

Alexander Herzog, Ph.D.

Chair for Empirical Political Science
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EMPLOYMENT

University of Bamberg Research Associate at the Chair for Empirical Political Science	2023–present
Clemson University Lecturer in the School of Computing	2017–2022
Clemson University Postdoctoral Researcher in the Social Analytics Institute and the Data Intensive Computing Lab	2014–2017
London School of Economics Postdoctoral Fellow in the Department of Government	2012–2014

EDUCATION

New York University , Ph.D. Political Science <i>Dissertation</i> : Public Policy in Cabinet Governments <i>Committee</i> : Michael Laver, Howard Rosenthal, Joshua Tucker	2006–2012
University of Mannheim , Germany, Diplom in Social Sciences	2002–2006
University of Konstanz , Germany, Vordiplom in Public Policy and Management	2000–2002

ADDITIONAL TRAINING & VISITING POSITIONS

Big Data Infrastructure and Industry Applications (lecture) School of Computing, Clemson University	Fall 2014
Empirical Implications of Theoretical Models (summer school), UC Berkeley Trinity College Dublin, Ireland, Visiting Researcher	June/July 2010 2009–2010

PUBLICATIONS

Peer-Reviewed Articles

Farah Alshanik, Amy Apon, Yuheng Du, Alexander Herzog, and Ilya Safro. Proactive query expansion for streaming data using external sources. In *Proceedings of the 2022 IEEE International Conference on Big Data*, December 2022.

Liam Weeks, Slava Jankin Mikhaylov, Alexander Herzog, Mícheál Ó Fathartaigh, and Hannah Bechara. It's only words? Analysing the roots of the Irish party system using historical parliamentary debates. *Parliamentary Affairs*, September 2022.

Hannah Béchara, Alexander Herzog, Slava Jankin Mikhaylov, and Peter John. Transfer learning for topic labeling: analysis of the UK House of Commons speeches 1935–2014. *Research & Politics*, 8, 2, 2021.

Farah Alshanik, Amy Apon, Alexander Herzog, Ilya Safro, and Justin Sybrandt. Accelerating text mining using domain-specific stop word lists. In *Proceedings of the International Workshop on Big Data Reduction*, December 2020. Workshop held in conjunction with the 2020 IEEE International Conference on Big Data.

Alexander Herzog and Slava Jankin Mikhaylov. Intra-cabinet politics and fiscal governance in times of austerity. *Political Science Research and Methods*, 8, 3, July 2020.

Chris Gropp, Alexander Herzog, Ilya Safro, Paul Wilson, and Amy Apon. Clustered latent Dirichlet allocation (CLDA) for scientific discovery. In *Proceedings of the 1st International Workshop on Big Data Tools, Methods, and Use Cases for Innovative Scientific Discovery (BTSD)*, December 2019. Workshop held in conjunction with the 2019 IEEE International Conference on Big Data.

Sara Hagemann, Stefanie Bailer, and Alexander Herzog. Signals to their parliaments: governments' strategic use of votes and policy statements in the Council of the European Union. *Journal of Common Market Studies*, 57(3), May 2019.

Justin Sybrandt, Angelo Carrabba, Alexander Herzog, and Ilya Safro. Are abstracts enough for hypothesis generation? In *Proceedings of the 2018 IEEE International Conference on Big Data*, December 2018.

Brandon Posey, Christopher Gropp, Boyd Wilson, Boyd McGeachie, Sanjay Padhi, Alexander Herzog, and Amy Apon. Addressing the challenges of executing a massive computational cluster in the cloud. In *Proceedings of the 18th Annual IEEE/ACM International Symposium in Cluster, Cloud, and Grid Computing (CCGrid 2018)*, May 2018.

Neela Avudaiappan, Alexander Herzog, Sneha Kadam, Yuheng Du, Jason Thatcher, and Ilya Safro. 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*, 2017.

Yuheng Du, Alexander Herzog, Andre Luckow, Ramu Nerella, Christopher Gropp, and Amy Apon. 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*, 2017.

Alexander Herzog and Slava Jankin Mikhaylov. Database of parliamentary speeches in Ireland, 1919-2013. In *Proceedings of the 1st IEEE International Conference on the Frontiers and Advances in Data Science*, 2017.

Brandon Posey, Christopher Gropp, Alexander Herzog, and Amy Apon. 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)*, 2017. Workshop held in conjunction with the 2017 International Conference for High Performance Computing, Networking, Storage and Analysis.

Benjamin E. Lauderdale and Alexander Herzog. Measuring political positions from legislative speech. *Political Analysis*, 24(3):374–394, 2016.

Alexander Herzog and Kenneth Benoit. The most unkindest cuts: speaker selection and expressed government dissent during economic crisis. *Journal of Politics*, 77(4):1157–1175, 2015.

Alexander Herzog and Joshua A. Tucker. The dynamics of support: the winners-losers gap in attitudes towards EU membership in post-communist countries. *European Political Science Review*, 2(2):235–267, 2010.

Franz Urban Pappi, Alexander Herzog, and Ralf Schmitt. 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, 2006.

Franz Urban Pappi, Axel Becker, and Alexander Herzog. 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, 2005.

Book Chapters

Alexander Herzog, Slava Jankin Mikhaylov, and Liam Weeks. Ireland: the paradox of a weak legislature in a candidate-centered system. In Hanna Back, Marc Debus, and Jorge M. Fernandes, editors, *Politics of Legislative Debate*. Oxford University Press, 2021.

Liam Weeks, Mícheál Ó Fathartaigh, Slava Jankin Mikhaylov, and Alexander Herzog. 'More than words': A quantitative text analysis of the treaty debates. In Liam Weeks and Mícheál Ó Fathartaigh, editors, *The Treaty: Debating and Establishing the Irish State*, pages 206–224. Irish Academic Press, 2018. (Winner of the Irish Political Studies Best Paper Prize 2016).

Kenneth Benoit and Alexander Herzog. Text analysis: Estimating policy preferences from written and spoken words. In Jennifer Bachner, Kathryn Wagner Hill, and Benjamin Ginsberg, editors, *Analytics, Policy and Governance*, pages 137–159. Yale University Press, 2017.

GRANTS AND AWARDS

2019: BMW, Research grant, Analyzing Multilingual Sources of Textual Data for Understanding Customer Feedback (PI), \$50,000

2018: Clemson's "National Scholars Program Award of Distinction" (awarded by graduating National Scholars to faculty and staff who have served as significant mentors)

2017:

- BMW, Research grant, Analyzing Heterogeneous Sources of Textual Data for Understanding Customer Sentiment (PI), \$50,000
- BMW, Research grant, Natural Language Understanding for Customer Feedback Analysis (PI), \$60,000
- NVIDIA, 2 Tesla P100 GPU for building a deep-learning infrastructure (\$15,000 in-kind)

2016:

- Amazon Web Services (AWS), \$29,300 in-kind grant for cloud computing
- Winner of the Irish Political Studies Best Paper Prize for the 2016 Annual Conference of the Political Studies Association of Ireland (with Liam Weeks, Mícheál O Fathartaigh, and Slava Mikhaylov)
- Irish Research Council New Foundations Scheme (Co-PI; with Liam Weeks and Slava Mikhaylov), "*A quantitative text analysis of the 1921 Anglo-Irish Treaty debates*", €10,000

2015: Clemson CBBS One Year Accelerate grant (Co-PI; with Jason Thatcher, Ilya Safro, and Linh

Ngo), "*Constructing concise and accurate knowledge bases for data-driven social inquiry*", \$15,921

2013: LSE Seed Fund (PI), £6,085

2012: American Political Science Association Travel Grant

2008: Conference Travel Award, Graduate School of Arts and Science, NYU

2007–2011: Summer Fellowship, Department of Politics, NYU

2006–2011: MacCracken Fellowship, Graduate School of Arts and Science, NYU

SERVICE TO THE PROFESSION

Conferences

2018:

- Member of the program committee for the 3rd Workshop on Open Science in Big Data (OSBD), held in conjunction with the 2018 IEEE International Conference on Big Data

2017:

- Member of the program committee for the 2nd Southern Data Science Conference (SDSC) in Atlanta
- Member of the program committee for the 2nd Workshop on Open Science in Big Data (OSBD), held in conjunction with the 2017 IEEE International Conference on Big Data

2015: Discussant for panel "Legislative activity and oversight," Midwest Political Science Association, Chicago, IL

2011: Panel organizer "New approaches in coalition research," American Political Science Association, Seattle, WA

Reviewer

Journals: American Journal of Political Science, American Political Science Review, Big Data Congress, British Journal of Political Science, Comparative Political Studies, European Journal of Political Research, European Political Science Review, International Journal of Social Research Methodology, Irish Political Studies, Journal of Computational Social Science, Journal of Politics, Journal of Systems and Software, Legislative Studies Quarterly, Management Information Systems Quarterly, PLOS One, Political Analysis, Political Communication, Political Science Research and Methods, Politische Vierteljahresschrift, Research and Politics, World Politics

Books: Routledge, Wiley

Grants: US National Science Foundation, Swiss National Science Foundation

TEACHING EXPERIENCE

University of Bamberg

Far Right Parties and Their Electorate

Coalition Governance

Research Design and Causal Inference

Einführung in die Vergleichende Politikwissenschaft [Introduction to Comparative Politics]

Measuring Political Preferences

Analyse Politischen Wettbewerbs [Analyzing Political Competition]

The Politics of Legislative Debate

Clemson University

Applied Data Science

Computational Thinking

Computer Science II

Seminar in Professional Issues II

Senior-Design/Capstone

London School of Economics

Legislative Politics: European Parliament, MSc, 2013, 2014
European Politics: Comparative Analysis, MSc 2012, 2013
Government, Politics and Public Policy in the EU, BSc, 2012/13, 2013/14
Politics and Institutions in Europe, BSc, 2012/13, 2013/14

New York University

Comparative Politics, BA, Teaching Assistant, 2010, 2011
Quantitative Methods I-III, PhD level, Teaching Assistant, 2007–09

STUDENT SUPERVISION

Dissertation Co-Chair, Clemson University

- Yuheng Du, Ph.D. in Computer Science, now at Amazon working on the Alexa AI team

Dissertation Committee Member, Clemson University

- Ph.D. in Computer Science: 5
- Ph.D. in Human-Centered Computing: 2
- Ph.D. in Management Information Systems (MIS): 1
- Ph.D. in Rhetorics, Communication, and Information Design: 1
- Ph.D. in Statistics: 1
- MSc. in Computer Science: 3

Masters Thesis Advisor, LSE

- MSc. in Politics and Government in the European Union: 16

Research Project Advisor

- Main advisor for two honors students research projects in Computer Science, 2017/18
- Main advisor for three research interns in the Social Analytics Institute at Clemson University, 2014/15 & 2015/16.
- Main advisor for three graduate research assistants at LSE for a six-month funded project on legislative behavior in the European Parliament, 2013/14.

COLLABORATIONS WITH INDUSTRY

Funded Student Projects

Director of the School of Computing Capstone Program 2017–2021
Secured more than \$120,000 in industry funding and supervised more than 30 software development projects with clients such as Amazon, BMW, Boeing, IBM, NVIDIA, and SYNnex/Microsoft.

Funded Research Projects

Amazon Web Services (AWS) 2016–2017
LexisNexis Risk Solutions, Atlanta, GA 2015–2018
BMW Information Technology Research Center (ITRC), Greenville, SC 2015–2020

COMPUTING SKILLS

Programming languages: C++, Python, R, Stata, SQL

Cloud computing: Amazon Web Services (AWS)