

EDUCATION

University College Dublin <i>Ph.D. Quantitative & Computational Social Sciences</i> Thesis: On narrative: measuring the rhetorical mechanisms of online polarisation; Supervisor: Marco T. Bastos	Dublin, Ireland 2023–Current
University of Padova <i>M.Sc. Data Science (110/110 cum laude)</i> Thesis: Machine learning-based image forgery detection;	Padova, Italy 2021–2023
Heidelberg University <i>B.Sc. Physics</i> Thesis: Hydrospheric tracers in environmental physics;	Heidelberg, Germany 2016–2021

SELECTED EXPERIENCE

University College Dublin <i>PhD Candidate</i> 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.	Dublin, Ireland Oct 23–Current
IT University Copenhagen <i>Visiting PhD Researcher</i> Worked together with Luca Maria Aiello at the Networks, Data, and Society (NERDS) research group on measuring narrative polarisation on social media.	Copenhagen, Denmark Aug 24–May 25
Wayfair Stores LTD <i>Intern</i> Worked as a Machine Learning Scientist in the Scam and Fraud Detection Team on Image Recognition Software. Designed, tested, and deployed image-based features.	Berlin, Germany Mar 23–Sep 23
UN Office for the Coordination of Humanitarian Affairs (OCHA) <i>Research Project Manager</i> 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.	Bentiu, South Sudan Aug 22–Sep 22
International Security and Development Center (ISDC) <i>Junior Researcher</i> 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.	Berlin, Germany Mar 22–Jun 22

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

- COMPTXT (2026)
- Political Science Association Ireland Annual Conference (2024, 2025)
- International AAAI Conference on Web and Social Media, 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*, *CS2 Nordics*, and *ICA*

PROFESSIONAL DEVELOPMENT

Oxford Internet Institute Summer Doctoral Programme Two-week summer school with 30 participants; presented own research, attended faculty talks, and took part in feedback and workshop sessions.	Jul 2026
UCD Research Integrity Training One month online course covering responsible research practices, effective research planning, and safe data management.	Feb 2024
UCD College of Social Sciences and Law Tutor Training Programme Three month interactive course to help create an inspiring, challenging, and motivating learning environment for students.	Nov 23–Feb 24

TEACHING

Co-Instructor at University College Dublin <i>Theories of Media and Communication (IS20160)</i>	Autumn 2025
Co-Instructor at University College Dublin <i>Communication Theory (IS40880)</i>	Autumn 2025
Teaching Assistant at University College Dublin <i>Machine Learning Foundations (IS41070)</i>	Summer 2024
Tutor at University College Dublin <i>Data Science in Practice (COMP30780)</i>	Spring 2024

SCHOLARSHIPS

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