

**Artificial intelligence literacy and information literacy:
small ways to add AI literacy into library instruction sessions**

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As an academic librarian, an important part of my teaching has always been to convince students that using library databases, instead of internet searches, can save time and make their research process easier. But recently, I've realized that Chat GPT, Google Gemini, and other generative AI products are the new competition—not because they are better or faster at helping students locate academic research—for the most part, they aren't (and many students haven't yet come across the specialized, academic-focused AI tools that do exist). But in terms of appealing to what students want and what they perceive as helpful, these generative AI chatbots are becoming the first place that many students go to for information—even if only because AI has been integrated into popular search engines, with AI generated answers featured prominently at the top of the results lists.

This Spring, I had a freshman student who struggled to find a peer reviewed source that they liked for their first year English composition paper. They knew exactly what they wanted, but the articles they found in the library just didn't match their vision. I try to explain that this is a common thing that can happen—researchers don't always find what they expect when doing a literature search. You can refine your search by trying different keywords, using a different database, or trying to think about your topic in a different way—but doing research means being open to discovering whatever is out there, even if it's not what you imagined. When I left them to help other students, they went to ChatGPT instead and asked it to write an article for them. Their prompt described what the article should say. They excitedly waved me back over to show off how great this was, how in just a few seconds ChatGPT wrote for them exactly what the library database couldn't seem to provide. Now their only question was, how to cite it?

In most of the teaching I do, I am visiting someone else's class. I introduce students to library resources, demonstrate search strategies, and give students time to start searching. So, when a student decides to use ChatGPT instead of the library, it's not really up to me whether or not that's okay.

In this case, I waved the professor over and asked them if ChatGPT was an acceptable source for the assignment, and they talked to the student about why it wasn't this time. But this student interaction haunted me long after the class was over. I hadn't considered yet the way that generative artificial intelligence makes it possible to request bespoke "articles", with exactly the sort of text that someone wants to quote, whether or not there is any veracity or research behind it. (To be clear, the student I was helping was not trying to back up a dubious claim, they were just researching a topic that wasn't all that well represented in academic literature yet). But the dangers of having the power to generate such credible and professional sounding text on any topic, for any purpose, seem very real all the same. I realized that I need to do more to address artificial intelligence literacy in my sessions, even when students aren't allowed to use it for their assignments. Many students are already using AI anyway, no matter how faculty or librarians feel about it. I realized I need to have more conversations with students about what academic research really is, and how important it is for them to contribute to scholarly conversations with their own voices.

After this session, I've started talking more about artificial intelligence in my library sessions, even if the professors I'm working with ask me not to show any of the artificial intelligence tools. I don't spend a lot of time on it at all, but I'll mention it in the same way that I sometimes point out the difference between searching Google and searching a library database. Library databases are very transparent—you can find spreadsheets of all the publications they include, and these publications have been chosen because they have been evaluated by experts on some sort of criteria and found worthy of being included. If you're looking for an academic journal, it's easy to sort for those, and then spend your energy on selecting the article that most interests you rather than figuring out if its peer reviewed or not. On Google, pretty much anything goes in terms of what kinds of publications you can find there. Google isn't really curated the way that library databases are, and on Google it can be difficult to determine what type of information you're looking at and where it is coming from. This opens up the range of information you can find much wider, but at the same time shifts a lot more of the burden of evaluation on the person searching. Generative AI is even more complicated—some AI will offer links back to where it says it got the information from, and it's a good idea to follow those links and make sure you agree with how the AI summarized and reported on the information you find there. But then you also need to evaluate those sources--was the AI taking in good information, or was it using websites that don't seem all that credible? And what to do with the AI that won't tell you where it is getting its information from, even when you ask? Even when you ask an AI for peer-reviewed sources, the AI could misinterpret a source or invent one that doesn't actually exist. No matter where you are getting your information from, evaluation is always an important step in the research process.

If faculty are open to me showing students some of the AI databases that our library has access to, I am now careful to compare them to freely available generative AI that students might also use.

The difference between using Scite, an AI driven database that our library subscribes to, and using most freely available generative AI tools, is that with Scite we know that the AI is only using peer reviewed academic journals (although even then, we don't know exactly which ones, the way we do with most other library databases). But using an AI that is drawing from (and citing) peer reviewed research in everything that it composes is very different, even though the need for evaluation always exists.

Our library's main search engine, which includes the library catalog and many library databases, also recently added an AI driven "research assistant" which will recommend the top five resources drawn from library sources for any research question that you ask it. I like to demonstrate this after I've demonstrated the main library search, so that students can see the pros and cons of both systems. If you are only getting the top five sources, how do you know those are really the best sources for your topic? If you've already done a similar search in the regular library database, it's easier to compare and judge for yourself how well you think the AI algorithm did, and what might still be missing. It's also interesting that this tool will show you the keyword search string it used to search with, and it is easy to click back over to the main library database and see all the results that were located, so that you can see what didn't make the top five cut and decide if you like any of those articles better. Throughout everything, I try to emphasize to students that they need to make the decisions and not trust artificial intelligence to think for them. I'm hopeful that pointing out these strategies can help students become more aware and more savvy users of artificial intelligence, in ways that will enhance their learning rather than shortcut it.

