

Simona Bisiani

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Current position

- 2022-now *Doctoral Researcher* in AI-Assisted Journalism, Surrey Institute for People-Centred AI, Centre for Vision, Speech, and Signal Processing, University of Surrey, UK
- 2023-now *Teaching Assistant*, "Topics in People-Centred AI", MSc in Artificial Intelligence, University of Surrey, UK. Module Leader: Dr Bahareh Heravi.
- 2025-now *Teaching Fellow*, "Topics in People-Centred AI", MSc in Artificial Intelligence, University of Surrey, UK.

Broad Areas of Research Interests

AI in journalism and media studies, local journalism, spatial inequalities in media access, media ownership consolidation, text mining, AI and society, social media and digital culture, digital research methods, big data analytics, machine learning applications in content analysis and geographic information retrieval (GIR).

Current Research Methods

Web scraping and data mining; automated content analysis using machine learning; large language models (LLMs) for data annotation and GIR; clustering algorithms for content syndication detection; machine learning-based methods for toponym extraction and disambiguation; evaluating AI models in humanities research; scalable AI methodologies for media content analysis and geographic scope assessment.

Teaching

- 2025 Topics in People-Centred AI, Online MSc in Artificial Intelligence, University of Surrey.
- 2024 MANM519 - Topics in People-Centred AI, MSc in Artificial Intelligence, University of Surrey. Module Leader: Dr Bahareh Heravi. Class of 2024.
- 2023 MANM519 - Topics in People-Centred AI, Online MSc in Artificial Intelligence, University of Surrey. Module Leader: Dr Bahareh Heravi. Class of 2023.

Reviewer

(1) Journalism and Media, (2) Problemi dell'Informazione

Professional Experience

- 2024 *Research Assistant*, School of Creative Arts and Industries, University of Canterbury, Kent, UK, under Professor Agnes Gulyas. Literature Review work culminating in an industry report about salient findings from local media research with relevance to policymakers and industry stakeholders.
- 2024 *Data Architect*, Public Interest News Foundation, London, UK. Managing and maintaining the local media database architecture, integrating AI solutions, and developing automation scripts.
- 2023 *Research Assistant*, School of Creative Arts and Industries, University of Canterbury, Kent, UK, under Professor Agnes Gulyas. Digital Data Collection of local media articles following strategic sampling design. Testing of GIS tools to extract toponyms from text.
- 2021-2023 *Lead Researcher*, DataJournalism.com, European Journalism Centre, Maastricht, The Netherlands. Longitudinal Quantitative Survey Design, Analysis, and Report of "The State of Data Journalism" Survey, since the survey inception in 2021.
- 2022 *Data Journalist*, Sheldon.studio, Bolzano, Italy.

Grants, honours & awards

- 2022 Scholarship, Surrey Institute for People-Centred AI, University of Surrey
- 2022 Studentship, University of Surrey
- 2016 Best Student Award, Journalism BA Year 3, Robert Gordon University

Publications

JOURNAL ARTICLES

- 2023 Bisiani, S., Heravi, B. Uncovering the State of Local News Databases in the UK: Limitations and Impacts on Research. *Journalism and Media*, 4, 1211-1231.
<https://doi.org/10.3390/journalmedia4040077>
- 2023 Bisiani, S., Abellan, A., Arias Robles, F., & García-Avilés, J. A. (2023). The Data Journalism Workforce: Demographics, Skills, Work Practices, and Challenges in the Aftermath of the COVID-19 Pandemic. *Journalism Practice*, 1–21. <https://doi.org/10.1080/17512786.2023.2191866>

INDUSTRY REPORTS

- 2024 Bisiani, S. and Mitchell, J. (2024). "UK Local News Map Report - April 2024". Public Interest News Foundation. London, UK. Accessible at:
https://www.publicinterestnews.org.uk/_files/ugd/cdeo9_31f2ee78fff64c3e8616e7eafdf28f99.pdf

PREPRINTS

- 2024 Bisiani, S., Mitchell, J., Gulyas, A., & Heravi, B. A Semi-Automated Directory System for the UK Local News Landscape: Supporting Policy and Research. <https://doi.org/10.31235/osf.io/zsxdg>

TALKS

- 2024 *News deserts and local media state of play*. Panel discussion with Philip Napoli, Agnes Gulyas, and Pedro Jeronimo organised by the European University Institute.
- 2023 *Local News Roundtable*. Invited speaker at a closed expert panel organised by the Public Interest

2023 News Foundation at the Department of Culture, Media, and Sports in Westminster, London.
Data Journalism Today: A Comparative Analysis of Two Consecutive Surveys. Computation + Journalism Conference, ETH Zurich. [Link to talk](#)

FORTHCOMING

- Local Media in the UK. Industry Report. With Prof Agnes Gulyas.
- Bisiani, S., Gulyas, A., Wihbey, J., & Heravi, B. (under review). UKTwitNewsCor: A Dataset of Online Local News Articles for the Study of Local News Provision.
- Bisiani, S., Gulyas, A., Wihbey, J., & Heravi, B. (under review). Understanding Local News Provision in the UK: A Large-Scale Dataset of Content Syndication and Audience Engagement Across Time, Ownership, and Geography.
- Bisiani, S., Hu, X., Gulyas, A., & Heravi, B. (manuscript in preparation). Realising the Spatial Turn in Local Media: Leveraging Scalable, Efficient, and Accessible LLMs for Data Annotation and Toponym Resolution.
- Bisiani, S., Gulyas, A., & Heravi, B. (manuscript in preparation). Mapping the Decline: A Content-Driven Analysis of Local News Provision and Geographic Focus in UK Digital Media. With Dr Heravi and Prof Gulyas.
- Chao Ling, E., Bisiani, S., Abutaleb, A.-H., Zhang, F., Heravi, B., Xu, T. S., Zhu, X. (under review). Public Responses to the Impact of ChatGPT on Employment: Topic modeling and sentiment analysis.

Previous Education

2019-2021 MSc COMPUTATIONAL SOCIAL SCIENCE, Linköping University. **Thesis:** *Blank spots, critical information needs and local journalism funding: measuring the impact of state financial support for local journalism on the critical information needs of citizens in Swedish journalistically fragile municipalities*. **Grades: Excellent** (Logic of Social Inquiry, Statistics and Data Science I, Statistics and Data Science II, Discrete Choice Modelling, Agent-Based Modelling, Digital Strategies for Social Science Research, Inequality and Segregation: Theory and Measurement, Visualizing Climate Change, Computational Approaches to the Study of Cultural Markets and Social Dynamics, Big Data: Social Processes and Ethical Issues, Master's Thesis in Computational Social Science). **Very Good** (Behavioural Mechanisms in the Social Sciences, Social Network Analysis)

2013-2017 BA(HONS) JOURNALISM, Robert Gordon University. **Thesis:** Impact of citizen journalism platforms on social capital in Aberdeen. Grade First Class (1:1).

Extracurricular Modules

2024 NATURAL LANGUAGE PROCESSING (COM3029), University of Surrey. **Module leader:** Dr. Diptesh Kanojia. MACHINE LEARNING AND DATA MINING (COMM055), University of Surrey. **Module leader:** Dr. Alireza Tamaddon-Nezhad.

2022 DATA SCIENCE PRINCIPLES AND PRACTICES (COMM054), University of Surrey. **Module leader:** Tom Thorne.

Other Projects

2019-2021 Computational Social Journalism Blog
Co-founder, Blog focusing on the intersection of journalism and computational social science.

Media Appearances

2023 *Il Data Journalism in Italia e nel mondo con Simona Bisiani*. Interview on Data Journalism with Simona Bisiani. By DataNinja. Available on YouTube.

2021 *Webinar: Computational Social Science at Linköping University*. Webinar discussing computational social science. Available on YouTube.

Languages and Technical Skills

English (Fluent), Italian (Native), Swedish (Fluent), French (Intermediate), Spanish (Intermediate), German (beginner)

- Programming Languages: R, Python, SQL, YAML, HTML
- Frameworks and Libraries: Pandas, tidyverse, quanteda, scikitlearn, Ollama (LLMs), OpenAI API
- LLM Toolkit: Prompt Engineering (CoT, Voting System, Discrimination Systems), RAG, Fine-Tuning (LoRA)
- Development and Analysis Environments: Jupyter Notebooks, Google Colab, Jupyter Lab, Positron, RStudio, Visual Studio Code, Excel, Google Sheets
- Data Visualisation Tools: Tableau, Datawrapper, Flourish, ggplot2
- Version Control Tools: Git, GitHub
- High-Performance Computing Tools: Slurm