Editorial

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Welcome to V14 N4 issue of *IJWET*. There are four papers in this issue. The first paper is 'Flexible service discovery based on multiple matching algorithms' by Fethallah Hadjila, Amine Belabed and Mohammed Merzoug. This paper presents an extended voting model that handles the problem of web service discovery. The proposed solution involves comparing each pair of services using probabilistic dominance. It then calculates the fused score of each service by counting the number of its corresponding successes.

According to these authors, the main advantage of the proposed scheme is that its MAP performance is less sensitive to noisy data. In contrast, machine learning schemes with large capacity models are more likely to show divergent performance on unseen data. The main weakness of this type of approach lies in the fact that their probabilistic dominance relationship can produce a tied result in rare cases. This situation can be resolved by the addition of alternative heuristics. The empirical evaluation shows that this fusion scheme is more effective than individual matching functions and other fusion models, such as Borda and Condorcet. It would be useful to compare the effectiveness of probabilistic dominance with other ranking heuristics, such as majority judgment or advanced dominance relationships and to compare the PCF fusion model to alternative schemes (like probabilistic aggregating models or other types of voting models).

The second paper is 'Air quality meteorological and environmental information system in Western Macedonia, Hellas' by Ioannis A. Skordas, Athanassios G. Triantafyllou and George F. Fragulis. This paper presents the development of an operational, monitoring, as well as high-resolution local-scale meteorological and air quality forecasting information system for West Macedonia region, Hellas, in a dynamic, easily accessible and user-friendly way. It consists of a structured system fully accessible and manipulable by users, as well as a system for accessing and managing measurement results in a direct and dynamic way. Thus, updates of the weather and air pollution forecast for the West Macedonia region are provided for the next seven days based on current day information. The forecasts are displayed through dynamic-interactive web charts, whereas there is also a visual illustration of the atmospheric pollution of the region in a map, using images and animation images. The application has been developed using state of the art web technologies (Ajax, Google maps, etc.) and under an open-source software philosophy, allowing users to update the code according to their needs. The paper is a very simple development paper. It would be useful to draw out the novel theoretical design features.

The third paper is 'A linguistic approach to short sentences keywords identification for a question answering system' by Denis Araujo, Sandro Rigo, Bruna Schmitt and Alencar Hentges. According to these authors, one of the aims of question answering systems is to identify which words are more relevant to understand the users' needs. Known approaches involve the identification of the users' intentions through a set of previously built related sentences. Some limitations of these approaches are the lack of flexibility and limited selection options. In this paper, they present an approach based on computational linguistics to identify the keywords in short sentences for question answering systems.

The process of identifying the keywords is essential for finding the answer, especially when querying a knowledge base. These authors argue that thy have found a new way to use the information generated by the natural language processing tools to identify the keywords of the sentences, by profoundly exploring the linguistic information to select the keywords of the questions using their algorithm. They used the QALD-7-train-multilingual dataset as a benchmark in their experiment to evaluate the algorithm. They argue that the efficiency of their method was proved by the performance of 0.9776 in precision, recall value of 0.9962, resulting in an F1 score of 0.9868 reached in the validation experiment using QALD-7 as a gold standard. However, the sentence must contain only one question.

The fourth paper is 'Semantic enrichment of web services using linked open data' by Houda El Bouhissi, Abdelbadeeh Salem and Abdelkamel Tari. These authors argue that most of current web services (WSs) lack explicit and sufficient semantic information. As a result, relevant WSs are not delivered to consumers during service discovery. A possible solution to this is to provide the existing syntactic WSs with explicit information of their meaning through an annotation. Semantic annotations play an important role in semantics-aware service discovery, recommendation and composition. This paper presents an approach for semantically annotating WSs based on linked open data (LOD) knowledge. It uses similarity measure algorithms for matching the appropriate LOD concepts to the corresponding WS' parameters. A performance evaluation on real-world WSs was performed to validate the proposed approach. According to these authors, the results of the evaluation were encouraging and they argue that their method produces high annotation rate with great accuracy. Further research and empirical studies are required to validate the approach.