

Measuring Bias in News

University: University College Dublin

School: Information and Communications Studies (ICS)

Supervisor: Dr. Brendan Spillane (brendan.spillane@ucd.ie)

Starting date: May 2024

Deadline for application: 15th of January 2024

Interviews with short-listed candidates: Early February 2024

Position: 100%, full-time position, tuition fees waived by the School of Information and Communication Studies (ICS).

Remuneration: PhD studentship renewable for up to four years and consisting of:

- PhD student stipend of €18,500k per annum (tax free)
- Scholarship students will be prioritised when applying for travel funding and overheads from ICS.
- Some equipment and travel funding will be available from the two Horizon Europe research projects depending on the level of contribution this PhD makes to each.

Eligibility: EU and non-EU students are equally eligible for studentships under this award Requirements: Students accepted under this scheme must meet the university entry standards.

Description of the Post

The School of Information and Communication Studies (ICS) at University College Dublin (UCD) is inviting one fully funded PhD scholarship under the supervision of Dr. Brendan Spillane. Free, independent and pluralistic news media is of vital importance to a functioning democracy and cohesive society. It protects and promotes free and open debate on important issues, holds governments accountable, and scrutinises powerful institutions, industry, and individuals.

In a healthy and pluralistic media landscape, news publishers, editors and journalists will have different opinions, support different causes, and align themselves with different political parties, ideologies or points of view. These diverse perspectives enrich public discourse and provide the public with multiple perspectives on complex issues.

Early signs of a democracy under threat include attacks on free press, a reduction in pluralistic opinions and different perspectives, increased partisan and polarised reporting, legal threats and harassment, concentration in media ownership, reduction in public trust, closure of independent media outlets, blocking access to information and increasingly biased news reporting.

The successful candidate will undertake a PhD focused on developing new methods and techniques to measure bias in text based news as an early indicator of a democracy under threat. This will include:

- Identifying, implementing and evaluating existing methods of measuring bias from the literature in the domain, see (Entman, 2007) (Sachsman, 1970) (Terwilliger et al., 2011) (Recasens et al., 2013).
- Developing new, valid and reliable methods of measuring bias in text based news.
- Compare the existing and new methods of measuring bias in text based news in multiple domains, media markets, topics etc. to demonstrate their effectiveness.

The overall objectives of this PhD are to:

- Develop a means of measuring and tracking the (political, issue, social, ideological) bias of individual news agencies to identify shifts news reporting which may indicate a decline in the health of a media outlet, and ultimately, may indicate that a democracy is under threat (see signs above)
- Compare and contrast existing methods of measuring bias in online, traditional long-form text based news story reporting (not dialogue or debate) to identify the best approach depending on factors such as topic, domain and type of bias.

As part of the application, candidates are asked to submit a two page expanded outline of a PhD project (aims, objectives, research question, area of focus, methods etc), based on the above. They are encouraged to 'make the project their own' by expanding and

modifying the above outline to suit their own interests, experience and skillset. Candidates may also submit multiple two-page proposals for projects in the general area of measuring bias in the news.

Depending on the proposed topic, the successful candidate should have a background in Computer Science, Information Science, Media and Communications, Journalism, or other related subject areas. The candidate should also demonstrate that they are willing to learn new methods, techniques, tools, and technologies as necessary to undertake research related to this PhD. Candidates should be methodical, rigorous, analytical and have a strong attention to detail. They should be capable of working independently, while also making contributions to related projects, ICS (<https://www.ucd.ie/ics/>), UCD, and to the ADAPT Centre (<https://www.adaptcentre.ie/>).

- Entman, R. M. (2007). Framing Bias: Media in the Distribution of Power. *Journal of Communication*, 57(1), 163–173. <https://doi.org/10.1111/j.1460-2466.2006.00336.x>
- Terwilliger, B., McCarthy, P., & Lamkin, T. (2011, March 20). Bias in Hard News Articles from Fox News and MSNBC: An Empirical Assessment Using the Gramulator. Twenty-Fourth International FLAIRS Conference. Twenty-Fourth International FLAIRS Conference. <https://www.aaai.org/ocs/index.php/FLAIRS/FLAIRS11/paper/view/2516>
- Sachsman, D. B. (1970). A Test of 'Loading': New Measure of Bias. *Journalism Quarterly*, 47(4), 759–762. <https://doi.org/10.1177/107769907004700415>
- Recasens, M., Danescu-Niculescu-Mizil, C., & Jurafsky, D. (2013). Linguistic Models for Analyzing and Detecting Biased Language. *Proceedings of the 51st Annual Meeting of the Association for Computational Linguistics*, 1, 1650–1659. http://www.cs.cornell.edu/~cristian/Biased_language_files/neutrality.pdf

Research Area

Dr. Spillane's work is focused on Human Judgement of Information which is at the intersection of Human Computer Interaction (HCI), Behavioural Science and Information Science. Common topics in his work include Bias, Credibility, Misinformation and Disinformation, News, and Foreign Information Manipulation and Interference (FIMI).

The successful candidate will be encouraged to draw upon the interdisciplinary research and expertise within ICS to suggest new and innovative methods and techniques to complete their PhD.

Responsibilities

The post-holder will be expected to write and successfully defend a PhD thesis focused on the areas listed in the description of the post and meet the degree requirements set by UCD to advance through the PhD programme.

The candidate is also expected to produce research outputs in relation to their doctoral research and attend conferences to disseminate the research findings. The post-holder will collaborate closely with their supervisor to produce outputs on their combined research areas. The candidate will ideally produce single-, first-, and co- authored research by the end of the post.

The candidate is expected to take part in seminars, workshops, and events organised within ICS and across UCD that are relevant to the project. The post-holder will be expected to contribute to the intellectual life in ICS and UCD and participate in research activities to the level and extent of their qualifications. The candidate will also join and contribute to the Science Foundation Ireland (<https://www.sfi.ie/>) ADAPT Centre for AI- Driven Digital Content Technology (<https://www.adaptcentre.ie/>) in which Dr. Spillane is a Funded Investigator and where he founded a Harmful Information Working Group. The ADAPT Centre can provide significant additional resources to its member researchers spread across eight Irish Universities. The candidate will also be expected to complete a total of 30 ECTS credits spread across the post as part of the university's structured PhD path.

Finally, the candidate will engage in teaching and tutor training during their studies.

Role profile

Depending on the topic chosen or proposed, the successful candidate is expected to be familiar with and/or proficient in (or willing to learn) the necessary research and technical skills.

- For PhDs proposals with a heavy technical focus, candidates are expected to have a strong technical background with good knowledge of programming. They have experience of or must be willing to learn quantitative research methods and data

analysis techniques. It would be beneficial if candidates had a Computer Science, Information Science, Engineering or a similar technical background, or they can demonstrate practical and applicable technical skills.

- For PhDs requiring a balance of technical and non-technical skills, candidates are expected to have some quantitative analysis skills. Programming experience is a bonus but not a requirement. Candidates must have or be willing to learn quantitative and qualitative research methods and analysis techniques. Candidates should have an Information Science, Journalism, or Media and Communications background. Candidates with no technical experience must demonstrate a willingness to learn any necessary technical skills.
- For PhDs which mostly have a non-technical focus, candidates are expected to be familiar with and/or be proficient in qualitative methodologies including but not limited to, site-specific fieldwork, case- study, ethnographic and desk research, discourse, policy analysis, planning, and stakeholder analysis. However, as there is a preference for projects with some technical aspects, the successful candidate must be willing to learn any necessary technical skills and quantitative methods. Candidates should have a Media and Communications, Journalism, Political Science, Psychology, or International Relations background. Candidates with no technical experience must demonstrate a willingness to learn any necessary technical skills.

Post Requirements

Strong written command of English is required. English proficiency at the C2 or C1 level of the Common European Framework of Reference for Languages (CEFR) is advised.

Candidates are expected to hold a strong Masters degree of 2:1 and above (or equivalent GPA) in Computer Science, Information Science, Media and Communications, Journalism, Political Science, Psychology, International Relations or other relevant subject areas.

The candidate should be able to demonstrate exceptional organisational skills. Preference will be given to candidates who:

- Can demonstrate experience and skills that match their proposed PhD topic - i.e., Those who propose a quantitative or data focused project should be able to demonstrate that they are technical, analytical, detailed and process orientated. Those who propose a non-technical PhD should be able to demonstrate an understanding of social science and qualitative methods and an ability to integrate or build upon robust theories from the literature.
- Can demonstrate that they are already familiar with some of the main literature in the domain.
- Can demonstrate an ability to take control of their own project, who can plan in detail the research they want to undertake, and who have both a high level and low level understanding of the research they want to undertake.

Applications are open to students of all nationalities and backgrounds. Women and people of colour are especially encouraged to apply.

Enquiries

Prospective applicants are strongly encouraged to contact Brendan with the following before submitting a formal application.

1. A one-page cover letter describing how you meet the mandatory/desired requirements.
2. A detailed curriculum vitae (CV) including education history, programming skills, research projects/publications and other relevant information.
3. A two page proposal outlining the intended PhD (aims, objectives, research question, area of focus, methods etc), which may be based on the sample project above, or be of their own design on the topic of measuring bias in the news.
4. Scanned copies of relevant academic transcripts.
5. English Language Proficiency for non-native English speakers, in line with UCD requirements (<https://www.ucd.ie/registry/prospectivestudents/admissions/policiesandgeneralregulations/generalrequirements/minimumentenglishlanguagerequirements/>)

How to Apply

Applications need to be submitted via UCD's application portal:

<https://www.ucd.ie/registry/prospectivestudents/admissions/graduateapplicants/applying/>

The candidate should apply to Programme Code W139 using the UCD Admissions online application portal (a €50 application fee applies). Please see the main ICS and UCD Graduate Studies sites for detailed application requirements:

<https://www.ucd.ie/ics/study/phdresearchprogrammes/> and
<https://www.ucd.ie/graduatestudies/studywithus/applicationprocess/>

The School of Information and Communication Studies (<https://www.ucd.ie/ics/>) requires PhD applicants to submit their curriculum vitae, an applicant statement (1,500-2,000 words), and a personal statement (32,000 characters). Candidates are advised to describe their research interests, explain why they believe this position fits their profile, and include a brief description of the topic they would like to explore in their PhD project. In addition to that, applicants should submit a writing sample, preferably a piece that has been published or a chapter of a thesis, as additional information.

Applications will be reviewed through our system of open, transparent, and merit-based recruitment of researchers. Short-listed candidates will be invited to an interview for the position, which will be held online. Candidates will be given at least five days' notice if selected to interview.

For any questions related please contact Brendan Spillane at brendan.spillane@ucd.ie (<https://people.ucd.ie/brendan.spillane>)