

Andreas Küpfer

Computational Social Scientist

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My research focuses on (multimodal) political communication, combining machine learning models with traditional methods to address substantive questions related to party competition and political behaviour.

Current Position

2022-present

Political Science 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

Publications

2025

[The sound of party competition: how applause reflects unity, disagreement, and the electoral cycle in parliaments](#)

A. Küpfer, J. Müller, C. Stecker

West European Politics (WEP)

2025

[The Politics of Seeking and Avoiding Discourse in Parliament](#)

E. Koch, A. Küpfer

European Journal of Political Research (EJPR)

2024

[Nonrandom Tweet Mortality and Data Access Restrictions: Compromising the Replication of Sensitive Twitter Studies](#)

A. Küpfer

Political Analysis (PA)

2024

[The Role of Hyperparameters in Machine Learning Models and How to Tune Them](#)

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

Political Science Research and Methods (PSRM)

Working Papers

2025	Measuring Media Slant through Image Analysis C. Arnold, A. Küpfer, O. Rittmann, M. Torres
2025	Striving for Confrontation? Opposition Status, Gender, and the Far Right A. Küpfer (Under Review)
2025	Extracting Image, Voice, and Text Data from Complex Local Public Meetings M. Holman, A. Küpfer, T. Simko
2025	Polarization in Bi-Directional Political Communication: Analysing the Language of Abgeordnetenwatch Questions and Answers C. Arnold, A. Küpfer, C. Sheldon
2024	Structuring Quantitative Image Analysis with Object Prominence C. Arnold, A. Küpfer (Under Review)
2024	Alignment Helps Make the Most of Multimodal Data C. Arnold, A. Küpfer (Under Review)

Research Visits and Summer Schools

10/2024-10/2025	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

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€

Teaching and Supervision

Master Thesis Supervisions: 2

Student Assistant Supervisions: 4

2024	Machine Learning for Social Scientists , PhD graduate school course, MZES (with Ruben Bach)
2024	Introduction to Analysis and Comparison of Political Systems , Undergraduate 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

Research Dissemination

Conferences

2025	COMPTExT^{p,c,d} , Vienna, Austria
2025	PSA , Birmingham, UK
2024	APSAP , Philadelphia, US
2024	EPSAP , 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	EPSAP^d , Glasgow, UK
2023	COMPTExT^{p,c} , Glasgow, UK
2022	DVPW Group Comparative Research on Parliaments^p , Bremen, Germany
2022	EPSAP , Prague, Czech Republic
2022	PolMeth Europe^p , Hamburg, Germany
2021	PolMeth Europe , Virtual

p = Presenter, d = Discussant, c = Panel Chair/Roundtable

Press

2025	<u>When do politicians engage in discourse – and when do they avoid it?</u> , LSE EUROPP – European Politics and Policy Blog (with Elias Koch)
2023	<u>Der Frankfurter Wahlkompass VOTO zur OB-Wahl 2023</u> , <u>FAZ</u> (with Thilo Dieing and Christian Stecker)
2023	<u>Wahlrecht ab 16, mehr autofreie Zonen und gebührenfreie Kinderbetreuung? Die Positionen der Kandidierenden zur Oberbürgermeisterwahl in Darmstadt in der Online-Wahlhilfe VOTO</u> , <u>Darmstädter Echo</u> (with Christian Stecker)
2023	<u>Wahlkompass bietet Orientierung im Kandidatenschwungel (FAZ)</u> , (with Christian Stecker)
2023	<u>Viele Köpfe und ein breites Angebot. Die Positionen der Kandidierenden zur Frankfurter Oberbürgermeisterwahl</u> , <u>FAZ</u> (with Christian Stecker)

Web Publications

2023

[BERT and Explainable AI](#), Methods Bites, Blog of the Mannheim Centre for European Research (MZES) Social Science Data Lab

2022

[Collection, Management, and Analysis of Twitter Data](#), Methods 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)

Referee

Computational Linguistics for the Political and Social Sciences 2025 at KONVENS (Workshop) • Computational Linguistics for the Political and Social Sciences 2024 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 **Student Research Assistant at 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