

A Web-Based Self-Learning Grammar for Spoken Language Understanding

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Abstract : One of the major goals of Spoken Dialog Systems (SDS) is to understand what the user utters. In the SDS domain, the Spoken Language Understanding (SLU) Module classifies user utterances by means of a pre-definite conceptual knowledge. The SLU module is able to recognize only the meaning previously included in its knowledge base. Due the vastity of that knowledge, the information storing is a very expensive process. Updating and managing the knowledge base are time-consuming and error-prone processes because of the rapidly growing number of entities like proper nouns and domain-specific nouns. This paper proposes a solution to the problem of Name Entity Recognition (NER) applied to a SDS domain. The proposed solution attempts to automatically recognize the meaning associated with an utterance by using the PANKOW (Pattern based Annotation through Knowledge On the Web) method at runtime. The method being proposed extracts information from the Web to increase the SLU knowledge module and reduces the development effort. In particular, the Google Search Engine is used to extract information from the Facebook social network.

Keywords : spoken dialog system, spoken language understanding, web semantic, name entity recognition

Conference Title : ICHCI 2014 : International Conference on Human Computer Interaction

Conference Location : London, United Kingdom

Conference Dates : August 21-22, 2014