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## **Guest editorial**

## Data analytics in web information systems

The importance of data analytics in many different domains has given rise to the research on new approaches, methods and algorithms in utilizing data to gain insight into the domain. In this special issue, we have selected six interesting pieces from the iiWAS 2015 conference. The papers were selected based on their originality and significant contribution to the area of data analytics. The application coverage of the papers involves different domains such as recommender systems, robotics, medical, linked data and logistics.

The first two papers "Prophetic Blogger Identification Based on Buzzword Prediction Ability" and "Twitter User Tagging Method based on Burst Time Series" introduce the use of time series analysis on social media data. The first paper introduces a time series analysis to identify bloggers who are most likely to introduce new insight on a topic. The identification of the bloggers and the analysis of their blogs may give information of possible new trends that may become popular before they become mainstream.

The second paper uses the time series analysis to find user interests that can be later used to provide inputs to a recommender system. This paper is interesting because while many of previous studies have been based on content analysis of the tweets to determine user interests, this paper proposes the use of time series analysis. The analysis was performed on following the number of tweets generated across time and look into the topics of the tweets when they detected frequency bursts in the time series.

The third paper "Implicit Communication Robots based on Automatic Scenario Generation using Web Intelligence" uses data analytics to generate automatic text for robots communication. What is interesting in this paper is that the robots are designed to provide entertainment by telling funny stories based on Japanese traditional Manzai style stand-up comedy.

The paper "Feature engineered relation extraction - medical documents setting" proposes a combination of semantic and syntactic analysis of medical documents, and a set of features to be discovered from the medical documents. The authors have used these features to provide some structures and possible labeling of documents that can later be used for retrieval purposes.

The paper "H-SPOOL: A SPARQL-based ETL Framework for OLAP over Linked Data with Dimension Hierarchy Extraction" proposes a method to generate hierarchy of the linked data when it is used for OLAP processing. The hierarchy will allow OLAP operations of roll-up and roll-down to be applied to the linked data that are extracted, transformed and loaded into a data warehouse.

The last paper "Crowd Logistics': The Contribution of Social Crowds in Logistics Activities" provides an overview of the current state of research in crowdsourcing for logistics activities. The overview offers insight into the theoretical background underpinning the implementation of the crowdsourcing approaches currently existing in logistics.

We hope you find the papers interesting and inspiring further research and innovation in the area of data analytics.

International Journal of Web Information Systems Vol. 12 No. 3, 2016 p. 266 © Emerald Group Publishing Limited 1744/0084 DOI 10.1108/IIWIS-06-2016-0033

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