

Make it short! Evaluation meets automatic summarization of text

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Note:

This master project is promoted by a company (sherpa.ai) and it might be associated to a small stipend (to be defined).

Description / Deskribapena

Text summarization is the problem of creating a short, accurate, and fluent summary of a longer text document. There are two main approaches: 1) Extractive methods select a subset of existing phrases or sentences in the original text to form the summary. 2) Abstractive methods first build an internal representation and then use natural language generation techniques to create a summary.

The evaluation of text summarization systems is still an open problem, as automatic evaluation methods show little correlation with human estimates of quality. Please see the evaluation section of [1] for a recent paper on the issue, which mentions an automatic method, and two manual methods. The first manual method explicitly ranks different summaries of the same document according to fluency and informativeness. The second manual method creates a set of questions based on a gold summary, and in a second step some experts need to answer those questions by reading system summaries alone without access to the article.

Goals / Helburuak

This master thesis will try to propose new methods for the automatic evaluation of summarization systems, trying to automatize the human evaluation methods mentioned in the description.

Requirements / Betebeharrak

Computer Scientist, or practical experience with programming. Knowledge of deep learning is a plus, although it is not required.

References

[1] Shashi Narayan, Shay B. Cohen and Mirella Lapata. "[Ranking sentences for extractive summarization with reinforcement learning](#)". *Proceedings of the 2018 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies*, pp. 1747-1759. 2018.