1.5 Current State of AI in Education

Take Home message

- **AI is already widely used in educational contexts.**
  - **Teaching with AI.** AI is currently used by teachers to prepare or improve lesson plans, for assessment and to distinguish content across different educational levels.
  - **Teaching about AI.** AI is used by students though they have no groundings on what is AI, which are its limitations and to use it responsibly.
- **Technical understanding and critical thinking are needed.** Teachers and students need to understand how language models work (training, data handling, predictive nature) and develop practical verification skills, from spotting fabricated citations to fact-checking AI-generated content.
- **Responsible use and ethical stance are to be defined**. A grasp of the legal and ethical landscape (AI Act, GDPR) is needed, along with an approach to AI as a support rather than a substitute for human thinking, grounded in transparency and accountability, plus explicit instruction in prompting as a teachable skill.
- **Equity and new assessment models are needed.** Equitable access to AI tools needs safeguarding (public funding, open models, minimum age policies), alongside a shift in assessment from grading the final product to evaluating the process and students' ability to critically engage with AI output.

> If you remember only one sentence from this page: **AI is already present in educational contexts but is not regulated. Structured frameworks are needed to support educators' professional development improving their knowledge and letting them teach with AI and about AI.**

Current Uses of AI in Educational Contexts

Nowadays, artificial intelligence (AI) is embedded in everyday educational practice, well beyond pilot projects. Common applications include adaptive learning platforms, intelligent tutoring systems, automated grading, and AI-assisted lesson planning for teachers (OECD, 2026). The most visible shift, however, is the direct use of general-purpose tools by students and teachers alike.

Teaching With AI

AI is increasingly used by teachers as a support tool across multiple stages of their work, from lesson planning to grading. According to OECD's TALIS survey, 37% of lower secondary teachers reported using AI in 2024, with 57% saying it helps them write or improve lesson plans (OECD, 2026). Beyond lesson design, teachers are using AI to differentiate content for different skill levels, generate practice materials, and support the grading process. At the same time, adoption is not without friction: 72% of teachers expressed concern that AI could enable students to pass off AI-generated work as their own, reflecting a broader tension between AI's practical benefits for teaching and its implications for academic integrity (OECD, 2026).

Teaching About AI

Alongside using AI as a teaching aid, there is a growing need to teach students about AI itself: how it works, its limitations, and how to use it responsibly. This includes building a basic understanding of language models as prediction engines rather than databases, which explains their tendency to hallucinate, as well as practical skills such as fact-checking AI output and recognising fabricated citations (UNESCO, 2024). It also involves developing critical thinking around prompting, shifting students from simply following instructions to formulating them, and instilling awareness of the ethical and legal dimensions of AI use, including data privacy and the EU AI Act. UNESCO's *AI Competency Framework for Teachers* (2024) frames this as a core professional competency, arguing that teachers themselves need training in these areas before they can effectively teach them to students.

What is missing?

Alongside institutional frameworks and adoption data, it is important to understand how these dynamics play out in practice. A series of workshops was conducted in the context of the DUAL.AI.TEACHer project. Numerous education stakeholders were called to gather first-hand perspectives on the current use of AI in teaching. These workshops surfaced a set of concrete needs and concerns expressed by educators, covering practical, pedagogical, and training-related aspects. The following sections outline these needs in detail.

- **Understanding How AI Works.** Both students and teachers need to understand how language models are built and trained, and what happens to their data once provided. They also need to grasp the nature of these models as prediction engines rather than databases, which explains their tendency to hallucinate. Teachers need a simple high-level course covering the basics of how LLMs work.
- **Critical Thinking, Questioning and Verifying AI.** Students and teachers need to be able to question AI-generated answers and to recognise fabricated information. Practical verification skills are also needed, from checking AI output against official sources to spotting AI-generated images and videos. Students need to shift from following instructions to formulating them, thinking critically about the desired output.

- **Ethics, Data Protection and Regulation.** A general understanding of the ethical and legal aspects of AI use is needed, including the EU AI Act and GDPR. Safe and responsible use is essential to prevent illegal practices along with awareness of related issues like bias in teaching materials and the unreliability of AI detectors.
- **Responsible Use.** AI needs to be used mindfully as a support, not a replacement, leaving room for students' own thinking. Transparency matters, with students expected to flag which parts are their own, echoing "cyborg writing", where AI extends rather than replaces the writer's thinking. Student ownership and accountability are also needed.
- **Practical Skills.** Prompting needs to be treated as a teachable skill, not something acquired independently. Both teachers and students need explicit instruction in writing effective prompts, and teachers need training in prompt engineering for lesson planning, differentiation, and grading. Broader tool familiarity is also needed to match tools to subjects.
- **Equity and Infrastructure.** Access to AI is at the centre of growing equity concerns, as wealthier districts can afford better tools, widening competence gaps between schools. Public funding is needed to guarantee equal access regardless of a school's resources, preferring open AI models over corporate ones as part of this effort. A minimum age for AI use also needs to be defined.
- **Assessment.** A different approach to assessment is needed, focused on process rather than final product, including students' reflections on AI-generated drafts. AI-integrated assignments are also needed, grading students on their ability to critique, fact-check and edit AI output, raising questions about the human role when teachers themselves rely on AI for grading. Concrete classroom methods are needed too, such as fact-checking AI text, comparing chatbot responses, debating AI use in homework, and incorporating non-digital tools like flip charts.

Voices from the field

“Anyone who teaches with AI must be able to verify every answer it gives, because errors happen. Without solid subject knowledge you will not spot them.”

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