



FACILITATE-AI

GUIDELINES FOR FACILITATING THE LEARNING OF ARTIFICIAL INTELLIGENCE
BY SCHOOL STUDENTS OF GRADES 7-12

Guidelines for facilitating the learning of Artificial Intelligence (AI) by School Students of Grades 7-12

Reference Number: 2021-1-CY01-KA220-SCH-000032567

C1 Training course: Training on Artificial Intelligence (AI) content for adapting to school curricula

Result 1 - A1/T1

Module Number and Area/Topic: Module 8 – AI Ethics

Module owners: UCY

Introduction and Broad Description of the Context and Goal of the area/topic addressed

The development of AI needs to be informed and strongly guided by ethical requirements that would help avoid biases and generally ensure that systems offer fair services to citizens. For this purpose AI systems need to adhere to several operational and technical requirements of which perhaps the most important is that of transparency. Systems need to be able to explain their decisions by giving in a non-technical language the reasons for their decisions so that they are contestable. The European Union has produced several documents, regulations and preparing the AI Act that aims to regulate these ethical matters.

Learning objectives and learning outcomes *(from the short description: Competences List of the Training Modules)*

The learning objectives and learning outcomes are as follows:

1. Understand the factors that create digital social cohesion and exclusion in society.
2. To be aware of the dangers of digital divide and exclusion of sectors of the society
3. To understand how AI can enable the cultural diversity in society
4. To understand the responsibility of using AI systems in a fair and non-discriminatory way.
5. To be aware of the unwanted side-effects that AI systems can have on the individual and societal level
6. To understand the main guidelines of transparency and accountability of systems needed for their ethical certification.
7. To be aware of the EU guidelines and regulations for building AI systems.

Competences *(from the AI Competence Framework)*

- Understand the factors that create social cohesion and exclusion in society
- Protection of fundamental rights to personal integrity and privacy in the use of digital technologies
- Responsible, safe and healthy use of digital technologies
- Awareness of Guidelines for Ethical systems

Instruments/Tools/Supporting Material/Resources to be used:

1. [A Guide on Ethics and AI](#)
2. <https://www.trustworthyaiproject.eu/teaching-trustworthy-ai-oers/>

3. <https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai>
4. [Ethics of AI in Education](#)
5. <https://www.elevenjournals.com>
6. <https://www.buckingham.ac.uk>
7. <https://artificialintelligenceact.eu/>

PART 1	Effect of AI technology on society
Learning Objectives	To understand the factors that create digital social cohesion and exclusion in society
Learning Outcomes	Gain an understanding of the effect of AI technology on society at various levels and be aware of the dangers that this encompasses. To appreciate the need to ensure that AI technology respects the moral values of human society.
Activities	Read survey papers from Social Sciences Familiarize with unethical past cases of AI systems.

PART 2	Responsible use of AI
Learning Objectives	To understand the responsible, safe and healthy use of digital AI technologies
Learning Outcomes	To understand the responsibility of using AI systems in a fair and non-discriminatory way. To understand how we can protect the fundamental rights of personal integrity and privacy in the use of digital technologies. To be aware of the unwanted side-effects that AI systems can have on the individual and societal level
Activities	Familiarize with AI Act of EU.

PART 3	Ethical Design of AI systems
Learning Objectives	To be aware of the challenges in the hardness of the problem of designing Ethical systems.
Learning Outcomes	To understand the main guidelines of transparency and accountability of systems needed for their ethical certification. To be aware of the EU guidelines and regulations for building AI systems.
Activities	Read relevant articles published by the European Commission and its high-level special group on ethical AI