

Part II-2: Topic Modeling



Outline

- i. Overview
- ii. Topic Modeling Approaches
- iii. Structural Topic Model (STM)
- iv. Keyword-Based Topic Extraction

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Overview

Overview Topic Modeling Goal

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Topic Modeling Approaches

Approaches **Fooooooooo**

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Structural Topic Model (STM)

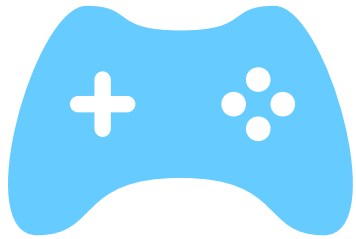
STM Expert Talk



Expert Talk: STM

*Patrick Schulze & Simon Wiegerebe: **Twitter in the Parliament – A Text-based Analysis of German Political Entities***

STM Exercise



Exercise 4: Analyzing Topics

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Keyword-Based Topic Extraction

Keyword-Based TE Idea

- **Situation:**

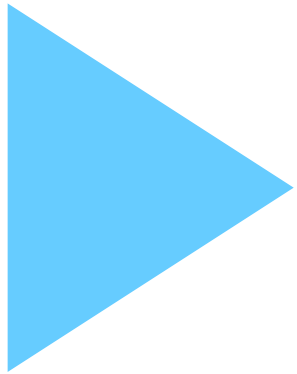
- (Statistical) topic modeling not always producing meaningful topics
- Quite some human input required still
- Also, unsupervised approach not always appropriate

- **Idea:** specify keywords & find related documents

- **Approach:**

- Specify list of keywords.
- Find similar words (both morphologically & semantically).
- Assign all documents using these words to the associated topic.

Keyword-Based TE Approach



Demo 7: Keyword-Based TE

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Literature and References

- <https://www.analyticsvidhya.com/blog/2015/10/beginner-guide-web-scraping-beautiful>

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- Miner, G., Elder IV, J., Fast, A., Hui, T., Nisbet, R. and Deien, D. (2012). Practical text mining and statistical analysis for non-structured text data applications, Academic Press. (text normalization