



## **Visiting Professor Program Academic Year 2024/2025**

**TEACHING COMMITMENT:** 12 hours

**COURSE TITLE**

**Ethical and Social Issues in Natural Language Processing**

**TEACHING PERIOD**

2nd term

**SCIENTIFIC AREA**

Artificial Intelligence > Natural Language Processing and Computational Linguistics

**LANGUAGE USED TO TEACH**

English

**COURSE SUMMARY**

The spread and democratisation of language technology has made it possible to use NLP in a variety of applications. Language-based tools are indeed not only developed within academia, but also used by very many companies, far beyond just research purposes. Working with NLP, now more than before, involves

ethical reflections in many directions concerning: (i) the choices we make when developing methods, models, and resources (e.g., datasets, annotated corpora, lexicons) for NLP; (ii) the biases that are intrinsic to human-produced data and thus to data-derived models, including explainability issues; (iii) the consequences of working in NLP, in terms of personal responsibility and third-party (mis)use. The course will have a practical counterpart on techniques for detecting bias in data and models, and for debiasing models.

## **LEARNING OBJECTIVES**

After this course, the student will be able to:

- Understand the ethical challenges involved in working with language technology; Identify the ethical and social issues posed by NLP research and how to address them.
- Be aware of the state-of-the-art debate on ethical issues in the NLP community, and report on ethical issues (e.g., data statements, bias statements and new tools to navigate research choices, communicate implications).
- Understand the importance of model interpretability, and know which techniques are available for achieving it, for detecting bias in models, and for debiasing models.

## **OTHER ACTIVITIES BESIDES THE COURSE**

Seminars addressed to Ph.D. students and research fellows.

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## **VISITING PROFESSOR PROFILE**

The Visiting Professor must have the following qualifications:

- Teaching experience at undergraduate and graduate level in the field of computational linguistics and natural language processing;
- Research activity related to the course topic, as proven by publications and CV;
- Good record of publications in the field of computational linguistics and natural language processing;
- Enthusiastic about impactful mentorship and mutually beneficial collaboration also in interdisciplinary contexts;
- Excellent written and oral English communication skills.

## **CONTACT REFERENT**

Viviana Patti

viviana.patti@unito.it