

Overview

- how can computers understand natural (human) language
- intersection between
 - linguistics
 - computer science
 - electrical engineering (speech synthesis)

Broad challenges are:

- - Speech processing
 - Natural language understanding
 - Natural language generation
- NLP is language depending
 - most progress made for English

NLP in [[Information Retrieval]]

- preprocessing before creating dictionary vector
 - remove unwanted characters
 - * html tags
 - * punctuation
 - split up
 - * e.g. on whitespace
 - detect common phrases
 - remove common/stop words
 - * e.g. a, an, and, the, it, ...
 - stem tokens to word roots
 - * e.g. computational ==> compute
- challenges
 - semantic information
 - * synonyms
 - * one word with two different meanings
 - ◆ e.g. jaguar ==> animal, car
 - structural syntactic information

[[Information Retrieval]]