FUZZ-IEEE 2017, Naples, Italy

Special Session on Linguistic Summarization and Description of Data

Organized by Nicolas Marin, Daniel Sanchez, Anna Wilbik, and Rui Jorge Almeida

http://decsai.ugr.es/pi/lidvis/cfpfuzzieee2017.html

The development of human–computer interaction systems based on natural language, already important in the last decades, is growing in importance nowadays. Particularly, data-to-text systems are intended to obtain a text describing the most relevant aspects of data for a certain user in a specific context. Such texts, called linguistic summaries and descriptions of data, are comprised of a collection of natural language sentences, and must be as close as possible to those generated by human experts. In this realm, not only specialized users (e.g. in decision support systems) are interested in this type of approach, but nonspecialized users also show interest in receiving understandable information that is supported by data.

Linguistic summaries commonly use fuzzy set theory to model linguistic variables and incorporate different forms of imprecision in a collection of natural language sentences. In many approaches they can be considered as quantifier based sentences, hence linguistic summaries constitute a perfect application for new developments in the domain of fuzzy quantifiers. Furthermore, linguistic summaries have been related to fuzzy rule systems.

Linguistic summaries and description of data is related to other research areas such as knowledge discovery in databases and intelligent data analysis, flexible query answering systems for data, human-machine interaction, uncertainty management, heuristics and metaheuristics, and natural language generation and processing. More recently, this field has been related to the linguistic description of complex phenomena and computing with words paradigms.

The objective of this special session is to provide a forum for researchers, from the above indicated areas, to present recent developments in linguistic summarizes and description of data as well as discuss how these different approaches can complement each other for the task of building such systems.

The session continues the series of special sessions on the topic organized by some of the organizers of this session in past conferences (IFSA 2015, FUZZ-IEEE 2015, FUZZ-IEEE 2016).

Topics of interest include, but are not restricted to:

- Protoforms and fuzzy concepts for the linguistic summaries and fuzzy description.
- Referring expression generation with fuzzy properties.
- Quality assessment of linguistic summaries and fuzzy description.
- Techniques and algorithms for generating linguistic summaries and descriptions of data.
- Ontologies for data summarization.
- Logical approaches for modeling linguistic expressions.
- Modeling uncertainty for linguistic summaries and fuzzy description.
- User preference/interest modeling for linguistic summaries and fuzzy description.
- Applications of linguistic summaries and fuzzy description.
- Natural language generation for data summarization.
- Machine Learning applied to data summarization.
- Linguistic information extraction from visual information
- Context-awareness in data summarization and description, and natural language generation.

Important dates:

Paper submission:	January 25th, 2017
Notification of acceptance:	March 10th, 2017
Final paper submission:	April 8th, 2017
Early registration deadline:	April 10th, 2017
Conference:	July 9-12, 2017

Instructions for authors, submission and more details in the Conference website:

http://www.fuzzieee2017.org/

Accepted papers to this special session (if presented at the Conference) will be published in the conference proceedings of FUZZ-IEEE published by the IEEE.

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