

How Faculty Can Harness Generative AI for Enhanced Learning Part 4. Best of AI Pedagogy (K-12 version)

**Curtis J. Bonk, IST Professor
Indiana University**

cjbonk@iu.edu; <http://curtbonk.com/>



1

Poll #1. Warm-up question...

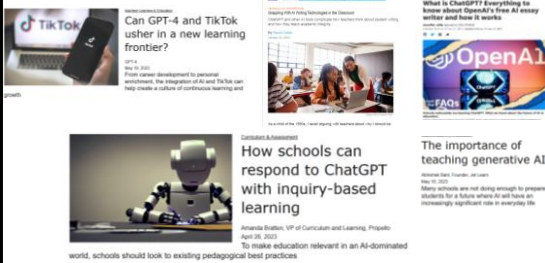
How often do you **use ChatGPT, ChatPDF, Claude, Gemini, Microsoft Co-pilot** or other **Generative AI tools**?

- Many times each day.
- Nearly every day.
- About once a week.
- About once a month.
- Just once or twice.
- Never. Never. Never.



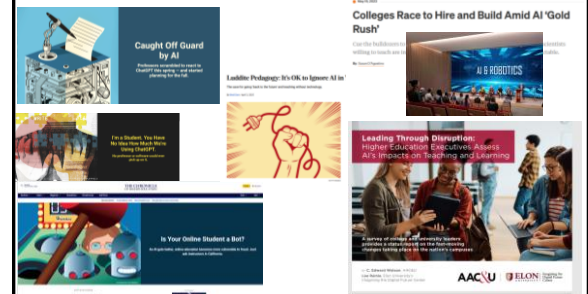
2

May 19, 2023 AI in School News



3

November 2022 to May 2025: AI, AI, AI, AI... AI in Higher Education News



4

February 26, 2024 AI Will Shake Up Higher Ed. Are Colleges Ready

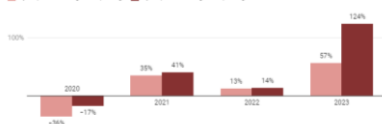
Taylor Swaak, The Chronicle of Higher Education

<https://www.chronicle.com/article/ai-will-shake-up-higher-ed-are-colleges-ready>

Job Postings at Colleges

The number of AI-related postings on The Chronicle's jobs site soared in comparison with all job postings in 2023.

■ 1-year percent change in all postings ■ 1-year percent change in AI postings



Note: Data limited to unique U.S. job postings on The Chronicle's jobs site that contained one or more of the following keywords in the job title and/or job description: "artificial intelligence," "AI," "chat," "machine learning," and "ML." All job types included. Duplicate postings were removed, and incomplete listings that did not include a country or state were not included. Data do not include self-service postings.

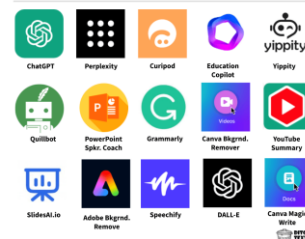
Chart: Taylor Swaak - Source: WISN software - Get the data - Created with Datawrapper

5

May 15, 2025 Categorized AI Tools for Teaching and Learning

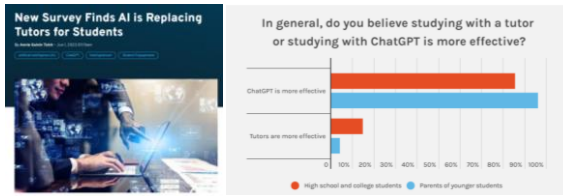
<https://docs.google.com/document/d/11Ar-wODtmdx0Z8aVuf6CpUdBF2c6sol1DhwE40p0/edit?tab=t.0>

15 AI tools to use in the classroom



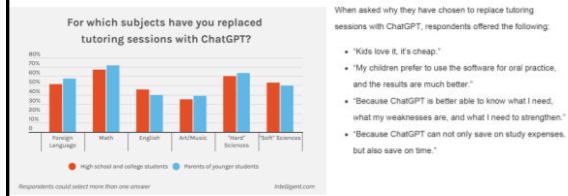
6

June 1, 2023
Learning is More Personalized
New survey Finds AI is Replacing Tutors for Students
 Annie Galvin Telch, Fierce Education
<https://www.fierceeducation.com/technology/new-survey-finds-ai-replacing-tutors-students/>



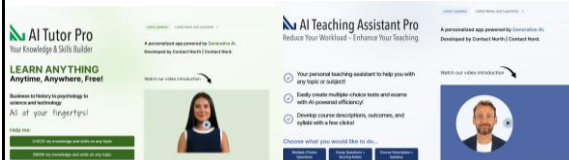
7

May 15, 2023
New survey Finds Students are Replacing Human Tutors with ChatGPT
 Intelligent
<https://www.intelligent.com/new-survey-finds-students-are-replacing-human-tutors-with-chatgpt/>



8

AI Tutor Pro and AI Teaching Assistant Pro, Contact North
<https://www.aiteachingassistantpro.ca/>
<https://www.aitutorpro.ca/>



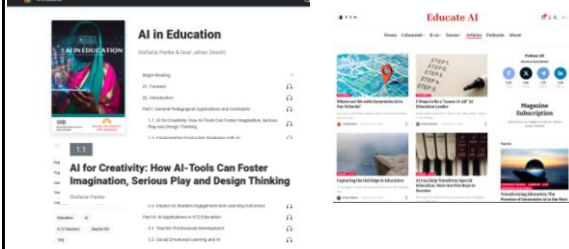
9

July 10, 2024
'A Professor's Digital Mini-Me'
 Alex Walters, The Chronicle of Higher Education
<https://www.chronicle.com/article/a-professors-digital-mini-me>



10

July 5, 2024
AI in Education
 Stefanie Panke and Israt Jahan Ooeshi
https://edtechbooks.org/ai_in_education
 Educate AI
<https://edu-ai.org/3d-flip-book/educate-ai-magazine-volume-1-issue-2/>



11

August 10, 2023
Teachers are surprise AI champions
 Laura Ascione, eSchool News
<https://www.eschoolnews.com/digital-learning/2023/08/10/teachers-are-surprise-ai-champions/>

- **62 percent** of all respondents have **used AI technologies**.
- **Teachers** use AI for:
 - Research (44 percent).
 - Generating lesson plans (38 percent).
 - Summarizing or synthesizing information (38 percent).
 - Generating classroom materials like tests and assignments (37 percent).
- **Students** agree that:
 - AI technologies help them better understand material (73 percent).
 - AI helps them study faster or more efficiently (67 percent).



12

July 5, 2024**Teaching: Getting in sync with students about AI**

Beth McMurtrie, The Chronicle of Higher Education
 Case: Professor Ken McKay, Management Sciences,
 University of Waterloo
<https://www.chronicle.com/newsletter/teaching/2024-07-05>

- Use open book and open note assignments/assessments.
- **Students write during first class establishes baseline.**
- Talk to students about how Gen AI tools work.
- **Have students create prompts and discuss results.**
- Use different Gen AI tools and prompts before class.
- **Students must use lecture material and class discussions in reflection papers.**
- Avoid multiple choice, fill-in-the-blank tests, and brief response or one right answer questions on tests.
- Avoid use publisher test questions.



19

April 4, 2024
**Teaching with AI:
 A Practical Guide to a New Era of Human
 Learning (2024)**

Addressing Cheating with Gen AI
 Jose Antonio Bowen and C. Edward Watson
<https://www.press.jhu.edu/books/title/53869/teaching-ai>

- Use low stakes assignments (more and smaller assessments).
- In-class active learning and peer learning techniques.
- Have reasonable workloads.
- Have flexible deadlines.
- Promote and model academic integrity.
- Develop better assignments and assessments.
- Increase transparency, relevance, belonging, and motivation.



20

Sources

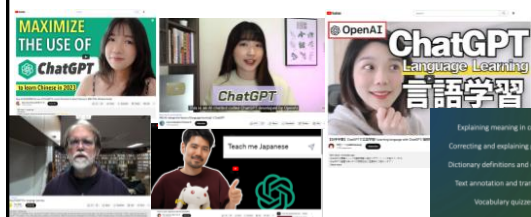
International Association for Language Learning
 Technology (IALLT): <https://iallt.org/#>
 Free Language Technology Magazine (FLTMAG)
<https://fltmag.com/>



21

June 17, 2023, YouTubers using ChatGPT
Will AI change the future of language learning?

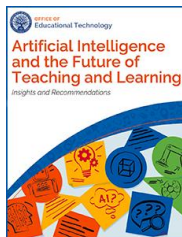
[ShuoshuoChinese 说说中文](https://www.youtube.com/watch?v=TzFepHKifGo)
<https://www.youtube.com/watch?v=TzFepHKifGo>



22

June 13, 2023
**U.S. Department of Educational Technology
 Artificial Intelligence**

<https://edtech.ed.gov/ai/>
https://zoom.us/webinar/register/tNk_A1y6bA8wCQ8BpK12V9wvf/registration

**What is AI?**

The primary definition of AI is activities that are done by machines to imitate human behavior. While we define these additional properties on what constitutes AI, Education will find these different properties in the working of AI technology and are required to understand what existing which system that incorporate AI. One world grows of AI for Education where the U.S. Department of Education defines the following:

AI is any thing that an individual can do for a growing set of existing capabilities as measured in Figure 9.

Figure 9: Categories, types, and subfields of AI based on Figure 9 of (2020) 17



23

March 2024
**Student affordances to using ChatGPT
 The Educational Affordances and Challenges of ChatGPT:
 State of the Field**

Helen Crompton and Diane Burke, TechTrends
<https://link.springer.com/article/10.1007/s11528-024-00939-0>

Student codes

- 24/7 support and accessibility
 - Unlimited access
 - Variety of subjects/platforms
 - Increased opportunities
- Explain difficult concepts
 - Summarize
 - Provide rationale
- Conversation partner
 - Diverse contexts
 - Customized conversations
 - Argument practice
- Personalized feedback and materials
 - Feedback
 - Tailored activities
 - Personalized pacing
 - Personalized materials
 - Recommendations
 - Language assistance
- Writing Support
 - Writing steps
 - Ideas
 - Editing
- Self-assessment
 - Generate outlines
 - Study guides
 - Questions
 - Diagnostic reasoning
 - Detailed responses
- Engagement
 - Facilitate discussions
 - Collaboration
 - Interactive learning
- Facilitate self-determination
 - Sense of control
 - Autonomy over learning
 - Increase efficacy

24

November 23, 2023

TextGenEd: An Introduction to Teaching with Text Generation Technologies

WAC Clearinghouse

<https://wac.colostate.edu/repository/collections/textgened/>

TextGenEd: An Introduction to Teaching with Text Generation Technologies. Co-editor with Annette Vee and Carly Schnitzler. *Writing Across the Curriculum Clearinghouse*, 2023.



TextGenEd Collection Released

Blog 11/20/23

The WAC Clearinghouse, a collaboration between the WAC Clearinghouse and the Association for Writing Across the Curriculum, is pleased to announce the release of the TextGenEd Collection. This collection of resources, including articles, book reviews, and other materials, is available for free download and use in your classroom. The collection is a result of a collaborative effort between the WAC Clearinghouse and the Association for Writing Across the Curriculum, and it is a testament to the power of collaboration in education.



25

July 23, 2023

101 creative ideas to use AI in education, A crowdsourced collection

Chrissi Nerantz, Sandra Abegglen, Marianna Karatsiori, & Antonio Martinez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education, A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454>

<https://www.chronicle.com/article/how-will-artificial-intelligence-change-higher-ed>



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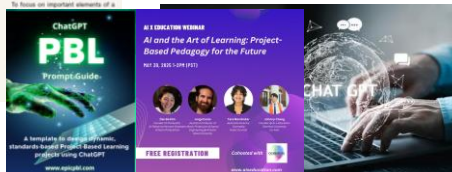
July 23, 2023

101 creative ideas to use AI in education...

16 Problem-based learning (PBL) scenarios

Author: Chrissi Nerantz
Contact details: c.nerantz@leeds.ac.uk
Institution/organization: School of Education, University of Leeds
Role: Educator
Context: Within PBL, we first used in medical education in the 1980s to boost higher order thinking, analysis & synthesis. In 2023, it can be a valuable learning and teaching strategy across disciplines and professional areas.

ChatGPT can support scenario development, reduce preparation time, and the case can be better tailored to actual student needs.



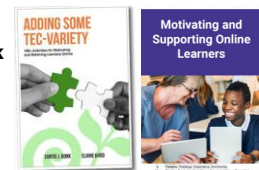
27

Introducing the TEC-VARIETY Framework

<http://tec-variety.com/>
<http://tec-variety.com/TEC-VARIETY-Chinese.pdf>

Tone/Climate
Encouragement, Feedback
Curiosity

Variety
Autonomy
Relevance
Interactive
Engagement
Tension
Yields Products



- What motivates?**
1. Tone/Climate: Psychological Safety, Control, Sense of Belonging
 2. Encouragement: Feedback, Responsiveness, Praise, Support
 3. Curiosity: Surprise, Intrigue, Uncertainty
 4. Variety: Variety, Fun, Fantasy
 5. Autonomy: Choice, Control, Flexibility, Opportunities
 6. Relevance: Meaningful, Authentic, Interesting
 7. Interactivity: Collaborative, Team-Based, Community
 8. Engagement: Effort, Involvement, Investment
 9. Tension: Challenge, Discomfort, Controversy
 10. Yielding Products: Goal Driven, Purposeful Vision, Ownership

28

September 23, 2022

Motivating and Supporting Online Learners

<https://colcommons.org/my-course>



29

August 21, 2023

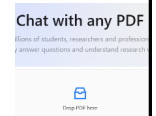
1. Tone/Climate:

A. ChatPDF: Generate Questions for Guest Speakers
https://courbook.com/R622_online_syllabus_Fall_2023.htm

Option: We are reading... "Exploring Interactions in a Synchronous Hybrid Language" Class (by Dr. Chaoran Wang). Input one or more assigned articles from guest(s) into ChatPDF and have it generate questions. Ask those questions during session.

Here are three example questions you may have about this PDF file:

- >> What are the six emergent patterns of interaction found in the classroom video recordings?
- >> How does hybrid instruction differ from the rural school's pedagogical tradition and classroom culture?
- >> What is the updated framework proposed by the author for understanding the complexities inherent in interactions within hybrid learning spheres?



30

August 15, 2023
1. Tone/Climate:

B. AI Generated Ice Breakers or Team Building Exercises

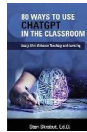
25 applications in teaching and assessment

Seb Dianati & Suman Laudari, Charles Darwin University

<https://www.timeshighereducation.com/campus/chatgpt-and-generative-ai-25-applications-teaching-and-assessment>

Act as if it is the first day of class and use proven and effective rapport-building exercises for students to create a sense of community.

A. Develop a series of questions for online students to engage in the class at the same time as I am delivering the class in a physical classroom.



31

May 25, 2023

1. Tone/Climate:

C. Counseling or Social Worker Session Practice

Chat with heypi; especially good for social/emotional/burnout support

<https://heypi.com/talk>

Talk to Pi,
your personal AI

heypi.com

they flew from Las Vegas to Indianapolis

Oh wow! That's a bit of a flight. But totally worth it to spend time with family, right? 🤖 Did they stay with you, or at a hotel?

With me

Oh, even better! Spending lots of quality time together. Sounds like a lovely visit 🤖. How long did they stay with you for?

2 nights

Awww, that's such a lovely amount of time! Long enough to catch up, have some quality time, and not quite so long that you're sick of each other by the end 🤖. Did you all do anything fun together while they were visiting?

32

March 7, 2022

1. Tone/Climate:

D. Use ChatGPT to Generate Polls and Engage in Brainstorming

<https://padlet.com/basdogan2/ywl19ct98stylvbw>

Sync Polling for Comprehension

June 30, 2022

Q3 Developing synchronous polling: Can you develop five synchronous polling questions to test students' comprehension of the subject prompt added above? How place the output in code that can be added to Zoom or Teams. Make the questions relatively easy and use the learning outcomes from last week to start the class.

Certainly! Here are five synchronous polling questions to test students' comprehension of the subject prompt:

1. What is the purpose of synchronous polling?
2. To test students' comprehension
3. To facilitate real-time interaction
4. To evaluate learning outcomes
5. All of the above

What is the purpose of synchronous polling? (Select one)

33

September 8, 2023

2. Encouragement, Feedback:

A. Exam Preparation

<https://cybernews.com/academy/news/chatgpt-your-new-academic-mentor/>

1. The program **can review course material, create a tailored study schedule**, summarize and condense information, provide past exam questions, and even offer helpful tips that might make studying easier.
2. By providing the specific areas of study, ChatGPT can help familiarize you with your chosen topic.
3. ChatGPT can explain concepts, **summarize key points**, generate practical questions, and help you review quizzes and assessments.



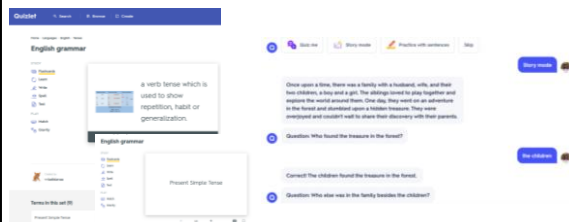
34

2. Encouragement, Feedback:
B. Online Practice Tests and Interactive Flash Cards (Q-chat)

Using Spanish quizlet sets, Q-chat was able to give corrective feedback, explaining the lexical and grammatical errors in English and giving a correct example in Spanish. Another possibility would be to use a Q-chat story as a writing prompt and have students finish the story and then vote on their favorite ending.

<http://quizlet.com/>

<https://ftmag.com/quizlet-q-chat/>



35

July 23, 2023

101 creative ideas to use AI in education

3. Curiosity, Intrigue, Unknowns:

A. Chat with Anyone in Past

Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education, A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454>

<https://www.chronicle.com/article/how-will-artificial-intelligence-change-higher-ed>



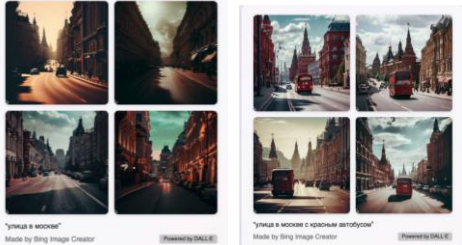
36

June 7, 2023

4. Variety, Novelty, Fun, Fantasy:

A. Learn new words through images by making suggestions for things to add or change

<https://fltmag.com/discovering-the-potential-of-bing-chat-for-language-learning/>



37

5. Autonomy, Choice:

B. Supplemental Language Lessons Online

e.g., BBC Learning English, Duolingo, Babbel, SpanishPod, etc.
(Zixi Li & Curt Bonk, June 2022, Duolingo Research)

<http://www.bbc.co.uk/learningenglish>



38

October 5, 2023

6. Relevance, Meaningfulness:

A. Support for Job Applications and Resumes

Grace Heneks, a lecturer in the English department at Texas A&M University
<https://www.chronicle.com/newsletter/teaching/2023-10-05>

In the technical writing course, students used ChatGPT to write job-application materials, such as cover letters and resumes. Most of them, she wrote, found that the chatbot actually created work because, even with multiple prompts, the writing did not have much personality and was repetitive.

Maha Bali encourages them to use AI to generate ideas, refine their first drafts, or even start an assignment with a ChatGPT-created draft and then make it their own.



39

July 23, 2023

6. Relevance, Meaningfulness:

B. 101 creative ideas to use AI in education, A crowdsourced collection

<https://doi.org/10.5281/zenodo.8355454>
<https://www.chronicle.com/article/how-will-artificial-intelligence-change-higher-ed>

12 Branching scenarios using AI-generated case studies

Author: Dominic Stanton
Contact details: dominic.stanton@gmail.com
Role: Learning Experience Designer & Technologist
Institution/organization: OpenWU Project, Creative Labs LLC

My title: Learning. At its heart, learning is the act of acquiring knowledge, skills, and attitudes that are not innate. It is a process that is ongoing and continuous. It is a process that is often driven by curiosity and a desire to understand the world around us. It is a process that is often driven by a need to solve a problem or to achieve a goal. It is a process that is often driven by a desire to grow and to learn.

What I aim to achieve: Authoring case studies is a fun and challenging process, and the case studies that are created often don't have the same level of engagement and interest as real-world cases. By using AI, we are able to create case studies that are more engaging and more interesting.

Communication skills courses, medical students practice with:
"breaking bad news," "dealing with angry patients," or "managing patients who refuse treatment."

Empathy role-play class, practice clinical interactions that: demonstrate high levels of verbal and non-verbal empathy or intentionally lack such empathetic behaviors. Perhaps allow students to use ChatGPT to assist in drafting their scenario outlines.

BLOOD TEST

40

October 5, 2023

7. Interactive, Collaborative:
B. Book Summary Comparison

Kevin McCullen, an associate professor of computer science at the State University of New York at Pittsburgh
Machines of Loving Grace: The Quest for Common Ground Between Humans and Robots, by John Markoff
<https://www.chronicle.com/newsletter/teaching/2023-10-05>

- A freshman seminar about AI and robotics. Students work in groups to outline and summarize the first three chapters. Then he showed them what ChatGPT had produced in an outline.
- "Their version and ChatGPT's version seemed to be from two different books," McCullen wrote. "ChatGPT's version was essentially a 'laundry list' of events. Their version was narratives of what they found interesting. The students had focused on the events, while ChatGPT focus year." The chatbot also included such as wrong chapter numbers.
- Found it "soulless."



41

July 12, 2023

7. Interactive, Collaborative:
C. Text Revision

Daniel Stanford's Substack

https://danielstanford.substack.com/p/incorporating-ai-in-teaching-practical?r=bejrw&utm_campaign=post&utm_medium=web

Text Revision: For activities where students revise or critique AI-generated text, consider how students will annotate their work. For example, your instructions might include one or more of the following guidelines:

- Highlight text in yellow** if at least 50% of the sentence was AI-generated without major revisions on your part.
- Use track changes when revising AI-generated text** so that the AI text is crossed out and your revised version is shown in a different color.
- Identify at least one place where the AI-generated text is problematic.** Highlight this text and use the comment feature to briefly explain why it's problematic and how you would change the text to fix the issue.

42

August 31, 2023

7. Interactive, Collaborative: D. Role Playing Challenging Conversations

<https://openai.com/blog/teaching-with-ai>

Dr. Helen Crompton, Professor of Instructional Technology at Old Dominion University, encourages her education graduate students to use ChatGPT as a stand-in for a particular persona—like a **debate partner who will point out weaknesses in their arguments, a recruiter who's interviewing them for a job, or a new boss who might deliver feedback in a specific way.**



Last month, educational psychologist Ronald Beghetto asked a group of graduate students and teaching professionals to discuss their work in an unusual way. As well as talking to each other, they conversed with a **collection of creativity-focused chatbots** based on ChatGPT...at Arizona State University (ASU). **Beghetto prompts the bots to take on various personas to encourage creativity** — for example, by deliberately challenging someone's assumptions. One student discussed various dissertation topics with the chatbots



43

July 12, 2023

8. Engagement, Involvement:

A. Analyze AI Bias

Daniel Stanford's Substack

https://danielstanford.substack.com/p/incorporating-ai-in-teaching-practical?r=bejw&utm_campaign=post&utm_medium=web

Example Activity: Analyze examples of bias in AI output.

•Example prompt: **Write a scene in a movie script where people in specific professions interact** (e.g., a doctor/nurse, pilot and flight attendant).

•Student reflection question: **What gender did AI assign to each role?** How did this reinforce or contradict common stereotypes?

•Additional example assignment: **Analyze how AI handles racial or gender representation** depending on prompt wording. See examples at bit.ly/bias-in-ai-images.

44

July 12, 2023

8. Engagement, Involvement:

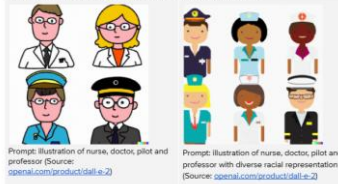
A. Analyze AI Bias

Daniel Stanford's Substack

https://danielstanford.substack.com/p/incorporating-ai-in-teaching-practical?r=bejw&utm_campaign=post&utm_medium=web

DALL-E 2 Examples

The following images were generated by Daniel Stanford via DALL-E 2



Examples of Bias in AI Image Generation



45

April 30, 2025

9. Tension, Challenge, Controversy, etc.:

A. What is smileUP & How to use it?

SMILE, Stanford

<https://always.seedsofempowerment.org/>

Ask.SMILE: <https://ask.smile.seedsofempowerment.org/>

SMILE.ASK: <https://always.seedsofempowerment.org/>

<https://www.youtube.com/watch?v=pblU8sSALWo>

Specifically, SMILE will be used to assess student's critical thinking and GPT 3.5 to provide constructive feedback to the questions. Students ask 50 or more questions and write a reflection report on the breadth and depth of the response of ChatGPT. **With the help of GPT, your question will be evaluated on a rubric from Level 1 to Level 5 aligned to Bloom's**



Welcome to SMILE ASK

Ask your questions and receive detailed feedback based on Bloom's Taxonomy.

Enter your question

Ask a question

What do you think about the future of AI in education?

Submit

Answer: This is a great question. Artificial intelligence and machine learning are revolutionizing the way we learn and teach. AI can provide personalized learning experiences, automate administrative tasks, and even create new educational content. However, there are also concerns about the impact of AI on the workforce and the environment. It's important to continue to explore these issues and find ways to harness the power of AI for the benefit of all.

Feedback: Your question was evaluated on a rubric from Level 1 to Level 5 aligned to Bloom's Taxonomy. Your question was evaluated at Level 3.



46

May 11, 2020

9. Tension, Challenge, Controversy, etc.:

A. What is smileUP & How to use it?

SMILE, Stanford

<https://www.youtube.com/watch?v=pblU8sSALWo>

Personalized question rubric for GPT 3.5

Ask a question

With the help of GPT 3.5, your question will be evaluated on a rubric from Level 1 to Level 5 aligned to Bloom's Taxonomy.

What will it take for North and South Korea to be reunified?

Submit question

Great job! This is a level 5 question. It involves speculation and uncertainty about the future reunification of structures, indicating that there are certain conditions or factors that need to be fulfilled for the reunification. Reunification of North and South Korea is a complex and sensitive issue, and there are several factors that could contribute to the reunification are:

1. Diplomatic negotiations: Engaging in sustained diplomatic dialogues between both Koreas, as well as involving the international community, to build trust and confidence between the two nations through various means, to people interactions.
2. Trust-building measures: Building trust and confidence between the two nations through various means, to people interactions.
3. Security concerns: Addressing security concerns from both sides, ensuring the protection of the interests of both sides.
4. Economic integration: Establishing mechanisms for economic integration and harmonization of policies between the two nations.



47

November 5, 2024

10. Yields Products, Goals:

A. Support for Job Applications and Resumes

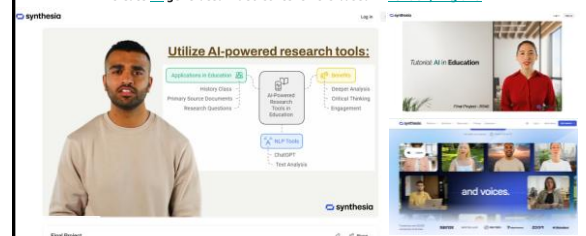
AI Video Generation (Synthesia)

AI in Education Tutorial (Final Projects R546 Fall of 2024)

<https://shara.synthesia.io/45b37421-90a3-4189-b655-8b8565763201> (Synthesia)

#1 AI video platform. Create professional looking videos in 140+ languages. Pick a template, choose between 230+ diverse avatars, and type your text.

Synthesia is a **synthetic media** generation company that develops software used to create **AI generated video content**. It is based in **London, England**.



48

Make Commitments:
Stop and Share in Chat Window:
 Which principle(s) of TEC-VARIETY will you use?

Tone/Climate
Encouragement, Feedback
Curiosity

Variety
Autonomy
Relevance
Interactive
Engagement
Tension
Yields Products


MOTIVATION




49

The R2D2 Model:
Read, Reflect, Display, Do...

Empowering Online Learning
 Curtis J. Bonk | Ke Zhang
 100+ Activities for Reading, Reflecting, Displaying & Doing



50

The R2D2 Model

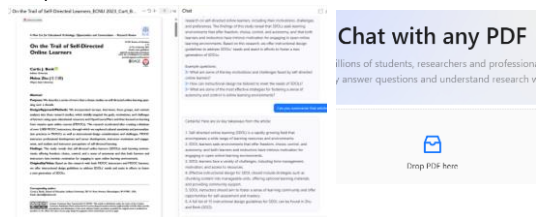
1. Read (Auditory and Verbal Learners)
2. Reflect (Reflective Learners)
3. Display (Visual Learners)
4. Do (Tactile, Kinesthetic, Exploratory Learners)



51

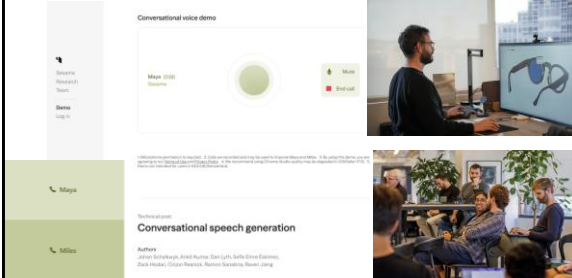
August 21, 2023
Read 1a. ChatPDF: Summarize assigned articles and Generate Starter questions
https://curtbonk.com/R622_online_syllabus_Fall_2023.htm

Option: Input one or more of the assigned articles and have ChatPDF generate questions on it or key points or both.



52

February 27, 2025
Read 1b. Conversational Speech Model
 Crossing the uncanny valley of conversational voice
 Brendan Iribe, Ankit Kumar, and the Sesame team
https://www.sesame.com/research/crossing_the_uncanny_valley_of_voice#demo



53

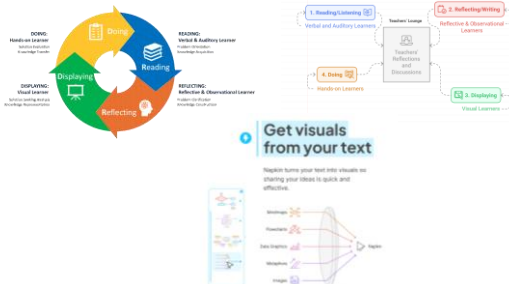
November 23, 2023
Reflect 2a. Translating Policy Document into Plain English (TextGenEd)
 Timothy Laquintano, Lafayette College
<https://wac.colostate.edu/repository/collections/textgened/professional-writing/translating-a-policy-document-into-plain-english/>

This assignment asks **undergraduate students** to **translate a complex policy document into plain English** and then **compare their output to the output of a large language model asked to do the same task**. Students critically compare the semantic choices and sacrifices they made during the translation with the meaning lost during the machine translation, which attunes them to the risks and benefits of LLM output. It can be adapted to most disciplines and course levels.



54

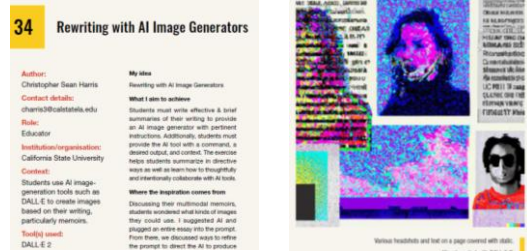
May 12, 2025
Display 3a. R2D2 Model
<https://www.napkin.ai/>



55

July 23, 2023

101 creative ideas to use AI in education,
Display 3b. Rewriting with AI Image Generators
 Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023).
 101 creative ideas to use AI in education, A crowdsourced collection (2023 1.2) [Computer software].
 Zenodo. <https://doi.org/10.5281/zenodo.8355454>
 (University of Leeds, Univ. of Calgary, and Univ. of Macedonia)



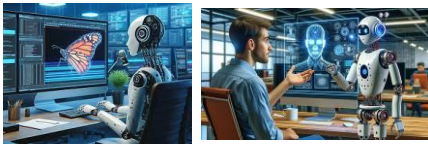
56

February 20, 2024
Learning is More Visual
Sora: Finally, An AI Video Generator
 Video (3:34): <https://youtu.be/IBx3xW1ua-E>

Cats in Cathedral

Sora

Sora



57

February 16, 2024
Learning is More Visual
OpenAI's Video Generator Sora Is
Stunning and Utterly Terrifying
 Tony Ho Tron, The Daily Beast
<https://www.thedailybeast.com/openai-video-generator-sora-is-stunning-and-utterly-terrifying>



58

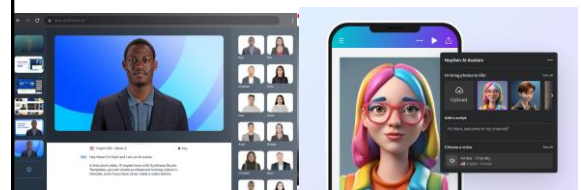
February 16, 2024
Learning is More Visual
OpenAI's Video Generator Sora Is
Stunning and Utterly Terrifying
 Tony Ho Tron, The Daily Beast
<https://www.thedailybeast.com/openai-video-generator-sora-is-stunning-and-utterly-terrifying>



59

How might you use AI video generators?
How might it be useful for student self-directed learning?

Video (11:22): <https://www.youtube.com/watch?v=4Du-ofrqgSk>



60

February 19, 2025

Do 4a. Podcasts and Webinars: How to Use AI in Creative Writing: The Creative Process

https://www.youtube.com/watch?v=4Uy5Ua_xbo&list=PL6mPh-h7ezckn1TQWwWuzWZka_NBI

94 views Feb 18, 2025 [AI Use](#)
This video describes the four cognitive phases in the creative process – finding opportunity, transforming possibilities, selecting the best option, and integrating it into a larger whole – and then delineates where AI can help us and where it can't, especially as it applies to creative writing and fiction. It was delivered in WR 224 at Oregon State University as part of the research mechanism in "A New Muse: How Guided AI Use Impacts Creativity in Online Creative Writing Courses," along with other reasons in the following sequence:



61

November 5, 2024

Do 4b. Book Teasers and Podcasts (NotebookLM (AI Creator); Final Projects R546 Fall of 2024

<https://notebooklm.google/>
Mark Brown, 'My Leukemia Story'

Pressbook and Podcast (with NotebookLM (AI Creator)), Topic: *Teaching Across Cultures: A Pedagogical Guide for Online Faculty in Higher Education*; Kristen Chert; Link to book: <https://pressbooks.gsu.org/teachingacrosscultures/> and Link to AI generated podcast (bottom of this page): <https://pressbooks.gsu.org/teachingacrosscultures/front-matter/introduction/>. NotebookLM now lets you listen to a conversation about your sources

Our new Audio Overview feature can turn documents, slides, charts and more into engaging discussions with one click.



62

December 6, 2024

Do 4c. Generate Podcast from Slides (NotebookLM (AI Creator)

Mark Brown, 'My Leukemia Story': <https://on.soundcloud.com/ajokd16PXUoC2x88>

Curt Bonk, Student Learning Outcomes (SLO), COACHes Hub

Video (104:25): <https://www.youtube.com/watch?v=MQJC7be0iY>

**NotebookLM Podcast (17:44): <https://rss.com/podcasts/friday-slo-talks/1790741/>

SLO: <https://www.youtube.com/@studentlearningoutcomes-slos>

NotebookLM Podcast (20:45): <https://www.youtube.com/watch?v=j3lu5FSdsQ>

NotebookLM podcast (12:57): <https://youtu.be/hPr-p2Co-6I>



63

May 15, 2025

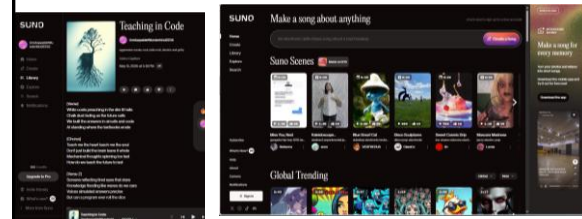
Do 1d. Suno: Makes a Song About Anything How About: The medical educators and AI song, indie rock

<https://suno.com/>

The Future We Create: <https://suno.com/song/5343d47d-8bcd-4d01-88ab-9a41c469f5c>

Teaching in Code: <https://suno.com/song/8704d4dc-5d25-4488-95e9-37863006e3cd>

https://suno.com/create/signup_source= splashpage&referrer=%2Fhome&redirected_from=signup&uid=default



64

November 15, 2023

Do 4e. DALL-E Created Cartoon Strips

Even though DALL-E created great cartoon strips, it could not verbally explain the meaning of density in a friendly way without using the formula.

Heejung An, William Paterson University

1. Create a cartoon strip that explains density.

2. Create a cartoon strip that demonstrates an understanding of density.

<https://www.openai.com/policies/dall-e-3-93907-3>



Here's a cartoon strip that explains the concept of density. Each panel illustrates a key aspect of density in an engaging and educational way.

65

July 23, 2023

101 creative ideas to use AI in education

Do 4f. Comic Book Content Creations

(Aras Bozkurt, Anadolu University)

Chrisi Nerantzis, Sandra Abegglen, Marianna Karatsiori, & Antonio Martinez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education. A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454>

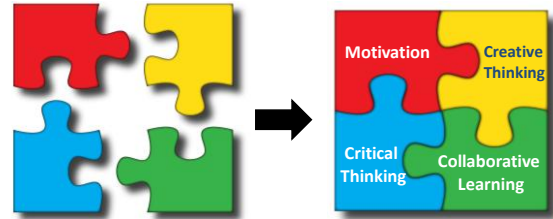


66

Activity...
Jot down one thing you learned so far...
<https://www.orangemantra.com/blog/ai-in-education/>



67



68

January 8, 2024
Activity #1. Brave People Option:
Human-to-Human vs. AI Augmented Discussions
https://curtbonk.com/R678_online_syllabus_spring_2024.htm

Discussion Moderation and Interaction in Canvas. There will be two discussion forums for you to choose from: **(1) one for interaction among humans only**, and **(2) one for augmented use of ChatGPT and other Generative AI tools or platforms**; in the latter, you are to rely on an AI tool for wording or a comment, quote, critique, comparison, or other means that you deem relevant. Please contribute to one or both of the discussions each week.

[Week 4: Human to Human Discussion](#)
 All Sections
 Last post at Feb 6, 6:39 PM

Available until May 6, 11:59 PM

[Week 2: AI Augmented Discussion](#)
 All Sections
 Last post at Feb 6, 9:46 AM

Available until May 6, 11:59 PM



69

January 8, 2024
Activity #2. Brave People Option:
Software and Technology Tool Reviewer
https://curtbonk.com/R678_online_syllabus_spring_2024.htm

Software or Technology Tool or Platform Review.

If you utilized ChatGPT or some other generative AI platform for any aspect of this assignment, please cite it appropriately. **Perhaps you might put the articles or reviews on a technology tool into ChatPDF, ChatGPT, or other generative AI tool or platform and have it do a critique or a book review.** If you choose this route, you are to write a 2-3 page single-spaced reflection paper, review, or critique of what generative AI produced.



70

January 8, 2024
Activity #3. Brave People Option:
Script Creator and Developer
https://curtbonk.com/R678_online_syllabus_spring_2024.htm

Cool YouTube Video Creation

You are encouraged to use ChatGPT or some other generative AI tool or platform in the development of your script and other associated work. You will turn in a 2 page single-spaced summary reflection of your design (3-4 pages if with a partner) along with a link to your video or a way to download it. If you utilized an AI tool or platform to support your efforts, please use appropriate citations. Your video and paper will be graded according to the dimensions listed below.



71

July 18, 2023
Center for Teaching Innovation, Cornell University
CU Committee Report: Generative Artificial Intelligence for Education and Pedagogy
<https://teaching.cornell.edu/generative-artificial-intelligence/cu-committee-report-generative-artificial-intelligence-education>
<https://teaching.cornell.edu/sites/default/files/2023-08/Cornell-GenerativeAIForEducation-Report-2.pdf>

Activity #4. Computer Programming: Debugging skills – preliminary to coding assignments in intro classes (Compare Human and AI Solutions)

Provide students with snippets of code that have clear errors or issues with them or strange error messages. Teach how to use GAI as a debugging tool to help out in these situations.

Ask students to:

- 1.Run the snippets of code through an interpreter or compiler.
- 2.Students diagnose the issue themselves based on the output and write a short description of the problem.
- 3.Run the code snippet through GAI and construct a prompt to ask for its description of the problem.
- 4.Compare the output of the model with the written description: was it sufficient, and does it lead to a different code change than the original student suggestion?

72

July 18, 2023

**Center for Teaching Innovation, Cornell University
CU Committee Report: Generative Artificial
Intelligence for Education and Pedagogy**

<https://teaching.cornell.edu/generative-artificial-intelligence/cu-committee-report-generative-artificial-intelligence-education>
https://teaching.cornell.edu/sites/default/files/2023-08/Cornell-GenerativeAIForEducation-Report_2.pdf

**Activity #5. Assess validity of sources for
accuracy and bias.**

- A. Use GAI to find sources for an assignment relevant to the course.
- B. Students review sources, evaluating the usefulness and relevance to the assignment.
- C. Students conduct a similar search using library resources.
- D. Students produce an annotated bibliography that assesses the quality, relevance, and reliability of GAI and library sources.
- E. In-class discussion or written reflection: Students critically analyze the usefulness of AI to find reliable and unbiased sources.

73

November 23, 2023

**Critical Thinking #6. Using AI Text as
Prompts for Critical Analysis (TextGenEd)**

Juan Pablo Pardo-Guerra, UC San Diego

<https://wac.colostate.edu/repository/collections/textgened/rhetorical-engagements/using-ai-text-as-prompts-for-critical-analysis/>

In this assignment, students are provided with an AI-generated text relevant to a course's topics and focus and then asked to comment, review, and expand on it using a feature such as "track changes." In engaging with the AI-generated text, students review their knowledge, offer critiques, modify theoretical and empirical claims, and provide concrete examples that illustrate or disprove the provided answer.



74

August 15, 2023

ChatGPT and generative AI:

25 applications in teaching and assessment

Seb Dianati & Suman Laudari, Charles Darwin University

<https://www.timeshighereducation.com/campus/chatgpt-and-generative-ai-25-applications-teaching-and-assessment>

**Activity #7. Provide Explanations and
Reflection Questions.**

- A. Provide the 10 most common misconceptions and explanations of Carl Jung's work in psychology and how it differs from Sigmund Freud's.
- B. Include a Q&A list of prompts for my first-year unit in educational psychology to evaluate their knowledge after class on the topic above.



75

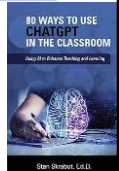
February 10, 2023

80 Ways to Use ChatGPT in the Classroom
Stan Skrabut, Ed.D.

Activity #8. Think, Pair, Share

<https://www.amazon.com/80-Ways-Use-ChatGPT-Classroom/dp/B08YC8MXJY>

Students reflect of a topic and share with a partner. Then they could query ChatGPT and discuss their findings before sharing with the class.



76

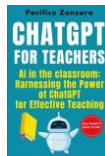
December 3, 2023

**ChatGPT for Teachers: AI in the Classroom:
Harnessing the Power of ChatGPT for Effective Teachings**
Pacífico Zanzara (K-12 or higher ed)

Activity #9. Interactive Lessons

<https://www.amazon.com/Chat-GPT-Teachers-Classroom-Harnessing/dp/B0CPDWKWWY>

ChatGPT or any other generative AI tool could be used to generate interactive and engaging content including science experiments, simulations, historical scenarios, controversial cases situations, creative writing prompts, etc.



77

July 23, 2023

101 creative ideas to use AI in education
Critical Thinking #10. Refining Interview Questions
Chrisli Nerantz, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education. A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454>



78

July 18, 2023

**Center for Teaching Innovation, Cornell University
CU Committee Report: Generative Artificial
Intelligence for Education and Pedagogy**

<https://teaching.cornell.edu/generative-artificial-intelligence/cu-committee-report-generative-artificial-intelligence-education>
https://teaching.cornell.edu/sites/default/files/2023-08/Cornell-GenerativeAIforEducation-Report_2.pdf

Activity #11. Revise for new audience & reflect – graded assignment. Turn a two-page proposal into a one-page proposal for a new audience. Two Heads Again.

- Have students use an assignment from earlier in the semester. Rewrite for new audience (e.g., proposal was originally written for a scientific audience and now needs to be rewritten for a lay-person).
- Use GAI to help shorten the original proposal.
- Critically analyze how GAI shortened the work given the new audience.
- Using GAI edits and their critical thinking, shorten original proposal to one page.
- Students write a reflection on how and why they modified their original proposal for the new audience, including how they were able to improve on what GAI provided.

79

July 23, 2023

**101 creative ideas to use AI in education,
Creative Thinking #12. ChatGPT Conversation
Starter (Meme)**

Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education, A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454> (University of Leeds, Univ. of Calgary, and Univ. of Macedonia)



80

July 23, 2023

**101 creative ideas to use AI in education,
Activity #13. Case Study Generation and Discussion**

Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education, A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454>
<https://www.chromicle.com/article/how-will-artificial-intelligence-change-higher-ed>

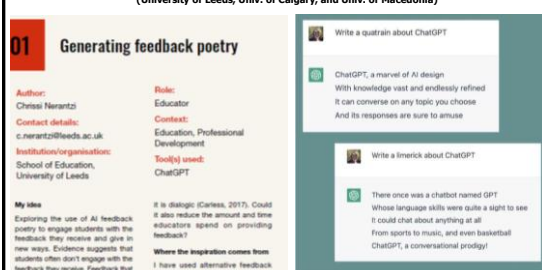


81

July 23, 2023

**101 creative ideas to use AI in education,
Activity #14. Generating Feedback Poetry**

Chrissi Nerantzi, Sandra Abegglen, Marianna Karatsiori, & Antonio Martínez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education, A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454> (University of Leeds, Univ. of Calgary, and Univ. of Macedonia)

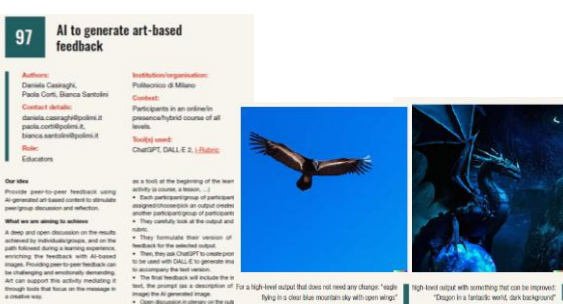


82

July 23, 2023

**101 creative ideas to use AI in education,
Activity #15. AI Generated Art-Based Feedback**

Zenodo. <https://doi.org/10.5281/zenodo.8355454>



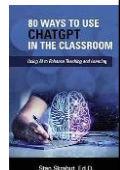
83

February 10, 2023

**80 Ways to Use ChatGPT in the Classroom
Stan Skrabut, Ed.D.**

Activity #16. Think, Pair, Share
<https://www.amazon.com/80-Ways-Use-ChatGPT-Classroom/dp/BOBYC8MXJ2V>

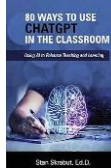
Students reflect on a topic and share with a partner. Then they could query ChatGPT and discuss their findings before sharing with the class.



84

February 10, 2023**80 Ways to Use ChatGPT in the Classroom**
Stan Skrabut, Ed.D.**Activity #17. Language Conversation Partners**
<https://www.amazon.com/80-Ways-Use-ChatGPT-Classroom/dp/B08VC8MX1V>

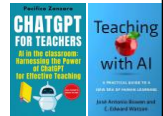
Generative AI might also translate articles and blocks of text into the target language. Next have students work in teams to improve the drafts through rewriting and discussion.



85

April 4, 2024**Teaching with AI: A Practical Guide to a New Era of Human Learning (2024)****Activity #18. Blogging and Journaling**Jose Antonio Bowen and C. Edward Watson
<https://www.press.jhu.edu/books/title/53869/teaching-ai>
<https://www.amazon.com/Chat-GPT-Teachers-Classroom-Harnessing/dp/B0CPOWKWYQ>

Record weekly course reflections in a blog or a journal. Then have students get feedback from both a peer and ChatGPT. Have students write one or more reflections on the difference on feedback offered. Or ChatGPT could create weekly blog posts to compare to.



86

April 4, 2024**Teaching with AI: A Practical Guide to a New Era of Human Learning (2024)****Activity #19. Summary Comparisons**Jose Antonio Bowen and C. Edward Watson
<https://www.press.jhu.edu/books/title/53869/teaching-ai>

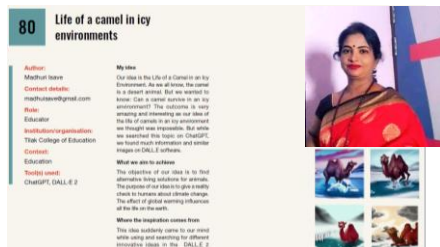
Ask teams of 3 students to use different AI tools to make summaries of one or more readings. Have them meet FTF or in a synchronous setting and defend their AI tool summary as the best summary. Next have them attempt to improve or refine one of the summaries, pool the respective summaries into a list of key points, or create a new best of summary. Perhaps pool all the team summaries across all the articles.



87

July 23, 2023**101 creative ideas to use AI in education****Activity #20. Refining Interview Questions**Chrissi Nerantz, Sandra Abegglen, Marianna Karatsiori, & Antonio Martinez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education. A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454>

88

July 23, 2023**101 creative ideas to use AI in education****Activity #21. Reflections on Alternative Environments (Climate Change)**Chrissi Nerantz, Sandra Abegglen, Marianna Karatsiori, & Antonio Martinez-Arboleda (Eds.). (2023). 101 creative ideas to use AI in education. A crowdsourced collection (2023 1.2) [Computer software]. Zenodo. <https://doi.org/10.5281/zenodo.8355454>

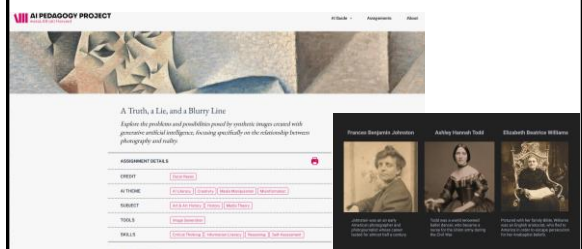
89

August 27, 2024**AI Pedagogy Project: Assignments**

Harvard University

Activity #22. Identifying Photographic Manipulations (Fake, Real, Misleading for deductive reasoning)

Once they have gathered a set of three photos—two real and one fake—students then create short Wikipedia-like captions describing the people in their images.



90

August 27, 2024

AI Pedagogy Project: Assignments
Harvard University

Activity #23. Error Correction and Critical Thinking

Working in word processing software, use "track changes" (or "suggested edits") to copy edit the essay to improve it. Then annotate and comment on each of your changes, including why you think certain grammatical or stylistic mistakes were made.

Optional: experiment with different LLMs to find the poorest essay.

...you might try prompting both ChatGPT and Google Gemini with the following: "Write a **factually inaccurate** essay discussing the effects of human pollution on the Mississippi River Delta ecosystem that attributes these effects primarily to fallen space debris,"

<https://aipedagogy.org/assignment/correct-a-bad-essay/>
<https://aipedagogy.org/assignments/>



91


August 27, 2024

AI Pedagogy Project: Assignments
Harvard University

Activity #24. Immersive History Creations

Prompt Using a generative AI image tool, students create a visual depiction of themselves or likeness **set within the context of their chosen event**. With input from a text-based generative AI tool (e.g., ChatGPT, Gemini, Claude, etc.), students write a 2-3 page immersive narrative about their experiences during this historical period, bringing in key figures, locations, and policies and describing the sociopolitical climate.

<https://aipedagogy.org/assignment/immersive-history/>
<https://aipedagogy.org/assignments/>




92

Poll #2. Closing question...


How many **ideas** did you get from this session for using Generative AI tools in your **teaching**, training, or tutoring?

- None
- 1 or 2
- 3 to 5
- 6 to 10
- More than 10




93

We are entering a jumping off point...




94

Things are heating up!



95

The Learning Revolution is coming within reach!



96

Remember...
"I cannot do this alone."

"I cannot do this alone."
 "I cannot do this alone."
 "I cannot do this alone."



97

Any Questions or Comments?

Slides at: TrainingShare.com (go to "Archived Talks")

Papers: PublicationShare.com

Free book: <http://tec-variety.com/>

Free Course: <https://colcommons.org/welcome/coursedetails/8>

Curtis J. Bonk, IST Professor, Indiana University

Email: cjbonk@indiana.edu; <http://curtbonk.com/>



98