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POS tagger and lemmatizer evaluation: The TextFlows open science approach

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What is my research?

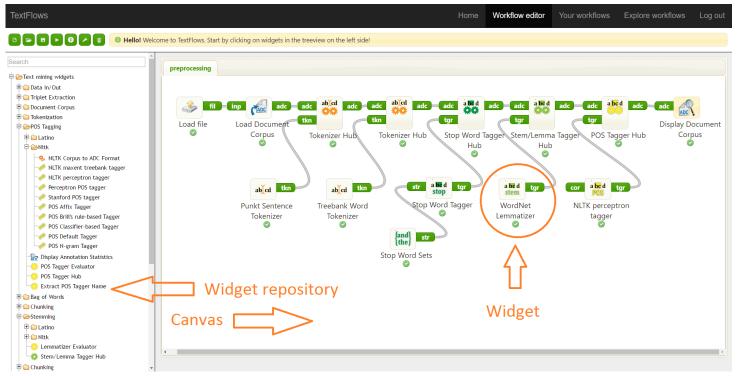
- Text mining
 - Subfield of artificial intelligence
 - Automatic extraction of information from language
- Tools that help computer "understand" language
 - POS tagging (a:determiner dyslexic:adjective man:noun walks:verb into:preposition a:determiner bra:noun)
 - Lemmatization (blue:blue is:to be greener:green than:than purple:purple)

What is the problem?

- Nobody properly evaluated these tools,
- So we did it!
 - Number of different experiments were conducted
 - We identified different factors that influence the performance of these tools
 - We compared these tools to humans (gold standard corpora)
 - We tested how these tools perform in real life text mining tasks (gender classification)

How did we do it?

TextFlows (<u>http://www.TextFlows.org</u>)



 Everything is published online, anyone can reproduce the study!

What did we achieve?

- We gave researchers and students a better understanding on what tools to use in a variety of different scenarios
- We help them reduce the time and cost of their research
- We help them improve the quality of their research