

# Part II-2: Topic Modeling



# Outline

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

# Part II-2: Topic Modeling

## Overview

# Overview Topic Modeling Goal

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Topic Modeling Approaches

# Approaches **Fooooooooo**

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# Part II-2: Topic Modeling

Structural Topic Model (STM)

# STM Expert Talk

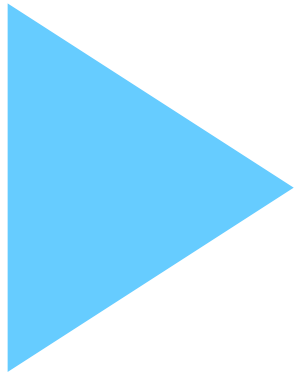


## Expert Talk: STM

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

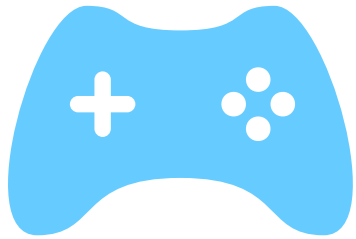


# STM Approach



**Demo 7: STM**

# STM Exercise



## **Exercise 4: Analyzing Topics**

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## Keyword-Based Topic Extraction

# Keyword-Based TE Idea

- **Situation:**

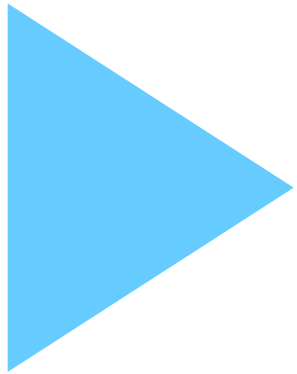
- (Statistical) topic modeling not always producing meaningful topics
- Quite some human input required still
- Also, unsupervised approach not always appropriate

- **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 8: 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., Eider IV, J., Fast, A., Hill, T., Nisbet, R. and Deien, D. (2012). Practical text mining and statistical analysis for non-structured text data applications, Academic Press. (text normalization