

A Vector Space Based Approach for Short Answer Grading System

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Description

Enhancing the quality of teaching and learning in education might be through designing, implementing, and making effective use of assessment practice. In this paper we address the task of computer assisted assessment of short student answers. We describe a new statistical approach used to design Short Answer Grading System adapted to Arabic language. The approach consists of building a semantic space that gives distributional representation of words based on word co-occurrences in text corpora. Semantic similarity is computed using the summation vector model. Score similarity is enhanced by an individual normalized term frequencies weighting and then combining the index of common words between the model and the student answers using syntactic DICE's coefficient. A great advantage of this statistical approach is that it does not require the existence of any word data models. It is particularly ...