

Editorial

This volume contains selected and revised papers presented at the workshop "Lexical-Semantic and Ontological Resources - Maintenance, Representation, and Standards" held in conjunction with KONVENS 2008 in Berlin on October 1st, 2008. The workshop was a follow-up of a series of thematically related events, starting with two GLDV workshops on GermaNet in 2003 and 2005 and continued by meetings on lexical-semantic resources at the DGfS 2006 and GLDV 2007 conferences. We aimed at providing a forum for discussing recent developments in the area of lexical-semantic resources - especially with regard to wordnets and ontologies. The focus was on the maintenance, extension, representation, and standardization of such resources.

We received 11 contributions of which 9 have been selected for presentation during the workshop. All extended abstracts submitted were reviewed by three members of the Program Committee. In a second round of reviewing, six contributions have been selected for publication in this special issue of the Journal for Language Technology and Computational Linguistics. The papers presented at the workshop have been grouped under three main thematic focuses:

1. Lexical semantics and extension of lexicons with new relations or features
2. Methods and tools for building and maintaining lexical resources
3. Representation issues and interoperability between different kinds of semantic resources

In each session three papers have been presented during the workshop of which two respectively are included in this volume.

The first paper by Lucie Barque and Francois-Regis Chaumartin deals with "Regular Polysemy in WordNet", proposing a method to extract regular polysemy patterns from Wordnet data in order to represent them in a broad coverage computational lexicon. This crucial issue has both been tackled in theoretical approaches to lexical semantics like that of Apresjan (1974) and formulated as a need in natural language processing (see Ravin and Leacock (2000)). After defining the basic notion of regular polysemy and giving an account of related work, the authors describe their methodology of creating polysemy patterns by exploiting the synset hierarchies and glosses of WordNet and present the results of an evaluation of their results. They detected more than 60 polysemy patterns, differentiating specialization, metaphor and metonymy.

Nofiza Vokhidova proposes a new lexical-semantic paradigmatic relation to be included into electronically available lexical resources such as *lexiko*. Her paper "Überlegungen zur Erweiterung lexikalisch-semantischer Ressourcen durch die Graduonymie" empirically describes graduality phenomena among members of word groups containing a feature to a lower or higher degree. These words could be ordered on a scale, as the author's example of "breeze", "wind", "storm" indicates. The paper assesses how graduonymy is captured in

lexical-semantic resources and how corpus-based studies and empirical data from query experiments can help extending computational lexicons. Encoding more fine-grained sense relations like gradonymy serves to more precisely and adequately capture structure of the lexical system of a given language.

Kiril Simov's contribution "Ontology-Based Lexicon of Bulgarian" describes the construction of an ontology-driven lexicon, focusing on the Bulgarian language for which high quality semantic resources are still lacking. The lexicon is related to an upper ontology and domain ontologies by several mapping and alignment processes connecting grammatical, textual and ontological layers. For automatic word sense disambiguation, corpora are annotated with ontological information in order to train machine learning components. An annotation grammar is being developed for accurate matches between ambiguous textual words and concepts from the ontology. The work presented in the paper is a contribution towards a richer resource infrastructure for Bulgarian.

The paper of Ernesto William de Luca and Andreas Nürnberger titled "LexiRes RDF/OWL Editor: Maintaining Multilingual Resources" presents an RDF/OWL tool for editing and structuring ontologies with a focus on the use of multilingual resources such as the RDF/OWL version of EuroWordNet. The tool allows the user to merge similar concepts in and across languages as well as the multilingual search of synsets. Furthermore, wordnets can be enriched with external OWL resources by using LexiRes. The tool also includes a visualization component.

In their paper "Use, Re-Use and Synergetic Benefit: The interplay between WordNet and dictionary data", Sanni Nimb and Lars Trap-Jensen emphasize the interplay between Danish Wordnet and Den Danske Ordbog (DDO). The Danish WordNet has been compiled on the basis of DDO definitions, but was also extended with further features and relations. The Danish Wordnet is used to support the search engine of DDO. The paper nicely demonstrates how different types of resources can be mutually exploited in order to enhance one another.

The final paper "Representing a Resource of Formal Lexical-semantic descriptions in the Web Ontology Language" by Fabienne Martin, Dennis Spohr and Achim Stein combines theoretical analyses of verb meanings with a formal representation (OWL) in order to allow for disambiguating verbs in context by logical reasoning. To this end, the selectional restrictions of verbs are determined based on mappings from the French EuroWordNet to SUMO and DOLCE. The Semantic Rule Language SWRL is then applied for calculating inferences.

The presentations of the workshop ignited lively discussions by the participants. Several lines and issues for further research were identified and the interest was expressed by several participants that these lines could be followed up and presented in successive workshops.

We would like to thank the Organizing Committee of KONVENS 2008 for making this workshop become possible and the Berlin-Brandenburgische Akademie der Wissenschaften for hosting the event in its beautiful building in charming mid-Berlin. We would also like to express our gratitude to Alexander Mehler and Christian Wolff for publishing the workshop proceedings as a special issue of the JLCL.

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Last but not least, we want to express our thanks to all speakers who presented their research on our workshop and the authors for compiling paper versions of their talks.

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