Where do parties interact? Issue engagement in press releases and tweets

Description of replication material

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1 Introduction

This file describes the code and data sets required to rerun and reproduce the analysis reported in the article "Where do parties interact? Issue engagement in press releases and tweets". To run the code successfully, the replication material needs to be download and stored in a single folder. Overall, the replication material contains the following types of scripts and data sets:

2 Main scripts

The following scripts are necessary for replicating the empirical analysis. The scripts (R and RMarkdown) are named numerically (01-03) and listed in the correct order to perform the analysis.

- *01_STM.R*: This script loads the textual data stored in the files *Corpus_Pressreleases_AT_CH_DE.RDS* and *Corpus_Tweets_AT_CH_DE.RDS* and applies a Structural Topic Model (STM) to detect political issues in the texts.
  Note: Unfortunately, the output from this script cannot be fully replicated as I can only provide meta data in the replication material and not the full texts due to legal constraints.

- *02_Analysis_Preparation.R*: This script creates the main data set used for the statistical analysis.
  Attention: To run the script users need to provide a Manifesto Project API key!

- *03_Tables_and_Figures.Rmd*: This script performs the statistical analysis and creates the tables and figures reported in the paper and appendices.

3 Additional scripts

The following scripts (R) are called from within the main scripts.

- *STM_Validation.R*: This script performs word intrusion and topic intrusion tests to validate the Structural Topic Models (STM) resulting from the script *01_STM.R*.

4 Data sets

The following files contain the individual text corpora analysed in the paper and further data sets. Unfortunately, I am not allowed to publish the full textual data in the replication material due to legal constraints. Hence, I can often only provide meta data (e.g. party name, date) on the individual texts in the

replication material. More detailed information on each data set and its content is listed below.

- *Corpus_Pressreleases_AT_CH_DE.RDS*: This file contains all press releases published by Austrian, Swiss and German parties and their parliamentary party groups (PPGs) between January 1, 2019 and September 26, 2021. The data for Austria is based on webscraping of a webservice of the Austrian Press Agency (*APA-OTS*), the data for Germany is based on webscraping of party and PPG websites, and the data for Switzerland was provided by the DigDemLab at the University of Zurich (Gilardi et al. 2022).
  Note: Unfortunately, I can only provide meta data in the replication material and not the full texts due to legal constraints. Therefore, the variable *text* only contains the text 'blinded'.

- *Corpus_Tweets_AT_CH_DE.RDS*: This file contains all tweets posted by Austrian, Swiss and German parties and their parliamentary party groups (PPGs) between January 1, 2019 and September 26, 2021. The data was collected through the Twitter Researcher API.
  Note: Unfortunately, I can only provide meta data in the replication material and not the full texts due to legal constraints. Therefore, the variable *text* only contains the text 'blinded'.

- *STM_Result.RDS*: This file contains the results from the Structural Topic Model (STM) application. The data set provides issue annotations to the press releases and tweets from *Corpus_Pressreleases_AT_CH_DE.RDS* and *Corpus_Tweets_AT_CH_DE.RDS*. The variable *topic_label* stores the issue labels assigned to each text.
  Note: Unfortunately, I can only provide meta data in the replication material and not the full texts due to legal constraints. Therefore, the variable *text* only contains the text 'blinded'.

- *Main_Data.RDS*: This file contains the main data set resulting from the script *02_Analysis_Preparation.R*. The data set is used as input to the statistical analysis performed with the script *03_Tables_and_Figures.Rmd*.

5 Additional data sets

The following files and data sets contain additional (helper) data relevant to the analysis.

- *STM_Model.RDA*: This file stores the Structural Topic Models (STM) resulting from the script *01_STM.R*.

- *STM_Topics_labeled.xlsx*: This file stores a list of the top-10 highest probability words per topic provided by the final Structural Topic Model (STM) resulting from the script *01_STM.R* and the corresponding manully assigned topic labels.

- *STM_Topics_unlabeled.xlsx*: This file stores a list of the top-10 highest probability words per topic provided by the final Structural Topic Model (STM) resulting from the script *01_STM.R*.

- *witi_test_80_coded.RDA*: This file contains the coded output from the word intrusion and topic intrusion tests for the Structural Topic Model (STM) with $k = 80$ resulting from the script *01_STM.R*.

- *witi_test_85_coded.RDA*: This file contains the coded output from the word intrusion and topic intrusion tests for the Structural Topic Model (STM) with $k = 85$ resulting from the script *01_STM.R*.

- *witi_test_90_coded.RDA*: This file contains the coded output from the word intrusion and topic intrusion tests for the Structural Topic Model (STM) with $k = 90$ resulting from the script *01_STM.R*.

- *witi_test_95_coded.RDA*: This file contains the coded output from the word intrusion and topic intrusion tests for the Structural Topic Model (STM) with $k = 95$ resulting from the script *01_STM.R*.

- *witi_test_100_coded.RDA*: This file contains the coded output from the word intrusion and topic intrusion tests for the Structural Topic Model (STM) with $k = 100$ resulting from the script *01_STM.R*.

References

APA-OTS. https://www.ots.at/.

Gilardi, Fabrizio, Lucien Baumgartner, Clau Dermont, Karsten Donnay, Theresa Gessler, Maël Kubli, Lucas Leemann, and Stefan Müller. 2022. "Building Research Infrastructures to Study Digital Technology and Politics: Lessons from Switzerland." *PS: Political Science & Politics* 55 (2): 354–359. https://doi.org/10.1017/S1049096521000895.