Abstract

Search Engines are used by people on a daily basis to retrieve information from the web. When an ambiguous word is present in a query, specific sense of the keyword is not considered during the search process. Search engines return a large amount of web pages as results from all the possible contexts. Users tend to browse only few pages. Improving quality of retrieved results is a challenge and needs research. There is no attempt made by search engines to establish the context/domain/intent of the query keyword, before forwarding query to the engine. Current research trends in word sense disambiguation and availability of huge knowledge bases like BabelNet which encompasses WordNet and Wikipedia, together with WordNet Domains in which senses are annotated with domain labels indicates scope for developing methods capable of performing semantic analysis of search engine queries. In this paper, an algorithm for automatically establishing context in web search queries using modern automatic word sense disambiguation technique is proposed. Further, it is illustrated how Query Expansion can be performed using the interactive feedback and deduced domain of the query keyword. The domain knowledge and query expansion helps retrieve high quality results, specific to the user’s intent.
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Index Terms

Computer Science  Artificial Intelligence

Keywords

Query Expansion  Word Sense Disambiguation  Context Establishment