

Natural Language Processing

Word categorisation and understanding

Steps

1. **Cleaning**
Remove unwanted, unneeded, unnecessary data.
2. **Tokenization**
Split data pieces that fit the analysis being done.
3. **Tagging**
Calculate and add “metadata”.
4. **Normalization**
Retrieve the root/source of the word.
5. **Contextualization**
Work out the meaning of words depending on their position.
6. **Extraction**
Pull new understanding out of the data.

Tagging

Apply a short tag describing the words function and position in a body of text.

https://www.ling.upenn.edu/courses/Fall_2003/ling001/penn_treebank_pos.html

https://github.com/tt-n-walters/uria-python/blob/master/week7_session3/piece_of_speech_tags.md

Normalization

Stemming

Removing and replacing of suffixes to get the root form of the word, called the **stem**.

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run, running -> run

talk, talks -> talk

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Lemmatization

Performing contextual and “morphological” analysis of the text, to determine closest correct root word.

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Lemmatization needs to be given the context of the word, ie. “type”.
Verb, Noun, Adjective, or Adverb.