

AI Education for Teachers

A framework for teacher professional development

Know that		Know how to	
<i>1. Understanding AI Technologies</i>			
1.1	AI is a broad collection of different technologies which have been available in different forms for many decades.	1.a	Identify examples of AI technologies used in daily life and in education.
1.2	One subset of AI is known as “Generative AI”.	1.b	Distinguish between generative AI and other AI technologies.
1.3	Recent developments in AI technology have resulted in the rapid adoption of Generative AI across many industries, including education.	1.c	Evaluate the impact of generative AI on educational practices and resources, considering its potential to transform teaching and learning.
1.4	Generative AI is poised to be the most disruptive emerging technology to be introduced in a generation.	1.d	Prepare for and adapt to the changes brought by generative AI in educational settings, including revising curricula and teaching methods.
1.5	A key feature of AI is that it is taught rather than programmed.	1.e	Explain the impact that training has on the reliability of the responses from AI.
1.6	The field of AI is rapidly evolving, necessitating ongoing professional development for educators to keep abreast of new technologies and pedagogical approaches.	1.f	Engage in continuous learning about AI advancements and their applications in education, participating in professional development opportunities and sharing knowledge with colleagues.
1.7	Use of AI is likely to become increasingly widespread across a wide range of different contexts and that students are almost certain to encounter it in their daily lives and future careers.	1.g	Support students in preparing for life in a world where AI use is ubiquitous across a wide range of contexts, disciplines and careers.
1.8	AI use is associated with specialist terminology including: prompts, responses, LLM, GPT, hallucinations, tokens.	1.h	Model the correct use of specialist AI terminology for less experienced colleagues and students.

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<i>2. Ethics and Safeguarding</i>			
2.1	There are ethical considerations around the use of AI in schools.	2.a	Model the ethical use of AI for students.
2.2	Generative AI is known to make factual errors (hallucinations) and to reflect the same cultural and societal biases as that of the data on which it was trained.	2.b	Critically evaluate AI responses for accuracy and bias.
		2.c	Have high expectations for students around the evaluation of responses from AI.
2.3	There are safeguarding risks associated with the increased availability of AI for easily generating “deep fakes”.	2.d	Implement school policies around the use of student personal data.
		2.e	Take steps to prevent the accidental sharing of images of children without parental consent.
2.4	Inappropriate or excessive use of AI can have negative implications on the wellbeing of young people.	2.f	Equip students with the knowledge and skills to use AI healthily and responsibly.
2.5	There are confidentiality issues with using personal data in AI prompts.	2.g	Take steps to anonymise or pseudonymise data before using it with AI applications.
2.6	Students are likely to make use of AI when completing assignments which can impact upon academic honesty.	2.h	Adapt assignments to take account of the likely use of AI by students.
		2.i	Make expectations around the use of AI clear to students.
2.7	AI detection tools are known to be unreliable in detecting dishonest use of AI and can generate both false positives and false negatives.	2.j	Develop a familiarity with each student's writing style and capabilities which will allow for more effective identification of inconsistencies in their work which may indicate dishonest use of AI.
2.8	Transparent use of AI builds trust and enhances academic honesty.	2.k	Model transparent use of AI for students.
2.9	Different AI platforms have different rules regarding the use of their platforms by children.	2.l	Identify the requirements for using specific AI tools with children before doing so.

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2.10	AI bias can negatively impact inclusion of people from minority groups.	2.m	Write AI prompts to explicitly counteract bias towards minority groups, especially those groups represented by the students being taught.
<i>3. Application of AI in Education</i>			
3.1	AI is designed to augment and enhance the educational experience, not to replace the essential human elements of teaching.	3.a	Explore and integrate AI tools that complement and extend teaching practices.
3.2	AI can be used to personalise education through the use of custom chatbots.	3.b	Utilise AI chatbots and other tools to create personalised learning experiences for students.
3.3	AI can be used to scaffold learning activities for students.	3.c	Utilise AI tools to adapt learning resources and to provide additional support to meet the diverse needs of individual learners.
3.4	AI can be used to provide additional stretch and challenge for students who are making more progress.	3.d	Utilise AI tools to increase the stretch and challenge of learning to meet the needs of students who are making more progress.
3.5	AI has the potential to significantly reduce teachers' administrative workload by automating routine tasks and enabling more efficient use of their time, thereby allowing teachers to dedicate more time to student-focused activities.	3.e	Implement AI tools in the classroom that automate routine administrative tasks.
		3.f	Evaluate the effectiveness of different AI tools in reducing workload.
3.6	AI can assist in formative assessment by providing real-time feedback to students, identifying learning gaps, and customising learning pathways.	3.g	Incorporate AI tools into formative assessment strategies to enhance personalised learning experiences, using AI-generated insights to inform teaching practices and student support.

4. <i>Practical AI Use</i>			
4.1	Effective prompt-writing improves AI's utility.	4.a	Craft effective prompts for AI tools which generate accurate, meaningful responses which are tailored to the context in which they are to be utilised.
		4.b	Build a personal library of well-crafted prompts for reuse and further refinement over time.
4.2	An AI's initial response can be further refined and developed with follow-up prompts that build on earlier responses.	4.c	Design follow-up prompts to refine and expand AI-generated responses to achieve greater specificity and relevance in the AI's output.
4.3	AI is able to generate a wide range of different types of media including: text, images, audio, video.	4.d	Apply AI to create diverse educational materials, including images and audio.
4.4	There are a wide variety of different AI powered tools available.	4.e	Be discerning in selecting which AI tools to use.
4.5	AI is a useful tool in the process of ideation.	4.f	Use AI tools for brainstorming and to generate and refine ideas.

Version

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