

# 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

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| 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

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

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

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| PhD in Politics | Oct 2017 – Jan 2023 |
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### National Taipei University

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| BA and MA in Public Administration and Policy |
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## 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 | 57<sup>th</sup> Essex Summer School:** Advanced Survey Data Analysis and Survey Experiments

**2022 56<sup>th</sup> Essex Summer School,** Introduction to Social Network Analysis

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

**2019 54<sup>th</sup> Essex Summer School:** Introduction to Bayesian Analysis for the Social Sciences

**2018 53<sup>rd</sup> 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 & FUNDING**

**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

**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<sup>+</sup> (Emory) | APSA\* (Vancouver) | EPSA\* (Madrid)

**2024** COMPTEXT (Amsterdam) | EPSA (Cologne) | APSA\* (Philadelphia)

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

**2022** ECPR (Innsbruck) | PolMeth<sup>+</sup> (WashU) | COMPTEXT (Dublin)

**2021** MLSS<sup>+</sup> (NTU, Taiwan) | APSA (Online)

**2019** EPSA (Online) | Asian PolMeth<sup>+</sup> (Online)

**2018** EPSA (Belfast)

**REFERENCES**

**Prof. Stefan Müller**

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University College Dublin  
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**Prof. Thomas Saalfeld**

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**Prof. Slava Jankin**

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