Natural Language Processing

If any of the following applies to you, you are in the right place:

- As a researcher, do you want to base your empirical findings on linguistic data such as text collections or voice recordings?
- Does your team need help in collecting, managing, processing, or visualising linguistic data?
- Do you want to automate tedious manual tasks?
- Do you intend to make your documents machine-readable?
- Do you want to detect historical trends, political leanings, and personal stance in natural language data?
- Do you have an interesting application in mind which is built on text, audio recordings or eye-tracking data?
- Do you want to use semantic analysis methods like collocations, word embeddings and Neural Networks?
- Do you want to get started implementing language technology solutions yourself?
- Do you have historical documents that you are looking to digitize?

If you need help with the technological side of things, we are here for you!

The Language Technology group consists of experts who support your text and voice technology needs.

- Text Analytics & Data Mining
- Content Analysis
- Information Retrieval & Extraction
- Part-of-speech tagging, syntactic parsing, semantic tagging
- Sentiment Detection
- Creation and adaption of language models
- Data Classification
- Machine Learning (including Neural Networks & Deep Learning)
- Machine Translation
- Statistical Data Processing
- Audio signal processing (e.g. for human speech or animal vocalizations)
- Speech Recognition and Synthesis
- Data conversion

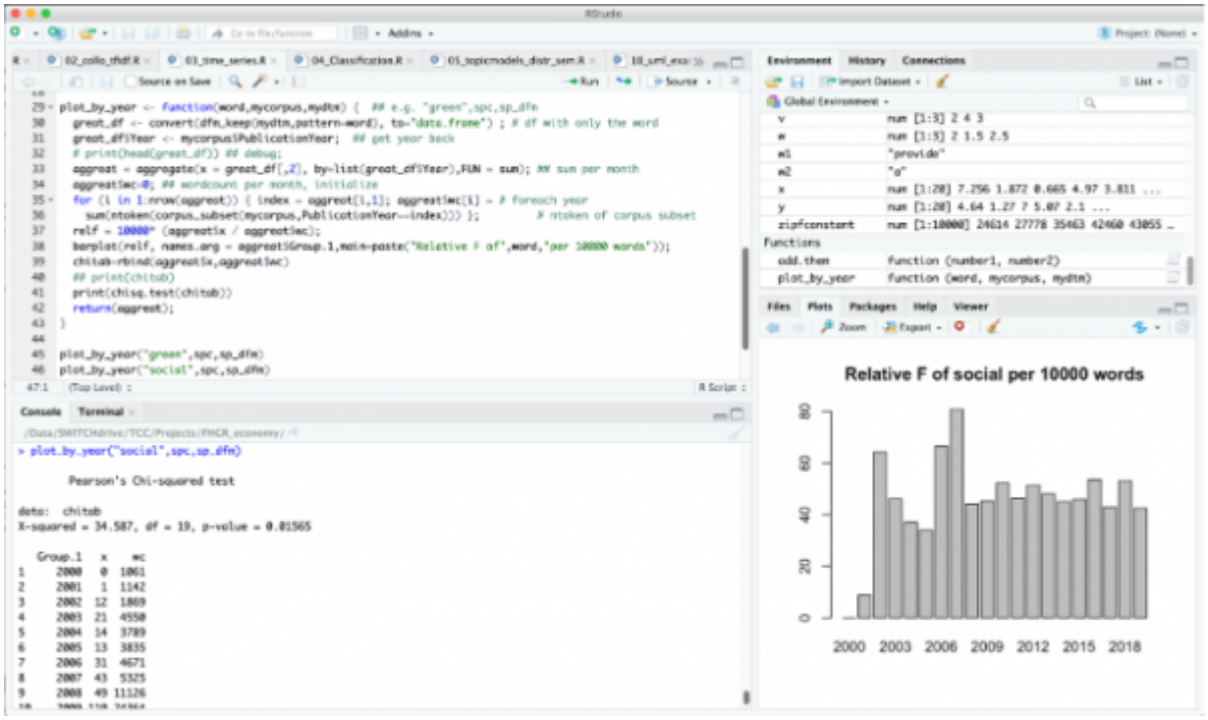
We offer consulting, coaching, and support in the following scenarios (among others):

- Digitization of printed texts and manuscripts (including OCR)
- Efficient information extraction and analysis of large text collections
- Enrichment of texts with named entities, sentiment analysis, topic modeling, and classification, including multilingual and historical documents
- Advice on tools, software, and best practices
- Help with project applications and common projects

Teasers from our Research

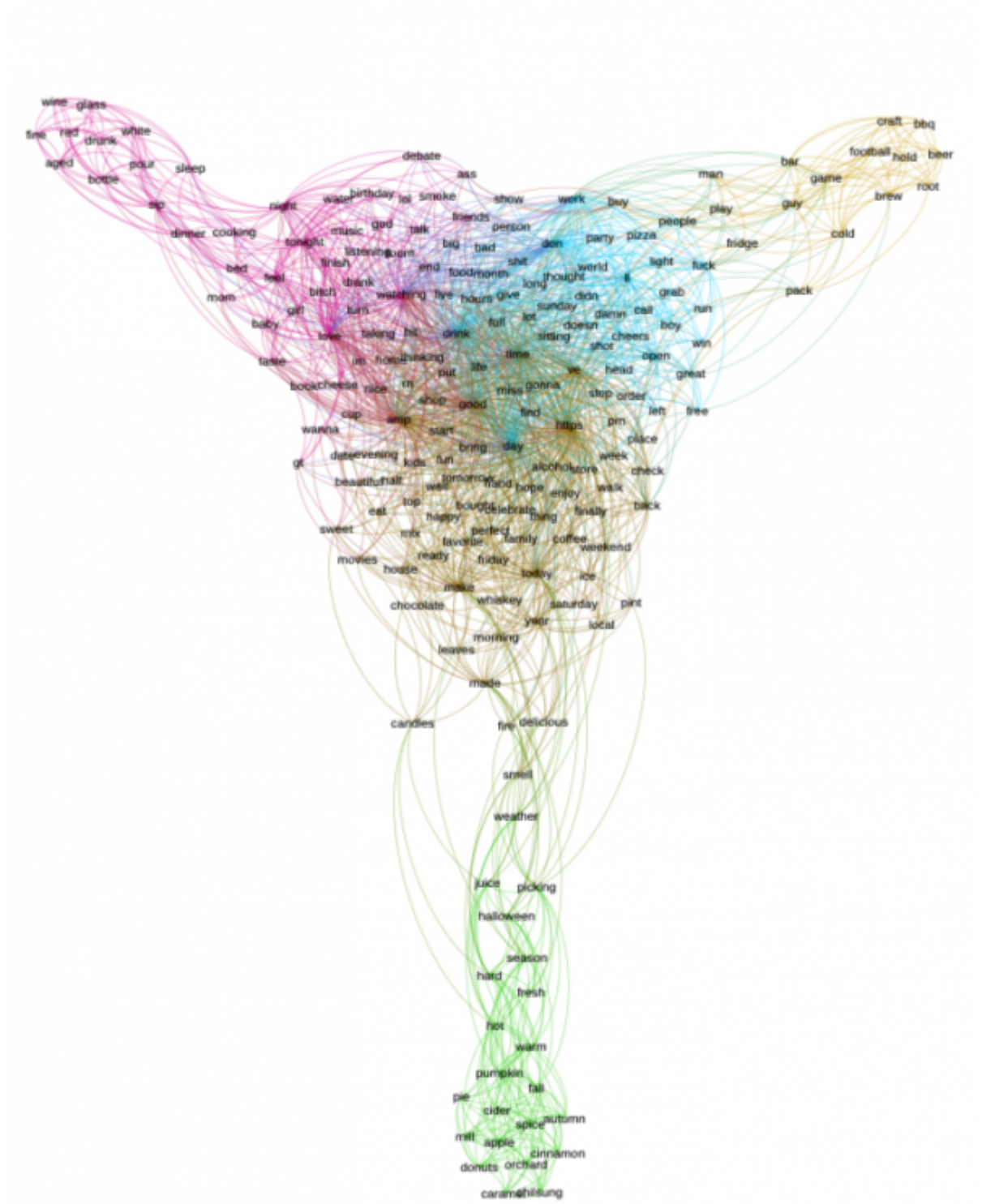
Coaching and Teaching

Example from a Worskshop, teaching Content Analysis with R



Semantic Analysis

Example of a Result: Conceptual Map of Associations to Wine, Cider and Beer



Stylistics

Characterisation of the Language of Donald Trump

Blick TV News Sport Meinung Politik Wirtschaft People Leben

Live auf Blick TV: Das macht heute Schlagzeilen

News | Trumps Sprache: Einfach und sprunghaft

26.10.2020, 17:01 Uhr

US-Präsident analysiert

Trumps Sprache: Einfach, sprunghaft und emotional

«Great», «incredible», «deal» und «money": Diese Wörter benutzt der amtierende US-Präsident Donald Trump besonders häufig. Sein Vokabularreichtum ist im Vergleich mit anderen Präsidenten denn auch mit Abstand am kleinsten.

Donald Trumps Vokabularreichtum ist verglichen mit dem früherer US-Präsidenten mit Abstand am kleinsten. Auch seine Satz- und Wortlängen sind besonders kurz.

Das haben Wissenschaftler um den Computerlinguisten Gerold Schneider von der Universität Zürich herausgefunden. Das Team analysierte den Sprachgebrauch des US-Präsidenten und verglich diesen mit dem von früheren Präsidenten und Präsidentschaftskandidatinnen und -kandidaten.

https://www.blick.ch/news/linguistik-trumps-sprache-einfach-sprunghaft-und-emotional-id16163332.html

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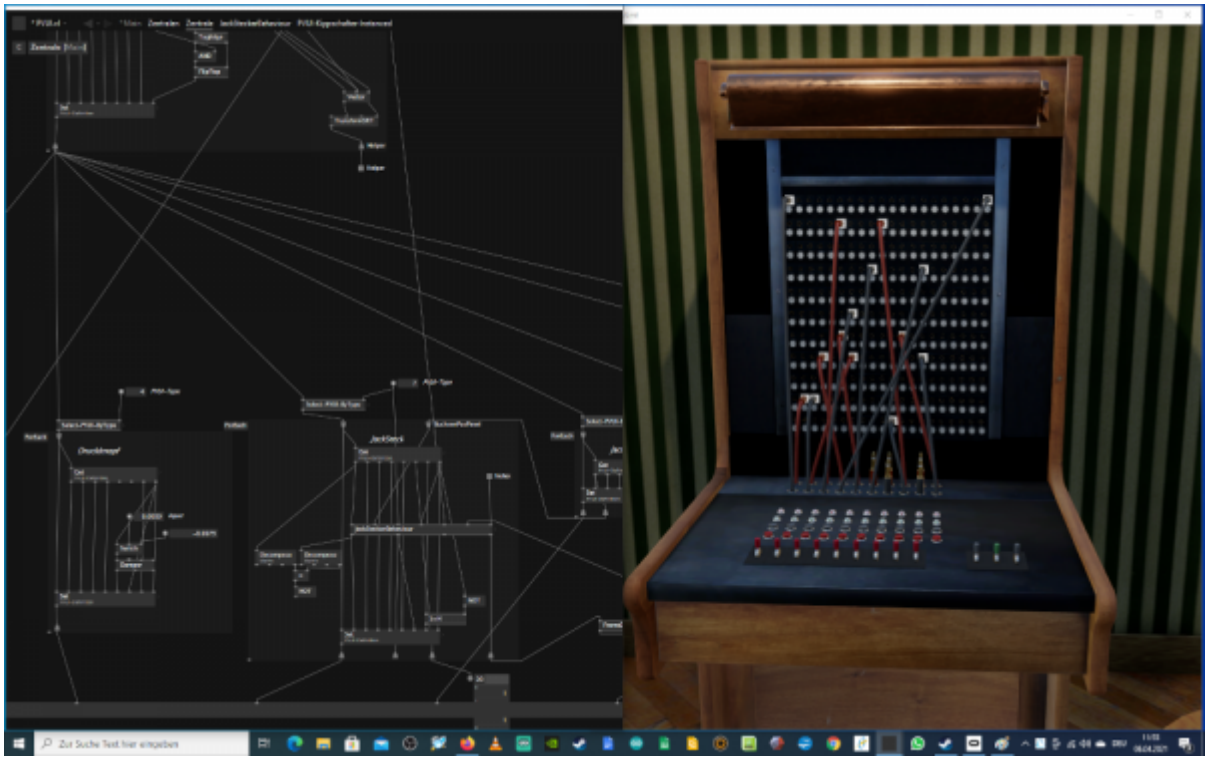
Examples of our work

Speech-to-text backend for virtual telephone switchboard



https://www.ds.uzh.ch/de/projekte/vr.html