

Abdelrazaq D., Abu-Soud S., Awajan A. 2018. A Machine Learning System for Distinguishing Nominal and Verbal Arabic Sentences. *The International Arab Journal of Information Technology*, Vol. 15, No. 3A, Special, pages. Pages 576-584. (ISI, Scopus).

Abstract

The complexity of Arabic language takes origin from the richness in morphology, differences and difficulties of its structures than other languages. Thus, it is important to learn about the specialty and the structure of this language to deal with its complexity. This paper presents a new inductive learning system that distinguishes the nominal and verbal sentences in Modern Standard Arabic (MSA). The use of inductive learning in association with natural language processing is a new and an interdisciplinary collaboration field, specifically in Arabic Language. A series of experiments on 376 well annotated (i.e., Gold Standards) Arabic sentences that range from 2 to 11 words, which present simple to complex MSA sentences, have been conducted. The results obtained showed that the proposed system has distinguished nominal and verbal sentences with an accuracy around 90% for 15% unseen sentences, and around 80% for 75% of unseen sentences.