

# Andreas Küpfer

Computational Social Scientist

✉ andreas.kuepfer@tu-darmstadt.de

🌐 andreaskuepfer.github.io

🐦 @ankuepfer

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I analyze multimodal political communication, including social media, speeches, and press releases, using a combination of machine learning models and traditional methods to address substantial questions in Political Science and advance methodological research.

## Current Position

2022-present

### Ph.D. Candidate and Research Associate

Technical University of Darmstadt

Supervisor: Prof. Christian Stecker (Technical University of Darmstadt)

Co-Supervisor: Dr. Christian Arnold (University Cardiff)

## Education

2019-2022

**M.Sc. Data Science**, University of Mannheim

Supervisor: Prof. Thomas Gschwend and Dr. Denis Cohen

Thesis: *When local context trumps party unity: Using Twitter and NLP to explain geographical heterogeneity in legislators' policy communication*

2015-2019

**B.Sc. Business Information Systems**, University of Applied Science Karlsruhe

2017

**ERASMUS Student, B.Sc. Informatics**, Metropolia University of Applied Sciences

## Publications

### Under Review

2022

**The Role of Hyperparameters in Machine Learning Models and How to Tune Them**

C. Arnold, L. Biedebach, A. Küpfer, M. Neunhoeffler

### Working Papers

2023

**Non-random Tweet Mortality and Data Access Restrictions: Implications for the Study of Sensitive Topics on Twitter**

A. Küpfer

2023

**How Alignment Helps Make the Most of Multimodal Data**

C. Arnold, A. Küpfer

- 2022 **What we can and cannot learn from responses to legislative speeches. Evidence from the German Bundestag, 1949-2021**  
A. Küpfer, J. Müller, C. Stecker
- 2022 **The housing crisis on social media: Housing markets and the subnational diversification of policy supply**  
D. Cohen, A. Küpfer, T. Allinger
- 2022 **Estimating legislator-level issue salience and issue positions from political text**  
A. Küpfer, D. Cohen

## Research dissemination

### Conference presentations

- 2022 **DVPW Group Comparative research on parliaments**, Bremen, Germany  
What we can and cannot learn from responses to legislative speeches. Evidence from the German Bundestag, 1949-2021
- EPSA**, Prague, Czech Republic  
When local context trumps party unity: Using Twitter and NLP to explain geographical heterogeneity in legislators' policy communication

### Poster presentations

- 2022 **PolMeth Europe**, Hamburg, Germany  
When local context trumps party unity: Using Twitter and NLP to explain geographical heterogeneity in legislators' policy communication

### Press

- 2023 [Der Frankfurter Wahlkompass VOTO zur OB-Wahl 2023](#), [FAZ](#) (with Thilo Dieng and Christian Stecker)
- 2023 [Wahlrecht ab 16, mehr autofreie Zonen und gebührenfreie Kinderbetreuung? Die Positionen der Kandidierenden zur Oberbürgermeisterwahl in Darmstadt in der Online-Wahlhilfe VOTO](#), [Darmstädter Echo](#) (with Christian Stecker)
- 2023 [Wahlkompass bietet Orientierung im Kandidatenschwungel \(FAZ\)](#), (with Christian Stecker)
- 2023 [Viele Köpfe und ein breites Angebot. Die Positionen der Kandidierenden zur Frankfurter Oberbürgermeisterwahl](#), [FAZ](#) (with Christian Stecker)

### Web Publications

- 2023 **BERT and Explainable AI**, Method Bites, Blog of the Mannheim Centre for European Research (MZES) Social Science Data Lab
- 2022 [Collection, Management, and Analysis of Twitter Data](#), Method Bites, Blog of the Mannheim Centre for European Research (MZES) Social Science Data Lab

## Software

2022 **trivici**, Triangular visualizations for the significance of pairwise differences from multigroup comparisons (Denis Cohen and *Andreas Küpfer*)

## Teaching

2023 **Quantitative Text Analysis in R**, Postgraduate seminar, Technical University of Darmstadt

2023 **Data Analysis: From Data Crawling to Visualization**, Guest Lecture (180 minutes), National University of Kyiv-Mohyla Academy

2023 **Getting started with Python: A how-to guide for social scientists**, Workshop with two sessions à 90 minutes, MZES Social Science Data Lab (with Ruben Bach)

2022 **Introduction to Quantitative Methods in R**, Postgraduate seminar, Technical University of Darmstadt

2022 **Collection, Management, and Analysis of Twitter Data: Using the Twitter API for Academic Research and BERT**, Workshop (90 minutes), MZES Social Science Data Lab

2017 **IT Security and Operating Systems**, Undergraduate tutorial, University of Applied Sciences Karlsruhe

2016 **Programming II**, Undergraduate tutorial, University of Applied Sciences Karlsruhe

2016 **Introduction to Business Informatics**, Undergraduate tutorial, University of Applied Sciences Karlsruhe

## Selected work experience (Academia)

03/2021-present **Research Assistant at Social Science Data Lab**, MZES (Dr. Denis Cohen)

10/2020-12/2021 **Research Assistant at Chair of Political Science, Quantitative Methods in the Social Sciences**, University of Mannheim (Prof. Thomas Gschwend)

09/2021-12/2021 **Project Data Science and Big Data at Schools [Prodabi](#)**, Paderborn University (Prof. Rolf Biehler)

## Selected work experience (Industry)

07/2018-02/2020 **Working Student Data Science/Finance**, SAP SE in Walldorf, Germany

02/2018-07/2018 **Internship Custom Solution Development**, Capgemini in Stuttgart, Germany