Keynote Speech: Lexical Semantics of Chinese Language

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Abstract

In this talk, we are going to give a systematic view of lexical semantics of Chinese language. From macro perspective point of view, lexical conceptual meanings are classified into hierarchical semantic types and each type plays some particular semantic functions of Host, Attribute, and Value to form a semantic compositional system. Lexical senses and their compositional functions will be exemplified by the semantic expressions of E-HowNet. Entities and relations are two major semantic types of the compositional system. Lexical senses and phrasal senses are compositions of these two types. From micro perspective point of view, each lexical word has individual idiosyncratic semantic contents, focuses and features. Hence words of same semantic type may have various different syntactic properties which make automatic language processing very difficult. On the other hand lexical syntactic properties are strongly influenced by lexical semantic structures. Morpho-semantic structures may systematically lead the way to derive lexical senses and syntactic behaviors of lexemes. It was observed that allowable alternations of sentence-patterns for verbs are mainly determined by their lexical semantic structures. It follows that senses and syntactic properties of out-of-vocabulary words become predictable and lexical compositional properties do shed light on automatic Chinese language understanding. Supporting evidences and logical interpretations of semantic and syntactic interactions will be presented in this talk.

Vita

Keh-Jiann Chen obtained a B.S. in mathematics from National Cheng Kung University in 1972. He received a Ph.D. in computer science from the State University of New York at Buffalo in 1981. Since then he joined the Institute of Information Science as an associate research fellow and became a research fellow in 1989. He was the deputy director of the institute from August 1991 to July 1994. His research interests include Chinese language processing, lexical semantics, lexical knowledge representation, and corpus linguistics. He had been and continued in developing the research environments for Chinese natural language processing including Chinese lexical databases, corpora, Treebank, lexical analyzer and parsers. Dr. Chen is one of the founding members of the Association of Computational Linguistic and Chinese Language Processing Society (also known as ROCLING). He had served as 2nd term president of the society from 1991 to 1993. Currently he is the board member of the Chinese Language Computer Society, the advisory board member of the International Journal of Computational Linguistics and Chinese Language Processing, the editor of journal of Computer Processing of Oriental Language.