Editorial

THIS issue of *Polibits* includes a selection of papers related to the topic of processing of semantic information. Processing of semantic information involves usage of methods and technologies that help machines to understand the meaning of information. These methods automatically perform analysis, extraction, generation, interpretation, and annotation of information contained on the Web, corpus, natural language systems, and other data.

The **special section** of this issue consists of six papers dedicated to **processing of semantic information**. The first four papers present new proposals on processing of semantic information using corpora. The fifth paper analyses opinions. The final paper of this section use classification rules for creation of conceptual graphs.

The paper "*Spoken to Spoken vs. Spoken to Written: Corpus Approach to Exploring Interpreting and Subtitling*" deals with corpora of Finnish-Russian interpreting discourse and subtitling. The software package developed for processing of the corpora includes routines specially written for studying speech transcripts rather than written text. For example, speaker statistics function calculates number of words, number of pauses, their duration, and average speech time of a certain speaker.

The paper "*Semi-Automatic Parallel Corpora Extraction from Comparable News Corpora*" develops an effective technique that extracts parallel corpus between Manipuri, a morphologically rich and resource constrained Indian language, and English from comparable news corpora collected from the Web.

The paper "*A Natural Language Dialogue System for Impression-based Music Retrieval*" evaluates a natural language dialogue system with 164 impression words, 14 comparative expressions, such as "a little more" and "more and more," and modifies the most recently used query vector through a dialogue. Also, the paper evaluates performance using 35 participants to determine the effectiveness of the proposed dialogue system.

The paper "*Retrieving Lexical Semantics from Multilingual Corpora*" proposes an unsupervised technique for building a lexical resource like *WordNet* used for annotation of parallel corpora. The reported results are for English, German, French, and Greek using the *Europarl* parallel corpus. The multilingual aspect of the approach helps in reducing the ambiguity inherent in any words/phrases in the English language.

The research presented in the paper "*Opinion Mining using Ontologies*" analyses opinions using an innovative approach based on ontology fusion and matching. The proposed method allows two enterprises to share and merge the results of opinion analyses on their own products and services.

The paper "*Learning of Chained Rules for Construction of Conceptual Graphs*" studies chained rules for generating new rules that can help to construction of conceptual graphs. The proposed supervised method is based on the inclusion of chained rules. The rules are defined on the basis of three elements: the role of dialing or holding the word in the sentence, the standard conceptual graph, and the definition of an object that functions as a black box of graphs.

The section of **regular papers** includes three papers.

The first paper "*On a Framework for Complex and ad hoc Event Management over Distributed Systems*" provides a framework for event-based communications, and at the same time new advantages with respect to the existing standards such as composition, interoperability and dynamic adaptability. The proposed framework detects general and flexible event which can be adapted to specific requirements and situations. Within the framework, the main aspects of event management over distributed systems are treated, such as event definition, detection, production, notification and history management. Other aspects such as event composition are also discussed.

The second paper "*Computer System for Analysis of Holter Cardiopathy*" describes a medical tool related to cardiopathy studies that is available and accessible to any hospital, medical center, or doctor's office, has accessible cost, is a user friendly and understandable. As a benefit for patients, this tool allows major accessibility of such studies. Also, this paper reports how professional staff can obtain in certain cases a possible diagnosis.

Finally, the paper "*Prediction of Failures in IP Networks using Artificial Neural Networks*" presents the implementation of a system for predicting timeout failures and rejection of connections in LAN, using multilayer perceptron configuration of neural networks. It describes the implementation of the system, experiments conducted for the selection of specific parameters of the neural network, training algorithm and results.

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