Andreas Küpfer

Computational Social Scientist

✉ andreas.kuepfer@tu-darmstadt.de
🌐 andreaskuepfer.github.io
🐦 @ankuepfer

I analyze multimodal political communication, including social media, legislative speeches, and advertisements, 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 Supervisors: Christian Stecker (Technical University of Darmstadt) and Christian Arnold (University of Birmingham)

Education

2019-2022	**M.Sc. Data Science**, University of Mannheim Supervisors: Thomas Gschwend and 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 Sciences Karlsruhe
2017	**ERASMUS Student, B.Sc. Informatics**, Metropolia University of Applied Sciences in Helsinki, Finland

Research Visits and Summer Schools

10/2024-02/2025	**Data and Methods Unit**, Mannheim Centre for European Research (MZES), University of Mannheim, Germany
06/2024	**Video Research Institute, Center for C-SPAN Scholarship & Engagement (CCSE) (Bryce Dietrich)**, Purdue University, US
02/2024-03/2024	**Centre for Artificial Intelligence in Government (CAIG) (Slava Jankin)**, University of Birmingham, UK

Publications

2024	[The Role of Hyperparameters in Machine Learning Models and How to Tune Them](#) C. Arnold, L. Biedebach, *A. Küpfer*, M. Neunhoeffer Political Science Research and Methods (PSRM) [Nonrandom Tweet Mortality and Data Access Restrictions: Compromising the Replication of Sensitive Twitter Studies](#) *A. Küpfer* Political Analysis (PA)

Working Papers

2023	**Alignment Helps Make the Most of Multimodal Data** C. Arnold, *A. Küpfer* (R&R)
2024	**Structuring Quantitative Image Analysis with Object Prominence** C. Arnold, *A. Küpfer*
2023	**The Politics of Seeking and Avoiding Discourse in Legislative Debates** E. Koch, *A. Küpfer* (R&R)
2022	**Applause and interjections as tools of party competition: Evidence from 70 years of debates in the German Bundestag** *A. Küpfer*, J. Müller, C. Stecker (Under Review)
2022	**The housing crisis on social media: Housing markets and the subnational diversification of policy supply** D. Cohen, *A. Küpfer*, T. Allinger

Grants, Certificates, and Awards

2025	**Certificate: TU Darmstadt Higher Education Teaching Certificates: Professional Competence Level (200 hours)**
2024	**Grant: German Research Foundation (DFG) Grant "Analysing Legislative Politics with Aligned Text, Audio, and Image Data" with Christian Arnold and Christian Stecker, 285'000€**
2024	**Grant: APSA Political Communication SPARK Award, 750$**
2023	**Award: Athene Award for excellent teaching (TU Darmstadt), 2'000€**

Research Dissemination

Conferences

2024	**APSA**[p], Philadelphia, US
2024	**EPSA**[p], Cologne, Germany
2024	**COMPTEXT**[p], Amsterdam, Netherlands
2024	**IASGP Annual Conference**[c], Darmstadt, Germany
2023	**IASGP Annual Conference**[p], Mannheim, Germany
2023	**ECPR Standing Group on Parliaments**[p,d,c], Vienna, Austria
2023	**EPSA**[p,d], Glasgow, UK
2023	**COMPTEXT**[p,c], Glasgow, UK
2022	**DVPW Group Comparative Research on Parliaments**[p], Bremen, Germany
2022	**EPSA**[p], Prague, Czech Republic
2022	**PolMeth Europe**[p], Hamburg, Germany
2021	**PolMeth Europe**, Virtual

Press

2023   [Der Frankfurter Wahlkompass VOTO zur OB-Wahl 2023](#), [FAZ](#) (with Thilo Dieing 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 Kandidatendschungel (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   **triviz**, Triangular visualizations for the significance of pairwise differences from multigroup comparisons (Denis Cohen and *Andreas Küpfer*)

Teaching

2024   **Machine Learning for Social Scientists**, PhD graduate school course, MZES (with Ruben Bach)

2024   **Introduction to Analyis and Comparison of Political Systems**, Undergradute proseminar, Technical University of Darmstadt

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, 2023   **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

Referee

Computational Linguistics for the Political and Social Sciences at KONVENS (Workshop) • Nature Scientific Data • Political Analysis • ZPol

Community Service

Co-Organizer/Contributor of the [Social Science Data Lab (SSDL)](#) at MZES (since 03/2021) • Co-Organizer of the 2024 [ECPR Summer School on Parliaments](#) (08/2024) • Member of the decision committee for the German public-private scholarship (Deutschlandstipendium) (since 11/2023) • Data infrastructure representative (since 11/2023)

Selected Work Experience (Academia)

03/2021-09/2024   **Student Research Assistant at Social Science Data Lab**, Mannheim Centre for European Research (MZES) (Denis Cohen)

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

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