

Yen-Chieh (David) Liao

The Centre for Artificial Intelligence in Government and the Institute for Data and AI
University of Birmingham

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ACADEMIC POSITIONS

University of Birmingham

Research Fellow in NLP at the Centre for Artificial Intelligence in Government Sep 2024 –
Affiliate Fellow at the Institute for Data and AI Jul 2025 –

University College Dublin

Post-doctoral Researcher at the School of Politics and International Relations Aug 2023 – Sep 2024

University of Bamberg

Pre-doctoral Researcher at the Chair of Comparative Politics Dec 2021 – Dec 2022

RESEARCH INTERESTS

Measuring ideological preferences through quantitative and computational methods, including ideal point estimation from legislative voting, surveys, and political texts.

Current focus: multi-agent LLM systems for survey experiments and deliberation simulation.

EDUCATION

University of Essex

PhD in Politics Oct 2017 – Jan 2023

National Taipei University

BA and MA in Public Administration and Policy

RESEARCH

Publications

Forthcoming Electoral Systems and Geographically-Targeted Oversight: Evidence from Taiwan Legislative Yuan. (with Li Tang) *Electoral Studies*.

2025 Catalysts for Progress? Mapping Policy Insights from Energy Research. *Energy Research and Social Science*. (with Brian Boyle, Stefan Müller, Sarah King and Robin Rauner) [DOI: <https://doi.org/10.1016/j.erss.2025.103955>]

2025 Bureaucratic Reinterpretation of Leaders' Ideologies: A Case Study of People's Daily's Commentary on Xi Jinping Thought on Diplomacy (in Chinese). *Mainland China Studies*. (with Yi-Nung Tsai) [[https://doi.org/10.30389/MCS.202503_68\(1\).0003](https://doi.org/10.30389/MCS.202503_68(1).0003)]

2024 (Mis)perception of Party-voter Congruence and Satisfaction with Democracy. *Political Science Research and Methods*. (with Li Tang and Royce Carroll) [DOI: <https://doi.org/10.1017/psrm.2024.48>]

2024 Electoral Reform and Fragmented Polarization: New Evidence from Taiwan Legislative Roll Calls. *Legislative Studies Quarterly* [DOI: <https://doi.org/10.1111/lsq.12459>]

2023 The Role of Rituals in Adversarial Parliaments: An Analysis of Expressions of Collegiality in the British House of Commons. (Invited Contribution) *Historical Social Research*. 48 (3): 209-234. (with David Beck and Thomas Saalfeld) [DOI: <https://doi.org/10.12759/hsr.48.2023.31>]

2015 The Rationale for Supporting Nuclear Power: Analysis of Taiwanese Public Opinion Survey. *International Relations of the Asia-Pacific*. 15 (1): 147–176. (with Xiaochen Su, Chung-li Wu, Tai-De Lee, and Chen Tsao) [DOI: <https://doi.org/10.1093/irap/lcu019>]

Under Review

Estimating Fractions of Red Guard under Mao's China: A Slogan-based Text Scaling Method with Historical Documents. (with Yi-Nung Tsai) *Invited to Revise and Resubmit. Journal of Computational Social Science.*

Electoral Reform and Issue Attention in Legislative Oversight: From SNTV to Mixed-Member Majoritarian System in Taiwan. (with Yu-Ceng Liao and Yi-ting Wang) *Under Review.*

Selected Working Papers

Multi-Agent Systems with LLMs for Synthetic Survey Experiments on Misinformation: Design and Implementation. (with Linette Lim and Slava Jankin)

Cross-Lingual Stance Detection in Political Texts: Comparison and Application. (with Stefan Müller)

Political Text Analysis with Embedding Regression: From Multilingual to Cross-lingual Application. (with Chen Zheng, Winnie Xia and Slava Jankin)

ACADEMIC TRAINING PROGRAMMES

2024 ARCHER2 Message Passing Programming with MPI (Edinburgh Parallel Computing Centre)

2023 Oxford Large Language Models for Social Science Workshop | 57th Essex Summer School: Advanced Survey Data Analysis and Survey Experiments

2022 56th Essex Summer School, Introduction to Social Network Analysis

2021 Machine Learning Summer School: Standard Training Programme | **55th Essex Summer School:** Advanced Methods for Text-as-Data–Natural Language Processing; Quantitative Methods for Causal Inference and Policy Evaluation

2019 54th Essex Summer School: Introduction to Bayesian Analysis for the Social Sciences

2018 53rd Essex Summer School: Ideal Point Estimation and Scaling Methods; Generalized Linear Models

CODE & OPEN-SOURCE PACKAGES

flair: An R wrapper for accessing the Flair NLP library in Python.

legisTaiwan: An R package for accessing real-time Taiwan Legislative Data.

asmcjR: An R Package for Supporting the Book 'Analyzing Spatial Models of Choice and Judgment.'

TEACHING & SUPERVISION

University of Birmingham MSc Supervision

2024-05 Florida Ferizolli (MSc in AI and Government) | Jiaqi Liu (MSc in AI and Sustainable Development,)

Course and Module

2024 University College Dublin Quantitative Text Analysis (Led by Stefan Müller)

Guest Lecturer in Weeks on Word Embeddings and Transformers

Invited Talks

2025 Centre of Taiwan Studies, SOAS

Taiwan's Electoral System & Legislative Behaviour

2025 Taipei R LADIES

Data Analysis and Applications with **legisTaiwan** and Taiwan Legislative Yuan API.

2024 SPIRe PhD Workshop, University College Dublin

Introduction to High-Performance Computing with SLURM

Teaching and Workshops

2023 GESIS Fall Seminar in Computational Social Science

Instructor in Big Data and Computation for Social Data Science (Co-lecturing with Akitaka Matsuo)

2022 55th Essex Summer School

Teaching Assistant for Iulia Cioroianu — Course: Quantitative Text Analysis

Teaching Assistant for Akitaka Matsuo — Course: Introduction to Programming in Python

2021 54th Essex Summer School

Teaching Assistant for Johannes Karreth — Course: Introduction to Quantitative Methods in R

2021 EITM Europe Summer Institute

Teaching Assistant for Ken Benoit and Nicole Baerg — Course: Quantitative Text Analysis

2020 53rd Essex Summer School

Teaching Assistant for Iulia Cioroianu — Course: Quantitative Text Analysis

2020 ECPR Summer School

Teaching Assistant for Akitaka Matsuo - Course: Machine Learning with Big Data for Social Scientists

2019 53rd Essex Summer School

Teaching Assistant for Iulia Cioroianu — Course: Quantitative Text Analysis

RESEARCH GRANTS & AWARD

2025 APSA First Generation Scholars in the Profession Annual Meeting Travel and Accessibility Grant

2023 The Scholarship for Attending Oxford Large Language Models for Social Science Workshop, £300

2021–22 Taiwan Overseas Pioneers Grants of Ministry of Science and Technology Taiwan, USD\$32,000

2022 University of Essex Departmental Fund for attending 2022 MPSA, £900

2019 University of Essex Departmental Fund for attending 2019 EPSA, £450

2018 Attendance Scholarships to Essex Summer School in Social Science Data Analysis, £250

2017–21 The Government Doctoral Scholarship in Legislative Studies and Comparative Politics, Taiwan's Ministry of Education USD\$168,000

JOURNAL REFEREE SERVICE

European Journal of Political Research x 2; *Political Science Review* x 3; *Political Science Research and Methods* x 3; *Journal of Taiwan Politics* x 1; *Legislative Studies Quarterly* x 3; *Government and Opposition* x 1

CONFERENCES (*: discussant; +: Poster)

2025 PolMeth Europe (LSE) | PolMeth⁺ (Emory) | APSA* (Vancouver) | EPSA* (Madrid)

2024 COMPTTEXT (Amsterdam) | EPSA (Cologne) | APSA* (Philadelphia)

2023 EPSA (Glasgow) | APSA* (LA) | ECPR SG Parliaments (Vienna)

2022 ECPR (Innsbruck) | PolMeth⁺ (WashU) | COMPTTEXT (Dublin)

2021 MLSS⁺ (NTU, Taiwan) | APSA (Online)

2019 EPSA (Online) | Asian PolMeth⁺ (Online)

2018 EPSA (Belfast)

REFERENCES

Prof. Slava Jankin

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 sjankin.com

Prof. Thomas Saalfeld

Chair of Comparative Politics
University of Bamberg
 uni-bamberg.de

Prof. Stefan Müller

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Prof. Royce Carroll

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Prof. Jonathan Sullivan

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University of Nottingham
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Dr. Nicole Baerg

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