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Project Report
Generating Acrostics via Paraphrasing and Heuristic Search
DBPRO - Database Projects (WS 2014/2015)

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Abstract

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1 Introduction and Motivation

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2 Generating Acrostics via Paraphrasing and Heuristic Search

2.1 Problem Definition

2.2 Modeling as Search Problem

2.3 Cost Measure

2.4 Operators

2.4.1 Word Insertion or Deletion

The idea around this operator is to insert or delete words in the middle in order to insert new letter and accomplish the goal acrostic or to remove words and change the position of words inside the text.

//Example here?

The Word Insertion or Deletion operator takes as input a text and first tries to insert a new word in each space and second tries also to remove each word of the text. The condition to insert a new word w in the i -th space of the text is that w has to fit the context around the i -th space. It means that from the set of all possible words of the language, only a restricted subset can be inserted in this place. More specifically, the algorithm starts by taking for each space in the text n words around it as context. This is a so called n-gram, a kind of window to the text with length n or an array of words. After this, the n-gram just taken is sent to the context database (which is in this implementation the NetSpeak API [2]), that returns the possible words that could be inserted in the required space. For each of these possible words a new version of the text is created with it inside. Analogously, for each word w in text a n-gram with the words around is created, w is then taken out of the n-gram, which is tested against the context database to check whether this ngram is frequent enough in the language. If the answer is positive a new version of the text without w is created.

The queries to the context database are made in form of HTTP requests to the netspeak web service using the NetSpeak API.

// example here

3 Evaluation of the Results

4 Summary of Findings

to better: size of ngram, other context databas

References

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- [3] BENEKE, T. *Java: Explore the Possibilities*. Disponível em: <<http://www.oracle.com/technetwork/articles/java/ma14-java-cover-2177777.html>>. Acesso em: Junho de 2014.

A Appendix