## Intensive Course at FDUL

# 2025 November 24<sup>th</sup> – 28<sup>th</sup> 16h00 – 18h00

## Prof. Agata C. Amato Mangiameli

# **Syllabus**

# New Technologies, Law, Rights. From City Brain to Smart City

## 1. Robotics, and Big Data

- 1.1. Robots: various types, different structures, and different functions
- 1.2. From hints of robotics to some recent applications
- 1.3. Algorithms, and artificial intelligence
- 1.4. The Revolution of Big Data

## 2. Generative AI, Conversional AI, Agentic AI

- 2.1. From Classical Artificial Intelligence to Generative AI
- 2.2. Chatbot, and Interfaces Brain-computer
- 2.3. Follows: the experiment of Avital Meshi
- 2.4. Agentic AI: some applications

# 3. AI and Smart City. Applications to improve Efficiency, Safety, and Sustainability

- 3.1. Geospatial digital twin software
- 3.2. Real-time monitoring Systems. Amplifiers of Human Capabilities
- 3.3. City Brain Smart City Smart Land

#### 4. The Black Box of Data: GDPR and AI Act

- 4.1. From the European Regulation on the processing and free circulation of personal data
- 4.2. The EU Artificial Intelligence Act: Perspectives and limits

## 5. About *Algorithm-Ethics*, and towards a Global Regulation

- 5.1. The new world (deterritorialization, decentralization, dataveillance)
- 5.2. And the ethical-legal principles (precaution, inclusiveness, accountability, reversibility, safety)