Artificial intelligence can be a teaching and learning resource that enhances the educational experience for both students and teachers. Al tools can provide personalized learning experiences, automate routine tasks, and offer insights into student progress. For example, Al-powered tutoring systems can adapt to each student's individual needs, while Al-driven grading tools can provide timely feedback. Additionally, Al can help teachers analyze large amounts of data to identify trends and make informed decisions about instruction. By embracing Al, teachers can create more engaging and effective learning environments.

Essential Artificial Intelligence Vocabulary

- **Generative AI** is a broad term that can be used for any AI system whose primary function is to generate content.
- Large language models (LLMs) are a type of AI system that works with language.
- A **foundation model** refers to AI systems with broad capabilities that can be adapted to a range of different, more specific purposes.
- **Bias** includes the assumptions made by a model that simplifies the process of learning to do its assigned task.
- **Artificial intelligence chatbots** are chatbots trained to have human-like conversations using natural language processing (NLP).
- **AI hallucinations** are incorrect or misleading results that AI models generate. These errors can be caused by various factors, including insufficient training data, incorrect assumptions made by the model, or biases in the data used to train the model.
- **Machine Learning** A type of artificial intelligence where computers learn from data, allowing them to improve their performance on specific tasks and make predictions without being explicitly programmed. This means they can identify patterns and make decisions based on what they've learned without needing human intervention each time.
- **Deep Learning** Machine learning networks that process vast amounts of data, allowing them to recognize complex patterns and make accurate predictions in various tasks like image and speech recognition, natural language processing, and even self-driving cars.

Featured AI Books

- AI for Educators: Learning Strategies, Teacher Efficiencies, and a Vision for an Artificial Intelligence Future - Matt Miller
- <u>50 Strategies for Integrating AI into the Classroom</u> Don Piercy
- The A.I. Roadmap: Human Learning in the Age of Smart Machines John Spencer
- The Promises and Perils of Al in Education: Ethics and Equity Have Entered
 The Chat Ken Shelton and Dee Lanier

Getting Started Exploring AI in Education

TeachAl

Bringing together education leaders and technology experts to guide the safe, effective, and responsible use of AI in schools by connecting the discussion of teaching with AI to teaching about AI.

Al for Education

Provide AI literacy training to 1 million educators and lead the responsible adoption of Generative AI in the education ecosystem, empowering teachers and ultimately improving student outcomes while preparing them for the future.

Essential AI Web Resources

Productivity <u>TinyWow</u>	Creativity <u>Canva AI Image</u> <u>Generator</u>	Feedback / Assessment Giants Steps
Presentations Curipod	Creativity Adobe Firefly	Feedback / Assessment Quizizz AI
Productivity <u>Gemini</u>	Productivity <u>Grammarly</u>	Productivity Magic School

Featured AI Resources for Teaching and Learning

Al Resource	Description
Adobe Firefly	Creativity - Use generative AI and simple text prompts to create the highest-quality output — beautiful images, text effects, and fresh color palettes.
<u>Auto Classmate</u>	Productivity - Includes AI lesson generators, would you rather question generators. engagement activity generators, and more.
<u>Autodraw</u>	Creativity - Pairs machine learning with drawings from talented artists to help everyone create anything visual, and fast.
<u>Brisk</u>	Productivity - Al-powered Chrome extension that works with the tools you already use, automating your tasks without any extra apps or platforms.
<u>ChatGPT</u>	Productivity - Al-powered language model developed by OpenAl, capable of generating human-like text based on context and past conversations.
<u>CoGrader</u>	CoGrader is the Al Essay Grader that helps teachers provide quality feedback on essays in 80% less time
Copilot	Productivity - Al-generated templates for lesson plans, writing prompts, educational handouts, student reports, project outlines, and lots more.
<u>Curipod</u>	Productivity - Create, plan, and deliver interactive lessons/presentations on any topic - with help from Al.
<u>Diffit</u>	Productivity - Teachers use Diffit to get "just right" instructional materials, saving tons of time and helping all students to access grade-level content
<u>Dall-E2</u>	Dall-E2 - An Al system that can create realistic images and art from a description in natural language.
<u>Formative</u>	Assessment - Generate questions, assignments, hints, and more with the help of Al.
<u>Gamma</u>	Productivity - Create a working presentation, document or webpage you can refine and customize in under a minute, using a powerful Al generator.

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Al Resource	Description
<u>Gemini</u>	Productivity - A conversational AI tool by Google. Collaborate with Bard to brainstorm ideas, spark creativity, and accelerate productivity.
<u>Giant Steps</u>	Assessment - A game-based practice and formative assessment tool. that uses AI to generate both questions and question feedback.
Goblin Tools	Productivity - Goblin Tools is a collection of small, simple, single-task Al-powered tools, mostly designed to help neurodivergent people with tasks they find overwhelming or difficult.
Grammarly	Productivity - Compose, ideate, rewrite, and reply with a ready-to-go Al co-creator that understands your communication context and goals.
Leo	Productivity - Leo AI takes the repetition out of grading, allowing teachers to give more feedback faster.
Magic School	Productivity - Collection of AI generators, including lesson generators, YouTube video summarizers, question generators, vocabulary lists, and more.
<u>NotebookLM</u>	Productivity—Use the power of AI for quick summarization and note-taking; NotebookLM is your powerful virtual research assistant rooted in trusted information. Be sure to explore the podcast feature!
<u>Parlay Genie</u>	Productivity - Al-powered instructional platform that helps teachers facilitate meaningful, measurable, and inclusive class discussions.
<u>Pear Assessment</u>	Assessment - Generate questions for assessments and YouTube videos. Includes AI tools to facilitate grading and feedback.
<u>Perplexity</u>	Productivity - Generative AI chatbot that lets users ask questions and get responses conversationally.
QuestionWell	Productivity - Input a reading, and the AI will write essential questions, learning objectives, and aligned multiple-choice questions.
Quizizz	Assessment - Create quizzes, enhance existing quizzes, and generate question feedback with Al.
Random Face Generator	Creativity - The site uses Al to generate pictures of human faces.
SchoolAI	Productivity - Spaces allow you to launch safe GPT-powered experiences, tailored to each student's needs.
<u>Speechify</u>	Accessibility - A text-to-speech tool. It will let you turn text into natural sounding voice in Google Chrome, Apple devices, and Android devices.
<u>TinyWow</u>	Productivity - Writing, images, and other handy tools to help you solve problems of all types,

Learn More About AI in Education

- A.I. for Educators John Spencer
- Control Alt Achieve: Resources Al Eric Curts
- <u>Ditch That Textbook Artificial Intelligence Posts</u> Matt Miller
- Al for Educators Course Matt Miller
- Artificial Intelligence and the Future of Teaching and Learning Office of Educational Technology
- Al can do your homework. Now what? Vox
- Artificial Intelligence for Beginners Microsoft
- How AI could save (not destroy) education Sal Khan TED Talk
- Al Guidance For Schools Toolkit

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