DH-415

Ethics and law of AI

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Cursus	Sem.	Type
Computer science	MA1, MA3	Opt.
Cybersecurity	MA1, MA3	Opt.
Data Science	MA1, MA3	Opt.
Digital Humanities	MA1, MA3	Opt.
Life Sciences Engineering	MA1, MA3	Opt.
Minor in digital humanities, media and society	H	Opt.
Neuro-X	MA1, MA3	Opt.
SC master EPFL	MA1, MA3	Opt.
UNIL - HEC	H	Opt.

Language of teaching	English
Credits	4
Session	Winter
Semester	Fall
Exam	During the semester
Workload	120h
Weeks	14
Hours	**4 weekly**
Courses	2 weekly
Project	2 weekly
Number of positions	

Summary

This master 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 conception and 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 when using an AI system? how to regulate AI?) and social-political issues (which justice questions does the deployment of AI raise?)
The following issues will be dealt with:
- What is ethics?
- What is an AI system?
- Who is responsible for the actions of an AI system?
- What are the most pressing ethical questions in the phase of conception of AI systems?
- How should we design AI system in order to overcome ethical-legal challenges?
- Should we regulate AI?
- How should we address the consequences of the wide deployment of AI systems?

Keywords

artificial intelligence, ethics, law, data, regulation, responsibility

Learning Prerequisites

Required courses

No pre-requirement

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)

- Analyze the different senses/conceptions/interpretations of agency, autonomy and responsibility
- Develop principles for the conception of AI system
- Distinguish legal and ethical arguments

Transversal skills

- Demonstrate the capacity for critical thinking
- Take account of the social and human dimensions of the engineering profession.
- Respect relevant legal guidelines and ethical codes for the profession.
- Use a work methodology appropriate to the task.

Teaching methods

The course will be organized as an interactive and participative course. For the weekly course: students have to read texts and to be ready for critical discussion. For the weekly exercise: students have to engage in group discussions. The course requires reading complex texts in English.

Expected student activities

Weekly reading of preparatory texts
Active participation in class, both course and exercise

Assessment methods

Students will be assessed in the following way :
- Mid-term: students will have to answer 2 exam-style questions during class (compulsory, no grading)
- Open book written exam during the term (100% of the grade)

Supervision

Office hours	No
Assistant.e.s	Yes
Others	Upon appointment with Dr Rochel

Resources

Bibliography

All resources will be made available on moodle.
To start with: *AI Ethics* (Mark Coekelbergh, MIT 2020)

Ressources en bibliothèque

- Find the references at the Library

Moodle Link

- https://go.epfl.ch/DH-415