Dr. Alexander Herzog

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Curriculum Vitae

Employment

2023 – present **Research Associate**, *University of Bamberg*, Chair of Empirical Political Science
- Research in comparative politics with a focus on the computational analysis of political texts using machine learning and large language models (LLMs)
- Member of the Center for Innovative Applications of Computer Science (ZIAI)

2017 – 2022 **Lecturer in Computer Science**, *Clemson University*, School of Computing, South Carolina, USA
- Established and directed the Capstone Program, supervising 40 industry-sponsored student projects in collaboration with corporate partners

2016 – 2017 **Professor of Practice in Computer Science**, *Clemson University*, School of Computing, South Carolina, USA

2014 – 2016 **Postdoctoral Researcher**, *Clemson University*, South Carolina, USA
- Data Intensive Computing Ecosystems (DICE) Lab, School of Computing
- Social Analytics Institute, Department of Management

2012 – 2014 **Postdoctoral Fellow**, *London School of Economics and Political Science*, Department of Government, London, UK

Education

2006 – 2013 **Ph.D. in Political Science**, *New York University*, New York, USA
- Dissertation: *Public Policy in Cabinet Governments*
- Dissertation committee: Michael Laver, Howard Rosenthal, Joshua Tucker

2009 – 2010 **Visiting Researcher**, *Trinity College Dublin*, Dublin, Ireland

2002 – 2006 **Diplom in Social Sciences**, *University of Mannheim*, Mannheim, Germany

2000 – 2002 **Vordiplom in Public Policy and Management**, *University of Konstanz*, Konstanz, Germany

Publications

Peer-Reviewed Articles and Conference Proceedings

Herzog, Alexander, and David Schmuck. 2026. "From Foe to Friend? Government–Opposition Conflict and the Appointment of Cabinet Ministers." *Political Science Research and Methods*. First View, 1–20.

Weeks, Liam, Slava Jankin Mikhaylov, Alexander Herzog, Mícheál Ó Fathartaigh, and Hannah Béchara. 2023. "It's Only Words? Analysing the Roots of the Irish Party System Using Historical Parliamentary Debates." *Parliamentary Affairs* 76 (4): 836–856.

Alshanik, Farah, Amy Apon, Yuheng Du, Alexander Herzog, and Ilya Safro. 2022. "Proactive Query Expansion for Streaming Data Using External Sources." In *Proceedings of the 2022 IEEE International Conference on Big Data*, 701–708.

Béchara, Hannah, Alexander Herzog, Slava Jankin, and Peter John. 2021. "Transfer Learning for Topic Labeling: Analysis of the UK House of Commons Speeches 1935–2014." *Research & Politics* 8 (2): 1–10.

Alshanik, Farah, Amy Apon, Alexander Herzog, Ilya Safro, and Justin Sybrandt. 2020. "Accelerating Text Mining Using Domain-Specific Stop Word Lists." In *Proceedings of the International Workshop on Big Data Reduction held in conjunction with the IEEE International Conference on Big Data*, 2639–2648.

Herzog, Alexander, and Slava Jankin Mikhaylov. 2020. "Intra-Cabinet Politics and Fiscal Governance in Times of Austerity." *Political Science Research and Methods* 8 (3): 409–424.

Gropp, Christopher, Alexander Herzog, Ilya Safro, Paul W. Wilson, and Amy W. Apon. 2019. "Clustered Latent Dirichlet Allocation for Scientific Discovery." In *Proceedings of the 1st International Workshop on Big Data Tools, Methods, and Use Cases for Innovative Scientific Discovery (BTSD) held in conjunction with the IEEE International Conference on Big Data*, 4503–4511.

Hagemann, Sara, Stefanie Bailer, and Alexander Herzog. 2019. "Signals to Their Parliaments? Governments' Use of Votes and Policy Statements in the EU Council." *Journal of Common Market Studies* 57 (3): 634–650.

Posey, Brandon, Christopher Gropp, Boyd Wilson, Boyd McGeachie, Sanjay Padhi, Alexander Herzog, and Amy Apon. 2018. "Addressing the Challenges of Executing a Massive Computational Cluster in the Cloud." In *Proceedings of the 2018 18th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGRID)*, 253–262.

Sybrandt, Justin, Angelo Carrabba, Alexander Herzog, and Ilya Safro. 2018. "Are Abstracts Enough for Hypothesis Generation?" In *Proceedings of the 2018 IEEE International Conference on Big Data*, 1504–1513.

Avudaiappan, Neela, Alexander Herzog, Sneha Kadam, Yuheng Du, Jason Thatcher, and Ilya Safro. 2017. "Detecting and Summarizing Emergent Events in Microblogs and Social Media Streams by Dynamic Centralities." In *Proceedings of the 2017 IEEE International Conference on Big Data*, 1627–1634.

Du, Yuheng, Alexander Herzog, Andre Luckow, Ramu Nerella, Christopher Gropp, and Amy Apon. 2017. "Representativeness of Latent Dirichlet Allocation Topics Estimated from Data Samples with Application to Common Crawl." In *Proceedings of the 2017 IEEE International Conference on Big Data*, 1418–1427.

Herzog, Alexander, and Slava Jankin Mikhaylov. 2017. "Database of Parliamentary Speeches in Ireland, 1919–2013." In *Proceedings of the 1st IEEE International Conference on the Frontiers and Advances in Data Science*, 29–34.

Posey, Brandon, Christopher Gropp, Alexander Herzog, and Amy Apon. 2017. "Automated Cluster Provisioning and Workflow Management for Parallel Scientific Applications in the Cloud." In *Proceedings of the 10th Workshop on Many-Task Computing on Clouds, Grids, and Supercomputers (MTAGS) held in conjunction with the ACM/IEEE International Conference for High Performance Computing, Networking, Storage and Analysis*.

Lauderdale, Benjamin E., and Alexander Herzog. 2016. "Measuring Political Positions from Legislative Speech." *Political Analysis* 24 (3): 374–394.

Herzog, Alexander, and Kenneth Benoit. 2015. "The Most Unkindest Cuts: Speaker Selection and Expressed Government Dissent during Economic Crisis." *Journal of Politics* 77 (4): 1157–1175.

Herzog, Alexander, and Joshua A. Tucker. 2010. "The Dynamics of Support: The Winners–Losers Gap in Attitudes toward EU Membership in Post-Communist Countries." *European Political Science Review* 2 (2): 235–267.

Pappi, Franz Urban, Alexander Herzog, and Ralf Schmitt. 2006. "Koalitionssignale und die Kombination von Erst- und Zweitstimme bei den Bundestagswahlen 1953 bis 2005 [Coalition Signals and the Combination of First and Second Vote in Bundestag Elections 1953 to 2005]." *Zeitschrift für Parlamentsfragen* 37 (3): 493–513.

Pappi, Franz Urban, Axel Becker, and Alexander Herzog. 2005. "Regierungsbildung in Mehrebenensystemen: Zur Erklärung der Koalitionsbildung in den deutschen Bundesländern [Government Formation in Multilevel Systems: Explaining Coalition Building in the German Länder]." *Politische Vierteljahresschrift* 46 (3): 432–458.

Book Chapters

Herzog, Alexander, Slava Jankin Mikhaylov, and Liam Weeks. 2021. "Ireland: The Paradox of a Weak Legislature in a Candidate-Centered System." In *The Politics of Legislative Debates*, edited by Hanna Bäck, Marc Debus, and Jorge M. Fernandes, 463–483. Oxford University Press.

Weeks, Liam, Mícheál Ó Fathartaigh, Slava Mikhaylov, and Alexander Herzog. 2018. "'More than Words': A Quantitative Text Analysis of the Treaty Debates." In *The Treaty: Debating and Establishing the Irish State*, edited by Liam Weeks and Mícheál Ó Fathartaigh, 206–224. Irish Academic Press.

Benoit, Kenneth, and Alexander Herzog. 2017. "Text Analysis: Estimating Policy Preferences from Written and Spoken Words." In *Analytics, Policy, and Governance*, edited by Jennifer Bachner, Benjamin Ginsberg, and Kathryn Wagner Hill, 137–159. Yale University Press.

Awards and Fellowships

2025 Faculty Award for Excellence in Teaching, Faculty of Social Sciences, Economics and Business Administration, University of Bamberg.

2025 Departmental Award for Excellence in Teaching, Department of Political Science, University of Bamberg.

2018 National Scholars Program Award of Distinction, Clemson University. Awarded by program alumni in recognition of outstanding commitment as a mentor.

2016 Irish Political Studies Best Paper Prize, Political Studies Association of Ireland. Award for the best conference paper (joint with Liam Weeks, Mícheál Ó Fathartaigh, and Slava Mikhaylov).

2006–2011 Henry M. MacCracken Fellowship, Graduate School of Arts and Science, New York University. Doctoral fellowship covering tuition and providing a living stipend.

Research Grants and Funding

Industry-Funded Research Projects

Total industry research funding: 310,000 USD.

2019 **BMW**: Analyzing Multilingual Sources of Textual Data for Understanding Customer Feedback.
Role: PI; Funding: 50,000 USD.

2018 **BMW**: Analyzing Heterogeneous Sources of Textual Data for Understanding Customer Sentiment.
Role: PI; Funding: 50,000 USD.

2017 **BMW**: Natural Language Understanding for Customer Feedback Analysis.
Role: PI; Funding: 60,000 USD.

2017 **BMW**: Cybersecurity Stream Data Analysis.
Role: Co-PI; Funding: 40,000 USD.

2017 **LexisNexis**: Big Data Systems and Analytics.
Role: Co-PI; Funding: 70,000 USD.

2016 **BMW**: Toward Autonomous Business Decisions: Topic Modeling and Real Time Infrastructure Enabling Autonomy.
Role: Co-PI; Funding: 40,000 USD.

In-Kind Research Support

2017 **NVIDIA**: Two Tesla P100 GPUs for the development of a deep learning infrastructure.
Value: 15,000 USD.

2016 **Amazon Web Services (AWS)**: Cloud computing credits for research projects.
Value: 29,300 USD.

Other Externally Funded Research Projects

2016 **Irish Research Council**: New Foundations Scheme: A Quantitative Text Analysis of the 1921 Anglo-Irish Treaty Debates.
Role: Co-PI; Funding: 10,000 EUR.

Internal University Research Grants

2015 **Clemson University**: CBBS One Year Accelerate Grant. Constructing Concise and Accurate Knowledge Bases for Data-Driven Social Inquiry.
Role: Co-PI; Funding: 15,921 USD.

2013 **London School of Economics and Political Science**: LSE Seed Fund. Computer-Assisted Content Analysis of the European Parliament's Own-Initiative Reports.
Role: PI; Funding: 6,085 GBP.

Participation in Externally Funded Research Infrastructure Project

2017 **National Science Foundation (NSF), USA**: MRI: Acquisition of a Cyberinstrument for Interdisciplinary Computational Science and Engineering (Award 1725573).
Role: Faculty Collaborator contributing a research proposal outlining the use of the requested computing infrastructure; Total project funding: 994,161 USD.

Teaching Experience

University of Bamberg

Course	Format	Level	Semester
AI-Based Analysis of Parliamentary Data	Research Seminar	Master	Winter 26/27
Introduction to R	Workshop	Master	Winter 24/25, 25/26, 26/27
Measuring Political Preferences	Seminar	Master	Summer 23, Winter 24/25
Research Design and Causal Inference	Seminar	Master	Winter 23/24, 24/25, 25/26, 26/27
Introduction to Comparative Politics	Lecture	Bachelor	Winter 23/24
Analysis of Political Competition	Seminar	Bachelor	Summer 23
Analytical Perspectives on the 2025 German Federal Election and Its Consequences	Seminar	Master	Summer 25
Coalition Governance	Seminar	Master	Winter 23/24, 25/26

Does Politics Make a Difference? Representation, Governance, and Policy Outcomes in Comparative Perspective	Seminar	Bachelor	Summer 25, 26
Far Right Parties and Their Electorate	Seminar	Master	Summer 24
Governments, Legislatures, and Public Policy	Seminar	Master	Winter 24/25, Summer 26
The Politics of Legislative Debate	Seminar	Master	Winter 22/23, Summer 24

Clemson University

Course	Format	Level	Semester
Applied Data Science	Lecture	Bachelor/-Master	Fall 16, Spring 17, Fall 17, Spring 18, Fall 18, Fall 19, Fall 20, Spring 21
Senior Design / Capstone Established and directed the Capstone Program with industry-sponsored projects in close collaboration with corporate partners	Project-Based Course	Bachelor	Fall 16, Spring 17, Fall 17, Spring 18, Fall 18, Spring 19, Fall 19, Spring 20, Fall 20, Spring 21
Seminar in Professional Issues II	Seminar	Bachelor	Spring 17, Fall 17, Spring 18, Spring 19
Computational Thinking	Lecture	Bachelor	Fall 19
Computer Science II (Introduction to C++)	Lecture	Bachelor	Spring 22

London School of Economics and Political Science (LSE)

Course	Format	Level	Semester
European Politics: Comparative Analysis	Lecture	Master	Fall 12, Fall 13
Government, Politics and Public Policy in the EU	Lecture	Bachelor/-Master	Fall 12, Spring 13, Fall 13, Spring 14
Legislative Politics: European Parliament	Lecture	Master	Spring 13, Spring 14
Politics and Institutions in Europe	Lecture	Bachelor	Fall 12, Spring 13, Fall 13, Spring 14

New York University

Course	Format	Level	Semester
Quantitative Research in Political Science I	Tutorial	Ph.D.	Fall 08
Quantitative Research in Political Science II	Tutorial	Ph.D.	Spring 08, Spring 09
Quantitative Research in Political Science III	Tutorial	Ph.D.	Fall 07
Comparative Politics	Tutorial	Bachelor	Fall 10, Spring 11

Student Supervision

Ph.D. Dissertations

2018 – 2021 **Clemson University**: Served on ten Ph.D. dissertation committees in Computer Science (6), Human-Centered Computing (1), Business Administration (1), Mathematics (1), and Rhetorics, Communication, and Information Design (1), including one in Computer Science as Dissertation Committee Co-Chair.

Master Theses

2026 **University of Bamberg**: Primary supervisor of the master's thesis *Mapping Policy Positions of German Parties: Anchoring Latent Spaces by Harnessing Large Language Models to Amend Vote Advice Applications Based on Party Manifestos*.

2012 – 2014 **London School of Economics and Political Science**: Supervised 16 master's theses in the "Politics and Government in the European Union" program.

2017 – 2019 **Clemson University**: Served on three master's thesis examination committees in Computer Science.

University Service

2024 – present **Executive Committee Member**, *Bamberg Graduate School of Social Sciences (BAGSS)*
Elected representative of postdoctoral academic staff.

2017 – 2022 **Member, Assessment Committee**, *School of Computing, Clemson University*
Contributed to the development and review of academic program assessment procedures, the evaluation of student learning outcomes, and the preparation of accreditation reports.

2022 **Member, Programming Education Review Task Force**, *School of Computing, Clemson University*
Reviewed learning objectives and student achievement in introductory programming courses.

2020 **Member, Online and Hybrid Teaching Planning Committee**, *School of Computing, Clemson University*
Developed common standards for online and hybrid instruction in first-year courses during the COVID-19 pandemic.

2018 **Member, Director Search Committee**, *School of Computing, Clemson University*
Elected representative of the Faculty of Instruction Division.

Conference and Workshop Organization and Service

2023 Co-organizer of the conference of the Working Group on Comparative Parliamentary Research (*Vergleichende Parlamentarismusforschung*) of the German Political Science Association (DVPW), Bamberg, Germany.

2018 Program Committee Member, *3rd Workshop on Open Science in Big Data (OSBD)*, held in conjunction with the IEEE International Conference on Big Data.

2017 Program Committee Member, *2nd Workshop on Open Science in Big Data (OSBD)*, held in conjunction with the IEEE International Conference on Big Data.

2017 Program Committee Member, *2nd Southern Data Science Conference (SDSC)*.

2015 Discussant, panel on *Legislative Activity and Oversight*, Annual Meeting of the Midwest Political Science Association, Chicago, IL, USA.

2011 Panel Organizer, *New Approaches in Coalition Research*, Annual Meeting of the American Political Science Association, Seattle, WA, USA.

Selected Invited Talks and Panel Discussions

2026 Keynote Address (with Ulrich Sieberer): "*Political Language as Data: What Text Analysis Reveals About Parties, Coalitions, and Parliaments*," Center for Innovative Applications of Computer Science (ZIAI), University of Bamberg, Germany.

2026 Panelist: "*Benefits and Challenges of New Computational Methods in Party Research*," Workshop on Computational Text Analysis in Party Research, Bamberg Graduate School of Social Sciences (BAGSS), University of Bamberg, Germany.

2025 Talk: "*Compromises, Bargains, and Copy-and-Paste: To What Extent Can Coalition Agreement Provisions Be Traced Back to the Governing Parties' Election Manifestos?*," Conference on Current Challenges of German Coalition Democracy („Wie wird jetzt regiert? Aktuelle Herausforderungen der deutschen Koalitionsdemokratie"), Schader Foundation, Germany.

2017 Talk: "*Transfer Topic Labeling with Domain-Specific Knowledge Base*," Department of Political Science, University of South Carolina, USA.

2015 Talk: "*The Politics of Legislative Debate: Un-supervised Methods*," Department of Political Science, Rice University, USA.

2014 Panelist: "*Coordinating Electoral and Institutional Data Assets for Data-Intensive Research*," Annual Meeting of the Midwest Political Science Association, Chicago, IL, USA.

2014 Talk: "*Big Data Infrastructures and Analytics at Clemson University*," BMW IT Manager Workshop, BMW IT Research Center, Greenville, SC, USA.

2013 Talk: "*Pivotal Politics and Public Policy in Cabinet Governments*," Mannheim Centre for European Social Research (MZES), University of Mannheim, Germany.

Peer Review Activities

Academic Journals

Acta Politica
American Journal of Political Science
American Political Science Review
British Journal of Political Science
Comparative Political Studies
European Journal of Political Research
European Political Science Review
European Union Politics
International Journal of Social Research Methodology
Irish Political Studies
Italian Political Science Review
Journal of Computational Social Science
Journal of Politics
Journal of Systems and Software
Legislative Studies Quarterly
MIS Quarterly
Methods, Data, Analyses
PLOS ONE
Political Analysis
Political Communication
Political Science Research and Methods
Politische Vierteljahresschrift
Research & Politics
World Politics

Conference Papers

Big Data Congress

Book Manuscripts

Routledge, Wiley

Grant Proposals

National Science Foundation (NSF), Swiss National Science Foundation (SNSF)

Programming and Technical Skills

Programming	R, Python, C++
Statistical Software	Stata
Databases	SQL
Version Control	Git and GitHub
Linux	Over 25 years of experience with Linux, including shell scripting and system administration
Cloud Computing	Amazon Web Services (AWS), particularly EC2 and Spot Instances
High-Performance Computing	Several years of experience with high-performance computing (HPC), including batch job execution and management, and parallel data analysis