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Generative AI Instructional Toolkit

Promoting AI literacy and responsible use in academic research

Created July 2025

Purpose and Overview

To support AI literacy and responsible research practices by providing educators and librarians with practical, ready-to-use materials.

This toolkit aims to help students use generative AI critically, ethically, and effectively.

Audience

Educators (e.g. teaching fellows, course instructors)

Academic librarians

Students in higher education

What's in the toolkit

Lesson Plans & Activities

- Find the Fake Reference
- AI vs. Database Search

Quick Reference Handouts for Students

- 5 Questions to Ask About an AI-Generated Answer
- Should I Trust This Information from ChatGPT?

FAQs

Quick Reference Handouts for Students

These standalone handouts provide tangible reminders of AI best practices.

Using them online or in print, students can quickly glance at "5 Questions to Ask" or the citation flowchart whenever they use Generative AI for research.

The key is that these visuals reinforce critical thinking habits: don't trust without checking, consider bias, look for evidence, and use library tools to confirm information. The toolkit's handouts thus serve as quick-reference 'cheat sheets' that complement the deeper lessons from class activities.

5 QUESTIONS TO ASK ABOUT AN AI-GENERATED ANSWER

Generative AI tools like ChatGPT or Perplexity can be helpful for brainstorming and exploring ideas, but they can also produce information that is incomplete, biased, or even incorrect. Use this quick checklist to critically evaluate any answer you get from an AI tool before relying on it in your academic work.

1. What was the AI's source for this information?

- Did it provide a citation, a link, or any reference to where it got this information?
- If there is no clear source, be sceptical. AI often doesn't disclose where its statements come from.

2. Is there evidence or a citation provided for this claim?

- Look for specific data, studies, or publications that support the statements.
- If the AI offers a citation, try to locate it in your library's databases or Google Scholar to verify that it's real and says what the AI claims.

3. How current is the information and could it be outdated?

- Many AI models were trained on old data and may not 'know' about the most recent research.
- This matters especially for rapidly evolving fields like health, nutrition, or technology.

4. Could this answer be biased or incomplete?

- AI reflects the patterns and biases in the data it was trained on, which means it might emphasise popular or Western-centric viewpoints, or overlook important nuances.
- Consider whether the answer feels one-sided or lacks multiple perspectives.

5. Have I verified this information in a reliable source?

- Always cross-check AI outputs with trusted library resources, scholarly databases, or peer-reviewed articles.
- If you can't confirm it with credible evidence, think twice before including it in your paper.

Remember: *Generative AI tools are helpful starting points, but they are not authoritative sources. Always bring your own critical thinking and when in doubt, check it out in a library database!*

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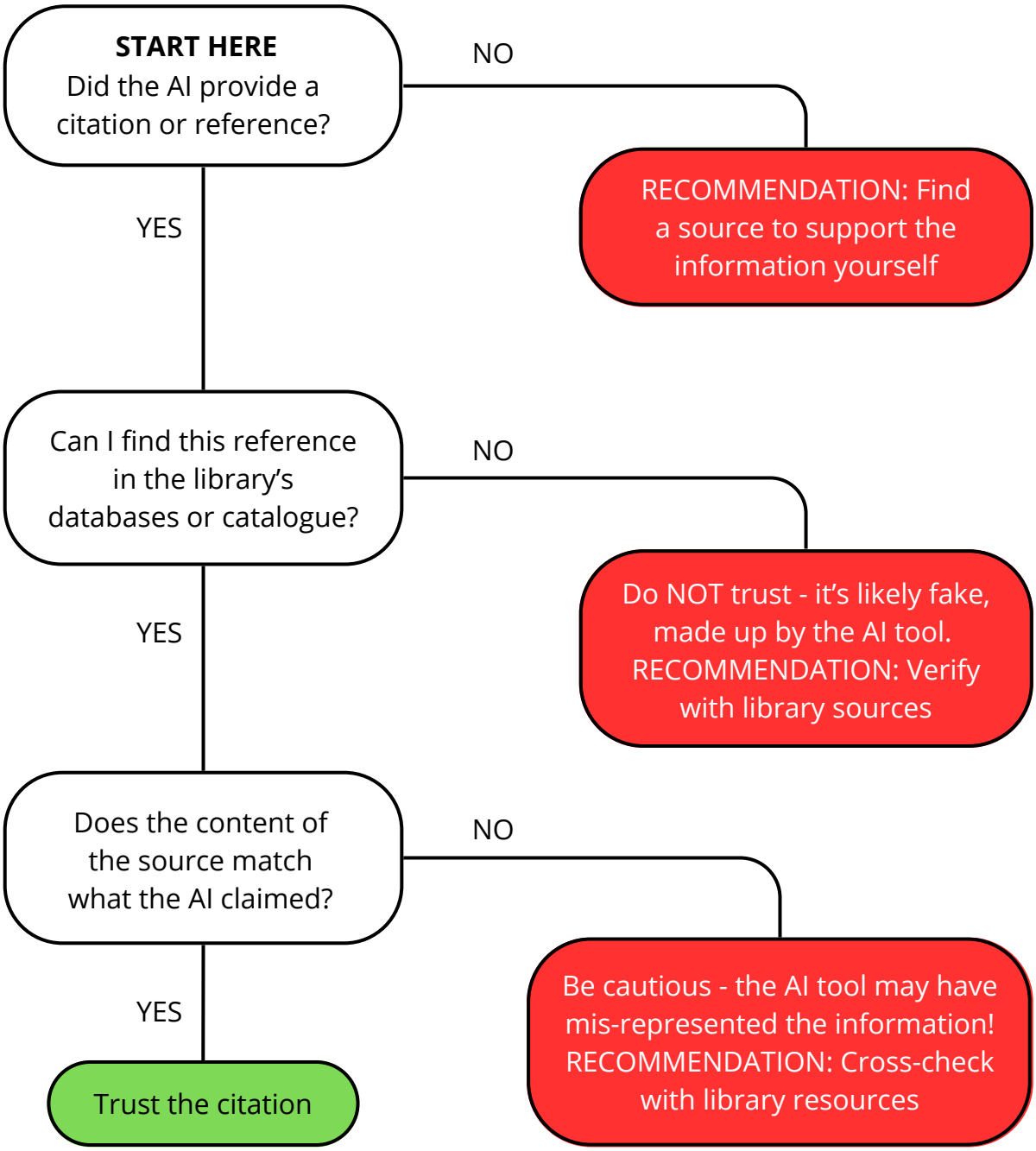
SHOULD I TRUST THIS INFORMATION FROM CHATGPT?

Follow the steps in this flowchart for a simple, concrete method that you can use to assess the reliability of facts and citations given by generative AI tools such as ChatGPT, Perplexity, CoPilot and many more.



Lesson Plans & Activities

Design interactive lesson plans that allow students to practice evaluating AI outputs and comparing them with traditional research tools.

In this section, we provide two example activities, which can be adapted for one-shot library sessions or integrated into semester-long courses on research methods.

Example Activity 1: AI vs. Database Search

An activity comparing AI's research abilities with scholarly databases

Steps:

1. Assign the same research question to multiple groups of students.
   - Group A uses an AI chatbot (e.g. ChatGPT).
   - Group B uses a scholarly database (e.g. IFIS's FSTA® - Food Science & Technology Abstracts for food science topics).

2. Each group formulates the query and uses their assigned tool to get results, recording the results in a worksheet.

3. Each group analyzes their results; for example:
   - *Are the AI's answers backed by credible sources or does it cite anything?*
   - *What differences do they notice in specificity, credibility, or depth?*

4. Guide a group discussion on their findings.

Often, students will observe that the AI's answer is easier to read but may include unverified or broad information. Whereas the database yields citable, field-specific literature. You can highlight that while AI draws from a "vast amount of general knowledge," it might incorporate *unreliable sources* (even content from predatory journals) without warning. By comparison, a curated database like FSTA provides *reliable*, vetted information – for instance, every journal indexed in FSTA is reviewed to **exclude predatory content** and ensure trustworthiness.

Learning Outcomes:

This activity reinforces database search skills, and helps students understand the strengths and limitations of using AI in research.

Optional: Include a worksheet showing an AI-written summary side-by-side with a real scholarly abstract, and have students judge which is more credible and why. This can spark conversation about tone, evidence, and bias in AI-generated text.

Example Activity 2: Find the Fake Reference
An activity highlighting how AI can *hallucinate* citations

Steps:

1. Present students with a few scholarly-looking references that were actually generated by an AI (and may not exist in reality). Have students attempt to locate the references in a scholarly database.
2. Debrief: After the students have inevitably struggled to find the fabricated sources, discuss the importance of source verification and to always double-check references in trusted library resources.

Learning Outcomes: This teaches students to be sceptical of AI-generated references and to learn to not accept AI answers at face value.

Frequently Asked Questions

Here we address the burning questions students are likely to have about using AI in their assignments.

Q: What if an AI tool gives me information that turns out to be wrong?

This is exactly why we emphasise verifying AI-generated content against reliable sources. Generative AI can sound convincing but still be inaccurate or misleading on many topics. It doesn't actually check facts. It produces answers based on patterns in its training data, which may be outdated or incorrect. If you rely on it blindly, you risk including false information in your work. So, if an AI gives you a piece of information or a statistic, you should confirm that info through scholarly articles, official reports, or other trusted resources.

Think of AI responses as a starting point or a hypothesis, not the final word. Always apply the CRAAP test (Currency, Relevance, Authority, Accuracy, Purpose) or similar source evaluation techniques to any information before you use it in an assignment. And if you can't find a credible source to back up something the AI said, it's safer to leave it out of your work.

In summary: double-check everything. The library's databases, librarians, or even your textbooks are good places to verify the facts. When in doubt, trust human-vetted information over AI output.

Q: How do I cite an answer from an AI tool?

You should cite it in the same way you'd cite a personal communication or an unarchived source, unless your style guide provides specific instructions.
For instance:

- APA guidelines (7th edition) currently suggest citing ChatGPT in-text as a personal communication (e.g., OpenAI, personal communication, date) rather than in the reference list. This is because a ChatGPT response isn't recoverable by others (they can't look up your specific chat).
- In MLA style, AI tools are not treated as authors but as sources of information. When using AI-generated content, you should cite it in your work, including the prompt, the AI tool name, version, and the date of the response.
- Under Chicago style guidelines, treat the AI tool as the author, and include details like the prompt used, the date of generation, the AI's developer, and a URL (if available and accessible).

Always check for updated guidelines, as formal citation rules for AI are new and evolving. And remember, if you quote text that the AI wrote, you should put it in quotation marks and clarify in your paper that it came from an AI (just as you would quote and attribute any author).

The bottom line: Treat ChatGPT as a source that needs acknowledgement – never just paste its output into your essay without citation.

Q: Is using Generative AI to help with an assignment considered cheating?

It depends on the class policy, but transparency is key. Using Generative AI without acknowledgement is usually treated as plagiarism, the same as copying someone else's work. If your instructor allows AI for certain parts of the work (like brainstorming or first drafts), you must still disclose that use and cite any content from it. Presenting AI-generated text as your own work (or letting it fabricate sources for you) violates academic integrity. Universities and libraries are emphasising that students remain responsible for the work they submit.

In short: if you do use a Generative AI tool, get permission if required, use it only as allowed, and always give proper credit. If you're ever unsure, ask your instructor or a librarian for guidance. It's better to be safe and transparent than risk your academic reputation.