

## EXECUTIVE TRAINING SEMINAR

# ***AI & BIASES: THE ROAD TO ALGORITHMIC FAIRNESS***

**16, 17, 18 October 2023**

**Residential Training, Florence, Italy**

**Venue: Badia Fiesolana**

## TEACHING AND LEARNING TEAM

### Programme coordinators

**Ruth Rubio-Marin**, Adjunct Professor, School of Transnational Governance, European University Institute.

**Daniel Innerarity**, Chair AI and Democracy, School of Transnational Governance, European University Institute.

### Instructors

**Marta Cantero**, Research Fellow, School of Transnational Governance, European University Institute.

**Tomas Chamorro-Premuzic**, Organisational psychologist.

**Emilia Gomez**, Senior researcher, Joint Research Centre, European Commission.

**Andrea Renda**, Professor, EUI School of Transnational Governance, Senior Research Fellow and Head of the CEPS Unit on Global Governance, Regulation, Innovation, and the Digital Economy (GRID).

**Pilar Manchon Portillo**, Senior Director of Engineering, AI Research Strategy, Google.

**Stefania Milan**, Research Fellow, School of Transnational Governance, European University Institute.

## Contacts:

**Chair on AI and Democracy**, EUI School of Transnational Governance, [chair.aidem@eui.eu](mailto:chair.aidem@eui.eu)

**Executive Education Team**, School of Transnational Governance, [STG.ExecEd@eui.eu](mailto:STG.ExecEd@eui.eu)

## COURSE DESCRIPTION

### PROGRAMME OVERVIEW

With the growing use of artificial intelligence (AI) in various areas of our lives, it has become increasingly important to understand the implications of biases in algorithms, and how they can impact the fairness and accuracy of the decisions made by AI systems.

This three-day training will provide the knowledge and skills to understand the impacts of biases in algorithms and how to implement AI systems in a fair and inclusive manner. The training will focus on the potential amplification of biases in contexts mediated by the technology such as policymaking, decision-making, and the workplace.

The course is designed around lectures, case studies, and hands-on exercises to illustrate the technical details and applications of bias mitigation in AI. Participants will have the opportunity to apply these techniques to real-world scenarios and discuss potential solutions with their peers.

The first part of the training (day one) will set the scene and provide an overview of the European perspective on the impacts of AI in social systems. Participants will learn the basic foundations of AI, identify existing and potential biases in their use, and delve into the risks of implementing biased algorithms. The second part (days two and three) is more practice-oriented for particular contexts (public sector/industry/civil society). During these two days, participants will explore different mitigation strategies for preserving fairness and diversity in increasingly technology-mediated environments, exchange experiences, and jointly chart the way towards a fairer and more inclusive AI.

### LEARNING METHODS

- Interactive sessions and group discussions with the instructors;
- Case studies based on actual examples of biased algorithms and their impact;
- Role-playing exercises to help participants understand the perspectives of different stakeholders and how they might be affected by biased algorithms;
- Peer-to-peer learning and project work. Individual or group projects to work on, where participants will apply the concepts learned during the seminar to real-world problems.

## LEARNING OUTCOMES

By the end of this programme, the participants will be able to:

- Understand the basics of AI, including how algorithms work, the types of biases that can exist in AI systems, and their implications in various contexts;
- Develop, explain, and communicate strategies and tools for promoting algorithmic fairness;
- Implement the knowledge and skills to identify and mitigate biases in their own organisations;
- Identify best practices for implementing AI systems in a fair and inclusive manner, and develop strategies to preserve fairness and diversity in increasingly technology-mediated environments.

## INFORMATION FOR APPLICANTS

- The training course will take place **in person** on **16,17 and 18 October 2023**. Participants will be expected to be present on the EUI campus in Florence, Italy, on the days of the training.
- The programme will include approximately **22 hours** of in-session training not including lunches or coffee breaks.
- Participants will be enrolled to the EUI's **Virtual Learning Environment** (Brightspace) in order to access the materials of the course.
- Accepted participants that successfully complete the training course will receive a **Certificate of Attendance** from the EUI School of Transnational Governance.

## WHO SHOULD ATTEND

- Professionals from the public, private and third sectors who are interested in developing an in-depth understanding of the main challenges posed by AI;
- Professionals from the public, private and third sectors who are beginning to implement algorithmic systems in their work contexts or are already working with them;
- Public managers responsible for the development of regulatory proposals in local, national or regional administrations;
- Evaluators of existing laws and regulations, in government or private firms.

## PROGRAMME AGENDA

### DAY 1

Monday, 16 October 2023

**13.00 – 14.00 CEST**    **Welcome lunch**

**14.00 – 15.30 CEST**    **Welcome greetings, tour de table, and training overview**  
**Ruth Rubio Marin**  
**Daniel Innerarity**

**15.30 – 16.00 CEST**    **Coffee break**

**16.00 – 17.30 CEST**    **Biases and AI: the European perspective**  
**Lina Gálvez**  
**Muñoz**

**17.30 CEST**            **End of day 1**

**19.30 – 21.30 CEST**    **Networking dinner in downtown Florence**

A social networking dinner will be organised for the participants and instructors of the course in downtown Florence. Participants will have the opportunity to get to know each other and the instructors in a more informal setting while at the same time setting the space and objectives for the days to come.

*More information regarding the venue will be provided to participants upon arrival.*

## DAY 2

Tuesday, 17 October 2023

09.30 – 11.00 CEST **Foundations of Ethical Artificial Intelligence (Part 1)**

**Emilia Gómez**

11.00 – 11.30 CEST **Coffee break**

11.30 – 13.00 CEST **Foundations of Ethical Artificial Intelligence (Part 2)**

**Emilia Gómez**

13.00 – 14.00 CEST **Lunch break**

14.00 – 15.30 CEST **Algorithms and personnel selection**

**Tomás Chamorro-Premuzic**

15.30 – 16.00 CEST **Coffee break**

16.00 – 17.30 CEST **Facial recognition technologies in societies**

**Stefania Milan**

17.30 CEST **End of day 2**

## **DAY 3**

**Wednesday, 18 October 2023**

- 09.30 – 11.00 CEST**     **Policymaking with and for AI: Key challenges (Part 1)**  
**Andrea Renda**
- 11.00 – 11.30 CEST**     **Coffee Break**
- 11.30 – 13.00 CEST**     **Policymaking with and for AI: Key c (Part 2)**  
**Andrea Renda**
- 13.00 – 14.00 CEST**     **Lunch break**
- 14.00 – 15.30 CEST**     **Current practices for algorithmic fairness in the private sector**  
**Pilar Manchón Portillo**
- 15.30 – 16.00 CEST**     **Coffee break**
- 16.00 – 17.30 CEST**     **Exercise: the way towards a fairer and more inclusive AI**
- 17.30 – 18.30 CEST**     **Feedback, vvaluations and awarding of certificates**
- 18.30 CEST**             **End of training**