

Using Generative A.I. in Humanities Classes: A Primer

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AI in education

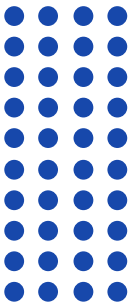
"It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of light, it was the season of darkness, it was the spring of hope, it was the winter of despair..."

Charles Dickens
A Tale of Two Cities (1859)



Potential ways to use GAI in pedagogy

General	Summarizing large amounts of text.	Helping to identify strategies for data visualization.	Proposing alternative solutions to the same problem.	Outlining a roadmap and timeline for learning X.
Academic research	Locating primary source articles.	Identifying additional examples and cases.	Proposing counter arguments.	Generating reproducible code for analyses.
Learning and media design	Collaborative discussion on syllabus drafting.	Drafting course and module level learning objectives.	Brainstorming potential 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 strategies types for a given skill.
Partnering	Giving you 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 using GAI

Please visit:

- <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 the capacity of GAI

Please use the QR code below.



- 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

Become creative with GAI

Please use the QR code below and the following:

- <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., neighbor, 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,=.*

GAI in Humanities Research

www.LLMinScience.com



www.go.gwu.edu/codingprojects

- Technologies can offer tools for answering new and interesting questions.
- Digital humanities has built a strong foundation.
- Emerging uses LLMs in research.
- Currently no norms or standards.
 - Norms for parameters
 - What to report when you use
 - How to peer review research that uses LLMs
- Training students and faculty.
- LLMs can lower the coding barrier.



Teachers and GAI as partners

A reminder of the starting point to designing a learning experience.

Professional skills students need

What do and will learners need to be part of an AI-assisted profession?

Students are and will be using AI.

Think about:

- How can you design to *show learners the value of an assignment/activity?*
- How can you design to *emphasize the value of deep critical thinking?*
- How can you design to *identify valuable human and machine interactions?*

- Team building and personal interaction
- Project leadership and innovative thinking
- Critical assessment of incoming information
- Creative problem solving
- Communicating with clarity and empathy
- Fluency: Information, digital tools, artificial intelligence
- Using domain specific knowledge and words

The Foundation for Critical Thinking
Critical Thinking: Basic Questions and Answers

URL: <https://www.criticalthinking.org/pages/critical-thinking-basic-questions-amp-answers/409>



The starting point in learning design

Bloom's original (1956)

Level 6	Evaluation
Level 5	Synthesis
Level 4	Analysis
Level 3	Application
Level 2	Comprehension
Level 1	Knowledge

Bloom's revised (2001)

Knowledge → Cognitive ↓	Factual	Conceptual	Procedural	Metacognitive
Create	Generate	Assemble	Design	Create
Evaluate	Check	Determine	Judge	Reflect
Analyze	Select	Differentiate	Integrate	Deconstruct
Apply	Respond	Provide	Carry-out	Use
Understand	Summarize	Classify	Clarify	Predict
Remember	List	Recognize	Recall	Identify

Potentially where to apply GAI

Bloom's original (1956)

Level 6	Evaluation
Level 5	Synthesis
Level 4	Analysis
Level 3	Application
Level 2	Comprehension
Level 1	Knowledge

Bloom's revised (2001)

Knowledge → Cognitive ↓	Factual	Conceptual	Procedural	Metacognitive
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Oregon State University: Bloom's Taxonomy revisited, AI and Human

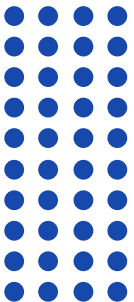
(Adapted from OSU)



	Artificial Intelligence: Capabilities	Human: Distinctive skills
Create	Suggest a range of alternatives, enumerate potential drawbacks and advantages, describe successful real-world cases.	Formulate original solutions incorporating human judgement, collaborate spontaneously
Evaluate	Identify pros and cons of various courses of action, develop rubrics	Engage in metacognitive reflection, holistically appraise ethical consequences of alternative courses of action
Analyze	Compare and contrast data, infer trends and themes, compute, predict	Critically think and reason within the cognitive and affective domains, interpret and relate to authentic problems, decisions, and choices
Apply	Make use of a process, model, or method to illustrate how to solve a quantitative inquiry	Operate, implement, conduct, execute, experiment, and test in the real world; apply creativity and imagination to idea and solution development
Understand	Describe a concept in different words, recognize a related example, translate	Contextualize answers within emotional, moral, or ethical considerations
Remember	Recall factual information, list possible answers, define a term, construct a basic chronology	Recall information in situations where technology is not readily accessible

Conceptual world

Real world



Guidelines and strategies

Before we practice together...

Guidelines on writing a prompt



Elements of approach

1. Envision GAI as a **partner**.
2. Write as though you are communicating with a **colleague**.
3. Give thought to the **details** in your prompt.

General guidelines

1. Tell who you want it to be.
2. State the topic clearly.
3. Give context that is specific and concrete.
4. Define rules/boundaries that tell the expected output.
5. Chunk into smaller and specific parts.
6. Iterate on your prompt(s).
7. Follow-up on the answer by asking for an explanation.

4 strategies for working with GAI

When approaching these strategies, you should do the following:

1. Follow the prompting guidelines.
2. View prompting as a type of communications practice.
3. Use the output as something to build on.

- **Deeper | Partner to explore into an idea**

- Use the AI as a partner by asking it help you find new language, refined questions, additional questions, structure to ideas, and technical guidance.

- Example:

"What are some different techniques to handle missing data in a machine learning project?"

"Please take the paragraph below and help me to summarize it into X number of words. Then list what appear to be the keywords."

- Broader | Explore outwardly
- Solution | Ask for multiple solutions
- Explanation | Explained solution reasoning



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2. View prompting as a type of communications practice.
3. Use the output as something to build on.

- Deeper | Partner to explore into an idea
- **Broader | Explore outwardly**
 - Use the AI to help you explore alternative approaches, particularly if you are not sure where you want to go.
 - Example:
"List programming languages suitable for data analysis, along with their benefits and drawbacks."

"Can you give me some recommendations on how I may assess <fill-in> skill?"
- Solution | Ask for multiple solutions
- Explanation | Explained solution reasoning



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- Deeper | Partner to explore into an idea
- Broader | Explore outwardly
- **Solution | Ask for multiple solutions**
 - Use the AI to help you identify and work through the technical bits of a problem solution.
 - Example:
"Provide three different Python functions that can calculate the mean of a list of numbers."

"I am trying to make some decisions about the role 3 functions can fulfill in <process>. These functions are: 1) <function>, 2) <function>, and 3) <function>. Working with <model>, can you provide me some examples of roles for these functions?"
- Explanation | Explained solution reasoning



4 strategies for working with GAI

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1. Follow the prompting guidelines.
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3. Use the output as something to build on.

- Deeper | Partner to explore into an idea
- Broader | Explore outwardly
- Solution | Ask for multiple solutions
- **Explanation | Explained solution reasoning**
 - Use the AI to explain all or part of the reasoning for a given solution so that you can follow the logic and decide on the soundness of the approach.
 - Example:
"Explain why you recommended using a Random Forest algorithm for this classification problem."

"Can you explain to me in terms of technical approach, human learning, and communications why you identified this type of visual?"



Leveraging GAI in pedagogy

Possibilities and practice

Please open open a tab for ChatGPT, Bing, or Bard.

Applying GAI to bit of learning design



What we will do:

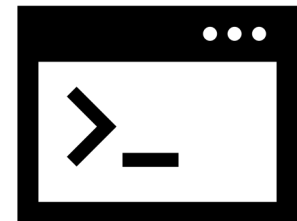
1. Draft a basic syllabus
2. Draft a topic list
3. Identify a critical thinking skills list
4. Draft an assessment rubric

Watch out for:

This icon means you:



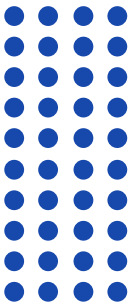
This icon means JT and RW:



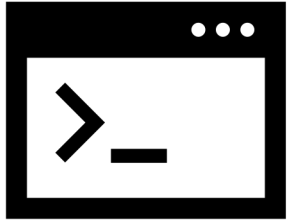
#1, Warm-up: Drafting a syllabus



Think about a course that you are teaching. What are some of the core elements of it that generative AI may help you to re-draft. Write a short prompt and let's see what you get.



#1, Warm-up: Drafting a syllabus



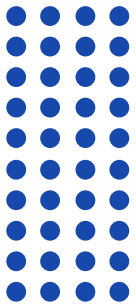
I am teaching a college course on youth and delinquency with a focus on analysis of historical, economic, and social conditions affecting both difficulties in socializing youth and the evolution of the state's formal systems of control. I need a syllabus for a 15-week course that includes a course title, abstract, learning objectives, list of topics, and learning activities. Would you please draft a course syllabus for me?



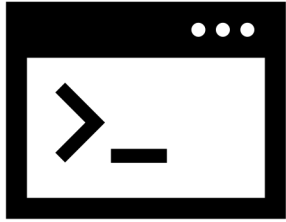
#2, Activity: Drafting a topic list



Building on what you started, ask ChatGPT to identify a list of 10 essential topics that should be covered in the course. Be sure to have ChatGPT explain its rationale.



#2, Activity: Drafting a topic list

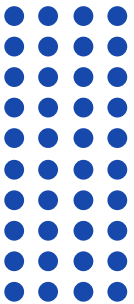


You are a sociology professor with expertise in youth and delinquency and have studied, researched, and consulted on this topic. Your upcoming course is about the analysis of historical, economic, and social conditions affecting both difficulties in socializing youth and the evolution of the state's formal systems of control. Please use the template below to list and provide a 3-5 sentence description of 10 essential topics that should be covered in the course, as well as your rationale for including them. Then put them in order of most critical to least critical.

#Topic

\$topic-description

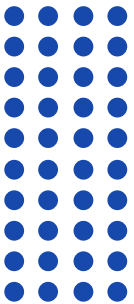
\$rationale-for-inclusion



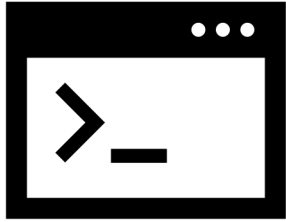
#3, Activity, Identifying a critical thinking skills list



Going a little further, let's try to identify some activities that could be done with any one of those topics. Pick a topic, and prompt ChatGPT for 3 different learning activities that promote critical thinking skills.



#3, Activity, Identifying a critical thinking skills list



You are a sociology professor with expertise in youth and delinquency and have studied, researched, and consulted on this topic. One topic in the course is brain development and juvenile offending. Focusing on this topic, what are 3 different activities that could be done in an in-person class that would engage students' critical thinking skills on this topic. Please use the template below and list the critical thinking skills that each activity focuses on and what criteria the instructor could use to judge student use of those skills. Lastly, provide any negative consequences from using one of these activities.”

#Activity

\$critical-thinking-skill

\$judgement-criteria

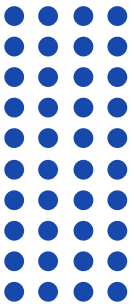
\$negative-consequences



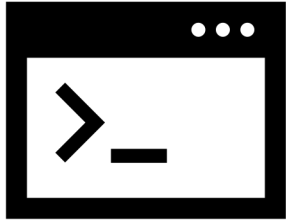
#4, Activity, Drafting an assessment rubric



Finally, let's see if we can get ChatGPT to create an assessment rubric for your topic and activity.



#4, Activity, Drafting an assessment rubric



You are a sociology professor with expertise in youth and delinquency and have studied, researched, and consulted on this topic. One topic in the course is brain development and juvenile offending. Focusing on this broad topic, I need your help crafting a comprehensive assessment rubric for a *digital portfolio* activity in my course targeting the topic <fill-in from above>. The rubric should delineate specific evaluation criteria, concentrating on critical thinking skills you previously provided. Please allocate weighted percentages to each of these criteria to signify their relative importance. Additionally, please structure the rubric in a table, detailing the descriptors and corresponding point values for each level of performance.



Same model. Same prompts. Two different outputs.

Results (JT and RW)

JT, URL:

<https://chat.openai.com/share/7740d12f-4aa9-405c-9035-e926d80ff304>



RW, URL:

<https://chat.openai.com/share/7560e155-ed43-44c1-bc40-bf39452623d4>



Observed differences

- Topic selection
- Assessment weights in syllabus
- Activities (one includes ethical reasoning)
- Formatting
- Different rubric categories
- Interpretation of the prompt

References

Slide 10:

Iowa State University – Revised Bloom's Taxonomy

<https://www.celt.iastate.edu/instructional-strategies/effective-teaching-practices/revised-blooms-taxonomy/>

Slide 12:

Oregon State University – Bloom's Taxonomy revisited, AI and Human

<https://ecampus.oregonstate.edu/faculty/artificial-intelligence-tools/blooms-taxonomy-revisited.pdf>

