### Summary

This course enables students to sharpen their proficiency in tackling ethical and legal challenges linked to Artificial Intelligence (AI). Students acquire the competence to define AI and identify ethical and legal questions linked to its increased use in society.

### Content

AI is used as shortcut-concept to identify a number of computational systems producing intelligent behavior, i.e., complex behavior conducive to reaching goals. AI systems are increasingly used across society. They raise conceptual issues (how to define AI?), technological-ethical issues (how should AI systems be conceived?), legal issues (how to define the responsibility of an AI system?) and social-political issues (what if AI systems are widely deployed?).

The following issues will be dealt with:
- What is an AI system?
- Can AI be said to act autonomously?
- Who is responsible for the actions of an AI system?
- What are the most pressing ethical questions in the different contexts?
- How does the law deal with these questions?
- How should we design AI systems in order to overcome ethical-legal challenges?
- How should we address the consequences of the wide deployment of AI systems?

### Keywords

artificial intelligence, ethics, law, data, innovation, responsibility

### Learning Outcomes

By the end of the course, the student must be able to:
- Define the concept of AI
- Assess / Evaluate the contexts in which AI is deployed
- Systematize general principles (law and ethics)
- Identify the broader justice issues raised by the wide deployment of AI
- Assess / Evaluate the different senses/conceptions/interpretations of agency, autonomy and responsibility
- Develop principles for the conception of AI systems
Transversal skills
• Demonstrate the capacity for critical thinking
• Write a scientific or technical report.
• Take account of the social and human dimensions of the engineering profession.
• Respect relevant legal guidelines and ethical codes for the profession.

Teaching methods
The course will be organized as an interactive and participative course. Students have to read texts and to be ready for critical discussion.

Expected student activities
weekly reading of preparatory texts
active participation in class
writing of a paper

Assessment methods
Students will be assessed twice:
- Two-pagers summarizing the key elements of a preparatory text (40% of the grade)
- Short essay on a freely chosen topic (4-5 pages) (60% of the grade)

Supervision
Office hours No
Assistants No
Forum No
Others By appointment

Resources
Références suggérées par la bibliothèque
• Mark Coeckelbergh, "AI Ethics"

Notes/Handbook
Mark Coeckelbergh, "AI Ethics", Mit Press 2020

Moodle Link
• https://go.epfl.ch/HUM-392