A Proposed Architectural Framework for Generating Personalized Users' Query Response

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Abstract

Personality mining is a vital approach which is currently been on focus for retaining customers as well as extending the customers' segment. Data in its varied forms such as personal profile, social networks data, as well as transactional data could be considered as key for the success of industries. Therefore, successful data analysis by applying intelligent techniques, such as mining, natural language processing techniques, weighting methods, and others, drive competitiveness to a higher level and, further, to uniqueness. One of the main competitive advantages is the customer satisfaction, therefore, utilizing such successful techniques and successfully analyzing these sources of data with exploring their varieties of relationships lead to the successful personalization and consequently the user satisfaction. This research proposes an adaptive framework for documents' personalization. The proposed framework builds the most suitable documents' contents following user's queries as well as the preferred style for content presentation with respect to users' personality characteristics. On the other hand, the research highlights the importance of the Egyptian Knowledge Bank as a source of professional documents for replying to the users' queries. A preliminary investigation has been applied to explore the importance of the proposed framework in the educational field through conducting a survey that included ten staff members and fifty students. The results revealed that the current research is a vital objective in the education field with 91% and 95% respectively.

Journal of Southwest Jiaotong University 2020, October

Future University In Egypt (http://www.fue.edu.eg)