Jan Elfes

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Education

University College Dublin — Dublin, Ireland
Ph.D. Quantitative & Computational Social Sciences — 2023–Current
Thesis: On narrative: measuring the rhetorical mechanisms of online polarisation;
Supervisor: Marco T. Bastos

University of Padova — Padova, Italy
M.Sc. Data Science (110/110 cum laude) — 2021–2023
Thesis: Machine learning-based image forgery detection;

Heidelberg University — Heidelberg, Germany
B.Sc. Physics — 2016–2021
Thesis: Hydrospheric tracers in environmental physics;

Selected Experience

University College Dublin — Dublin, Ireland
PhD Candidate — Oct 23–Oct 27
Research on collective narratives in conflict. Developing novel computational methods that combine structural linguistic theory with large language models to measure narratives. Investigating collective narrative construction and diffusion in different conflicts and across various media environments, including news and social media platforms.

Oxford Internet Institute, University of Oxford — Oxford, United Kingdom
Student Research Visitor — Jan 27–Mar 27
Working together with Andreu Casas at the Oxford Social Media Observatory on measuring narrative diffusion across different social media platforms.

Mandate Research — London, United Kingdom
Freelance Research Consultant — Jul 26
Advised on computational narrative analysis methods and reviewed the company's internal tools, which were based on my research.

IT University Copenhagen — Copenhagen, Denmark
Visiting PhD Researcher — Aug 24–May 25
Worked together with Luca Maria Aiello at the Networks, Data, and Society (NERDS) research group on measuring narrative polarisation on social media.

Wayfair Stores LTD — Berlin, Germany
Intern — Mar 23–Sep 23
Worked as a Machine Learning Scientist in the Scam and Fraud Detection Team on Image Recognition Software. Designed, tested, and deployed image-based features.

UN Office for the Coordination of Humanitarian Affairs (OCHA) Bentiu, South Sudan
Research Project Manager Aug 22–Sep 22
Led data collection for the evaluation of the impact of UN support on health and food security in displacement camps. Trained and supervised a team of 15 in conducting 4000 interviews over 9 weeks. Managed communication with the displaced communities.

International Security and Development Center (ISDC) Berlin, Germany
Junior Researcher Mar 22–Jun 22
Contributed to an impact evaluation for the FAO. Matched and analysed survey data with conflict event data and satellite data on weather and land conditions.

Publications

Journals & Conferences

Elfes, J., Bastos, M., Aiello, L. M. (2026). Measuring narrative polarization in online discourse. *PNAS Nexus*, pgag270. https://doi.org/10.1093/pnasnexus/pgag270

Elfes, J. (2025). Mapping News Narratives Using LLMs and Narrative-Structured Text Embeddings. *Proceedings of the 17th ACM Web Science Conference 2025*, 326–337. https://doi.org/10.1145/3717867.3717868

Stojetz, W., Ferguson, N. T. N., Baliki, G., Díaz, O., **Elfes, J.**, Esenaliev, D., Freudenreich, H., Koebach, A., Abreu, L., Peitz, L., Todua, A., Schreiner, M., Hoeffler, A., Justino, P., & Brück, T. (2022). The Life with Corona survey. *Social Science & Medicine*, 306, 115109. https://doi.org/10.1016/j.socscimed.2022.115109

Book chapters

Elfes, J. (2026). AI and Communication Networks. In M. Bastos & L. Rossi (Eds.) *Handbook of Social and Communication Networks*. Edward Elgar Publishing. https://doi.org/10.4337/9781035325047.00021

Software

Elfes, J. (2026). *actantial*: A toolkit for analysing narratives using Greimas' Actantial Model (v0.1.0). Python Package Index. https://pypi.org/project/actantial/

In progress

Elfes, J., & Bastos, M. A Structuralist Framework for Computational Narrative Analysis [**under review**]

Weiffen, D., Baliki, G., **Elfes, J.**, & Brück, T. Cash and Cohesion in Crisis: On the Impacts of Anticipatory Cash Transfers in IDP Camps in South Sudan during Floods [**under review**]

Presentations

Conferences

- CS2Nordics (2026)
- COMPTEXT (2026)
- Political Science Association Ireland Annual Conference (2024, 2025)
- International AAAI Conference on Web and Social Media (ICWSM), Detox Workshop (2025)
- ACM Web Science Conference (2025)

Workshops

- Monash-Paris-Warwick-Zurich-CEPR Text-as-Data Workshop (2024, 2026)
- Cultural Memory in Online Public Discourse, SoMe4Dem Project (2025)
- Internet Research with Foundation Models?, University of Amsterdam (2024)
- Data Natives, City St. George's, University of London (2024)

Services

Co-organisation of group retreat
Prepared a one day retreat for 30 people in the NERDS research group. Curated the program, facilitated group discussions and creative sessions, handled venue and catering bookings.

Research group organisation
Organised weekly meetings and external talks, handled social media, and supported the integration of visiting students.

Reviewing
Reviewed articles for the *Journal on Computing and Cultural Heritage*, *Public Understanding of Science*, and *Social Science Computer Review*; and reviewed conference submissions for *AoIR*, *CS2Nordics*, and *ICA*

Professional development

Oxford Internet Institute Summer Doctoral Programme Jul 2026
Two-week summer school with 30 participants; presented own research, attended faculty talks, and took part in feedback and workshop sessions.

UCD Research Integrity Training Feb 2024
One month online course covering responsible research practices, effective research planning, and safe data management.

UCD College of Social Sciences and Law Tutor Training Programme Nov 23–Feb 24
Three month interactive course to help create an inspiring, challenging, and motivating learning environment for students.

Teaching

Co-Instructor at University College Dublin Autumn 2025
Theories of Media and Communication (IS20160)

Co-Instructor at University College Dublin Autumn 2025
Communication Theory (IS40880)

Teaching Assistant at University College Dublin Summer 2024
Machine Learning Foundations (IS41070)

Tutor at University College Dublin Spring 2024
Data Science in Practice (COMP30780)

Scholarships

Government of Ireland Postgraduate Scholarship, Irish Research Council (123,500€) Nov 23–Okt 27
Highly competitive, individual, and prestigious awards for excellent research.

DDSA Visit Grant, Danish Data Science Academy (2,000€) Mar 25–May 25

DDSA Visit Grant, Danish Data Science Academy (2,000€) Aug 24–Nov 24

MAECI Scholarship, Italian Ministry of Foreign Affairs and International Cooperation (8,100€) Jan 23–Sep 23

MAECI Scholarship, Italian Ministry of Foreign Affairs and International Cooperation (8,100€) Jan 22–Sep 22

Skills & Languages

Programming: Python (Data Analysis and Machine Learning), R, SQL, Linux, Git

Languages: German (native), English (C2), Italian (C1), Danish (A2), French (A1)

Personal experiences

Theatre: I was part of various medium and large scale theatre productions both as actor and director. I also gave theatre workshops for language teachers, do improv theatre, and regularly go see shows myself.