Aphasia Project

Sprint 2 Results

Finding data

- Wikipedia pages
- 220 Hours of dutch audio and text
- Train data

Tools & libraries

- We’ve came across a few tools
  - SpeechRecognition (Python)
  - Pocket Sphinx (C)
  - Sphinx4 (Java)
  - Pocket Sphinx-python
- Most tools are not entirely documented
- PocketSphinx projects are the winners till now

Speech recognition

Pros:

- High level, easy setup & use
- Uses existing speech-to-text API (Google, IBM, Microsoft etc.)
- Works pretty well (from what we've tested)

Cons:

- Rijndam doesn't want the data to leave the HHS servers
- Hard to use for our purpose (syntax, phonology, semantic mistakes)

PocketSphinx

Pros:

- Original PocketSphinx project
- Thus has the largest contributors base
- Because it’s written in C it’s easy to port to Python
- Completely open source and free to use for this purpose

Cons:

- Written in C, verbose language

Sphinx4

Pros:

- Pure Java port from PocketSphinx
- Also has a large contributors history
- It comes with examples -> easy to understand
- Also open source

Cons:

- Cannot be ported to e.g. Python (no jupyter notebooks)
- Will be an application, not just a script

Pocketsphinx-python

Pros:

- Written in Python
- Examples can be found all around the internet
- Working speech to text and vice versa in a few lines of code
- Also open source

Cons:

- Lacks good documentation of the API

Any questions?