Abstract—Most of the exist Web search engines utilize matching the query keywords to pieces of information approach to identify of the data satisfying user’s request. These methods are not only inefficient, but also wasted a lot of user’s time to find a satisfactory results. In order to improve the problem above, we presented a different approach to identify user’s request that attracts more interest is called a ontology-based and implied sentiment search. Ontology is a tree structure which represent specifications of concepts and relations among them. Ontology play a central role in semantic web applications by providing a shared knowledge about the objects in real world. This paper proposes a method for determining semantic similarity between concepts and implied sentiment defined in ontology. Unlike method exist that use ontological definition of concepts for similarity assessment, the presented approach also focuses on the relations between concepts and their implied sentiment inclination. Our method is able to determine similarity not only at the definition level, but also is able to evaluate similarity of implied sentiment of information that are instances of concepts. In addition, the method allows for context-aware similarity assessment. Experimental comparison of our on-line text mining approach against other techniques known in the literature shows satisfying results.

Keyword—Sentiment Inclination Analysis, Text Mining, Ontology, similarity algorithm, recommendation method

Yang Hui obtained her Ph.D. in computer science from JILIN University in 2011. Her research interest is social network Mining, sentiment analysis and information retrieval. She is currently an Lecturer at the department of Computer Science in JILIN University. She researched Multi-language UKC as a post-doc in the university Of Trento (Italy)

Wang Zhe is corresponding author. He is an associate professor, and master's supervisors in Jilin University. Mainly engaged in the research of business intelligent, date mining, and social network, taking in charge of one National science and technology support plan corpus, one key project of Ji Lin Province Science and Technology Agency, and one general project.

Hao Xu is an associate professor at college of computer science and technology, Jilin University, China and a courtesy professor of KnowDive research group, University of Trento, Italy. He received his PhD in Information and Communication Technologies (ICT) in University of Trento, Italy. His research interests include knowledge management, data analytics and