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Navigating AI

5 Tactics for Teaching Information Literacy

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Purpose and Overview

To support educators and librarians when integrating AI into information literacy instruction in a balanced way – neither banning it outright nor endorsing it uncritically, but fostering an environment of responsible, informed use.

This toolkit outlines practical strategies, key messaging, and elements of an instructional toolkit that can support teaching and outreach on AI literacy.

Audience

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

Academic librarians

What's in the toolkit

1. Teach "AI Literacy" as Part of Information Literacy

Just as we teach students how to evaluate websites or scholarly articles, we now must teach them how to evaluate AI-generated content. In practice, this means adding *AI literacy* to our information literacy repertoire. Students should understand what generative AI is (and isn't) and recognise its strengths (e.g. convenience, breadth) and weaknesses (e.g. no guaranteed accuracy, no inherent truth-checking). Library associations have emphasised educating users about AI's capabilities *and* biases (Coffey, 2024) – echoing the idea that we must help users see where AI might mislead or reflect bias.

For example, a brief module or discussion in a library instruction session could pose questions like:

? Where do tools like ChatGPT get their information?

? Why might they be wrong or biased?

? What ethical issues do they raise?

This sets the stage for critical thinking about AI outputs.

We can also integrate AI examples into the existing **ACRL Framework for Information Literacy** to keep our teaching timely.

- Under the frame *Authority Is Constructed and Contextual*, students might discuss who (or what) the "authority" is behind an AI-generated answer, and how the lack of a visible author or source affects their trust in that information (James & Filgo, 2023).
- Under *Information Creation as a Process*, students could compare an AI-created text with a peer-reviewed article to see how the creation, review, and credibility differ.

Such discussions ground AI literacy and can be integrated in familiar information literacy concepts, giving us the opportunity to explicitly **teach AI literacy** alongside database literacy, comparing how AI tools vs. library tools produce information and why that difference matters (Withorn, 2025).

Key Message: AI is a tool that requires human critical thinking. Students cannot offload their judgment to the machine; they must interrogate AI outputs just as they would any source.

2. Emphasise Ethical and Transparent Use of AI

Students need clear guidance on the ethical pitfalls of using AI in academic work. This starts with updated plagiarism and academic integrity policies that specify when AI usage is allowed and how it must be acknowledged. Many institutions (often with librarian input) are now crafting such policies.

As educators, we should advocate for **transparency** in any AI use. For instance, if a student uses ChatGPT to brainstorm or draft an outline, should they disclose that to their instructor? The emerging consensus is yes. Some style guides (APA, MLA, Chicago) have even released guidelines on how to cite or acknowledge AI-generated text. We should encourage students to treat AI like any other source by documenting when and how it's used.

The Association of Research Libraries' new principles underscore that there is "no AI without humans," meaning a human must remain responsible for how AI is applied in research and writing (Coffey, 2024).

> **Tip:** Have students keep a research log of any AI queries or content they use during an assignment, just as they would note database searches or article sources. This habit not only makes them more mindful of their AI use, it also provides documentation in case questions arise later about originality.

Key Message: Students can use AI as a helpful assistant, but they are the scholars. They must verify and properly integrate any AI-provided material. Ultimately, they are responsible for the work they submit.

3. Develop Verification Skills

Perhaps the most crucial skill to impart now is how to **verify information** that AI tools produce. Since Generative AI tools can present falsehoods in a very confident manner (even fabricating academic citations) students must learn never to accept AI output at face value. Educators can turn this into an active learning exercise, such as:

- **Exercise 1:** Give students a suspicious-looking reference invented by an AI tool and have them attempt to find it in the library's databases. Inevitably, they discover it doesn't exist, leading to a discussion about why the AI might generate fake sources.

- **Exercise 2:** Students take a factual claim from an AI-generated response and search for it in a trusted resource or library collection to see if it can be corroborated. These activities show concretely that *AI can be wrong*, and they reinforce traditional research skills of fact-checking and source validation.

Librarians can share simple verification strategies: for instance, if an AI tool provides a quote or statistic, try to find that exact information in a reliable source; if it provides a citation, look it up via the library.

> **Always ask:** Is it real and does it say what the AI claims?

By doing this, students experience the importance of double-checking AI-derived information. As one research study noted, raising awareness about ChatGPT's tendency to fabricate citations can help maintain scientific integrity. Researchers who know about this issue will be more likely to double-check anything an AI gives them (Walters & Wilder, 2023).

Key Message: AI output is a starting point, not an ending point. Teach students to treat AI responses as hypotheses or leads that they must verify with credible sources before trusting or using them in their work.

4. Highlight the Continuing Relevance of Curated Tools

In our instruction and outreach, we should actively demonstrate the value of library databases and other curated resources, especially in tandem with discussions of AI. The emergence of Generative AI gives librarians a perfect opening to show what *human-curated, peer-reviewed* information sources offer by comparison. For example, if a student says, "ChatGPT told me X about nutrition," a librarian can respond: "Interesting. Let's see what the **FSTA** database shows on that topic." By searching FSTA or **NutriHealth** in front of the student, we can find peer-reviewed articles or authoritative data that either back up or contradict the AI's claim. This not only teaches the student how to use the database, it reinforces the message that the library provides depth, accuracy, and comprehensiveness that a quick AI answer might lack.

Library associations encourage advocating for **openness and transparency** in AI algorithms (Coffey, 2024), and one way to live that value is by showing students the *source of truth* behind an answer. Unlike a chatbot, A&I databases *show their work*. Every result comes with a cited author, journal, and date, so you know where the information comes from.

The table on the following page outlines the key elements and differences between generative AI tools and curated databases. By walking students through these differences (and explicitly showing them *both* tools in action), we send a nuanced message:

> **Remember:** AI is another tool in the toolbox,
> not a replacement for traditional research tools.

We can acknowledge that generative AI is handy for getting a quick overview or brainstorming keywords, but we then demonstrate that serious academic work still relies on the library's resources for reliable, thorough information.

Key Message: Use case matters. AI is great for a quick start or idea generation, but for an in-depth literature review or finding specific evidence, a curated database is indispensable. Use AI if it helps, but always follow up with trustworthy sources from the library.

Generative AI vs. Curated Databases

Starting Point	**Generative AI** (e.g. ChatGPT / Perplexity / Claude / etc)	**Curated Database** (e.g. FSTA / NutriHealth)
 **Scope of Information**	Broad, general knowledge from the open web. May include non-scholarly content. No access to paywalled information.	Focused scholarly content in food, nutrition and health sciences. 50+ years of coverage.
 **Quality Control**	No vetting of sources. Risk of algorithmic / training bias favouring particular perspectives. Does not exclude predatory or unreliable sources.	All sources vetted by food and information scientists. Indexed journals must pass a comprehensive predatory assessment. Sources are continuously monitored for signs of hijacking.
 **Source Transparency**	Provides answers with little or no citation. Can generate fake references.	Every result is a cited publication. Full bibliographic details are provided.
 **Search Method**	Natural language Q&A: easy to ask but may miss nuanced terms and oversimplify without access to a controlled vocabulary.	Controlled vocabulary and expert indexing for precise, comprehensive discovery.
 **Comprehensive coverage?**	Some Generative AIs have knowledge cut-offs and they do not have access to information behind paywalls. As such Generative AI can miss the latest research.	A&I databases such as FSTA and NutriHealth are updated weekly, including new articles from both OA and subscription journals.

Information accurate as of July 2025

5. Foster Collaboration and Continuous Learning

Tackling the challenges of AI in academia is not a one-person job. Librarians, faculty and knowledge partners should collaborate to stay ahead of the curve. The library community at large is already actively talking about AI – through webinars, conference presentations, and publications – so plugging into those networks (ACRL forums, the ALA and IFLA statements, etc.) will help your library not reinvent the wheel. For instance, the Association of Research Libraries released guiding principles on AI in 2024, and many library conferences now have sessions on AI in instruction. By keeping informed together, librarians can pool wisdom and support each other's experiments in the classroom.

Collaboration with faculty is equally important. We should position the library as a partner in dealing with AI's impact on teaching and learning. Reach out to instructors to discuss how assignments might be adapted in the AI era, or offer to give a guest lesson on evaluating AI sources.

At IFIS, we offer guest webinars for students and faculty on "What you need to know about AI in information literacy", as well as crafting free educational resources for our customers to support educators in addressing the challenges and opportunities of AI in the classroom.

We'd be happy to support your institution in this way, so please do get in touch to find out more.

> **Contact IFIS:** Arrange your own event with
> Angela Ball, Customer Relations Manager
> a.ball@ifis.org

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