

TexTiles: Exploring Patterns in Historical Discourse

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4th Workshop on Visualization for the Digital Humanities (at IEEE Vis 19), 2019.

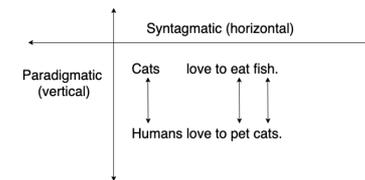
Background

- Discourse
 - A social boundary that defines what statements can be said about a topic
- Discourse analysis
 - A method in the humanities to analyze historical trends and knowledge figurations
- Corpus (pl. corpora)
 - a collection of written texts

User requirements

- Synchronic analysis
 - Explore a system of discourse at one point in time
- Diachronic analysis
 - Analyze discourse over time
- Syntagmatic analysis
 - Combination and connection of words surrounding a previously defined keyword
- Paradigmatic analysis
 - Interchangeability in certain word slots

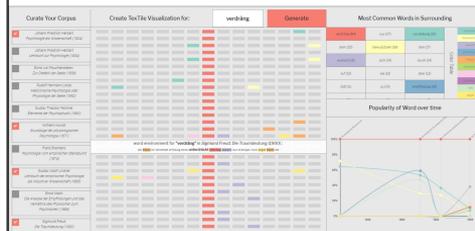
User requirements



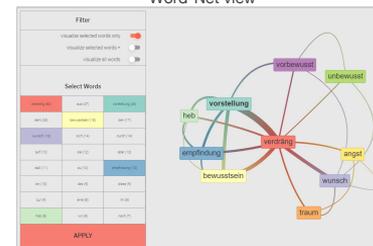
Abstract tasks

- Synchronic analysis
 - Co-occurrence of words
- Diachronic analysis
 - Relative popularity of the surrounding words

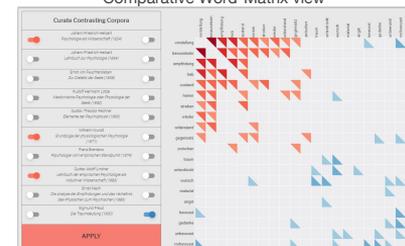
Word-Net view



Word-Net view



Comparative Word-Matrix view



Analysis summary

- What: data
 - Text
- What: derived
 - Frequency of co-occurrence of words
- What: derived network
 - Co-occurrence network
- How: encode
 - Time-series line charts
 - Force-directed placement
 - Matrix views of networks
- Scale
 - Thousands of pages of text, dozens of words

Critique

- Strengths
 - Two-dimensional layout augments keyword search
 - Matrix views of networks with color encoding
- Limitation
 - Paradigmatic analysis
 - Definition of co-occurrence
 - Line charts for too scarce and possibly categorical data

Thank you!