6. Resources & Glossary

- 6.1 Resources
- 6.2 Glossary and Key Terms

6.1 Resources

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6.2 Glossary and Key Terms

Term	Synonyms	Definition
A		
Accountability		Being answerable for decisions about AI use and their consequences. Responsibility stays with people and institutions, never with the system.
Adaptive learning platform		A platform that adjusts content, pace or learning path to the individual learner.
Adaptive practice software		Practice software already used in schools that adjusts exercises to a learner's answers. Generative AI chatbots showed larger effects on knowledge and understanding.
Adequacy decision		An EU decision that a non-EU country protects personal data adequately, so that data may be transferred there.
AI	Artificial Intelligence	Computer systems that perform tasks associated with human thinking, such as recognising patterns, processing language or generating content, mostly by learning from data.
AI Assistant		An AI tool that carries out work on a user's behalf. It can close the gap in output between users, but not the gap in ability.
AI Chatbot	Chatbot	A program that converts in natural language, today usually based on a large language model.
AI Compliance	Compliant use of AI	Using AI in line with data protection law, the AI Act, copyright and examination law. Compliance enables use rather than hindering it.
AI Detector		Software claiming to identify machine-written text. What it actually measures is predictability.

Term	Synonyms	Definition
AI foundations and applications		Conceptual knowledge and transferable skills to understand how AI works and to select, apply and adapt AI tools. The content-specific aspect of the vertical dimension.
AI literacy		Understanding of AI concepts, opportunities, limitations and responsible use. Under Art. 4 AI Act, schools must support its development among staff who use AI (binding since 2 February 2025); no specific level, certificate or format is prescribed. Also the name of certification Track B.
AI model		The trained core of an AI system that generates outputs from inputs.
AI Pedagogical Competency Framework	DUAL.AI.TEACHer Competency Framework	Structure that sorts AI-related teaching competencies into dimensions & levels and links them to outcomes & assessments, aligning pedagogical, ethical and technical aspects.
AI Pioneers		Framework that extends DigCompEdu with AI-specific competences for educators.
AI Tool		Any application that uses AI to support a task.
AI Tutor		An AI system designed to explain content and guide learners. Can support the acquisition of factual knowledge.
Algorithmic transparency		The extent to which it can be understood how an AI system reaches its outputs and who decided how it behaves.
Amplification effect	Amplification vs. equalisation	AI tends to widen existing gaps. It only equalises when three things hold together: secure access, a tool designed for learning rather than answering, and a teacher scaffolding its use.
Anonymisation		Changing data so that a person can no longer be identified, not even from context. Deleting names is not anonymising, especially for essays and learning journals that identify their author by style.

Term	Synonyms	Definition
Assessment Activity		An activity used to evaluate whether learning outcomes have been achieved.
Assessment Criterion		A rule or benchmark used to evaluate whether a learning outcome has been achieved.
Automated decision-making		A decision based solely on automated processing that significantly affects a person. A grade is such a decision; formally waving through an AI's suggestion does not count as a human decision.
Automated grading	Automated scoring, automated assessment	Using software to score or grade work. In the certification exam this applies to selected-response questions.
Automation Bias	Over-trust	Accepting a machine's suggestion without independently checking it.
B		
Bias		Slants inherited from the material a system learned from and not reliably reduced by making the system bigger.
Biometric categorisation		Using biometric data to sort people in order to infer protected traits such as race, political opinions, religion or sexual orientation. Banned under the AI Act.
Biometric data		Data from physical characteristics such as face or voice. It is special category data under the GDPR, and several AI uses based on it are banned in schools.
C		
Certificate		A formal document recognising the achievement of competences.
Certification Pathway		The route through which competences are validated and formally recognised, here as a dual pathway (Track A and Track B).

Term	Synonyms	Definition
Certification track	Track A, Track B	One of two complementary certifications: Track A, AI-Enhanced Teaching (WITH AI), and Track B, AI Literacy (ABOUT AI). Teachers can take one or both.
Code generation		Letting AI write program code. Beginners should avoid it because they cannot yet judge whether the code is correct.
Code review	AI-assisted code review	Students write their own code first and then ask AI to suggest improvements, instead of letting it write the solution. The suggestions must be evaluated critically.
Cognitive Offloading		Handing mental work to something outside your head. It is useful when knowledge is in place, and damaging when it is still forming.
Competence	Competency	What a teacher knows, can do & is willing to do, described so that it can be taught and checked.
Competence code	Learning objective code	Label of a learning objective, e.g. AF-TL-2b: aspect of AI (HM, EI, AF) – pedagogical area (PE, DR, TL, A, EL, FC) – progression level (1–3) and objective (a–c).
Competence Domain	Competence area	A group of related competences within a framework.
Computational thinking	Algorithmic thinking	Approaching problems in a way a computer could carry out, for example breaking them into steps and recognising patterns.
Content filter		An automatic mechanism that blocks or alters content a provider considers unsuitable. Its criteria are often not disclosed.
Content Unit		The smallest reusable learning component used within lesson plans and modules.
Continuing professional development	CPD, in-service training	Professional learning for teachers already working in schools. Stage 6 of the roadmap turns it into a structured offer with stackable micro-credentials.

Term	Synonyms	Definition
Controller	Data controller	Under the GDPR, the body responsible for processing personal data. In schools this is normally the school.
Copyright		Legal protection of works. With AI, what comes out is usually free of copyright, but uploading protected works into an AI system is not covered by the teaching exception.
Core competency		One of the 18 competencies of the DUAL.AI.TEACHer framework, each at the intersection of a pedagogical area and an aspect of AI.
Course		A structured set of training modules designed to deliver a complete learning experience.
Course Run		A specific instance of a course delivery with enrolled learners and a defined timeframe.
Cyborg writing		Writing in which AI extends rather than replaces the writer's thinking, with students flagging which parts are their own.
D		
Data hosting		Where data are stored and processed, e.g. on European servers or outside the EU. Data leaving the EU need a safeguard.
Data processing agreement	DPA	The written contract between school and provider that spells out how the provider may handle personal data (Art. 28 GDPR). The practical test: does it exclude training on your inputs?
Data protection		The legal protection of personal data. The load-bearing foundation of AI law that has applied all along; in the EU mainly the GDPR.
Deepfake		AI-generated or manipulated image, audio or video content that appears authentic. Must be disclosed when used in the classroom (Art. 50(4) AI Act).

Term	Synonyms	Definition
Deployer		The organisation that introduces and controls an AI system, usually the school or school authority. A teacher using the tool under the school's instructions is normally not a separate deployer.
Deskilling		The slow erosion of professional expertise when a tool absorbs the work through which that expertise is maintained.
Deterministic		Always producing exactly the same result from the same starting values.
Diagnostic data	Telemetry	Technical data a provider collects about how its service is used. How long it is kept is a data protection question.
Diffusion of innovations		Theory of how innovations spread: they are adopted more readily when they can be tried out (trialability) and seen working (observability).
DigCompEdu		The European Framework for the Digital Competence of Educators. It provides the pedagogical structure (horizontal dimension) of the DUAL.AI.TEACHer framework.
Digital Badge	Open digital badge	The shareable digital form of a certificate or micro-credential.
Digital Hub		A central online platform that bundles a project's resources, courses and community exchange.
Digital sovereignty		Control over one's own data, infrastructure and technology choices. Building a platform oneself does not automatically give more control, so the playbook advises using the term with care.
Dimension		One of the broad areas the framework is divided into, each grouping competences that belong together in practice.
E		

Term	Synonyms	Definition
Emotion recognition		AI that claims to infer feelings or intentions from biometric data, e.g. attention detection, mood analytics or 'engagement' scoring from a webcam. Prohibited in schools since 2 February 2025, with narrow exceptions for medical or safety purposes.
EntreComp		European Entrepreneurship Competence Framework. Contributed creativity and innovation to the framework.
ESCO		European classification of skills, competences, qualifications and occupations. The certification is aligned with it.
Ethical Dimension		A dimension addressing ethical considerations related to the use of AI in teaching and learning.
Ethics of AI		Ethical principles, regulations, institutional policies and practical guidelines governing AI use that teachers need to understand and apply. A cross-cutting aspect of the vertical dimension.
EU AI Act	AI Act, Regulation (EU) 2024/1689	The EU's single, risk-based rulebook for AI. It classifies AI systems by the risk they pose, from banned practices through high-risk uses to everyday tools without special rules, and applies to public and private organisations, including schools. In force since 1 August 2024, phased in through 2027.
EU database		The EU register in which public authorities may have to record the high-risk AI systems they use (Art. 49 AI Act).
Europass		EU platform through which digital certificates can be shared and their validity checked by third-party institutions.
European Framework		A reference framework providing standardised competence definitions at the European level.

Term	Synonyms	Definition
European Qualifications Framework	EQF	EU reference framework that makes qualifications comparable across countries. The certification is aligned with it.
Explainability	AI explanation	An AI system showing how it reached its output. Explanations do not reliably prevent over-trust; explanations that are too technical or too simplified can even increase misplaced confidence.
F		
Fabricated citation	Invented source	A reference produced by AI to a source that does not exist. Spotting such sources is a core verification skill and one of the typical signs of undisclosed AI use.
Facial recognition		AI that identifies people by their face, e.g. for attendance or exam monitoring. Building or expanding facial-recognition databases by untargeted scraping is banned.
Factual knowledge		Knowledge of facts and concepts. AI tutors can support its acquisition.
Fairness	Non-discrimination	The principle that AI and its use must not systematically disadvantage people, e.g. AI detectors wrongly flagging non-native writers.
False Positive		A correct, honest piece of work wrongly flagged. The error that damages students.
Feedback uptake	Uptake	Whether feedback is read, understood, acted on and understood well enough that the learner could get it right unaided next time. Uptake, not quality, is the bottleneck.
Fundamental rights impact assessment	FRIA	An assessment that public bodies and organisations providing public services may have to complete before using high-risk AI (Art. 27 AI Act).
G		
Gamification		Using game elements in lessons. Using AI for gamification produced a gain too small to call proven.

Term	Synonyms	Definition
GDPR	General Data Protection Regulation, Regulation (EU) 2016/679	The EU's data protection law. While the AI Act asks whether and how an AI system may be used, the GDPR asks whether particular data about a particular person may be processed in a particular way.
Generative AI	GenAI	AI that creates new text, images or other content from a prompt.
Guardrails		Limits built into a system so that it supports thinking instead of replacing it.
H		
Hallucination		Fluent, confident, false. Not a defect awaiting a patch but a consequence of how the systems generate text.
High-risk AI system	High-risk AI	An AI system whose intended purpose makes it subject to strict obligations. In education: deciding on admission, evaluating learning outcomes or steering learning, assessing access to education levels, and detecting prohibited behaviour in exams; for staff: recruitment, promotion, task allocation and performance evaluation. Obligations apply from 2 December 2027.
Horizontal dimension	Pedagogical dimension	The six areas of teaching practice in the DUAL.AI.TEACHer framework, taken from DigCompEdu: Professional Engagement, Digital Resources, Teaching & Learning, Assessment, Empowering Learners and Facilitating Learners' (AI) Digital Competence.
Human oversight		The requirement that competent, trained and authorised people supervise a high-risk AI system, understand its limits and can disregard or override its output. Oversight without expertise is not oversight.
Human-centred mindset		Values and attitudes teachers need in human-AI interaction to prioritise people's needs, judgement and wellbeing. A cross-cutting aspect of the vertical dimension.

Term	Synonyms	Definition
I		
ICEP	Institute of European Certification of Personnel	Accredited certification body (ISO 17024) that runs the certification platform and exam and keeps the certification records.
Image classification	Image classifier	An AI task in which a model sorts images into categories (e.g. paper, plastic, other) after being trained with examples, and is then tested with new objects.
Inclusion Dimension		A dimension focusing on accessibility, equity, and inclusion in AI-supported teaching and learning.
Initial teacher education	ITE, pre-service teacher education	The university-based education of future teachers.
Integration Roadmap		The step-by-step route a teacher or an institution takes from first contact with AI to settled practice; in DUAL.AI.TEACHer, nine stages.
Intelligent tutoring system	ITS	Established learning software that guides learners with tailored tasks and feedback.
Iterative prompting	Prompt refinement	Improving an AI output over several rounds instead of relying on a single prompt: define the goal, prompt, evaluate the output, refine and verify.
K		
Knowledge-Action Gap		The measured distance between knowing about AI and teaching differently because of it.
L		
Large Language Model (LLM)	LLM	An AI model trained on large amounts of text that generates plausible continuations of text; the basis of chatbots. Works as a prediction engine, not a database.
Learner		An individual participating in learning activities to acquire knowledge, skills, or competences.

Term	Synonyms	Definition
Learner agency		Learners' ability to make their own decisions about their learning, including about the use of AI-generated resources. Teachers should preserve it in AI-supported processes.
Learning Outcome		A measurable statement describing what a learner is expected to know or be able to do.
Learning Unit		A concrete learning activity performed by the learner within a module.
Lesson Plan		A detailed plan for a teaching session, including objectives, activities, and integration of AI tools.
Licence		
LLM chat interface	AI chat assistant	The browser-based chat window through which users work with a large language model.
Locally installed model	Locally hosted model	A language model that runs on a school's own device or server. It is an alternative when internet access at school is restricted.
Logs		Records automatically generated by an AI system. Deployers of high-risk systems must keep them for at least six months where the logs are under their control.
M		
Machine learning	ML	The approach in which an AI system learns patterns from the examples it receives instead of following hand-written rules. If the examples are too similar, incomplete or poorly chosen, the model produces unexpected results.
Market surveillance authority		The national authority that enforces the AI Act. Anyone, including teachers, students and parents, can lodge a complaint with it (Art. 85 AI Act).
Matthew effect		Those who already have advantages benefit most: 'to those who have, more will be given'.

Term	Synonyms	Definition
Meta-analysis	Review	A study that pools the results of many separate studies on the same question.
Micro-credential		A smaller certification covering one focused set of competences instead of a whole pathway; can be stacked towards larger qualifications.
MOOC Platform		A digital platform used to deliver courses, manage learners, and host learning content.
N		
Novelty effect		A temporary positive effect simply because something is new. It may inflate the results of short-term studies.
O		
One-shot prompt	Single prompt	A prompt sent once, without refinement or follow-up. (In technical usage, the term can also mean a prompt containing one worked example.)
Online Exam		A formal, structured assessment conducted online as part of the evaluation process.
Open Educational Resource (OER)	OER	Teaching and learning material published under an open licence that allows free use, adaptation and sharing.
Open model	Open AI model	An AI model whose components are openly available, as opposed to proprietary corporate models. Recommended as part of publicly funded, equitable access to AI.
Operator		The verb a learning objective is built around (e.g. recognise, implement, critique). It shows what a teacher at that level is expected to do and makes the objective observable.
Overreliance	Over-trust	Trusting AI output more than it deserves, for example accepting wrong grades or feedback. Teachers using high-risk AI must actively watch for it.

Term	Synonyms	Definition
P		
Pedagogical Framework		A structured set of pedagogical principles and approaches guiding teaching and learning design.
Personal data		Any information about an identifiable person, e.g. names, school email addresses, student work, voice recordings, photos, grades, attendance and learning-progress data. Data remain personal if someone can be identified from context.
Personalisation	AI personalisation	Adapting resources, tasks or support to individual learners with AI. It can support inclusion but also carries risks of inequity, data misuse and exclusion.
Playbook		A structured guide that operationalises AI competences into teaching practice through use cases, pedagogical models, and training resources.
Policy Guideline		A policy-level document informing the development of competences and teaching practices.
Predictability		How expected the wording of a text is. AI detectors measure predictability, not machine authorship, so they wrongly flag plain or second-language writing.
Prediction engine	Probabilistic output	Language models generate a plausible continuation of a text instead of looking facts up in a database. This explains why they hallucinate and why similar prompts can produce different answers.
Processor	Data processor	Under the GDPR, a body that processes personal data on the controller's behalf and strictly on its instructions, for example an AI provider.

Term	Synonyms	Definition
Proctoring	Exam proctoring, remote proctoring	Supervising examinations with software, for example via webcam. AI that detects prohibited behaviour during exams counts as high-risk; the certification exam uses remote proctoring.
Procurement	Purchasing decision	The process by which a school or authority selects and buys AI tools. Reliable limits and contractual safeguards are secured here, which is why responsibility sits with procurement, not with the individual teacher.
Profiling		Automated evaluation of individuals to analyse or predict their characteristics or behaviour. An education AI system that profiles individuals is always considered high-risk.
Progression level	Level	One of three levels on which each core competency is described: Level 1 Orientational Awareness, Level 2 Reflective Implementation (the primary target for teachers) and Level 3 Transformative Leadership.
Prohibited AI practices	Banned AI practices	Eight AI uses banned outright by the AI Act (Art. 5) since 2 February 2025. Four concern schools: emotion recognition, exploiting vulnerabilities, untargeted facial-recognition databases and biometric categorisation.
Prompt		The instruction a user gives an AI system. Its wording, context and constraints shape the output.
Prompt engineering	Prompting	Writing effective prompts as a teachable skill, for example for lesson planning, differentiation and grading.
Prompt rewriting		A provider automatically changes a user's prompt before the model receives it, for example to add detail or diversity. The user does not see the change, so what was typed is not what the machine was asked.

Term	Synonyms	Definition
Provider	AI provider	The company that develops and offers an AI system. It is usually responsible for informing users that they are interacting with AI; when it processes data for a school, it acts as a processor under the GDPR.
R		
Randomised controlled trial	RCT, controlled trial	A study in which participants are randomly assigned to groups, so that differences in results can be attributed to the intervention.
Retraction		The official withdrawal of a published article by a journal. The article remains visible, marked 'RETRACTED', so that anyone who cited it can recognise this.
Revised Bloom's taxonomy		Model in which cognitive processes develop from remembering and understanding through applying and analysing to evaluating and creating (Anderson & Krathwohl, 2001). Basis of the progression levels.
S		
Scaffolding		Structured guidance by the teacher that supports learners in using a tool or completing a task they could not yet manage alone.
Schema		Person's organised knowledge.
School Administrator	School leader, head teacher	A person responsible for leading a school, such as a head teacher or deputy head. Chapter 5.3 addresses them directly.
School AI environment	Vetted platform	A state-provided, vetted AI platform for schools with negotiated contracts, offered instead of leaving teachers to sign up to free tools.
Server		A computer that stores and processes data for others over a network. Where an AI tool's servers are located (e.g. in the EU) affects which data protection rules apply.

Term	Synonyms	Definition
Socratic tutor		A chatbot instructed to ask guiding questions instead of giving answers. Set up by prompt alone, it tends to drift back into supplying answers in longer conversations, so reliable limits have to be built into the system.
Special category data		Personal data needing extra protection, such as health, disability, biometric data or data revealing ethnic origin or religion (Art. 9 GDPR). In principle off-limits without a specific exception.
Speech recognition		A form of AI in which a program tries to recognise spoken words or numbers. How well it works depends on the microphone, how clearly a person speaks and how quiet the room is.
Stackability	Stackable	The possibility of combining micro-credentials over time so that they count towards larger qualifications.
Standard contractual clauses	SCCs	EU-approved contract terms that safeguard personal data transferred outside the EU when there is no adequacy decision.
Stochastic	Randomised	Subject to chance, so that the same settings can lead to different results.
Structured prompt		A prompt that specifies more than the topic, for example audience, purpose, context, language level, tone, learner age, learning objective, duration and expected output. It gives more control over the result but does not guarantee a good one.
Sustainable AI	AI Sustainable	Developing and using AI in a way that takes its long-term environmental, social and economic effects into account.
T		
Teacher		An individual responsible for designing and delivering teaching and learning activities.

Term	Synonyms	Definition
Teacher AI Competence		Teachers' knowledge, skills and attitudes for teaching with and about AI, as structured in the DUAL.AI.TEACHer framework.
Teacher educator		Academic staff who teach in initial teacher education. Building their capacity is Stage 3 of the roadmap.
Teaching about AI	Learning ABOUT AI	Making AI itself the subject of the lesson, so that students understand how it works & where it fails.
Teaching exception		The copyright exception that lets teachers copy a limited share of a work for their class. It does not cover uploading protected works into an AI system, and material intended for school teaching, mainly textbooks, is excluded.
Teaching Model		A pedagogical approach that defines how teaching and learning are structured, including the role of AI.
Teaching with AI	Learning WITH AI	Using AI as a tool for your own teaching work, from planning to feedback.
Technical safety		Reliability and robustness of an AI system so that it works as intended and does not cause harm.
Text-to-image generator	Image generator	Generative AI that creates images from a written prompt. What it shows depends on its training data and on adjustments made by its provider.
Third party		A company that is neither the school nor the app's developer, typically advertising or analytics companies that receive data while the pupil is working.
Training data	Training material, training examples	The examples an AI system learns from, such as millions of images labelled by people. Slants in this material carry over into the system's output and do not disappear simply because models get bigger.
Training Module		A structured unit of training that develops competences through learning activities and materials.

Term	Synonyms	Definition
Training on user inputs		When a provider uses what users type or upload for its own purposes, especially to train its models. Personal data may only be entered if a written agreement excludes this.
Transparency obligation	Labelling obligation, disclosure duty	The duty under Art. 50 AI Act to tell people when they interact with AI and to disclose deepfakes and AI-generated text on matters of public interest. Content that has undergone human review and editorial control is exempt, so a teacher-reviewed worksheet needs no label.
Tuning	Model tuning, safety training	Adjustments a provider makes after initial training to steer what a system shows or says, for example to make it safer, fairer or more diverse. Tuning is invisible in the output, can miss, and can change without notice.
U		
UNESCO AI Competency Framework for Teachers		UNESCO framework (2024) defining the principles, values, knowledge and skills teachers need to use AI ethically, effectively and safely. Source of the vertical dimension.
Universal Design for Learning	UDL	Framework for inclusive, learner-centred design. Used to strengthen the inclusive dimension of the framework.
University Faculty		University staff involved in teacher education, one of the playbook's target groups.
Untargeted scraping	Scraping	Automated mass collection of images from the internet or CCTV footage without a specific purpose or person in mind.
Use Case		A concrete scenario describing how AI is applied in teaching practice.
V		
Vertical dimension	AI dimension	The three aspects of AI in the DUAL.AI.TEACHer framework, taken from the UNESCO framework: Human-centred mindset, Ethics of AI, and AI foundations and applications.

Term	Synonyms	Definition
Vibe coding		Creating or extending software by describing in natural language what it should do and letting an AI write the code. In the playbook, students extend an existing simulation through prompts instead of programming from scratch.