

Integrating GAI into the Learning Experience

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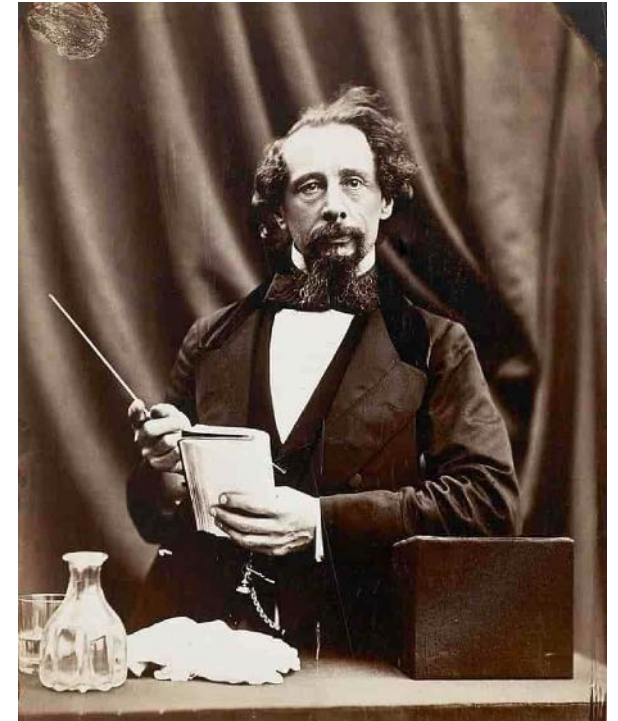
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AI in Education.

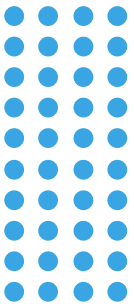
"It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of light, it was the season of darkness, it was the spring of hope, it was the winter of despair..."

Charles Dickens
A Tale of Two Cities



Potential ways to use GAI in pedagogy

General	Summarizing large amounts of text.	Provision of deeper and broader meaning.	Proposing alternative solutions to the same problem.	Outlining a roadmap and timeline for learning X.
Research	Locating primary source articles. (Bing and Bard)	Identifying additional examples and cases.	Proposing counter arguments.	Generating reproducible code for analyses.
Learning and media design	Collaborative discussion syllabus drafting.	Drafting your course and module level learning objectives.	Brainstorming learning activities.	Drafting scripts for audio and video recordings.
Assessment design	Creating draft/parallel assessment questions and answers.	Providing explanations for why X is correct.	Giving additional feedback to learners.	Proposing assessment types with input.
Partnering	Giving your and your students a debate partner.	Helping you to find more or better questions.	Helping to 'tighten' language.	Filling the role of a tutor outside of class.



Before you begin.

<https://go.gwu.edu/update4ai>

<https://go.gwu.edu/aiaplus>

Can I Use AI On this Assignment?

Course: Sociology 101
Instructor: Robinson
Assignment: Literature Review #1

Permitted uses of AI:	Idea Development, Source Suggestions, Organizing Themes
Uses that require permission:	Constructing an Outline, Drafting Summaries, All Other Uses
Not permitted uses of AI:	Comparative Analysis, Drafting Sections

[Glossary of Uses](#)

1. Clarify your objectives.

- *Before updating anything, be clear on what learners should know and be able to do at the end of the course, and why you want them to know and be able to do those things.*

2. Reflect on your value.

- *There will be those who gain and those that lose with the emergence of ChatGPT. This is as true for students as it is for faculty and instructors.*

3. Include time for ethics.

- *Talk with students about the ethics of using ChatGPT in your course, at your university, and within your discipline or profession. It is not just about cheating.*

4. Set clear expectations.

- *Be clear in your syllabus about your policies for using ChatGPT, and how to appropriately acknowledge (e.g., cite, reference) when they do use ChatGPT.*

5. Sell the value of learning.

- *Consistently communicate and emphasize the significance of mastering these knowledge, skills, and abilities*

Explore AI capacity.



- Explain new concepts
- Provide many examples
- Brainstorm ideas
- Evaluate new ideas
- Provide counter arguments
- Explain grammar, vocab, clarity edits makes to your text
- Generate catchy titles
- Summarize text
- Shorten long text to be more concise
- Translate text
- Format references
- Code
 - Write, explain, translate, debug
- Data
 - Extract from text, classify, transform, sentiment analysis, data analysis, create graphics, write explanations, etc.
- Create synthetic/dummy data
- Developing test banks
- Ask questions while reading articles

Get creative.

<https://go.gwu.edu/update4ai>

<https://go.gwu.edu/aiaplus>



1. Prompt competition

- *Take an important question in your field and ask student group to develop criteria for a good answer, then ask them to write a single prompt and see whose prompt get the best answer based on the criteria.*

2. AI co-worker

- *Ask teams to have one or more ChatGPT co-workers on their team. Each should have a defined role to play (e.g., neigh sayer, task master, idea generator).*

3. Commenting

- *Using Track Changes in MS Word or Suggesting in Google Docs, have students add depth, clarify misinformation, offer alternative perspectives, and make other improvements to the ChatGPT output. You grade their comments.*

4. Re-vision

- *"The true meaning of the word revision is this: to see again." Have students revise (write again) ChatGPT's output from a different angle,=.*

Four strategies for working with GAI

Explanations written with the aid of ChatGPT 4.0 (August 3).

1. Partner to explore **deeper** ideas
 - Asking AI to outline various approaches to a coding problem, speculate on the potential outcomes of a data analysis, or list the known and unknown variables in a complex scenario.
2. Explore **broadly**
 - Ask about your problem before asking about solutions.
 - Asking the AI to enumerate multiple avenues or solutions that could be pursued. By exploring broadly, you avoid prematurely committing to a single path.
3. Ask for **multiple solutions**
 - Asking the AI for multiple solutions, you can compare approaches for efficiency, simplicity, or creativity. This is particularly useful for coding challenges, algorithmic problems, or statistical analyses.
 - Always ask for 3+, AI doesn't care.
4. Ask for the **explanation of the reasoning**
 - Ask the AI to explain why a particular method or solution is recommended, or what the trade-offs are.



Example 1: Peter Loge

About the assignment:

- Step 1: Using ChatGPT, write a 500-word essay on an element of political communication.
- Step 2: On your own, write a 500-word response on the same.
- Step 3: Submit both papers.



1. Introduce the essay
 - Topic, word count, range of references.
 - One or the other...
 - Provide a central question they should answer; or
 - Tell them that they need to define a central question.
2. Interact with ChatGPT to do 2 things
 - [Deeper] Identify important questions
 - Use a **flipped interaction pattern**
 - [Broader] Create a paper outline
 - Use the identified questions and prior knowledge to create an outline of 3-5 bullet points.
 - Use the **outliner expander pattern** to create a broader outline.
3. Submission 1
 - Identified important questions; and
 - Expanded outline
 - Note: Submit for instructor feedback; share on LMS for peer discussion; or both.

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4. With feedback, write the paper with references and submit
5. After paper submission, share the whole paper or part with ChatGPT and ask to:
 - Critique or re-write
 - Note: Ask it to **explain** the feedback it provides.
6. Submission 2
 - ChatGPT critique or re-write + explanation
 - 200-word response to ChatGPT feedback.
 - Bonus: 100 words on lessons learned with or about the use of ChatGPT.

Example 2: Rebekah Tromble

About the assignment:

- A short ethnographic research paper.
- Students plan to interview and observe 4-5 individuals using the same social media platform.
- Must design a research protocol.
- Must write a 1200 to 1800-word research paper including a, introduction, literature review, analysis, conclusion, and references.



- Suggest maintaining that students determine what to explore
- Designing the research protocol
 - Use ChatGPT to draft an initial list of questions.
 - Edit these questions to get by $\geq 50\%$.
 - Submit the ChatGPT draft and revised questions for feedback and review. (Peer and instructor)

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- Paper structure
 - Introduction – Human
 - Literature review – Human + GAI
 - Use Bing or Bard to find primary resource articles.
 - [??] Use ChatGPT to refine your writing.
 - Note: Students could feed papers in the ChatGPT, give it some context on what they're writing, and ask it to give them meaningful arguments for their paper.
 - Analysis – Human + GAI
 - Use ChatGPT to generate counter-arguments and explanations.
 - Use Bard to generate data visualizations.
 - Present GAI counter-arguments for discussion.
 - Conclusion – Human
 - Citations and references – Human