Abstract

In this paper, we explore text similarity techniques for the task of automatic short answer scoring in Arabic language. We compare a number of string-based and corpus-based similarity measures, evaluate the effect of combining these measures, handle student's answers holistically and partially, provide immediate useful feedback to student and also introduce a new benchmark Arabic data set that contains 50 questions and 600 student answers. Overall, the obtained correlation and error rate results prove that the presented system performs well enough for deployment in a real scoring environment.

References

- Mohler, M., Bunescu, R. C., & Mihalcea, R. (2011). Learning to Grade Short Answer Questions using Semantic Similarity Measures and Dependency Graph Alignments. In ACL (pp. 752-762).

Index Terms

Computer Science  Artificial Intelligence

Keywords

Short Answer Scoring  Text Similarity  Semantic Similarity  Arabic Corpus