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

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 information networks, 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; text-mining; automated content analysis; large language models (LLMs)-based inference; clustering; geoparsing; statistical analysis.

Teaching

- AI Engineering Bootcamp, Saudi Digital Academy, Riyadh (on behalf of Ironhack).
- MANM574 Topics in People-Centred AI, Online MSc in Artificial Intelligence, University of Surrey.
- MANM519 Topics in People-Centred AI, MSc in Artificial Intelligence, University of Surrey. Module Leader: Dr Bahareh Heravi. Class of 2024.
- 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 Studies, (2) Journalism and Media, (3) 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.

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.

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

Scholarship, Surrey Institute for People-Centred AI, University of Surrey

Studentship, University of Surrey

Best Student Award, Journalism BA Year 3, Robert Gordon University

Publications

JOURNAL ARTICLES

Bisiani, S., Gulyas, A., & Heravi, B. (under revision). Towards Efficient and Accessible Geoparsing of UK Local Media: A Benchmark Dataset and LLM-based Approach. *Computational Humanities Research*.

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

Bisiani, S., Abellan, A., Arias Robles, F., & García-Avilés, J. A. 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

CONFERENCE PAPERS

Bisiani, S., Gulyas, A., Wihbey, J., & Heravi, B. UKTwitNewsCor: A Dataset of Online Local News Articles for the Study of Local News Provision. *Proceedings of the International AAAI Conference on Web and Social Media, 19(1), 2371-2384*. https://doi.org/10.1609/icwsm.v19i1.35940 Bisiani, S., Mitchell, J., Gulyas, A., & Heravi, B. A Semi-Automated Directory System for the UK Local News Landscape: Supporting Policy and Research. *Digital Humanities Conference (Lisbon)*. https://doi.org/10.31235/osf.io/zsxdg

INDUSTRY REPORTS

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/cde0e9_31f2ee78fff64c3e8616e7eafdf28f99.pdf

TALKS

- 2025 Computational Tools for Mapping and Measuring Local News at Scale. Local News Researchers Workshop 2025, UNC Chapel Hill, North Carolina.
- News deserts and local media state of play. Panel discussion with Philip Napoli, Agnes Gulyas, and Pedro Jeronimo organised by the European University Institute.
- Local News Roundtable. Invited speaker at a closed expert panel organised by the Public Interest 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., & Heravi, B. (manuscript in preparation). Mapping the Decline: A
 Content-Driven Analysis of Local News Provision and Geographic Focus in UK Digital
 Media.
- 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**: *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

- Natural Language Processing (COM3029), University of Surrey. Dr. Diptesh Kanojia.
- Machine Learning and Data Mining (COMM055), University of Surrey. Dr. Alireza Tamaddoni-Nezhad.
- DATA SCIENCE PRINCIPLES AND PRACTICES (COMM054), University of Surrey. 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

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

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

Technical Skills

- Programming: R, Python, SQL, YAML, HTML
- Frameworks: quanteda, scikitlearn, Ollama (LLMs), OpenAI API, Langchain, Langsmith.
- LLM Toolkit: Prompt Engineering, RAG
- Environments: Jupyter Notebooks, Google Colab, Jupyter Lab, Positron, RStudio, Visual Studio Code, Excel
- Data Visualisation: Tableau, Datawrapper, Flourish, ggplot2, matplotlib
- Version Control: Git, GitHub, GitLab
- High-Performance Computing: Slurm
- Italian (Native), Swedish and English (Fluent), French and Spanish (Intermediate), German (beginner)