Quranic verses extraction base on concepts using OWL-DL ontology

Abstract

In recent years, there has been a global growing demand for Islamic knowledge by both Muslims and non-Muslims. This has brought about a number of automated applications that ease the retrieval of knowledge from the Holy Book, being the major source of Knowledge in Islam. However, the current retrieval methods in the Quranic domain lack adequate semantic search capabilities; they are mostly based on the keywords matching approach. There is a lack of adequate linked data to provide a better description of concepts found in the Holy Quran. In this study we propose an ontology assisted semantic search system in the Qur’an domain. The system makes use of Quran ontology and various relationships and restrictions. This will enable the user to semantically search for verses related to their query in Al-Quran. The system has improved the search capability of the Holy Quran knowledge to 95 percent accuracy level.

Keyword: Islamic knowledge; Keyword matching; Ontology; Semantic technology