Call for Expressions of Interest – PhD Position

Collaborative Doctoral Partnership
Sapienza University of Rome – Joint Research Centre (JRC)

Reference: CDP[1] 25-22 — Evidence-Based Policymaking for Public Governance and Democracy

Overview

The Department of Computer Science at Sapienza University of Rome, in collaboration with the European Commission's Joint Research Centre (JRC) — Directorate S, Innovation in Science and Policymaking — invites expressions of interest for a PhD position under the Collaborative Doctoral Partnership (CDP) scheme. This position is part of the 2025 CDP Call on *Evidence-Based Policymaking for Public Governance and Democracy*, and focuses on the research topic: "Understanding and Mitigating Online Disinformation through Data Science and Large Language Models." The successful candidate will be enrolled in the PhD Programme in Computer Science at Sapienza University of Rome and will be jointly supervised by academic staff from Sapienza and researchers from the JRC.

Research Description

The PhD project aims to investigate how data-driven methods and large language models (LLMs) can be leveraged to quantify, interpret, and mitigate the spread of online misinformation across digital platforms. Key research objectives include: developing computational models for detecting and tracking misinformation longitudinally across social media; evaluating the potential of large language models to assess the credibility and reliability of information sources; and studying the impact of community-based and algorithmic moderation systems (e.g., Community Notes) on disinformation dynamics and public trust. To complement empirical and NLP-based analyses, the project will also employ agent-based modeling (ABM) to simulate the micro-level behavioral mechanisms driving the macro-level diffusion of misinformation. Through ABMs, the candidate will explore how factors such as social influence, homophily, polarization, and algorithmic curation interact to shape the emergent structure and persistence of misinformation ecosystems. Combining large-scale data analysis with computational simulations will enable the investigation of "what-if" scenarios, such as the introduction of different moderation policies or interventions aimed at improving digital literacy. This integrative approach aims to provide a richer understanding of the social and algorithmic feedback loops underpinning online information dynamics. Methodologically, the candidate will draw from machine learning, natural language processing, network science, and computational modeling, with a strong interdisciplinary orientation toward sociology, cognitive science, and political communication. The project aspires to contribute both to fundamental academic research and to policy-relevant insights for designing effective strategies to foster trustworthy digital information environments.

Timeline

Period	Location	Focus
Months 1–12	Sapienza University of Rome	Coursework, research design, data collection

---

[1] https://joint-research-centre.ec.europa.eu/collaborate-us/collaborative-doctoral-partnership-cdp-programme_en

Months 13–24	JRC Brussels (Belgium)	Applied research, policy collaboration
Months 25–36	Sapienza University of Rome	Dissertation writing, publications

Eligibility Criteria

Applicants must, at the time of appointment:

1) Be nationals of an EU Member State or of a country associated with the EU's Horizon Europe Programme, or have been resident in an EU Member State for at least five years;

2) Hold a Master's degree (or equivalent) in Computer Science, Data Science, Artificial Intelligence, Statistics, Physics, or a closely related discipline;

3) Meet the admission requirements of the PhD Programme in Computer Science at Sapienza University of Rome;

4) Not have been enrolled in a PhD Programme for more than 12 months at the time of application (if already enrolled);

5) Demonstrate proficiency in English, both spoken and written;

6) Show clear motivation for conducting interdisciplinary research at the intersection of data science and public policy.

Application Procedure
Phase 1 – Pre-selection at Sapienza

Candidates must submit the following documents in a single PDF (English language preferred) via email to:

quattrociocchi@di.uniroma1.it

with the subject line:

"CDP Application – Disinformation PhD – [Your Name]"

Required documents:

1. Curriculum Vitae (signed)
2. Motivation letter (max 2 pages)
3. Research proposal (max 3 pages)
4. Copy of Master's degree certificate and transcript
5. Abstract of Master's thesis
6. Up to two recommendation letters
7. Copy of passport or identity card

Evaluation criteria:
- Assessment of qualifications (max 80 points) – academic record, publications, proposal, motivation, and references.
- Oral interview (max 60 points) – scientific background, motivation, and research fit.
- Minimum overall score required: 85/140.

Shortlisted candidates (2–5 per position) will be notified and their applications forwarded to the JRC.

All applications must be submitted no later than midnight (GMT+1) on October 30, 2025.

Phase 2 – Final Selection at the JRC

The JRC Selection Panel, composed of representatives from the hosting Unit, HR, and Sapienza (observer), will:

- Verify eligibility under JRC *Grant-holder Rules*;
- Conduct final interviews (online or in person);
- Rank shortlisted candidates.

The selected candidate will be contacted by the JRC with a request for confirmation of interest, followed by the administrative and recruitment process.

Contacts

Sapienza University of Rome *(Department of Computer Science)*

Prof. Walter Quattrociocchi – PI for Sapienza

walter.quattrociocchi@uniroma1.it

Joint Research Centre (JRC)

Dr. Mario Scharfbillig – CDP Coordinator

mario.scharfbillig@ec.europa.eu