Understanding Artificial Intelligence: How Can We Better Comprehend It?

CSEM – Fédération Wallonie-Bruxelles (2024)

Context

This brochure is a **sensitization and pedagogical support document** on AI, intended for teachers, trainers, and educational stakeholders in the Fédération Wallonie-Bruxelles.

Objectives

- Raise awareness about the **issues and impacts** of AI in daily life and schools.
- Promote **AI literacy** to enable young people to understand, analyze, and use these tools.
- Provide **educational resources** to support teachers in their practices.

Understanding AI

- AI is defined as systems capable of **analyzing data, recognizing patterns, and producing responses** (texts, images, predictions).
- It has limitations: lack of genuine understanding, dependence on data, embedded biases, and high energy consumption.
- AI reflects **human choices** and can reproduce social inequalities.

Educational Challenges

- **Opportunities**: Pedagogical differentiation, individualized support, assistance in creation and information research.
- **Risks**: Factual errors, biases, misinformation, dependence, and privacy violations.
- **Ethical Challenges**: Transparency, intellectual property, and human responsibility.

Role of Schools and Teachers

- Develop a **critical culture of AI**: Learn to verify information, identify biases, and understand limitations.
- Train students to **use AI responsibly and creatively**.
- Provide teachers with **concrete resources** to integrate AI into their teaching methods.

Educational Scenarios

Critical Analysis and Information Verification

- Compare human and AI-generated productions (texts, images, poems, drawings) to identify similarities, differences, errors, and qualities.
- Test the reliability of a chatbot: Ask a question, analyze the response, and cross-check it with reliable sources.
- Identify biases and errors in generated outputs (inaccuracies, stereotypes, inconsistencies).

Creativity and Multimodal Production

- Use a text or image generator to enrich a writing, artistic, or multimedia project.
- Collaboratively compose a story or presentation by comparing human contributions and AI inputs.
- Explore different formats (text, image, sound) to question the notions of creativity and originality.

Ethical and Civic Debates

- Organize classroom debates:
    - Does AI have a place in schools?
    - What are the risks for the environment, privacy, and intellectual property?
    - How can we ensure ethical and responsible use?
- Simulate dilemmas: Decide whether AI is suitable for a given task (e.g., writing a card, correcting homework).

Interdisciplinary Activities

- **In Science**: Ask AI to propose a hypothesis or experimental protocol, then compare it with the classic scientific method.
- **In History/Geography**: Confront AI responses with historical sources to analyze biases and simplifications.
- **In Languages**: Improve a translation or text produced by AI while identifying its linguistic and cultural limitations.

Reflection on Societal and Environmental Impact

- Research the carbon footprint of an AI tool and create an awareness poster.
- Discuss social consequences: employment, inequalities, access to technology.
- Develop a classroom charter on responsible and sustainable AI use.