Johanna Einsiedler

POSTDOCTORAL RESEARCH ASSOCIATE

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Professional Experience __

Digital Humanities Lab, University of Basel

POSTDOCTORAL RESEARCH ASSOCIATE

04/2025 - Present

Basel, Switzerland

- Studying the predictability of individual behavior and its relation to personality traits
- LLMs for automatic information retrieval from scientific papers

Center for Social Data Science, University of Copenhagen

POSTDOCTORAL RESEARCH ASSOCIATE

- Benchmarking LLM's performance on real-world occupational tasks
- Causal machine learning for heterogeneous treatment effect estimation

Center for Data, Law and Economics, ETH Zurich

VISITING RESEARCHER

Zurich, Switzerland 10/2024 - 02/2025

Copenhagen, Denmark

06/2025 - Present

Institute for Data, Systems and Society, MIT

VISITING RESEARCHER

Camebridge MA, USA 02/2024 - 05/2024

Center for Social Data Science, University of Copenhagen

PHD RESEARCHER IN SOCIAL DATA SCIENCE

- Statistical methods for studying representativeness of survey data
- LLMs and natural language processing as scientifc tools to assist researchers
- Networkeconometrics & Peer effects

Copenhagen, Denmark

10/2021 - 06/2025

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AustrianStartupsVienna, AustriaTHINKTANK & OPERATIONS LEAD02/2020 - 10/2021

- Coordinating the outreach for Austria's biggest startup study
- Planning, recruiting & executing a one-year program for future entrepreneurial leaders
- Writing a weekly newsletter with >5,000 subscribers

Education ___

2021-2025 PhD Social Data Science, University of Copenhagen

2018-2021 MSc. Economics, Vienna University of Economics and Business

2014-2018 BSc. International Business & Economics, Vienna University of Economics and Business

Publications _

PUBLISHED

Cremers, J., Kohler, B., Frank Maier, B., Nymann Eriksen, S., **Einsiedler, J.**, Kølby Christensen, F., Lehmann, S., Dreyer Lassen, D. Hvas Mortensen, L., Bjerre-Nielsen, A. 2025. Unveiling the social fabric through a temporal, nation-scale social network and its characteristics. Nature Scientific Reports, 15, 18383.

Einsiedler, J., Lilleholt, L., Hvast Mortensen, L., Schild, C., Zettler, I. 2025. Nonresponse at three stages in personality research: Insights based on (Danish) register data of a representative potential participant pool. European Journal of Personality, O(0).

- Teutloff, O., **Einsiedler, J.**, Kässi, O., Braesmann, F., Mishkin, P., del Rio-Chanona, M. 2025. Winners and losers of generative AI: Early Evidence of Shifts in Freelancer Demand. Journal of Economic Behavior & Organization, Journal, 235.
- **Einsiedler, J.**, Cheng, Y., Papst, F., Saukh, O. 2021. Transferable Models to Understand the Impact of Lockdown Measures on Local Air Quality. 2021 17th International Conference on Distributed Computing in Sensor Systems (DCOSS), 2021.

NOT PEER REVIEWED

- Trial, H., **Einsiedler, J.** 2025. The future of research dissemination: Innovation in publishing formats. MIT Science Policy Review.
- Teutloff, O., **Einsiedler, J.**, Søndergaard Møller, F. 2024. Large Language Models and the Danish Labour Markets. Statistics Denmark Analysis.

In Review

- del Rio-Chanona, M. **Einsiedler, J.** Self-Building Benchmarks: Using AI generated exams to understand LLM work capabilities. Brookings Working Paper.
- Ullrich, S., **Einsiedler, J.** Digital Actor Categorization: Typologies and Computational Techniques for Analyzing Online Publics. Submitted to Social Science Computer Review. [Shared first authorship]
- De Hesselle, L. C., **Einsiedler, J.**, Teutloff, O., Lilleholt, L. Hilbig, B., Moshagen, M., Zettler, I. Aversive personality and the RIASEC dimensions: Cross-national insights from self-reported interests and officially registered jobs. Submitted to the Journal of Personnel Psychology.
- **Einsiedler, J.**, Ledebur, K., Klimek, P., Hvas Mortensen, L. Generalizing Multimorbidity Models Across Countries: A Comparative Study of Austria and Denmark. Submitted to NPJ Digital Medicine.

IN PREP

- **Einsiedler, J.**, Cummins, J., Jankowsky, K., Hernes, A., Schroeders, U., Lavelle-Hill, R. Assessing the Potential for Automated Article Coding and Data Extraction in the Social Sciences
- **Einsiedler, J.**, Appel, M., Bergmann, M., Lilleholt, L., Zettler, I., Lavelle-Hill, R. Psychology of Predictability: Is individual predictability trait-like?
- **Einsiedler, J.**, Harmon, N., Dreyer Lassen, D., Bjerre-Nielsen, A. Engineering Social Networks: How Initial Group Assignment Shapes Student Social Interactions

Awards, Fellowships, & Grants _____

- 2025 **Project Grant: Al and Truth Seeking**, Cosmos Institute & Foundation for Individual Rights \$USD 4,000 and Expression (FIRE)
- 2024 Travel Grant, Torben og Alice Frimodts Fond
- 2023 Travel Grant, William Demant Foundation
- 2024 Travel Grant, Christian og Ottilia Brorsons Rejselegat

Presentations_

- Fall 2025. What Can We Automate (and How Well)? A Preregistered Evaluation of Open-Source LLM Pipelines for Automated Systematic Reviews Paul Meehl Graduate School Meta Research Symposium 2025
- Spring 2024. Engineering Social Groups: How Organizational Group Assignment Affects the Social Fabric Ninth Annual Conference on Network Science and Economics
- Spring 2024. *Impact of ChatGPT on Online Labour Markets* AICE AI, Cognition, and the Economy | Spring 2024 Workshop, Microsoft Research,
- Summer 2023. Persistence of Social Ties from Informal Group Interactions. International Conference for Computational Social Science (IC2S2) 2023
- Summer 2023. Genralizability of Multimorbidity Patterns: A Cross Country Comparison NetSci 2023.

Teaching Experience

Fall 2025 Seminar on Generative AI in Social Science Research, Sole Course Responsible, University of Basel

This master-level course covers new developments on the usage of generative AI — particularly large language models (LLMs) — as tools in social science research. Drawing on recent empirical studies, the focuses on the use of LLMs across the research pipeline: as tools for hypothesis generation, synthetic survey respondents, qualitative interviewers, behavioral simulation agents, causal inference assistants, and tools for text analysis. Students are encouraged to critically assess both the methodological potential and ethical challenges these tools pose, and engage hands-on with current frameworks, experiments, and applications.,

2022, 2023 Master thesis supervision - Social Data Science, University of Copenhagen

(1) Externalities of including special education students in regular classrooms on their classmates' math and reading scores, (2) Exploring Danish court rulings using quantitative methods: The evolution of the Danish legal language and predicting who is to pay the cost of a trial, (3) RlassoModels: High-Dimensional Estimation and Inference in Python, (4) Predicting Stadium Attendance in Danish Professional Football: A Time-Dependent Approach, (5) Identifying if LLMs can produce representative outputs that encompass non-dominant cultures in India,

Fall 2023 Elementary Social Data Science, Teaching Assistant, University of Copenhagen
Fall 2023 Introduction Week Social Data Science Masters, Organizor, University of Copenhagen
Fall 2020 Fundamentals of Business Administration, Adjunct Lecturer, Modul University Vienna

Outreach & Professional Development _____

2025- Member of the Faculty Assembly, Representative for PostDocs & PhDs at the Digital

ongoing Humanities Lab

2025 **EURIPS 2025 - Workshop on Epistemic Intelligence in Machine Learning**, Reviewer

2023-2024 PhD Pod - The podcast by the PhD association of the University of Copenhagen,

Organizer & Co-Host

2023 International Conference for Computational Social Science, Reviewer

References_

Andreas Bjerre-Nielsen (PhD Supervisor)

Associate Professor in Economics and Social Data Science, University of Copenhagen | abn@sodas.ku.dk

Ingo Zettler

Professor of Psychology, University of Copenhagen | ingo.zettler@psy.ku.dk

Abdullah Almaatoug

Douglas Drane Career Development Associate Professor in Information Technology and Management, MIT | amaatouq@mit.edu

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