



PhD in INGEGNERIA DELL'INFORMAZIONE / INFORMATION TECHNOLOGY - 40th cycle

Research Area n. 1 - Computer Science and Engineering

**THEMATIC Research Field: IMPROVING THE USER EXPERIENCE IN SERVICES THROUGH
LLM INTEGRATION**

Monthly net income of PhDscholarship (max 36 months)

€ 1400.0

In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity

Motivation and objectives of the research in this field

This project aims to innovate the user experience in knowledge work services through the use of Large Language Models (LLM). Novel LLM-based interfaces will be designed to provide an inclusive experience and facilitate the exploration of knowledge, making the interaction with novel and pre-existing applications more intuitive and accessible.

Methods and techniques that will be developed and used to carry out the research

The methodology employs a user-centered approach. Through an iterative process of prototyping and testing, user feedback will be collected and analyzed to identify design patterns that enhance the effectiveness and inclusivity of interactions. These design patterns will be used to refine existing interfaces or develop new ones, ensuring the solutions meet users' actual needs. Additionally, to ensure the developed solutions align with the cultural and linguistic specificities of Italian users, the project will explore the use of Italian artificial intelligence technologies.

Educational objectives

The Ph.D. project will equip the student with the ability to conduct user-centered design. The student will develop expertise in the responsible and ethical use of AI, drawing from the principles of Human-Centered AI, which are increasingly adopted by leading technology companies



	<p>and crucial for the development of user-oriented systems. They will also learn to assess the feasibility of their research and transfer their findings into practical processes for producing digital services.</p> <p>The project offers a unique opportunity for the successful candidate to engage with cutting-edge research topics that are of high significance globally and have tangible applications in the industry.</p>
Job opportunities	<p>Currently, there is a significant trend in utilizing AI to assist with complex tasks that demand advanced skills. The market for LLM-based technologies is flourishing, and there is a strong need to comply with ethical standards. The suggested research presents an exceptional opportunity to integrate these promising areas into the development of future digital interactive systems. This approach can create numerous employment prospects as the trend towards designing AI-powered technologies that cater to human requirements continues to grow.</p>
Composition of the research group	<p>1 Full Professors 0 Associated Professors 2 Assistant Professors 4 PhD Students</p>
Name of the research directors	Prof. Salvatore Andolina

Contacts	
<p>Prof. Salvatore Andolina salvatore.andolina@polimi.it</p>	

Additional support - Financial aid per PhD student per year (gross amount)	
Housing - Foreign Students	--
Housing - Out-of-town residents (more than 80Km out of Milano)	--

Scholarship Increase for a period abroad	
Amount monthly	700.0 €
By number of months	6

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information
<p>EDUCATIONAL ACTIVITIES (purchase of study books and material, including computers,</p>



funding for participation in courses, summer schools, workshops and conferences): financial aid per PhD student. 5.707,20 Euro per student

TEACHING ASSISTANTSHIP: availability of funding in recognition of supporting teaching activities by the PhD student. There are various forms of financial aid for activities of support to the teaching practice. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.

COMPUTER AVAILABILITY:

1st year: Yes

2nd year: Yes

3rd year: Yes