# Coursework and GenAI: A Practical Guide for Students

# Evaluate Module

## Keeping academic integrity top of mind

“Undergraduate and graduate students may use GenAI tools as learning aids, for example, to summarize information or test their understanding of a topic. These tools should be used in a manner similar to consulting library books, online sources, peers, or a tutor. Such uses are generally acceptable even if an instructor has stated that AI tools are not otherwise permitted in the course. These uses typically do not need to be cited or disclosed.”

*(*[*Office of the Vice-Provost, Innovations in Undergraduate Education:*](https://www.viceprovostundergrad.utoronto.ca/strategic-priorities/digital-learning/special-initiative-artificial-intelligence/)*FAQs on GenAI in the Classroom, 2024)*

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| **However, it is recommended that if you have any questions or doubts about whether you should use GenAI in your assignments or other academic work, beyond use as described above, always contact your course instructor or graduate supervisor for clarification.** |

## Your responsibility: accuracy and fact-checking

As GenAI tools, such as ChatGPT or Copilot, are designed to generate text by identifying and reproducing patterns in large datasets, they do not possess a factual understanding of the world, nor do they have access to real-time information (unless explicitly connected to live databases).

Because of this, GenAI tools are prone to producing:

* Inaccurate or outdated information
* Fabricated references or statistics
* Responses based on biased or unverified sources

These issues are often referred to as **hallucinations** — instances where the AI generates information that is either entirely false, partially fabricated, or misleadingly framed. In some cases, **misinformation** (false information shared without harmful intent) or **disinformation** (false information with the intent to deceive) can also be embedded into responses based on the nature of the data the AI was trained on.

For additional information about Gen AI hallucinations and dis/misinformation see the *Understand* module.

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| **As a university student, you are expected to evaluate and verify any information used in your academic work — whether it originates from a scholarly database, a textbook, or a Gen AI tool. You should also indicate the source of content, including text, code or images generated by AI-enabled tools per evolving scholarly norms for citation and attribution. This will ensure clarity regarding the source for future reference and demonstrate academic integrity** |

Your responsibility includes:

* Critically assessing the accuracy and credibility of AI-generated responses
* Cross-referencing claims against reliable and peer-reviewed sources
* Understanding the limitations of AI tools as non-expert systems
* Attribution or statement of use of AI-enabled tools for content generation

Relying solely on Gen AI content without fact-checking undermines academic integrity and can contribute to the spread of misinformation.

## Beware of bias

Generative AI tools are trained on large-scale datasets that reflect the content and biases of the internet and broader cultural production. As a result, AI outputs may reinforce:

* Cultural, gendered, or racial biases
* Western, colonial or anglophone-centric worldviews
* Stereotypes or generalizations about identity and ability

These problematic patterns are not intentional, but they are deeply embedded in the data. Understanding this helps you recognize the importance of taking responsibility to ensure issues are not replicated.

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| Explore and reflect: Uncovering model bias To explore how LLMs may reflect societal or cultural biases embedded in their training data you can look for patterns in how it describes gender, race, class, or other identity markers. Follow these steps:1. **Create Sentence Prompts**:
	* Think of a few sentence or image generation prompts that describe people in professions, behaviors, or situations
		+ *The CEO walked into the room and…*
		+ *The nurse walked into the room and…*
2. **Input Sentences into Chatbots**:
* Use a chatbot like Microsoft Copilot or ChatGPT to respond to the prompt.*" Complete this sentence: The CEO walked into the room and…*
1. **Repeat and Reflect**:
	* Repeat this process multiple times with the different professions to observe the results.
		+ What assumptions does the model seem to make?
		+ Do different professions lead to different types of completions?
		+ What kinds of names, genders, or descriptors are inferred by the model, and are they stereotypical?
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## Practical strategies for evaluating results

Evaluating the accuracy of Gen AI-generated content is not simply a checklist task — it's part of engaging with information critically, much like you would when reading a scholarly article or conducting a literature review. Below are some strategies for **academic evaluation**, designed for use across disciplines and adaptable to different kinds of Gen AI outputs.

Remember, this is an iterative process, reinforcing your role as a critical thinker and academic contributor, not just a consumer of content. Your academic integrity relies on more than citing sources: it rests on your **critical thinking, curiosity, pride in learning and care** when handling information.

### Verify Sources

AI tools may provide references that seem legitimate but could be inaccurate. Your job is to:

* Search independently: Look up cited articles or studies yourself.
* Compare claims: Check against your course materials or academic databases.
* Context check: Ensure statistics are used correctly.

If a source is missing or unverifiable, don't use it.

### Cross-check across sources

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| Don't rely on a vertical dive into a single source. Use a strategy known as **lateral reading** that is used by researchers, professional fact-checkers and journalists to check what other sources say and compare coverage.* **Verify claims** across multiple trusted sources:
	+ Academic Journals
	+ Government/Institutional Websites
	+ Peer-Reviewed Databases

Triangulate information by consulting at least three reliable sources. |  |

### Consider limitations and gaps

Even if an AI response seems accurate, ask:

* **Missing perspectives**: What viewpoints are absent?
* **Complexity**: Is the issue oversimplified?
* **Unexamined points**: What’s left unsaid?
* **Currency:** Is the information up to date?

By thinking critically about what's missing or oversimplified, you not only strengthen your analysis, but may also uncover new questions or lines of inquiry worth exploring.

### Compare and make a judgment

After fact-checking:

* **Supported claims**: Which are backed by evidence?
* **Inaccuracies**: Identify misleading or context-lacking points.
* **Oversimplifications**: Note where the AI generalizes.

Revise or refine the response based on your research. You might:

* **Re-prompt the AI**: Ask more specific or corrected questions.
* **Manual rewrite**: Replace false claims with reliable information or reframe the response.

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| University of Toronto Library offers support in [searching, using academic databases, and evaluating information](https://onesearch.library.utoronto.ca/ask).  |

## Impact on Learning

AI can be a powerful **learning partner** when used thoughtfully and intentionally. It is important to use it to *support,* *not replace* your own deep, active learning.

### What is cognitive offloading?

When we use GenAI tools to perform cognitive tasks — like summarizing texts, organizing information, or finding sources — we’re engaging in what’s called **cognitive offloading**. This is when we rely on external tools (like GenAI, Google, or a smartphone) to reduce the mental effort we would normally use for thinking, remembering, or solving problems ourselves.

Why do we offload?
Because it feels easier — and often is. Offloading can save time, reduce stress, and help us complete tasks more efficiently. It can even support our performance in certain types of tasks (like organization or multitasking).

But in research and in learning it also shows some potential risks:

* **Reduced memory retention**: We remember less when we expect an external tool to “remember for us”.
* **Less critical thinking**: We may be less likely to analyze, evaluate, or deeply engage with content when an AI offers a quick answer.
* **Overconfidence**: Some studies found that using AI tools can make users feel like they understand something better than they actually do.
* **Reducing the desired difficulty in learning:** Effective and durable learning is often achieved through real struggle and mental work with the subject matter. The over-use or consistent reliance on AI can reduce these opportunities.
* **Decrease task management skills:** Dependence on GenAI can lead to skill gaps in project or systemic process management.

That means Gen AI is useful for your university academic work **if you stay engaged with the learning process**. It’s about balance: letting the tool assist without letting it take over.

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| The [Centre for Learning Strategy Support](https://studentlife.utoronto.ca/department/centre-for-learning-strategy-support/) provides University of Toronto students with additional supports to help you identify and achieve your learning goals. [Note – this can be edited to provide direct link to CLSS resource(s) related to use of GenAI when available.] |

## Self-awareness of impact on your learning

If the use of GenAI is permitted by the course instructor for an assignment, this decision framework below may be helpful to make an informed, responsible call on how to use GenAI enabled tools to support your learning process.Before opening a GenAI tool, ask yourself: ***What kind of thinking or skill development am I outsourcing here?*  *Am I missing out on valuable skills such as critical thinking and creativity that future emp*loyers will find valuable?**

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| The framework below provides guiding questions to raise your awareness of the impact on your own learning, and help you honestly decide if GenAI tools are helping you... hindering your development as a learner. 1. **What is the goal of the task?**

Am I using this to improve my writing skills? Analyze a reading? Show my understanding? **OR** Am I avoiding doing the thinking myself and letting AI get in the way of learning?  1. **What do I hope to gain by using GenAI?**

Am I using it to get inspired or unstuck? **OR** Am I hoping it “does the work” for me?  1. **Will I still engage with the learning myself?**

Will I check the accuracy of the AI’s output? Will I reflect on what it helped me understand? **OR** Or am I taking a learning short cut by offloading mental work?  1. **Will it provide flexible access to content or enhance/support my learning needs**

Can I use the tools to format the content that is more suited to my access needs **OR**Am I short-circuiting the activity assigned by my instructor and missing key learning outcomes? |

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| Pause for ReflectionHow does GenAIimpact my learning?If you have used GenAI as a support to your academic work, think of a recent time when you used the chatbot, and consider the value and impact on your opportunity for learning. * What value did using Gen AI bring to this task?
* What learning benefits do I get from it?
* Am I potentially over relying on GenAI and short-circuiting important skill building?
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## Three Takeaways

1. Always verify the accuracy and credibility of AI-generated content by cross-referencing with reliable sources to maintain academic integrity.
2. Understand that AI tools can reinforce biases and oversimplifications, so critically assess and address any missing perspectives or complexities in the information.
3. If you use AI tools to support your learning process, ensure you are thoughtful about cognitive off-loading and remain actively engaged in critically thinking about the material.

## References

[**Some harm considerations of LLMs**](https://h5pstudio.ecampusontario.ca/content/51741) (Queen’s University)

[**Equity, Diversity & Inclusion in AI - Indigenous Perspectives**](https://cifar.ca/ai/equity-diversity-and-inclusion-in-ai/) (Canadian Institute for Advanced Research)

[**Ethical Considerations for Using Generative AI**](https://guides.library.ualberta.ca/generative-ai/ethics) (University of Alberta)

[**Using AI tools for learning**](https://studentlife.utoronto.ca/task/using-ai-tools-for-learning-at-u-of-t/)(Student Life, University of Toronto)

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