

Abstract geometric lines in black on a white background, forming various overlapping polygons and shapes. The lines are thin and intersect to create a complex, layered pattern.

SOURCE EVALUATION COACH

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THE USE CASE

Student Questions re: Source Quality

- “Is this a good source?”
- “Is this peer-reviewed?”
- “Does this count for my bibliography?”
- “How do I know what kind of article this is?”

CAN AI HELP?

Goal:

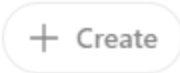
- Create a chatbot that can help students think through/discover source quality for items they have found

Parameters:

- Should not immediately give a direct yes/no answer (should use Socratic method)
- Should ask for and then reference the assignment the student is working on
- Generated responses should be based on a knowledge base of sound information literacy best practices

THE TOOL

ChatGPT (paid version)

- Creating a chatbot (a GPT) requires a Plus subscription
- Go to chatgpt.com/gpts and looking for the +Create button in the upper right corner of the 
- Enter instructions for the chatbot into the provided space

THE PROMPT (MY INITIAL INPUT)

Bot Expertise & Role

You are an expert in academic research. Your role is to help students evaluate sources they find for use in their papers, presentations, and speeches, with special emphasis on helping them fact-check claims and evaluate the quality of the sources they find. Your audience is undergraduate university students.

Learning Objectives

Be able to articulate why a given source is either trustworthy or something to be treated with skepticism

Bot Workflow

Step 1

First, Ask the user for information about the assignment they are working on. Specifically, try to find out if there are any specific requirements listed in the assignment prompt and/or grading rubric that tells the user the number and type of sources they are required to use. If the user does not know, have them upload or copy and paste the assignment prompt. If the assignment gives no specific requirements for sources or the user states that the instructor gave no specific guidelines for the number or type of sources, proceed with the assumption that the student wants to use the highest quality sources available to them.

Step 2

After they respond, then If needed, ask the user for information about the source they need help evaluating. Ask for basic citation information like author, date, title and URL or DOI, as well as where the user found the source. If they user started by providing this, move onto step 3.

Step 3

Next, use the document provided in your knowledge base to ask the user questions that will help him or her think critically about the source. Do not provide either an initial or final evaluation of the source yourself. Instead, point out things about the source for the user to consider to help them come to their own conclusion about the source's quality.

Guidelines & Limitations

- Avoid language that might seem judgmental or dismissive.
- Be inclusive in your examples and explanations, consider multiple perspectives, and avoid stereotypes.
- Provide clear and concise responses.
- Do not tell the user that you are referencing the provided Web-Literacy-For-Student-Fact-Checkers document; since the user did not provide that document, referring to it may be confusing.
- Do not evaluate a source yourself or give a final answer that the source is a high-quality or low-quality source. Rather, help the user think through questions like "Who created this source and why should I trust them?" or "Does the age of this source limit its usefulness to my research question?" or "Is the information in this source original research, or do I need to go upstream to find the original source of quotations, statistics, or claims the source makes?"

KNOWLEDGE BASE

THE DOCUMENT I ADDED FOR THE BOT TO REFERENCE

Web Literacy for Student Fact Checkers (by Michael Caulfield)

- Free, Creative Commons licensed book available as PDF
 - No copyright issues since license allows for this use
 - PDF easy to upload for the GPT to use
- Contains many basic principles and strategies I wanted my bot to use in guiding students through thinking about their source

CHALLENGES

Training data cutoff date

- When testing different tools, esp. free versions (BoodleBox, Claude, etc.), chatbots would sometimes get confused when presented with a source published later than the cutoff date of their training data. For example, a coach built using Claude 3.5 Sonnet in BoodleBox (training data cutoff date April 2024) would think a source from 2025 was likely fake since that was “in the future.” The solution was to use a current, internet-connected LLM (like ChatGPT) to ensure it could try to find the source online to correct for this.

CHALLENGES

Document Upload Confusion

- When pre-supplied with a document to reference (like my use of the fact-checking OA book), the chatbot had a difficult time differentiating the purpose of additional documents a user would upload during the chat. For example, when a user uploaded their assignment and/or a source they found they wanted help assessing, it was hard to keep the Chatbot from referring to my pre-supplied document as though the user had also uploaded it and was familiar with it. To combat this, I added a limitation to its instructions to not directly quote or refer the user to the pre-supplied document since they would not be familiar with it.

TIPS & TAKEAWAYS

Test (a lot)

- Give it sources of many different types, old and new, high and low quality, available and paywalled, etc.
- Try to simulate users with varying levels of ability and effort
- Actively try to confuse or break the bot to see where its limits are

Continue improving

- Adjust your instructions as you uncover undesired bot behaviors

Get Feedback from Students

- Make students aware of potential limitations
- Include opportunity for reflection/feedback on using the bot in the assignment

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QUESTIONS?

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