Title of Project : Word Sense Disambiguation and Its Applications

Name of Supervisor : Ng Hwee Tou

Contact Details: ngh@comp.nus.edu.sg
www.comp.nus.edu.sg/~nght

Short Description

The task of word sense disambiguation (WSD) is to determine the meaning or sense of a word in context. For example, the noun "interest" could mean "money we get from the bank", "hobby", "share in a company", etc. Given an occurrence of the word "interest" (e.g., “I have a 51% interest in XYZ Corp.”), the task of WSD is to determine the correct sense of the word in that context (e.g., the "share in a company" sense). WSD is an important foundational task of natural language processing (NLP). An accurate WSD module can improve the performance of real-world natural language processing applications, such as more accurate translation of web pages from one language into another, more precise retrieval of relevant web pages for search engines, etc.

Some research issues that can be explored in this project include:

1. Scaling up WSD to disambiguate all English words;
2. Adapting WSD to work well in different domains; and
3. Integrating WSD to improve the performance of natural language processing applications such as machine translation and text retrieval.