

EELISA

SPRING SCHOOL

6TH-10TH MARCH 2023, PISA, ITALY

ETHOS+TEKHNE

A NEW GENERATION OF AI RESEARCHERS

UNDERSTAND THE IMPACT OF AI WITH AI RESEARCHERS, PHILOSOPHERS, ECONOMISTS, BIG-TECH LEADERS, JOURNALISTS, LAWYERS, MEMBERS OF THE EU PARLIAMENT AND CITIZENS.

<https://community.eelisa.eu/activities/ethos-tekhne-a-new-generation-of-ai-researchers/>



Sant'Anna
School of Advanced Studies – Pisa



SCUOLA
NORMALE
SUPERIORE

PSL 
UNIVERSITÉ PARIS

GOAL

In fulfilment of the EELISA Board Declaration, this school aims to align technical excellence with social impact in the upcoming generation of AI researchers and developers, by combining their *tekhne* with *ethos*.

SCHOOL PROGRAMME

The school program will unfold over a week of thematic days around the **Ethics Guidelines for Trustworthy AI**, drafted by the AI High-Level Expert Group nominated by the European Commission. Each day will address a specific question, thanks to lectures in the morning and practical activities in the afternoon. The five topics will be:

- 1) the socioeconomic impact of AI
- 2) EU regulations for a fair and private AI
- 3) explainable AI (XAI)
- 4) AI decision-making biases identification and AI trustworthiness assessment
- 5) legal liability in AI

DAY 1: THE SOCIO-ECONOMIC IMPACT OF AI

- 9:45-10:15 am *Why are we here?* - Opening remarks
- 10:15-11:30 am *Understanding the Impacts of Digital Platforms* - Lecture
Prof Dario Guarascio, La Sapienza University of Rome
- 11:30-11:45 am break
- 11:45-1:00 pm *Is There a Digital Capitalism?* - Lecture
Prof Mario Pianta, Scuola Normale Superiore
- 1:00-2:30 pm Lunch
- 2:30-4:00 pm *Robotic Narratives and Questions of Roboethics* - Lecture
Prof Barbara Henry, Scuola Superiore Sant'Anna
- 4:00-5:00 pm break
- 5:00-6:00 pm *The BigTech Perspective* - Hybrid discussion panel
Blaise Aguera y Arcas, Google Research Vice-President
Naila Murray, Meta AI research engineer
Moderated by Laura Carrer, independent investigative journalist,
Wired and info.nodes
Introduced by Daniele Cavalli, PhD student, École Normale
Supérieure - PSL

DAY 2: EU REGULATIONS FOR A FAIR AND PRIVATE AI

- 09:30-10:30 am ***Ethics or law for AI? This is not the question*** - Lecture
Prof Giovanni Comandè, Scuola Superiore Sant'Anna
- 10:30-11:45 am break
- 11:45-1:00 pm ***You and your images*** - Lecture
Prof Andrea Cavallaro, Queen Mary University of London
- 1:00-2:30 pm Lunch
- 2:30-3:45 pm ***The EU AI Act*** - Lecture
Dimitris Tzanidakis, Policy Advisor, European Parliament
- 3:45-4:00 pm break
- 4:00-5:30 pm ***How will EU policies frame the work of an AI programmer?***
- Hybrid discussion panel
Brando Benifei, co-rapporteur of the AI Act, Member of the European Parliament
Kim Van Sparrentak, Member of the European Parliament, AIDA Committee
Diletta Huyskes, Head of Advocacy & Policy, Privacy Network and PhD Researcher, Università di Milano
Moderated by Viola Stefanello, tech reporter, Il Post



DAY 3: EXPLAINABLE AI (XAI)

- 10:00-11:30 am ***A gentle introduction to explainable AI - Lecture***
Prof Wojciech Samek, Technical University of Berlin
& Fraunhofer Heinrich Hertz Institute
- 11:30-12:00 am break
- 12:00-12:30 pm ***Explainable or Interpretable AI? Practical examples in the energy sector - Short talk***
Konstantinos Parginos, PhD student, MINES ParisTech
- 12:30-1:00 pm ***Using Explainability for Computer Vision Model Diagnosis: a Socio-Technical Perspective - Short talk***
Agathe Balayn, PhD student, TU Delft
- 1:00-2:30 pm Lunch (and group photo)
- 2:30-4:00 pm ***Practical introduction to XAI - Tutorial (part I)***
Prof Fosca Giannotti, Scuola Normale Superiore
Francesca Naretto, PhD student, Scuola Normale Superiore
- 4:00-4:15 pm break
- 4:15-5:30 pm ***Practical introduction to XAI - Tutorial (part II)***
Prof Fosca Giannotti, Scuola Normale Superiore
Francesca Naretto, PhD student, Scuola Normale Superiore

DAY 4: AI BIASES AND TRUSTWORTHINESS

- 10:00-11:15 am ***Addressing bias in big data and AI for health care - Online lecture***
Natalia Norori, Open Access advocate and epidemiologist
Prof Athina Tzovara, University of Bern
- 11:15-11:30 am break
- 11:30-12:15 am ***Machine learning in the EU health care: ethical, legal and social issues - Online lecture***
Prof Iñigo de Miguel Beriain, University of the Basque Country
- 12:30-2:00 pm Lunch
- 2:00-2:45 pm ***AI Fairness 360: An Extensible Toolkit for Detecting, Understanding, and Mitigating Unwanted Algorithmic Bias - Online lecture***
Samuel Hoffman, Software Engineer, IBM Research AI
- 3:00-4:30 pm ***Trustworthy AI in healthcare: how to design, develop and deploy trustworthy deep learning for medical image analysis - Tutorial (part I)***
Dr Sara Moccia, Scuola Superiore Sant'Anna
Dr Simona Tiribelli, Institute for Technology and Global Health & Università degli Studi di Macerata
- 4:30-4:45 pm break
- 4:45-5:30 pm **Tutorial (part II)**

DAY 5: LIABILITY IN AI

10:00-11:15 am **Potential legal implications of breaking AI regulations in EU, US and China - Lecture**

Karin Tafur, legal-tech entrepreneur, TNP Consultants

11:15-11:30 am break

11:30-1:00 am **Moot court competition: an AI case study - Debate**

Gabriele Franco, tech lawyer, Panetta Law firm associate

1:00-2:00 pm Lunch

2:00-5:00 pm **Challenges and potential solutions - Group writing**

Write an extended abstract in groups on your allocated topic of the spring school. This work will represent the test to award the ECTS to the participant. Pending on overall quality of these pieces of work, they will be leveraged to submit a joint opinion paper.

5:00-8:30 pm Free time

8:00-11:30 pm **Open Mic on AI - Movie discussion night at Cinema Arsenale**

Movie *Her*, by Spike Jonze, USA, 2013, 126', ENG sub ITA

Dr Federica Merenda, research fellow in Political Philosophy, Scuola Superiore Sant'Anna

Prof Fosca Giannotti, Informatics, Scuola Normale Superiore

Free entry for citizens in Pisa

HOW TO PARTICIPATE?

You can attend the school either online or on-site.

Online

By **clicking here and filling out the form**, a few days before the school you will receive a link to watch the activities online. Registration is free, with no selection process. During the school, your questions will always be welcomed, but remote attendance cannot guarantee that you will be able to ask them, as on-site questions will be answered first.

Active participation on-site

Seats are limited to 30 participants in total. The school targets early-career researchers (e.g. research assistants, PhD students, post-docs, exceptional master students) in AI or computational sciences. You can send your application by creating an account and uploading your documents on this webpage: <https://www.santannapisa.it/en/alta-formazione/eelisa-spring-school-ethos-tekhne-new-generation-ai-researchers>. For more information on the application material, please refer to Art. 8 B of the application Call. The **deadline** to upload your application material is **February 2nd, 2023, 11:59 pm (CET)**. If you are not selected, you can always attend the school online.

HOW TO PARTICIPATE ON-SITE?

Check list

You may want to bring:

- your own laptop
- an adapter for Italian electric plugs (a multi-adapter is a safer choice)
- euros in cash for daily expenses

Lunch and breaks

Buffet lunch and two breaks (one in the morning, one in the afternoon) will be provided for free at Scuola Normale Superiore, near the conference venue.

Movie discussion night

As highlighted in the programme, on Friday 10th of March, the spring school will end with a movie discussion night. This last session will take place at Cinema Arsenale, Vicolo Scaramucci 2, 56125, Pisa. It will not take place at the school venue, at Scuola Normale Superiore.

HOW TO PARTICIPATE ON-SITE?

Attendance

Attendance will be tracked daily. The course spans over 32 hours, totalling 2 ECTS. ECTS can be obtained only by attending at least 80% of the sessions.

Exam modality

During the afternoon of the last day of the school, you will gather in groups of 3-4 participants to write an extended abstract on one of the five main topics of the spring school. Topics and groups are allocated based on the pre-arrival survey you received via email: there will be ten groups, two for each topic.

The goal is to summarise in one page (5,000 characters maximum) challenges, impact and potential solutions related to the allocated topic.

The extended abstract will represent the test to award you 2 ECTS. To submit your joint piece of work, the group needs to send it to Prof Calogero Oddo (see *Contacts* in the next page) before 6:00 pm (CET), Friday 10th of March, so that the Scientific Committee will assess it.

Pending on the quality of these pieces of work, they will be leveraged to submit a joint opinion paper.

Certificates

Certificates will be awarded upon evaluation of the extended abstracts by the Scientific Committee. Evaluation process will take place after the spring school and certificates will be sent in digital format via email.

VENUE

Sala degli Stemmi, Palazzo della Carovana, Scuola Normale Superiore
Piazza dei Cavalieri, 7
56126, Pisa
Italy

CONTACTS

International relations and EELISA

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Participant logistics

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Participant registrations

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On-site logistics

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Admissions and ECTS evaluation

Prof Calogero Maria Oddo

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School programme

Stefano Vrizzi

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EMERGENCY CALL

(health, crime, fire, etc.)

112

EEISO

ORGANISING TEAM

Daniele Cavalli	Day 1 manager
Filippo Galli	Day 2 manager
Letizia Lamperti	Movie night co-manager
Konstantinos Parginos	Day 2 & 3 co-manager
Giuseppe Parisi	Day 5 manager
Raffaele Salvia	Logistics & movie night co-manager
Laura State	Day 3 manager
Viola Stefanello	Panel discussion manager
Alberto Vergani	Day 4 manager & movie night co-manager
Stefano Vrizzi	Event ideator, event manager & team coordinator

SCIENTIFIC COMMITTEE

Lorenzo Bartalesi	Scuola Normale Superiore, Pisa, Italy
Sara Moccia	Scuola Superiore Sant'Anna, Pisa, Italy
Calogero Oddo	Scuola Superiore Sant'Anna, Pisa, Italy
Roberto Pellungrini	Scuola Normale Superiore, Pisa, Italy
Florian Yger	Paris Sciences et Lettres, Paris, France

ADMINISTRATIVE AND SUPPORT STAFF

Paris Sciences et Lettres

Jean-Baptiste Astruc

Camille Roger

Project assistant, participant logistics

Deputy, Office for international relations

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Advanced Education Unit

SSSA EELISA Project Manager

THIS SPRING SCHOOL

is organised by



Sant'Anna
School of Advanced Studies – Pisa



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