Session Title

Natural Language Processing and Ontology Engineering (NLPOE)

·Call for Papers

Natural Language Processing (NLP) addresses the problems of automated understanding and generation of natural human languages. The former identifies the syntactic structure of a sentence, judges the semantic relations among the syntactic constituents, in hopes of reaching at an eventual understanding of the sentence. The latter process constructs the semantic structures and syntactic constituents according to the semantic and syntactic properties of the lexical items selected, and eventually generates grammatically well-formed sentences. The goal of the NLP applications is to facilitate human-machine communication using natural languages. In particular, it is to establish various computer application software systems to process natural language, such as machine translation, computer-assisted teaching, information retrieval, automatic text categorization, automatic summarization, speech recognition and synthesis, information extraction from the text, intelligent search on the Internet. Today, with the wide use of the Internet, the demand for language information puts a high premium on automated processing of massive language information.

Ontology engineering is a subfield of artificial intelligence and computer science, which aims at a structured representation of terms and relationship between the terms within particular domain, with the purpose to facilitate knowledge sharing and knowledge reuse. Ontology project involves the development of Ontology building programs, Ontology life-cycle management, the research of Ontology building methods, support tools and ontology languages, and a series of similar activities. Ontologies have found important applications in information sharing, system integration, knowledge-based software development and many other issues in software industry.

However, ontology engineering is a time-consuming and painstaking endeavor, and NLP technology has important contributions to make in quick and automatic development of ontologies. This workshop will focus on the recent advances made in Ontology engineering and NLP, with the aim to promote the interaction between and common growth of the two areas. We are particularly interested in the building of upper-level language ontology in NLP and the application of NLP technology in Ontology engineering.

More importantly, we expect that individuals and research institutions in the areas of both Ontology engineering and NLP could pay attention to this workshop, which may contribute to the integration and growth of these two areas.

The topics of the workshop include, but are not limited to, the following:

1. Natural language understanding, including syntactic parsing, word sense disambiguation, semantic role labeling etc;

2. Text mining, including named entity recognition, term recognition, term and synonyms and concept extraction, relation extraction etc)

3. Lexical resources and corpora, including dictionaries, thesaurus, ontology, etc;

4. Ontology learning and population from text, Web and other resources;

5. Application issues of ontology based NLP: information extraction, text categorization, text summarization and other applications;

6. Other topics of relevance in ontology learning, ontology evolution, ontology modeling and ontology application etc.

·Sessions Organizers

Zhifang Sui
Associate Professor
Institute of Computational Linguistics (ICL), Peking University
No.5 Yiheyuan Rd. haidian District.100871,Beijing China
E-mail:suizhifang@gmail.com Tel:086-01062753081-105

Yao Liu
Associate Professor
Institute of Scientific and Technical Information of China
No.15 Fuxing Road haidian District, Beijing 100038 China
E-mail:liuy@istic.ac.cn Tel:086-01058882053