User guidance for effective query interpretation in natural language interfaces to ontologies

ABSTRACT

Natural Language Interfaces typically support a restricted language and also have scopes and limitations that naive users are unaware of, resulting in errors when the users attempt to retrieve information from ontologies. To overcome this challenge, an auto-suggest feature is introduced into the querying process where users are guided through the querying process using interactive query construction system. Guiding users to formulate their queries, while providing them with an unconstrained (or almost unconstrained) way to query the ontology results in better interpretation of the query and ultimately lead to an effective search. The approach described in this paper is unobtrusive and subtly guides the users, so that they have a choice of either selecting from the suggestion list or typing in full. The user is not coerced into accepting system suggestions and can express himself using fragments or full sentences.

Keyword: Auto-suggest; Expressiveness; Habitability; Natural language interface; Query interpretation; User guidance