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Selecting the right
generative AI tool for
your institution



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Generative artificial intelligence (GenAI) tools are growing rapidly in number and popularity. But while many in the academic community are excited about their potential, there are also reservations.

These range from ethical questions over copyright and privacy to concerns around the technology and sources used. With a lack of consensus on what a “good” tool looks like – and available frameworks to assess them – identifying a suitable solution for your institution remains a challenge.

In this high-level guide, we look at:

- Why it’s important to think about which GenAI tool your institution is using
- The role librarians can play in identifying a trusted solution (and why you should)
- Resources to increase your AI literacy
- 15 key questions to ask when evaluating GenAI tools

What is a GenAI tool?

GenAI is a form of deep machine learning. Large language models (LLMs) consume vast quantities of existing content and learn to identify underlying structures and patterns within it. When prompted, the LLMs then draw on that knowledge to generate new outputs with similar characteristics.

Why it matters which tool your institution chooses

The term ‘responsible AI’ traditionally refers to the safe and ethical *design* and *deployment* of AI tools. Increasingly, however, this definition is expanding to include the responsible *selection* of AI tools.

For example, if there’s no transparency around how a tool operates and the rules that guide it, how can you determine what steps it takes to minimize bias or hallucinations (incorrect or irrelevant answers)? Similarly, if it’s unclear which content sources it uses, how can you judge the recency or crucially, trustworthiness of the information it provides?

A 2024 report on AI by *The Chronicle of Higher Education* flags another important point to consider – that ownership of some AI tools may well change hands. It notes: “A common assumption in 2024 is that many of the gen-AI startups that emerged after ChatGPT’s release will likely fail, merge, or be acquired in the near future.”¹

Your users need access to accurate and reliable tools to guide their research, teaching and learning. When tools don’t meet these standards, the quality of your institution’s academic research and student data literacy can suffer. Unreliable GenAI results also have consequences for your workload; some librarians are now fielding a growing number of requests to validate suspect AI-generated references.

“Trust is a useful tool for us as humans ... [but] it can be really problematic when our expectations of what a system is capable of are misaligned with reality.”



Harry Muncey,
Director Data Science and
Responsible AI at Elsevier



Did you know?

A study has found that when summarizing facts, web-trained ChatGPT technology “makes things up” about 3% of the time. Hallucination rates for some widely used tools can rise as high as 27%.²



Leveraging your knowledge and skills as a librarian

With your expertise in the curation and evaluation of digital resources, you can help your institution and users make informed decisions about which tools to use.

However, there is evidence that library interest in GenAI remains relatively low – at least in some regions. In 2023, a survey of North American members of the Association of Research Libraries (ARL) found that only **11%** of respondents said they were actively implementing GenAI solutions.³ And **70%** of participants in another survey admitted they didn't feel prepared enough to adopt GenAI tools within the coming 12 months.⁴

Taking a 'wait and see' approach can be risky given the already high uptake of AI tools by faculty and students. In fact, survey results suggest that around **60%** of your library's users are likely to be independently using GenAI tools.⁵ And this has huge potential to grow. For example, the Elsevier study *Insights 2024: Attitudes toward AI*, found that if researchers had access to a reliable and secure AI assistant, **92%** would use it to "review prior studies, identify gaps in knowledge and generate new research hypotheses for testing".⁶

By hosting a central solution in the library, you can help your users enjoy the benefits of GenAI while avoiding the potential pitfalls. You can also help to demonstrate the value you add on campus: According to the ARL, the rise of GenAI offers librarians an opportunity to learn about the technology and use that knowledge to "**exert leadership** as (their) research institutions navigate the AI era".³

And it seems clear that library users want this leadership. For example, **68%** of US higher education instructors surveyed said they would consider using a GenAI tool if there was an assurance that it was going to be effective. For **54%**, guidance on its reliability was the most important factor.⁷ And a rising number of ARL members report being asked by other departments on campus to partner with them on AI and create suitable policies.⁸ This has led the organization to draw up [seven principles](#) librarians can use when responding to these requests.

“These are not magic black boxes. This is a transactional relationship and people need to trust and maintain confidentiality.”

Andrew Hufton,
Editor-in-Chief of the Cell Press journal *Patterns*



The importance of AI literacy

Not all AI tools are created equal. The solutions that you and your stakeholders must choose from differ in their maturity, functionality and scope. Crucially, they also differ in the reliability of the information they generate.

But before you can evaluate AI, it's important to become 'AI literate'. While definitions of the term vary, most agree that it involves familiarizing yourself with fundamental AI concepts like machine learning, natural language processing and neural networks. It also involves developing an understanding of the technology's opportunities and limitations.

For those new to GenAI, here are a few useful resources to help you get started:



[Generative AI for library and information professionals](#)

This non-technical resource page developed by the International Federation of Library Associations and Institutions (IFLA) is packed with links to authoritative sources.



[Generative AI Short Course](#)

The US National Library of Medicine has created this course with librarians specifically in mind. The four sessions are led by a team of experts who cover the 'nuts and bolts' of GenAI, including its practical applications in library settings.



[Exploring AI with Critical Information Literacy](#)

This four-part course from the Association of College and Research Libraries (ACRL) examines and unpacks AI through the lens of critical information literacy.



[Guidance for generative AI in education and research](#)

This report by UNESCO (the United Nations Educational, Scientific and Cultural Organization) includes advice for educational institutions that want to use GenAI responsibly.

15 questions to ask when evaluating a GenAI tool

Sifting through the rising number of GenAI tools available isn't easy. Here are some questions that can help you determine which route to go.

1. Does the tool address the needs of your users?

Are they looking for something that will help them learn about new fields quickly? Or point them to relevant literature on a topic? Is their need focused on a specific disciplinary area, or do they want broad coverage? Some tools on the market attempt to support all use cases, while others focus on completing core tasks really well. Understanding the needs of your users will help guide you toward the best fit.

2. Has the tool been thoroughly tested by people like your users?

Understanding this can help with answering the previous question. It's also an indication of whether concerns your users are likely to have around accuracy and privacy have already been raised and addressed.

3. Does the tool – and how your users want to leverage it – align with your institutional policies?

For example, will your users' queries and personal data be handled in line with existing privacy guidelines? And if your institution is one of a growing number to draw up a policy outlining how AI and the information it generates should be used, does the tool enable you to comply with those requirements?

4. Are there existing GenAI tool evaluation frameworks you can turn to?

In response to the rising demand for criteria to assess AI technologies, new frameworks are emerging. For example, librarians Amanda Wheatley and Sandy Hervieux at Canada's McGill University have developed [the ROBOT Test](#) with those new to AI in mind. It provides a list of questions divided into five helpful categories: reliability, objective, bias, ownership and type.

5. Do you know how the tool reaches its answers?

With so much information out there to draw on, GenAI tool providers rely on complicated algorithms and guidelines to help the AI determine which content to use. But not all providers are transparent around those instructions. Important questions you can ask include what kind of technologies does the tool use to search for and generate answers? What criteria guide the prioritization of the sources used? Does the tool try to provide a range of perspectives? And what does it do if it can't find relevant sources? Some AI providers now provide 'model cards' that help to explain how their technology works.

6. Do you know which sources the tool uses?

GenAI models are built using huge volumes of data. But it can be unclear exactly where that data is drawn from. Some tools scrape it from a wide range of internet sources, opening the door to unverified information, bias and incorrect data. In the case of academic tools, if the content used is not carefully curated, there's a risk that publications from predatory publishers and paper mills will creep in. And the models are often trained on static datasets, meaning information can quickly become dated. To ensure your researchers have access to trusted and current results, it's important that the tool uses up to date and verified content and is transparent about where it's drawn from – preferably with fully referenced sources.

7. Do responses undergo regular testing for accuracy and relevancy?

While it's reassuring to know that a tool's technology has been built to minimize hallucinations and bias, it's equally important that there are ongoing checks and balances to ensure those goals are being met. Providers should have coherent action plans that include regular testing and evaluation, feedback loops for users and a process for human oversight.

8. Does the tool take steps to minimize bias and hallucinations?

As UNESCO notes in a 2023 report: “Providers of GenAI ... should ensure that robust ‘guardrails’ are in place to prevent GenAI producing offensive, biased or false content ...”⁹ GenAI systems can inherit biases present in the data they were trained on. And without the right blend of technology, content sources and monitoring, these can appear in the AI’s responses, as can hallucinations. That’s why it’s so important that providers take measures to keep these problems to a minimum.

9. Is the privacy of users and their data respected?

According to UNESCO, some generative AI technologies may not comply with privacy laws such as the European Union’s (2016) General Data Protection Regulation (GDPR). In particular, they point to the fact that while GDPR acknowledges people’s right to be forgotten, it is “currently impossible to remove someone’s data (or the results of that data) from a GPT model once it has been trained”.⁹ When considering a GenAI tool, it’s important to understand what data protection and privacy guidelines are in place.

10. Is the tool easy for your stakeholders to use and can it be integrated into existing workflows?

This will not only encourage your library’s users to engage with the GenAI tool you’ve vetted and selected, it will also save them valuable time.

11. Does it respect the copyright of the authors whose content it uses?

The GenAI tools that draw their model training data from the internet often do so without seeking the permission of the data owners.



Did you know?

In a survey of higher education instructors, **84%** identified academic integrity as the most concerning risk of GenAI, **52%** are worried about the potential for inaccurate outcomes, and **40%** the potential for bias.⁷

12. Does it comply with relevant regional, national and international regulations?

The European Union’s General Data Protection Regulation (GDPR) is a great example of the kind of regional laws that it’s important GenAI tools observe.

13. Does the tool provide suitable channels for feedback, complaints and remedies?

Providers of GenAI solutions must have mechanisms in place to capture user comments and concerns. This not only ensures that faults can be corrected, it also helps to improve the tool. You also want to know that your users’ feedback will be addressed promptly.

14. Have the tool developers considered accessibility?

Can the solution be used by all your library users, whatever their accessibility needs?

15. Are the terms of use clear?

When you subscribe to a tool or register for a new account, it’s important that the terms and conditions are not only freely available, but are clearly and transparently stated.

GenAI holds great promise within higher education and research if appropriately applied.

With proper guidance from experts in information management, students, their teachers and researchers can tackle tasks that were once thought insurmountable. Through understanding, due diligence and outreach, librarians are perfectly placed strategically to serve as these experts for their users and institution

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