

## Summer School Program

### Title: Towards Human-Centered, Inclusive, and Equitable Artificial Intelligence

Dates: 15–19 September 2025

Location: Aula Pacinotti, School of Engineering, Largo Lucio Lazzarino 1  
Pisa, Italy

ECTS: 3

### Overview

This interdisciplinary summer school examines how Artificial Intelligence can be designed, developed, and implemented to prioritize human values, foster inclusion, and promote equity across diverse social contexts. It brings together a broad range of participants and speakers from the member universities of the Circle U. Alliance, creating a dynamic and collaborative learning environment.

### Who should attend:

- PhD candidates who use AI in their research activity. The summer school is intended for, but not limited to, PhD candidates in computer science, computer engineering, data science, law, and social sciences
- Early-career researchers and professionals working on ethical and responsible AI
- Policymakers and practitioners interested in AI governance and social impact

### Key focus areas:

- Human-AI interaction and participatory design
- Algorithmic bias, fairness, and accountability
- Responsible and explainable AI
- Policy, regulation, and societal implications of AI

### Learning experience:

Participants will engage in lectures, workshops, case studies, and hands-on group projects, gaining both theoretical knowledge and practical tools to design AI systems that are inclusive, equitable, and human-centered. Collaborative sessions will encourage interdisciplinary exchange, creative thinking, and critical reflection on the societal role of AI.

**Location:**

Pisa, globally renowned for its iconic Leaning Tower, offers much more than its most famous landmark. Nestled in the heart of Tuscany, near the Mediterranean coast, this charming city boasts a rich tapestry of history, culture, and academic excellence. With a population of approximately 90,000 residents, Pisa is also home to thousands of students who breathe life into its streets, thanks to the presence of prestigious institutions like the University of Pisa, founded in 1343.

The city's historical and cultural heritage is reflected in its numerous landmarks. The Piazza dei Miracoli, a UNESCO World Heritage site, houses not only the Leaning Tower but also the majestic Cathedral, the Baptistery, and the Camposanto Monumentale. Pisa's botanical garden, established in 1543, is the oldest in Europe, offering visitors a serene escape amidst centuries-old plants and trees.

The University of Pisa (<https://www.unipi.it/index.php/englishgo>), founded in 1343, is one of Italy's oldest and most prestigious educational institutions. Though officially established as a Studium Generale with the authority to train university teachers, its roots date back even earlier, showcasing a legacy deeply intertwined with the city's rich intellectual and cultural heritage.

Today, the University is a modern center for education and advanced research, hosting 20 departments that span the historical heart of Pisa and its surrounding districts. Its compact urban layout ensures most facilities are accessible within a 20-minute walk, creating a vibrant and interconnected academic community.

## Preliminary Program

### Day 1 – Foundations of Human-Centered, inclusive and equitable AI

- 09:00–09:30 | Welcome & Introduction
- 09:30–11:00 | **Lecture: Human-centered AI: what it is and why it matters** (Francesco Marcelloni, University of Pisa)
- 11:00–11:30 | Coffee Break
- 11:30–13:00 | **Lecture: Common Principles and Shared Values in International AI Guidelines and Codes of Ethics** (Silvia Dadà, University of Pisa)
- 13:00–14:00 | Lunch
- 14:00–15:30 | **Lecture: Fairness and Bias in AI** (Salvatore Ruggieri, University of Pisa)
- 15:30–16:00 | Coffee Break

- 16:00–16:30 | **Introduction to SoBigData: The Research Infrastructure for Big Data and Social Mining, and to the Group Work** (Salvatore Ruggieri and Francesco Marcelloni, University of Pisa)
- 16:30–18:00 | **Group Work: Is AI Human-Centered Today?**
- 18:00–19:00 | Welcome Cocktail

#### Day 2 – Ethics, Bias, and Governance in the Age of Generative AI

- 09:00–09:30 | Report on Group Work
- 09:30–11:00 | **Lecture: AI ethics and politics: Challenges for democracy** (Mark Coeckelbergh, University of Vienna)
- 11:00–11:30 | Coffee Break
- 11:30–13:00 | **Lecture: Bias in Transformer Language Models** (Guillaume Wisniewski, Université de Paris Cité)
- 13:00–14:00 | Lunch
- 14:00–15:30 | **Lecture: Managing AI ethics risks - an entrepreneurial perspective** (Erich Prem, University of Vienna)
- 15:30–16:00 | Coffee Break
- 16:00–18:00 | **Group Work: Assessing Fairness, Accountability, and Bias in Practice**
- 18:00–20:00 | Tour of Pisa

#### Day 3 – The Impact of Generative AI on Society and Education

- 09:00–09:30 | Report on Group Work
- 09:30–11:00 | **Lecture: Generative AI and Democracy** (Dan Banik, Oslo University)
- 11:00–11:30 | Coffee Break
- 11:30–13:00 | **Lecture: Large Language Models: Technology and Limitations** (Nicola Tonellotto, University of Pisa)
- 13:00–14:00 | Lunch
- 14:00–15:30 | **Lecture: Is Generative AI a Paradigm Shift for Higher Education?** (Xianghan Christine O'Dea, King's College London)
- 15:30–16:00 | Coffee Break
- 16:00–18:00 | **Group Work: The Perceived Impact of Generative AI in Society and Research**
- 18:00–19:00 | **Group Work: Introduction to the Final Project** (Francesco Marcelloni, University of Pisa)

#### Day 4 – The Impact of AI in Science, Medicine and Finance

- 09:00–09:30 | Report on Group Work



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- 09:30–11:00 | **Lecture: How Math Tests Shape Smarter AI** (Gergely Bérczi, Aarhus University)
- 11:00–11:30 | Coffee Break
- 11:30–13:00 | **Lecture: Responsible AI in Medicine** (Luigi De Angelis, University of Pisa)
- 13:00–14:30 | Lunch
- 14:30–16:00 | **Lecture: Responsible AI in Banking** (Miroslav Marić, Belgrade University)
- 16:00–16:30 | Coffee Break
- Tour & Dinner

#### Day 5 – Capstone Projects and Final Reflections

- 09:00–10:00 | **Presentation: SoBigData – The Research Infrastructure for Big Data and Social Mining** (Roberto Trasarti, KDD Lab, ISTI-CNR, Pisa)
- 10:00–10:30 | Coffee Break
- 10:30–13:00 | **Group Work – Project Preparation**
- 13:00–14:00 | Lunch
- 14:00–16:30 | **Group Work – Finalization & Presentation Design**
- 16:00–16:30 | Coffee Break
- 16:30–18:30 | **Group Presentations & Reports**
- 18:30–19:30 | Closing Ceremony & Certificate Distribution