semantic relatedness to user interests. The semantic user profile is then exploited to devise a personalized recommendation by re-ranking process of initial search results for improving retrieval performance. We evaluate this approach on dataset obtained using Google Paces API. Results show that our proposed approach significantly improves the retrieval performance compare to classic keyword-based place recommendation model.