

# Empowering Educators: Leveraging AI for Tailored Teaching Resources and Tools

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## Ai prompt “Wish my wife a good day”

❖ Wishing you a wonderful day, my love! I hope its's filled with joy and happiness

- What have you done?
- Is this an Ai?
- It does not count.
- You know you are talking to your wife?

# TEC Policy

- within assignments and essays
- “The use of ChatGPT or any other AI generating tools in academic contexts can be considered as **contract cheating.**”
- Planning and Research?

# What?

- Ai = Artificial Intelligence
- LLMs = Large Language Models
- Data sets = Ai training

Generative AI refers to a subset of artificial intelligence techniques that focus on creating or generating new content, such as images, text, music, or even entire virtual environments. It involves training models to understand patterns and structures within a dataset and then using that knowledge to generate novel and realistic outputs.

Generative AI often utilizes deep learning models, such as generative adversarial networks (GANs) and variational autoencoders (VAEs), to generate new content based on the patterns and features learned from existing data. These models can capture the underlying distribution of the training data and use it to generate new samples that resemble the original data.

For example, in the context of image generation, a generative AI model can be trained on a large dataset of images to learn the statistical patterns, textures, and shapes present in those images. Once trained, the model can generate new images that possess similar characteristics to the training set, producing realistic and novel images that were not present in the original dataset.

Generative AI has applications in various fields, including computer graphics, art, content creation, data augmentation, and simulation. It can be used to generate

realistic images for video games or virtual reality environments, create novel artwork, synthesize human-like speech, generate text, and more. It has opened up exciting possibilities for creativity, content generation, and simulation in the AI domain.

A large language model (LLM) refers to an artificial intelligence system that is specifically designed to understand and generate human language. LLMs are trained on vast amounts of text data to learn the statistical patterns, structures, and semantics of language.

These models utilize deep learning techniques, such as recurrent neural networks (RNNs) or transformer architectures, to process and generate text. They are capable of performing a wide range of natural language processing (NLP) tasks, including language translation, text summarization, question answering, sentiment analysis, and more.

LLMs, like OpenAI's GPT-3 (which stands for Generative Pre-trained Transformer 3), are examples of large language models that have gained significant attention due to their ability to generate coherent and contextually relevant text. These models are pre-trained on vast corpora of text from the internet and can then be fine-tuned for specific tasks or domains.

Large language models have various applications, including assisting in content generation, providing language-based services, improving language understanding and generation capabilities, and aiding in human-computer interactions through natural language interfaces. A large language model (LLM) refers to an artificial intelligence system that is specifically designed to understand and generate human language. LLMs are trained on vast amounts of text data to learn the statistical patterns, structures, and semantics of language.

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AI can be trained on a wide variety of datasets depending on the specific task and domain. The choice of dataset depends on the goals of the AI system and the type of problem it aims to solve. Here are a few examples of datasets commonly used for AI training:

1. Image Datasets: Popular datasets for computer vision tasks include ImageNet, COCO (Common Objects in Context), CIFAR-10, and MNIST (handwritten digit recognition). These datasets consist of labeled images, which are used to train AI models to recognize objects, classify images, or perform various image-related tasks.

2. Text Datasets: For natural language processing (NLP) tasks, datasets like the English Wikipedia, Common Crawl, Books1 and Books2 corpora, and various web text sources can be used. These datasets provide large amounts of text data that can be used for tasks such as language modeling, sentiment analysis, machine translation, and question answering.

3. Speech Datasets: Speech recognition and synthesis models often rely on datasets like LibriSpeech, Mozilla Common Voice, and Google's Speech Commands dataset. These datasets contain recordings of human speech and their corresponding transcriptions, enabling AI models to learn speech patterns and convert audio into text or generate human-like speech.

4. Reinforcement Learning Datasets: Reinforcement learning algorithms learn through trial and error in interaction with an environment. Datasets for reinforcement learning can be generated through simulations, game playing, or real-world robot interactions. These datasets capture the state-action-reward transitions that help train AI models to make optimal decisions.

5. Healthcare Datasets: In the healthcare domain, AI models may be trained on electronic health records (EHRs), medical imaging datasets (such as DICOM images), genomics data, or clinical trial data. These datasets provide valuable information for tasks like disease diagnosis, medical imaging analysis, drug discovery, and patient monitoring.

It's important to note that the selection and use of datasets should comply with ethical considerations, privacy regulations, and legal requirements to ensure fair and responsible AI development.

# When?

- 1950s – Turing Test
- 1990s = Ai Chess
- 2020s= Consumer facing Ai

The origins of artificial intelligence (AI) can be traced back to the mid-20th century. The term "artificial intelligence" was coined in 1956 during the Dartmouth Conference, where researchers from various fields gathered to explore the possibility of creating machines that could exhibit human-like intelligence.

However, the concept of AI predates the term itself. One early example of AI can be found in the work of British mathematician and logician Alan Turing. During World War II, Turing developed the concept of the Turing machine, a theoretical computational device that could simulate any algorithmic process. His work laid the foundation for the theory of computation and the idea of machine intelligence.

Yes, Deep Blue was an AI system developed by IBM that gained fame for its chess-playing abilities. Deep Blue was specifically designed to play chess and competed against world chess champion Garry Kasparov in a historic match in 1997.

Deep Blue utilized a combination of powerful hardware and advanced algorithms to evaluate positions, search for moves, and make decisions. It employed a technique called brute-force searching, which involved examining a vast number of possible moves and positions to determine the best move.

The development of Deep Blue involved not only AI techniques but also expert human knowledge in the form of chess grandmasters and programmers who refined

its strategies. While Deep Blue's victory over Kasparov marked a significant milestone in the history of AI, it is worth noting that the term "artificial intelligence" can encompass a broad range of systems and techniques that go beyond just playing games.

As an AI language model developed by OpenAI, I, ChatGPT, was introduced and made publicly available for use on a limited basis in June 2020. The earlier versions of the model, such as GPT-2, were also used in research and development within OpenAI before that date. Since then, improvements and iterations have been made, including the release of GPT-3, which brought further advancements in terms of scale and capabilities. However, it's important to note that my knowledge cutoff is in September 2021, so any developments or updates that have occurred since then may be outside of my current knowledge.



# Where?

- Education
- Healthcare
- Manufacturing

AI is used in a wide range of industries and domains. Its applications are constantly expanding as the technology advances. Here are some common areas where AI is utilized:

1. Healthcare: AI is used in medical imaging analysis, disease diagnosis, drug discovery, personalized medicine, patient monitoring, and improving healthcare operations and efficiencies.
2. Finance: AI is employed in fraud detection, algorithmic trading, credit scoring, risk assessment, chatbots for customer support, and improving financial decision-making.
3. Retail and E-commerce: AI is used for personalized recommendations, demand forecasting, inventory management, chatbots for customer service, visual search, and optimizing pricing strategies.
4. Transportation: AI plays a role in autonomous vehicles, route optimization, traffic management, predictive maintenance, and logistics planning.
5. Manufacturing: AI is used for quality control, predictive maintenance, supply chain

optimization, robotics automation, and process optimization.

6. Customer Service: AI-powered chatbots and virtual assistants are used for handling customer inquiries, providing support, and improving customer experience.

7. Education: AI is utilized for personalized learning, intelligent tutoring systems, automated grading, and adaptive educational platforms.

8. Natural Language Processing (NLP): NLP is used for language translation, sentiment analysis, voice recognition, chatbots, text summarization, and content generation.

9. Cybersecurity: AI helps in detecting and mitigating cyber threats, identifying anomalies in network traffic, and improving data security.

10. Smart Homes and Internet of Things (IoT): AI enables smart devices to learn and adapt to user preferences, control home automation systems, and optimize energy usage.

These are just a few examples, and AI is being adopted in numerous other domains, including agriculture, energy, entertainment, law, journalism, and more. The versatility of AI allows it to be applied to various industries, revolutionizing processes, decision-making, and enhancing overall efficiency and productivity.

# Who?

- Google
- Microsoft
- Open Ai
- *So many more....*

As of my knowledge cutoff in September 2021, several organizations have been at the forefront of AI research, development, and deployment. It's worth noting that the landscape is dynamic, and rankings can change over time. Here are some prominent players in the AI field:

1. Google (Alphabet): Google has made significant investments in AI and has a research division called Google AI. They have developed various AI technologies and applications, including Google Search, Google Assistant, Google Translate, and DeepMind.
2. Microsoft: Microsoft has been actively working on AI research and development through its Microsoft Research division. They offer AI tools and services through Azure Machine Learning and have AI applications like Cortana and Microsoft Cognitive Services.
3. OpenAI: OpenAI is an organization focused on developing safe and beneficial AI. They have contributed to the development of state-of-the-art language models like GPT-3 and are involved in cutting-edge AI research.
4. IBM: IBM has a long history in AI and offers various AI tools and services through

their IBM Watson platform. They have been involved in AI research, particularly in natural language processing and machine learning.

5. Facebook: Facebook has been investing in AI and has a dedicated AI research division called Facebook AI Research (FAIR). They utilize AI for tasks such as image recognition, natural language understanding, and content recommendation systems.

6. Amazon: Amazon has incorporated AI into many of its services, including product recommendations, voice-based virtual assistant Alexa, and Amazon Web Services (AWS) offerings like Amazon Rekognition for image and video analysis.

7. Apple: Apple has integrated AI into its products and services, such as Siri, image recognition features in Photos, and facial recognition technology in Face ID.

8. NVIDIA: NVIDIA is a leading company in providing hardware solutions for AI, including graphics processing units (GPUs) optimized for deep learning. Their GPUs are widely used for AI training and inference.

9. Baidu: Baidu is a prominent Chinese technology company that heavily invests in AI research and development. They have developed AI-driven services, including search engines, voice recognition systems, and autonomous driving technologies.

10. Alibaba: Alibaba, a Chinese multinational conglomerate, has an AI research division called Alibaba DAMO Academy. They have been actively working on AI applications across e-commerce, cloud computing, and logistics.

These are just a few examples of the top AI players based on their involvement in research, development, and deployment of AI technologies. The AI landscape is dynamic, and other organizations and research institutions are also making significant contributions to the field.

## How?

- Content Creation
- Automation
- Data Analysis

Teachers are leveraging AI to implement various time-saving strategies that streamline administrative tasks, grading, and content creation. Here are some examples:

1. **Automated Grading:** AI-powered grading systems can automatically assess and provide feedback on assignments, quizzes, and exams. Teachers can save time by relying on AI algorithms to handle the initial grading process, while they focus on reviewing and providing additional feedback as needed.
2. **Data Analysis and Insights:** AI can analyze large amounts of educational data, such as student performance, attendance records, and engagement metrics. Teachers can use AI tools to gain insights into student progress, identify areas of improvement, and personalize instructional strategies accordingly.
3. **Content Creation and Curation:** AI can assist in content creation by generating quizzes, practice exercises, and even writing assistance. Teachers can utilize AI tools to generate multiple-choice questions, create interactive learning materials, or curate relevant educational resources based on specific topics or learning objectives.
4. **Personalized Learning Pathways:** AI-based adaptive learning systems can create

personalized learning pathways for students. These systems analyze student performance data and provide tailored recommendations for further learning activities, reducing the time spent on manual differentiation and lesson planning.

5. Virtual Assistants and Chatbots: AI-powered virtual assistants and chatbots can handle routine inquiries from students and provide immediate responses. This reduces the time teachers spend on repetitive queries, allowing them to focus on more complex and personalized interactions.

6. Attendance and Administrative Tasks: AI can automate attendance tracking through facial recognition or biometric systems, reducing the need for manual record-keeping. Additionally, AI can assist with administrative tasks such as scheduling, reminders, and organizing resources, freeing up time for teachers to focus on instructional planning and student support.

7. Language Translation and Communication: AI-powered translation tools can facilitate communication with students who have limited English proficiency. These tools can assist in translating written or spoken language, saving time and ensuring effective communication.

By utilizing these time-saving strategies with AI, teachers can allocate more time and energy to instructional planning, individualized support for students, and fostering meaningful classroom interactions. It's important to note that while AI can offer significant benefits, it should be used in conjunction with teachers' expertise and pedagogical insights to ensure a balanced and effective learning environment.

# Why must we adapt?

1. Preparation of students for their future careers
2. Equipping educators with the best tools
3. Staying relevant as an educational provider

As we prepare our students for future success, we must equip them with the skills and knowledge they need in a rapidly evolving digital landscape. AI offers a multitude of avenues to enhance learning, from personalised education to smart content creation. Students exposed to AI technology will gain a competitive edge and essential digital literacy.

AI can provide staff with powerful tools to enhance their teaching methodologies and administrative efficiency. This will allow educators to focus on the core of their work: teaching and mentoring. Advanced AI tools can also provide personalised insights into student performance, enabling educators to cater to individual learning needs effectively

In an era defined by technological innovation, educational institutions that fail to adapt will be left behind. Embracing AI in education is not about replacing human interaction, but about augmenting human potential. An AI strategy can facilitate the transformation of learning environments, making them more engaging, inclusive, and effective, ultimately ensuring schools stay at the forefront of education.

# Prep Students

1. Ai Literacy

2. Soft Skills

3. Experiment

Preparing students for their future careers in the age of AI involves equipping them with relevant skills, knowledge, and a mindset that embraces technological advancements. Here are some ways to incorporate AI tools and concepts into education to prepare students for their future careers:

1. AI Literacy: Introduce students to the basic concepts and applications of AI. Help them understand what AI is, how it works, and its impact on various industries. Foster discussions around the ethical implications and societal considerations of AI.

2. Computational Thinking: Teach computational thinking skills, which involve problem-solving, data analysis, and algorithmic reasoning. Help students develop skills in breaking down complex problems into smaller, manageable parts and designing algorithms to solve them.

3. Data Literacy: Emphasize the importance of data literacy and analysis. Teach students how to collect, analyze, and interpret data using AI tools and techniques. Help them understand how data-driven decision-making is crucial in many industries.

4. AI Tools and Platforms: Integrate AI tools and platforms into classroom activities and projects. Explore AI-powered tools for data visualization, natural language



processing, image recognition, and machine learning. Encourage students to experiment with these tools and gain hands-on experience.

5. Collaborative Projects: Assign collaborative projects that involve problem-solving using AI techniques. Encourage students to work together to develop AI-based solutions, such as building chatbots, creating recommendation systems, or developing predictive models.

6. Industry Partnerships: Foster partnerships with local businesses and organizations that are actively using AI technologies. Provide opportunities for students to engage in real-world projects, internships, or mentorships where they can apply their AI skills in practical settings.

7. Soft Skills: Emphasize the development of skills that complement AI technology, such as critical thinking, creativity, communication, and adaptability. These skills are highly valued in the workplace and will help students navigate the evolving job market.

8. Ethical Considerations: Discuss the ethical implications of AI, including issues of bias, privacy, transparency, and accountability. Help students understand the importance of responsible AI development and usage.

9. Lifelong Learning: Foster a mindset of continuous learning and adaptability. Teach students to embrace technological advancements and encourage them to stay updated on the latest AI trends and developments throughout their careers.

By incorporating these strategies, students can develop the skills, knowledge, and mindset necessary to navigate and succeed in careers that involve AI. It's crucial to strike a balance between technical skills and broader competencies to ensure students are well-prepared for the future of work.

# Equip educators

1. Content Curation
2. Content Generation
3. Administration

Content curation and creation for teachers with the help of AI involves the use of intelligent algorithms and tools to curate, develop, and enhance educational materials. Here's how it can look like:

1. Resource Discovery: AI-powered platforms can assist teachers in discovering relevant educational resources from a vast pool of online content. These platforms use machine learning algorithms to analyze and categorize resources based on subject matter, grade level, format, and other criteria, making it easier for teachers to find appropriate materials.

2. Content Recommendation: AI algorithms can analyze student data, such as their learning preferences, performance, and interests, to recommend specific educational resources. Teachers can leverage these recommendations to personalize learning experiences and provide students with targeted materials aligned with their needs.

3. Content Generation: AI tools can automate the creation of educational content. For example, they can generate multiple-choice questions, quizzes, or writing prompts based on specific learning objectives. These tools help teachers save time by reducing the manual effort required for content creation.

4. Content Enhancement: AI can enhance existing educational content by providing additional insights, explanations, or multimedia elements. For instance, AI-powered annotation tools can analyze written texts and provide contextual definitions or explanations of complex concepts, supporting students' understanding.

5. Multimodal Content Creation: AI tools can assist teachers in creating multimodal content that combines text, images, videos, and interactive elements. These tools often leverage natural language processing, computer vision, and multimedia generation techniques to enhance the learning experience and engage students in different ways.

6. Adaptive Content Delivery: AI-powered adaptive learning systems can dynamically adjust the sequence and presentation of educational content based on individual student progress and performance. This ensures that students receive content at their appropriate level of challenge and in a manner that optimizes their learning experience.

7. Translation and Language Support: AI-driven language translation tools can aid in providing language support to students who have limited proficiency in the language of instruction. These tools can translate written text or provide real-time translation during communication, facilitating understanding and inclusivity.

8. Content Analytics: AI can provide insights into how students engage with educational content. By analyzing data on student interactions, AI tools can identify patterns, trends, and areas of improvement, enabling teachers to refine and adapt their content delivery strategies.

It's important to note that while AI can support content curation and creation, the expertise and pedagogical insights of teachers remain critical in ensuring the quality, relevance, and context-appropriateness of the educational materials. AI tools should be seen as supplements to teachers' expertise rather than replacements for their instructional guidance and facilitation.

Several AI tools can be valuable for educators, offering a range of capabilities to enhance teaching and learning experiences. Here are some AI tools that can best serve educators:

1. Adaptive Learning Platforms: Adaptive learning platforms utilize AI algorithms to personalize the learning experience for each student. These platforms analyze student data, identify knowledge gaps, and provide targeted recommendations and resources to address individual learning needs.

2. Intelligent Tutoring Systems: Intelligent tutoring systems use AI to provide personalized guidance, feedback, and support to students. These systems can assess student understanding, offer targeted interventions, and track progress over time.

3. Natural Language Processing (NLP) Tools: NLP tools enable educators to analyze and process written or spoken language. They can assist in tasks such as automated grading, essay scoring, language translation, and speech recognition, saving time and providing valuable insights.

4. Data Analytics Platforms: AI-powered data analytics platforms help educators analyze large sets of educational data. These tools can generate actionable insights about student performance, engagement, and learning patterns, enabling data-driven decision-making.

5. Content Generation Tools: AI-based content generation tools can help educators create educational materials, assessments, and exercises. These tools can automate the generation of multiple-choice questions, quizzes, and even writing assistance, saving time in content creation.

6. Virtual Assistants and Chatbots: AI-powered virtual assistants and chatbots can provide instant support to students, answering questions, providing information, and guiding them through learning materials. They can alleviate the workload of educators by handling routine inquiries and freeing up time for personalized interactions.

7. Recommendation Systems: AI-powered recommendation systems can suggest relevant educational resources, readings, and multimedia materials based on student preferences, interests, and learning objectives. These systems can assist educators in curating personalized learning pathways for students.

8. Data Visualization Tools: AI tools that offer data visualization capabilities help educators present complex information in a visually engaging and accessible manner. These tools enable educators to create interactive graphs, charts, and infographics that enhance understanding and promote data literacy.

9. Collaboration and Communication Platforms: AI tools that support collaboration and communication facilitate seamless interaction between educators and students. These tools can include features like real-time collaboration, feedback mechanisms, and progress tracking.

The selection of AI tools depends on the specific needs and goals of educators and their students. It's important to consider factors such as ease of use, integration with existing educational technology infrastructure, data privacy and security, and the level of technical support provided. Regular evaluation and feedback from educators and students can help determine the effectiveness and suitability of AI tools in an educational context.

# Stay Relevant

1. CPD
2. Collaboration
3. Training

Equipping educators with AI tools involves providing them with the necessary training, resources, and support to effectively integrate AI into their teaching practice. Here are some steps to help educators become proficient in using AI tools:

1. Professional Development Programs: Offer professional development programs specifically designed to educate educators about AI concepts, technologies, and tools. These programs can be in the form of workshops, seminars, online courses, or conferences led by AI experts or experienced educators.
2. Collaboration and Communities of Practice: Encourage educators to form communities of practice where they can collaborate, share experiences, and learn from each other. Facilitate networking opportunities and provide platforms for educators to exchange ideas, best practices, and resources related to AI integration.
3. Training on AI Tools and Platforms: Provide hands-on training sessions on AI tools and platforms relevant to education. This includes training on data analysis tools, AI-powered learning platforms, adaptive learning systems, virtual assistants, and content generation tools. Collaborate with AI companies and organizations to offer training sessions or access to their platforms.

4. Access to Resources and Curated Content: Curate and provide educators with a repository of AI-related resources, including lesson plans, case studies, tutorials, and sample projects. Ensure that the resources cater to various subject areas and grade levels, allowing educators to find relevant materials for their specific needs.

5. Mentoring and Coaching: Assign experienced AI-informed educators or instructional coaches to mentor and guide their peers in integrating AI tools effectively. Provide one-on-one support, feedback, and guidance to help educators build confidence and competence in using AI tools.

6. Collaborative Projects and Research Opportunities: Encourage educators to engage in collaborative projects or research initiatives that involve AI integration in the classroom. These projects can provide practical experience, foster innovation, and enable educators to share their findings with the wider educational community.

7. Partnerships with AI Experts and Organizations: Foster partnerships with AI experts, researchers, and organizations working in the field of education and AI. Collaborate with them to offer training sessions, guest lectures, or research opportunities for educators. These partnerships can provide insights into cutting-edge AI practices and help educators stay updated with the latest advancements.

8. Supportive Infrastructure: Ensure that educators have access to the necessary technology infrastructure, including devices, software, and internet connectivity, to effectively use AI tools. Provide ongoing technical support and troubleshoot any issues that may arise during AI tool implementation.

9. Evaluation and Feedback: Regularly assess the effectiveness of AI tool integration in educational settings and gather feedback from educators. Adjust training programs and support mechanisms based on the feedback to address any challenges or areas for improvement.

By implementing these strategies, educators can develop the skills, knowledge, and confidence to leverage AI tools effectively in their teaching practice, enhancing student learning outcomes and preparing students for the AI-driven future.

# What are the concerns with Ai?

Concerns over what we may face in our classrooms, workshops and workplaces.

# Concerns over Cheating

- written assessments
- in-person exams and assessments
- plagiarism checkers

Some schools are blocking ChatGPT due to concerns about cheating and academic development.

- Teachers worry that students will use ChatGPT to plagiarize.
- Measures like banning AI for written assessments and using in-person exams are suggested to mitigate plagiarism.
- The development of plagiarism checkers to identify AI-generated work is being explored.
- The argument questions whether ignoring AI technology is the wisest approach and suggests incorporating it into assessment methods.
- Addressing concerns of AI cheating requires a proactive approach from teachers. Here are some strategies that can help teachers mitigate the risks and discourage AI-enabled cheating:
  1. Educate Students: Raise awareness among students about the ethical implications of AI-enabled cheating. Discuss the consequences of dishonesty, the importance of academic integrity, and the long-term impact it can have on their education and future. Help students understand that using AI to cheat undermines their own learning and personal growth.



- 2. Clarify Expectations: Clearly communicate your expectations regarding the use of AI tools during assessments. Provide explicit guidelines on what is allowed and what is considered cheating. Explain the consequences of violating these guidelines to deter students from attempting AI-enabled cheating.
- 3. Design Authentic Assessments: Develop assessments that are less susceptible to AI-enabled cheating. Emphasize open-ended questions, critical thinking tasks, and performance-based assessments that require students to apply their knowledge and demonstrate understanding in unique ways that cannot be easily replicated by AI tools.
- 4. Monitor and Proctor Exams: During high-stakes assessments, implement monitoring measures to discourage cheating. This can include active proctoring, surveillance software, or in-person invigilation. Regularly remind students about the monitoring process to deter them from attempting AI-enabled cheating.
- 5. Implement Varied Assessment Methods: Utilize a mix of assessment methods to evaluate student learning. This can include projects, presentations, group discussions, and portfolios. By diversifying the assessment formats, it becomes harder for AI tools to provide direct solutions or facilitate cheating.
- 6. Focus on Higher-Order Thinking: Emphasize higher-order thinking skills and application of knowledge in your teaching. Encourage students to go beyond simple memorization and engage in deep understanding, analysis, synthesis, and evaluation. AI tools are less effective in generating original ideas or applying knowledge to complex problems.
- 7. Analyze Patterns and Anomalies: Use data analytics to detect patterns and anomalies in student performance. AI tools can help identify unusual patterns that may indicate potential cheating, such as sudden and drastic improvements in scores or consistent use of similar language or answer patterns.
- 8. Promote Collaboration and Discussion: Foster a classroom environment that values collaboration, discussion, and peer learning. Encourage students to work together, share ideas, and support each other's learning. This can reduce the incentive for AI-enabled cheating and promote a culture of academic integrity.
- 9. Stay Informed about AI Advancements: Keep yourself updated about the latest AI advancements and cheating techniques. Stay informed about the tools and methods students may attempt to use for cheating. This knowledge will help you proactively address and prevent potential AI-enabled cheating incidents.
- 10. Regular Feedback and Assessment: Provide ongoing feedback and assessment throughout the learning process. Regular check-ins, formative assessments, and constructive feedback can help identify any gaps in students' understanding and discourage reliance on AI tools as a shortcut.

- By implementing these strategies, teachers can promote a culture of academic integrity, minimize the risk of AI-enabled cheating, and foster an authentic learning environment that values critical thinking, creativity, and ethical conduct.

## Concerns around skills

- hinder knowledge retention and critical thinking
- emphasis on memorization
- promote curiosity, questioning, etc

- Concerns exist that the presence of ChatGPT might hinder students' development of skills like knowledge retention and critical thinking.
- The argument criticizes the current education system's emphasis on memorization and passing exams.
- The lack of vision and failure to adapt to changes in education are highlighted.
- Incorporating tools like ChatGPT can promote curiosity, questioning, evaluation, and practical application of knowledge.
- To address concerns around skills development or a potential lack of skills due to the overuse of AI, teachers can take the following steps:
  - 1. Emphasize Foundational Skills: Focus on developing foundational skills that are less susceptible to automation. These skills include critical thinking, creativity, complex problem-solving, emotional intelligence, communication, and adaptability. Help students understand that while AI can automate certain tasks, these foundational skills will remain valuable and in demand.
  - 2. Foster Digital Literacy: Promote digital literacy skills among students to help them navigate and understand AI technologies. Teach them about the capabilities and limitations of AI, how to critically evaluate AI-generated content, and how to

use AI tools responsibly and ethically. Encourage them to become informed consumers of AI-driven technologies.

- 3. Cultivate Ethical Considerations: Teach students about the ethical implications of AI, including issues related to bias, privacy, transparency, and accountability. Engage them in discussions about the responsible use of AI, the impact on society, and the potential consequences of overreliance on AI. Encourage them to consider the social and ethical dimensions of technology.
- 4. Promote Lifelong Learning: Emphasize the importance of lifelong learning and continuous skill development. Help students understand that acquiring new skills and staying updated with emerging technologies will be essential for their future careers. Encourage a growth mindset that embraces learning, adaptation, and the willingness to acquire new knowledge and skills throughout their lives.
- 5. Project-Based Learning: Incorporate project-based learning activities that require students to apply their skills in real-world contexts. Design projects that encourage critical thinking, problem-solving, creativity, and collaboration. These activities enable students to develop and practice skills that are not easily replicated or replaced by AI.
- 6. Authentic Assessments: Use assessments that go beyond rote memorization and require students to apply their knowledge in meaningful ways. Focus on assessing higher-order thinking skills, such as analysis, synthesis, evaluation, and problem-solving. This will help develop skills that are less susceptible to automation.
- 7. Career Exploration and Guidance: Provide students with opportunities for career exploration and guidance. Help them understand the changing landscape of work and the skills that are in demand across various industries. Facilitate discussions and guest speakers from different fields to expose students to a wide range of career options.
- 8. Collaboration and Teamwork: Emphasize the importance of collaboration and teamwork skills. Encourage students to work together in group projects, engage in discussions, and develop effective communication and interpersonal skills. These skills are essential for collaborating with AI systems and working in diverse teams.
- 9. Teacher as a Facilitator: Adopt a role as a facilitator rather than just a knowledge provider. Encourage student autonomy, independent thinking, and self-directed learning. Guide students in developing their own learning goals, exploring resources, and taking ownership of their learning journey.
- 10. Partnerships with Industry: Establish partnerships with local businesses and organizations to provide students with real-world experiences and exposure to AI-driven industries. Collaborate with industry professionals to offer mentorship,

internships, or project-based learning opportunities. This helps students bridge the gap between classroom learning and practical applications of AI.

- By implementing these strategies, teachers can help students develop the skills necessary to thrive in a world with AI, ensuring they have a strong foundation of transferable skills, digital literacy, and a mindset of continuous learning and adaptation.

## Concerns over careers

- fraction of the cost
- job opportunities
- critical thinking and problem-solving

- There is concern about AI machines having knowledge that can be used by companies at a fraction of the cost.
- The argument suggests that the future impact of AI on job opportunities may be closer than expected.
- The current education system's focus on teaching knowledge is questioned in light of potential AI competition.
- The emergence of virtual schools emphasizing critical thinking and problem-solving is mentioned as an alternative.

**Provide Accurate Information:** Start by providing accurate and balanced information about AI and its impact on careers. Help students understand that while AI may automate certain tasks, it also creates new opportunities and demands for different skills. Educate them about the evolving nature of jobs and the need to adapt to changing technologies.

**Highlight the Human Element:** Emphasize the skills and qualities that make humans unique and valuable in the workforce. Discuss how qualities like creativity, critical thinking, emotional intelligence, problem-solving, and adaptability cannot be easily replicated by AI. Help students recognize their own strengths and how they can leverage them in their future careers.

**Explore AI-Augmented Roles:** Introduce students to AI-augmented roles where

humans work alongside AI technologies. Discuss professions and industries where AI is used as a tool to enhance human capabilities rather than replace them. Highlight how AI can assist professionals in decision-making, data analysis, and efficiency, allowing humans to focus on higher-level tasks.

# Benefits

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|--|---|
| <ul style="list-style-type: none"> <li>• 1. Resource Discovery</li> <li>• 2. Content Recommendation</li> <li>• 3. Content Generation</li> <li>• 4. Content Enhancement</li> <li>• 5. Multimodal Content Creation</li> <li>• 6. Adaptive Content Delivery</li> <li>• 7. Translation and Language Support</li> <li>• 8. Content Analytics</li> </ul> | <ol style="list-style-type: none"> <li>1. Adaptive Learning Platforms</li> <li>2. Intelligent Tutoring Systems</li> <li>3. Natural Language Processing (NLP) Tools</li> <li>4. Data Analytics Platforms</li> <li>5. Content Generation Tools</li> <li>6. Virtual Assistants and Chatbots</li> <li>7. Recommendation Systems</li> <li>8. Data Visualization Tools</li> <li>9. Collaboration and Communication Platforms</li> </ol> |
|--|---|

Content curation and creation for teachers with the help of AI involves the use of intelligent algorithms and tools to curate, develop, and enhance educational materials. Here's how it can look like:

1. **Resource Discovery:** AI-powered platforms can assist teachers in discovering relevant educational resources from a vast pool of online content. These platforms use machine learning algorithms to analyze and categorize resources based on subject matter, grade level, format, and other criteria, making it easier for teachers to find appropriate materials.

2. **Content Recommendation:** AI algorithms can analyze student data, such as their learning preferences, performance, and interests, to recommend specific educational resources. Teachers can leverage these recommendations to personalize learning experiences and provide students with targeted materials aligned with their needs.

3. **Content Generation:** AI tools can automate the creation of educational content. For example, they can generate multiple-choice questions, quizzes, or writing prompts based on specific learning objectives. These tools help teachers save time by reducing the manual effort required for content creation.



4. Content Enhancement: AI can enhance existing educational content by providing additional insights, explanations, or multimedia elements. For instance, AI-powered annotation tools can analyze written texts and provide contextual definitions or explanations of complex concepts, supporting students' understanding.

5. Multimodal Content Creation: AI tools can assist teachers in creating multimodal content that combines text, images, videos, and interactive elements. These tools often leverage natural language processing, computer vision, and multimedia generation techniques to enhance the learning experience and engage students in different ways.

6. Adaptive Content Delivery: AI-powered adaptive learning systems can dynamically adjust the sequence and presentation of educational content based on individual student progress and performance. This ensures that students receive content at their appropriate level of challenge and in a manner that optimizes their learning experience.

7. Translation and Language Support: AI-driven language translation tools can aid in providing language support to students who have limited proficiency in the language of instruction. These tools can translate written text or provide real-time translation during communication, facilitating understanding and inclusivity.

8. Content Analytics: AI can provide insights into how students engage with educational content. By analyzing data on student interactions, AI tools can identify patterns, trends, and areas of improvement, enabling teachers to refine and adapt their content delivery strategies.

It's important to note that while AI can support content curation and creation, the expertise and pedagogical insights of teachers remain critical in ensuring the quality, relevance, and context-appropriateness of the educational materials. AI tools should be seen as supplements to teachers' expertise rather than replacements for their instructional guidance and facilitation.

Several AI tools can be valuable for educators, offering a range of capabilities to enhance teaching and learning experiences. Here are some AI tools that can best serve educators:

1. Adaptive Learning Platforms: Adaptive learning platforms utilize AI algorithms to personalize the learning experience for each student. These platforms analyze student data, identify knowledge gaps, and provide targeted recommendations and resources to address individual learning needs.

2. Intelligent Tutoring Systems: Intelligent tutoring systems use AI to provide personalized guidance, feedback, and support to students. These systems can assess student understanding, offer targeted interventions, and track progress over time.

3. Natural Language Processing (NLP) Tools: NLP tools enable educators to analyze and process written or spoken language. They can assist in tasks such as automated grading, essay scoring, language translation, and speech recognition, saving time and providing valuable insights.

4. Data Analytics Platforms: AI-powered data analytics platforms help educators analyze large sets of educational data. These tools can generate actionable insights about student performance, engagement, and learning patterns, enabling data-driven decision-making.

5. Content Generation Tools: AI-based content generation tools can help educators create educational materials, assessments, and exercises. These tools can automate the generation of multiple-choice questions, quizzes, and even writing assistance, saving time in content creation.

6. Virtual Assistants and Chatbots: AI-powered virtual assistants and chatbots can provide instant support to students, answering questions, providing information, and guiding them through learning materials. They can alleviate the workload of educators by handling routine inquiries and freeing up time for personalized interactions.

7. Recommendation Systems: AI-powered recommendation systems can suggest relevant educational resources, readings, and multimedia materials based on student preferences, interests, and learning objectives. These systems can assist educators in curating personalized learning pathways for students.

8. Data Visualization Tools: AI tools that offer data visualization capabilities help educators present complex information in a visually engaging and accessible manner. These tools enable educators to create interactive graphs, charts, and infographics that enhance understanding and promote data literacy.

9. Collaboration and Communication Platforms: AI tools that support collaboration and communication facilitate seamless interaction between educators and students. These tools can include features like real-time collaboration, feedback mechanisms, and progress tracking.

The selection of AI tools depends on the specific needs and goals of educators and their students. It's important to consider factors such as ease of use, integration with existing educational technology infrastructure, data privacy and security, and the level of technical support provided. Regular evaluation and feedback from educators and students can help determine the effectiveness and suitability of AI tools in an educational context.



ChatGPT

<https://chat.openai.com/>

# Prompts make a difference

## Tones

- Persuasive
- Professional
- Formal
- Descriptive
- Informal
- Friendly

## Format

- Table
- Essay
- Blog
- Report
- Presentation
- Bullet points

# All about the Prompts

- Prompts – Task
- Prompts – Target Audience
- Prompt – Style
- Prompt – using the previous response.....

# All about the Summary

- "Format the following text using the **bionic reading method**."
- "Use TL;DR at the end of a long input to concisely summarize any batch of text"

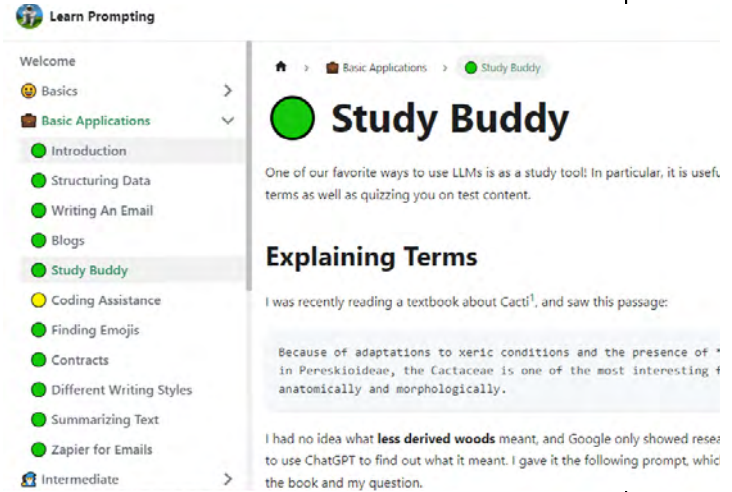
<https://learnprompting.org/>

# All about the Argument

- "After this prompt, I will [ASK YOU A QUESTION/INTRODUCE A CONCEPT]. At that point, you will take on three roles: a **positive person** who is focusing on the good of the prompt, a **negative person** pessimistic about the outcome, and a **negotiator** that takes the best parts of the previous two and gives us a middle ground to work from."

<https://learnprompting.org/>

- Summarise
- Define
- Self- Assess








## Generate a Title

- What would be the title of a talk where I speak about ways in which Ai can help create flashcards, lesson plans and other resources for teachers?
- ChatGPT: Title: **"Empowering Educators: Leveraging AI for Tailored Teaching Resources and Tools"**

# Lesson Planning


 PLAN A 15 MINUTE INTRODUCTION LESSON TO HENRY VIII EDXCEEL GCSE WITH A SIMPLE ACTIVITY FOR STUDENTS TO COMPLETE.

 Title: Introduction to Henry VIII for Edexcel GCSE 

Duration: 15 minutes

Objective: To provide students with a brief overview of Henry VIII's reign and key events during his rule.

Activity: "Henry VIII Timeline"

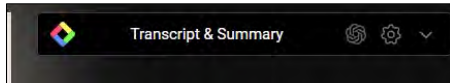
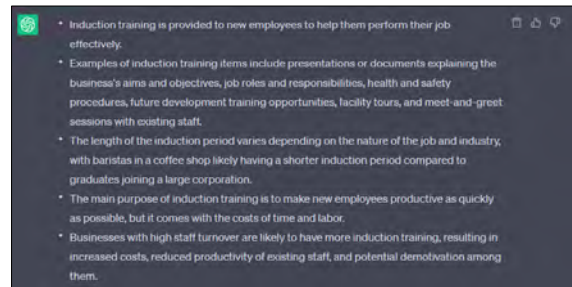
- Opening (2 minutes)**
  - Begin the lesson with a captivating image or a short video clip related to Henry VIII to grab students' attention.
  - Ask students if they have heard of Henry VIII and what they know about him already.
- Introduction to Henry VIII (5 minutes)**  Regenerate response
  - Briefly explain that Henry VIII was a Tudor monarch who ruled England from 1509 to

# Lesson Planning

- AST: Lesson Plan on Marriage in A-Level Sociology
- CHATGTP: 60 min plan with tasks which require handout and a scenario sheet
- AST: Create a handout on marriage
- CHATGTP: 12 key terms
- AST: Create 4 scenarios for paired work
- CHATGTP: Create 4 different scenarios

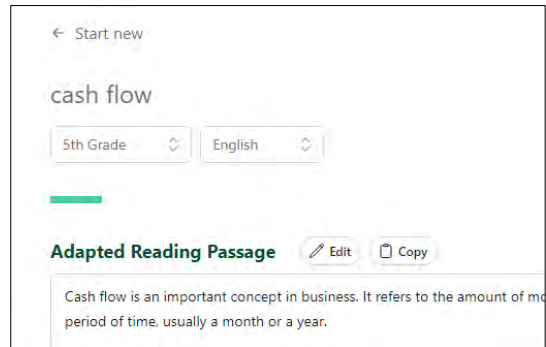
# Summaries

- **Glasp**
- Summarize the following in 5 bullet points. Title: "Induction Training"  
Transcript:



# Adapt and Use

- **DIFF it**
- <https://beta.diffit.me/>
- Adapt topics and text
- Vocab and more



# Multiple choice quizzes

- [PanQuiz](#)
- Ai Quiz
- Own Questions
- Export in Word/PDF



<https://take.panquiz.com/1696-2517-9475>

# Multiple choice quizzes

- <https://www.conker.ai/>

- Ai Quiz - Live

❖ Free for now...

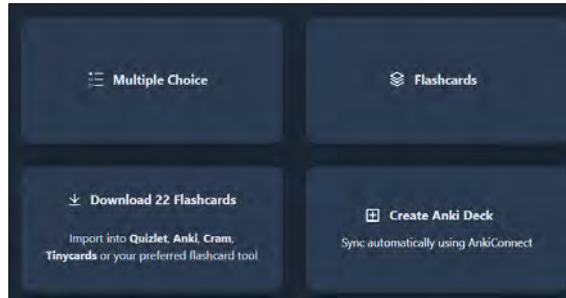
- Export to Google Sheets

- Export in PDF

<https://take.panquiz.com/1696-2517-9475>

# Flashcards

- [limbiks.com/app/](https://limbiks.com/app/)
- Uploaded a PPT
- Extracts possible statements
- Edit





# Translations

- Over 100 languages
- I have used Polish
- Fast
- Conversational
- Adapt work sheets
- On the fly text from sites
- Update key terms sheets

# Model Answers

The image shows a PDF document on the left and a chat window on the right. The PDF document is titled "1HI0\_31\_que\_20201120.pdf" and contains a question about Kristallnacht. The question asks for two things that can be inferred from Source A about the treatment of Jews during Kristallnacht. The question is divided into two parts: (i) and (ii). Each part has a table with two columns: "What I can infer:" and "Details in the source that tell me this:". The chat window on the right provides model answers for both parts. The chat window also includes a header "Complete the table below to explain your answer." and a note at the bottom: "Please note that the information provided is based on the given source and does not represent the full extent of the treatment of Jews during Kristallnacht."

1HI0\_31\_que\_20201120.pdf

3 / 20

Chat

Complete the table below to explain your answer.

Based on Source A, we can infer the following about the treatment of Jews during Kristallnacht:

(i) What I can infer: Jewish people were subjected to physical violence and intimidation by Nazis during Kristallnacht.  
Details in the source that tell me this: The source mentions that Nazis in uniform broke down the door of the house where the Jewish woman was staying. It further describes how Jewish people were marched through the streets, the synagogue was being knocked down, and Jewish shops were broken into. Additionally, it mentions that two old men had their walking sticks broken by Nazis.

(ii) What I can infer: Jewish people were rounded up and made to stand for an extended period of time.  
Details in the source that tell me this: The source states that in the town square, Jewish people were lined up and made to stand for over three hours. It also mentions that the Nazis had a register to check that all the Jews in the town were present.

Please note that the information provided is based on the given source and does not represent the full extent of the treatment of Jews during Kristallnacht.

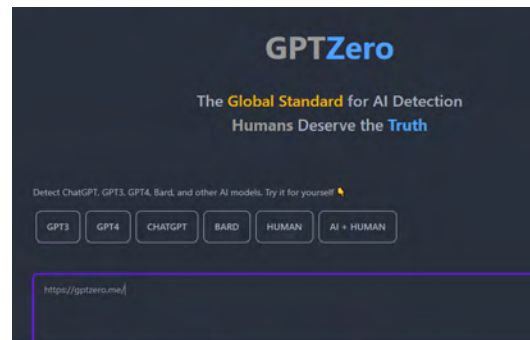
(Total for Question 1 = 8 marks)

# Step-by-Step Guides

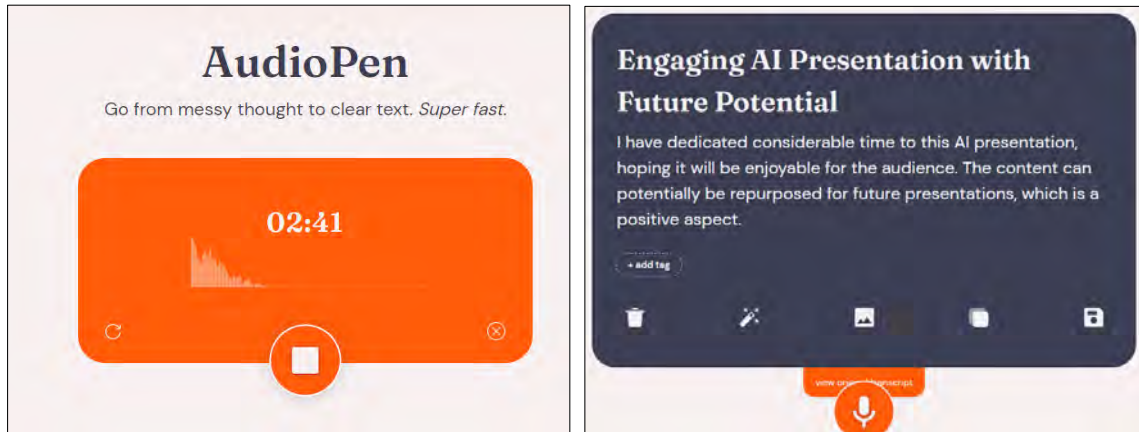
- [guide](#) • [Magically create video documentation with AI](#)

# Ai Detection

- <https://gptzero.me/>
- Uploaded a PDF, DOC or TXT file
- Copy and paste text
- Scan the text Edit




# Edit your rant



# Summary Email

- Weekly
- Summary
- Key Points



**Hashtags:** #marketshare, #businessmetrics, #UKsupermarkets

**Duration:** 2m 57s

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*This video explains what market share is, why it is important for businesses, and how to calculate it using an example from the UK supermarket sector. Understanding market share allows companies to assess their position in the market, identify areas for growth, and make informed decisions about the future of their business.*

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**Key points:**

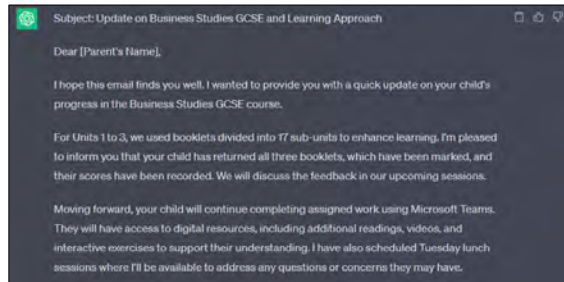
- 📌 Market share is an important metric for businesses to understand
- 📊 Market share gives an idea of how a company is performing relative to competitors
- 📈 Market share is a measure of a company's sales compared to total market sales
- 🧮 Calculating market share involves dividing a company's revenue by the total sector revenue

# Letter and email writing

Outline of letter

Multiple prompts

Edit



# Ai Intelligence?

“Let’s not confuse talking  
with thinking”

Former CEO of Evernote

[Phil Libin \(@plibin\) / Twitter](#)

[The Cheese Tax \(twit.tv\)](#)



# Best Practice

- Understand Ai
- Select Reliable and Ethical AI Tools
- Maintain Student Privacy and Data Security

## FOCUS ON

**Understand AI:** Educators should have a foundational understanding of AI technologies, their capabilities, and limitations. This knowledge helps them make informed decisions about incorporating AI tools into their teaching practices and guides their interactions with AI systems.

**Select Reliable and Ethical AI Tools:** Choose AI tools from reputable sources that prioritize privacy, data security, and ethical practices. Ensure the AI tools used in the classroom comply with relevant regulations and guidelines. Evaluate the quality and accuracy of AI tools before integrating them into teaching practice.

**Maintain Student Privacy and Data Security:** Safeguard student privacy and data security when using AI tools. Adhere to strict privacy regulations and ensure that student data is collected, stored, and handled securely. Implement robust security measures, such as encryption and access controls, to protect student information from unauthorized access or breaches.

When using AI in education, educators can follow these best practices:

1. **Understand AI:** Educators should have a foundational understanding of AI technologies, their capabilities, and limitations. This knowledge helps them make informed decisions about incorporating AI tools into their teaching practices and guides their interactions with AI systems.
2. **Align AI with Learning Goals:** AI should be used as a means to support and enhance learning outcomes. Educators should align the use of AI tools with their specific learning goals and instructional strategies. AI should be seen as a tool to augment teaching and learning, not as a replacement for the teacher or the learning process.
3. **Select Reliable and Ethical AI Tools:** Choose AI tools from reputable sources that prioritize privacy, data security, and ethical practices. Ensure the AI tools used in the classroom comply with relevant regulations and guidelines. Evaluate the quality and accuracy of AI tools before integrating them into teaching practice.
4. **Provide Clear Guidelines and Expectations:** Establish clear guidelines and expectations for students when using AI tools. Communicate the purpose, rules, and boundaries of AI tool usage to ensure responsible and ethical use. Educate students about the potential risks, limitations, and ethical considerations associated with AI technologies.
5. **Encourage Critical Thinking:** Foster critical thinking skills in students by encouraging them to question, analyze, and evaluate the information provided by AI tools. Teach students to verify and corroborate AI-generated results through additional research and multiple sources. Help them understand the importance of questioning AI-generated content and recognizing biases.
6. **Blend AI with Human Instruction:** Use AI tools to enhance teaching and learning, but maintain a balance with human instruction. AI should complement the teacher's role and expertise, not replace it. Maintain meaningful interactions and discussions with students to provide guidance, feedback, and support that AI tools cannot replicate.
7. **Regularly Evaluate and Adapt:** Continuously evaluate the effectiveness of AI tools in achieving desired learning outcomes. Monitor student engagement, progress, and feedback to assess the impact of AI on student learning. Be willing to adapt and modify AI usage based on student needs and outcomes.
8. **Promote Digital Literacy:** Foster digital literacy skills among students to help them navigate and understand AI technologies. Teach them how to critically evaluate AI-generated content, recognize biases, and be responsible consumers of AI-driven information. Develop their abilities to use AI tools effectively and ethically.

9. Professional Development and Collaboration: Engage in professional development opportunities to stay updated on AI advancements and best practices in education. Collaborate with other educators, researchers, and experts in the field to share experiences, resources, and strategies for integrating AI into teaching practice effectively.

10. Maintain Student Privacy and Data Security: Ensure student privacy and data security when using AI tools. Adhere to relevant privacy regulations and secure student data appropriately. Educators should carefully review the data collection and storage practices of AI tools and consider how student privacy is protected.

By following these best practices, educators can harness the potential of AI technologies to enhance teaching and learning while maintaining a student-centered, responsible, and ethical approach to AI integration in education.

With an emphasis on security, the top three best practices for educators when using AI would be:

1. Select Reliable and Ethical AI Tools: Prioritize the selection of AI tools that prioritize privacy, data security, and ethical practices. Carefully review the data collection and storage practices of AI tools to ensure student privacy is protected. Choose AI tools from reputable sources that adhere to relevant regulations and guidelines for data security.

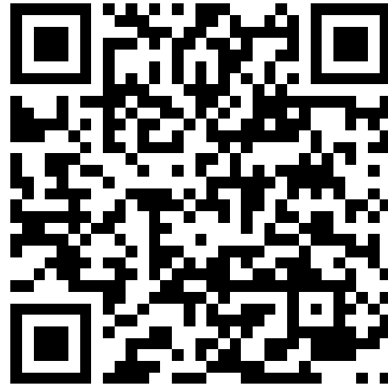
2. Maintain Student Privacy and Data Security: Safeguard student privacy and data security when using AI tools. Adhere to strict privacy regulations and ensure that student data is collected, stored, and handled securely. Implement robust security measures, such as encryption and access controls, to protect student information from unauthorized access or breaches.

3. Educate Students about Data Security: Provide students with guidance on data security and responsible AI tool usage. Teach them about the importance of protecting their personal information and being cautious when sharing data online. Educate students on recognizing potential risks, such as phishing attempts or malicious AI-generated content, and how to report any concerns to appropriate authorities.

By prioritizing reliable and ethical AI tools, maintaining student privacy and data security, and educating students about data security, educators can ensure a safe and secure environment when using AI in the classroom. These practices help protect student information and instill responsible AI usage habits in students, fostering a culture of data security and privacy awareness.

## Use the tools

- [https://wakelet.com/wake/UgGQJBXRMe4M2fkd\\_GY4I](https://wakelet.com/wake/UgGQJBXRMe4M2fkd_GY4I)
- <https://rb.gy/415z0>



## Stay Informed

- <https://newsletter.theaieducator.io/>
- <https://rb.gy/pmg23>



# Provide Evidence

- [Generative artificial intelligence in education: call for evidence - Department for Education - Citizen Space](#)
- <https://rb.gy/ubol2>



[Generative artificial intelligence in education: call for evidence - Department for Education - Citizen Space](#)