



The AI-Enhanced Writer: Supporting Process, Product, and Academic Integrity

Robin Sutherland-Harris, PhD

Teaching Development Associate, Teaching Commons, York University

We will consider how AI is reshaping writing and research workflows, and what that means for teaching and assessing in writing-focused disciplines.



Overview

The AI-Enhanced Writer: Supporting Process, Product, and Academic Integrity

- State of the Field: Writing in an Age of AI
- The SHARE Framework
- Exploring SHARE in Writing Assessments

How does GenAI work?

GenAI...

Identifies patterns:

- Not random! Identifies & selects statistically probable outputs
- No particular adherence to the truth – can “hallucinate”

Based on training data:

- Decides what is statistically probable based on training data
- Outputs reflect biases inherent in training data & society in general

To create original material:

- Technically original, but still bound by statistical probability
- The more you know about a topic, the more you can see where GenAI misses the mark

As it constantly changes:

- Agentic AI can now perform multi-step research & writing workflows autonomously – we are past AI just responding to single prompts
- AI-generated synthesis may now be mistaken for rigorous scholarship – this “illusion of understanding” goes beyond individual hallucinations

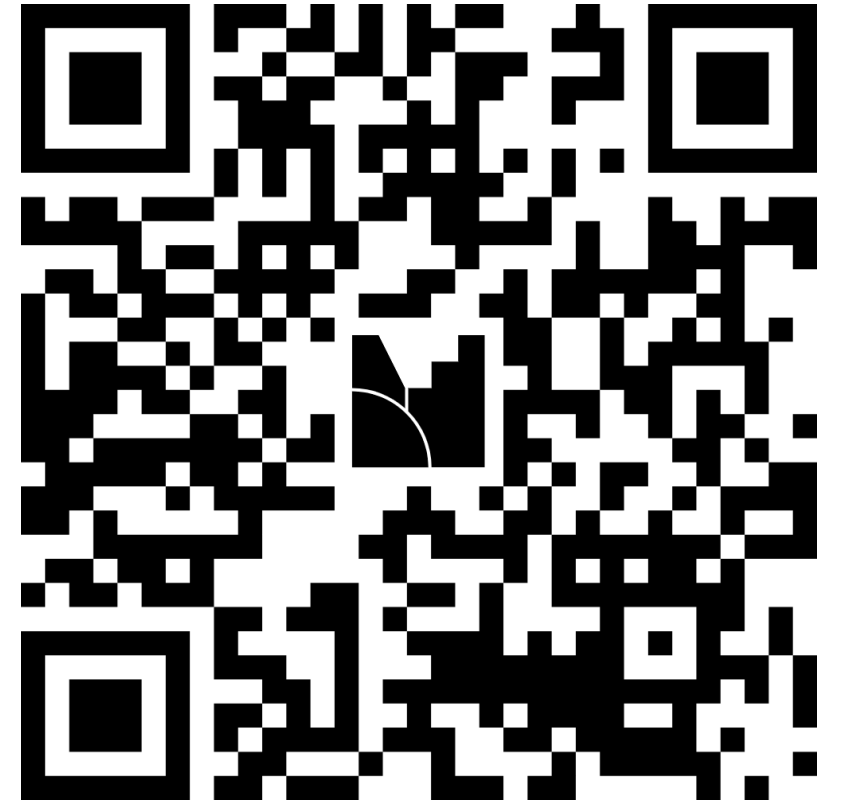
GenAI: Who does the learning?

➤ Consider cognitive offloading: “the use of physical action [*or a tool*] to alter the information processing requirements of a task so as to reduce cognitive demand.”

- Risko, E. F., & Gilbert, S. J. (2016). Cognitive Offloading. *Trends in Cognitive Sciences*, 20(9), 676–688. <https://doi.org/10.1016/j.tics.2016.07.002>
- See also:
 - Cecutti, L., Chemero, A., & Lee, S. W. S. (2021). Technology may change cognition without necessarily harming it. *Nature Human Behaviour*, 5(8), 973–975. <https://doi.org/10.1038/s41562-021-01162-0>
 - Grinschgl, S., Papenmeier, F., & Meyerhoff, H. S. (2021). Consequences of cognitive offloading: Boosting performance but diminishing memory. *Quarterly Journal of Experimental Psychology*, 74(8), 1477–1487. <https://doi.org/10.1177/17470218211008060>

What do you think?

- GenAI is changing scholarly work across the disciplines.
 - What's one thing you're doing differently because of AI, and one thing you're not willing to change?
- For postsecondary educators, what does GenAI mean for how we *teach students* to write in our disciplines?



Scan the QR code, click the link in the chat, or visit www.menti.com and enter the code **8620 1580**

State of the Field: Writing in an Age of AI

YORK 



Generative AI and (Scholarly) Authorship

- **AI cannot be an author**
 - Most (all?) academic publishers will not accept a LLM as a co-author, requiring human authors to maintain accountability for scholarship
- **Moral agency & responsibility**
 - Authorship requires moral agency, and as GenAI draws on a “hypercommons” of untraceable data, it is not able to take on the full authorial responsibilities surrounding attribution (Islam & Greenwood, 2024)
- **Transparency**
 - Therefore use of GenAI should be disclosed – in an introduction, methods section, appendix, or through citation (Kaebnick et al., 2023).
- **Practical implications**
 - GenAI offers significant support for the writing process, allowing authors to shift more attention to critical, analytical, and creative aspects of their work (Grimes et al., 2023)
 - Widespread GenAI use risks reducing the quality/innovation of scholarly work (Hosseini et al., 2023).
- **Philosophical/conceptual shifts**
 - What does it mean to be an author? Do reduced barriers to scholarly authorship (e.g. specialized knowledge/skills) suggest we should emphasize the importance of human creativity and novelty? (Grimes et al., 2023)
 - How do we collectively protect scholarly discourse from the risk of “deep research fakes”? (Grimes et al., 2023)

Equity in AI-Assisted Writing

- AI writing tools reflect and reinforce existing inequities in academic writing.
- Tools trained predominantly on Western sources push writing toward American norms, providing smaller gains to non-Western writers who must correct suggestions to preserve cultural voice (Agarwal et al., 2024)
 - LLMs drive writing toward homogeneity, working against efforts to diversify and decolonize academic knowledge production (Kuteeva & Andersson, 2024)
 - Multilingual and ELL students face a double burden: disadvantaged by tool bias *and* disproportionately flagged by detection
 - Access to the most capable tools depends on institutional licensing or personal income

How does writing with GenAI impact learning?

Benefits include:

- Reduction in cognitive barriers (Gayed et al., 2022)
- Support with brainstorming, organization, writing skills (Kim et al., 2024)
- Enhanced student engagement and self-efficacy (Nazari et al., 2021)

Challenges include:

- Potential over-reliance on AI leading to less critical engagement, creativity, and ethical writing/scholarship practices (Malik et al., 2023; Wang, 2024)
- Using GenAI to relieve cognitive load in ways that do not support learning
- Need for instructor and student oversight to ensure originality of student work, awareness of potential AI bias (Yasin & Al-Hamad, 2023).

Detecting AI Use

AI Detection tools are unreliable, biased, and easy to evade.

- False positive rates are significant — and fall disproportionately on multilingual students and those with distinctive writing styles
- Over 61% of TOEFL essays by non-native English speakers were flagged as AI-generated in one Stanford study (Liang et al., 2023). Detectors penalize the simpler grammatical structures common in ELL writing.
- OpenAI abandoned its own detector
- Detection tools therefore produce no reliable evidence

A possible reframing: “Did they use AI?” becomes “Did they engage with the work?”

Recommendations for educators

- Foster critical AI literacy in students
 - Awareness of how AI works, its strengths and limitations
 - Understanding of how bias is present in AI outputs
 - Importance of fact checking and awareness of potential for hallucinations
- Anchor learning in relevant, meaningful goals – WHY is critical thinking, academic writing, citation practice, etc. important for your students, both in and beyond your discipline?
- Frame AI as part of the process, not a short-cut, an efficiency tool, or a magic solution – beware of “metacognitive laziness” (Fan et al., 2024)
- Provide structure and support to guide students through the process of learning how to work with/interpret/critique GenAI

The SHARE Framework

YORK 



Responding to GenAI: The SHARE Framework

- Step-by-step teaching strategy for engaging students with AI-informed scholarly (co-)writing
- Aims to harness and direct the power of cognitive offloading
- Adaptable to varying levels of AI-involvement (from none to lots) and to different assessment contexts
- Process AND product focussed
- <https://www.yorku.ca/teachingcommons/resources-by-topic/artificial-intelligence-ai-pedagogical-resources/>

Responding to GenAI: The SHARE Framework

Steps in the SHARE Framework

Starting with text (generated by AI or humans):

Note: This is where a lot of course- and discipline-specific context and instruction comes in. Think carefully about what students will need as a starting text, who it should be created by, and how this connects to key skills, values, and writing norms in your field.

Responding to GenAI: The SHARE Framework

Steps in the SHARE Framework

Starting with text (generated by AI or humans):

1. **Streamline** - Remove any redundancies, repetitions, extra words and phrases that do not add meaning
2. **Heighten** - What is missing from the work? Fill in any gaps (scope, content, counterargument, etc.)
3. **Arrange** - Revise the order of paragraphs and sections to ensure the argumentation flows naturally
4. **Ratify** - Ensure that the AI-generated content does not contain any errors or claims you do not yourself want to make
5. **Evidence** - Build in the elements that will warrant your readers' trust (evidence, citations, etc.)

SHARE as a framework for epistemic clarity

“Students aren't just learning content or skills. They're developing ways of thinking, approaches to problems, and relationships to knowledge that will shape how they engage with complexity throughout their lives. If these foundational capacities develop primarily through AI-mediated processes, we may be cultivating different kinds of minds than we intend.

The classroom becomes a crucial space for helping students understand these epistemic stakes. Rather than simply teaching AI tools or prohibiting their use, educators need to help students recognize how different approaches to AI integration shape different kinds of thinking and learning....

Rather than defaulting to efficiency as the primary value, we might prioritize epistemic clarity: understanding what kinds of thinking and learning we're trying to accomplish and how different AI integration approaches support or undermine those goals.”

-Nick Potkalitsky ([Educating AI](#), August 21, 2025)
YORK 

EXAMPLE: Research Paper with “SHARE-guarded workflow”

- *Level / Discipline: Second-year humanities or social sciences*
- *Size / Modality: 35-120 students; in-person or blended*
- *AI Attitude: Wary but open (integrity and factual accuracy stressed)*
- *Assessment: 1500-2000-word position paper with at least 4 scholarly sources*

EXAMPLE: Research Paper with “SHARE-guarded workflow”

SHARE Stage	Concrete Activity	Integrity guardrails
Streamline	Students write a short paragraph on their core argument, then use AI only to remove redundancy and clarify sentences	In-class, demo concision vs distortion and show how to reject AI edits. Students keep a record of their original and AI-suggested edits.
Heighten	AI suggests 3 potential missing counterarguments and 2 lenses; students choose at least 1 to incorporate.	Prof provides overview of common lenses in the field. Students label AI-named sources as “to-verify”. Students explain choices.
Arrange	Students draft initial outline; ask AI to propose 2 alternative structures.	Students discuss outline coherence in groups; in-class workshop helps students ensure each paragraph has human-authored topic sentence
Ratify	Students verify every claim with a checklist or worksheet and review paraphrasing. AI can be used to identify contestable claims in graft paper.	Unverified claims are cut or revised.
Evidence	Endnote or Zotero bibliography and disclosure statement/matrix that supports transparency in AI use.	AI disclosure expected. Final paper is submitted with references, an AI prompt log, and contributions matrix

Exploring SHARE in Writing Assessments

YORK 



Making SHARE work for you

In breakout groups...

- Choose one idea from the [Alternative Assessment List](#)
- Pair it with one or more elements of the SHARE framework
- What might this look like in practice?
 - Discuss as a group and add to the SHARE Tab in the Google Sheet

See the spreadsheet for a couple examples. Feel free to copy-paste these to a new row and use them as a starting point!

Thank you!

Robin Sutherland-Harris
Educational Developer, Teaching Commons
York University
robinsh@yorku.ca

References

- Agarwal, D., Naaman, M., & Vashistha, A. (2025). AI suggestions homogenize writing toward Western styles and diminish cultural nuances. *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems*, 1–21. <https://doi.org/10.1145/3706598.3713564>
- AWAC Working Group on AI in WAC. (2025). *AWAC statement on AI and writing across the curriculum* (Version 2.0). Association for Writing Across the Curriculum. <https://wacassociation.org/ai-statement>
- Cecutti, L., Chemero, A., & Lee, S. W. S. (2021). Technology may change cognition without necessarily harming it. *Nature Human Behaviour*, 5(8), 973–975. <https://doi.org/10.1038/s41562-021-01162-0>
- Fan, Y., Tang, L., Le, H., Shen, K., Tan, S., Zhao, Y., Shen, Y., Li, X., & Gašević, D. (2024). Beware of metacognitive laziness: Effects of generative artificial intelligence on learning motivation, processes, and performance. *British Journal of Educational Technology*, 56(2), 489–530. <https://doi.org/10.1111/bjet.13544>
- Gayed, J. M., Carlon, M. K. J., Oriola, A. M., & Cross, J. S. (2022). Exploring an AI-based writing assistant's impact on English language learners. *Computers and Education: Artificial Intelligence*, 3, Article 100055. <https://doi.org/10.1016/j.caeai.2022.100055>
- Giray, L. (2024). The problem with false positives: AI detection unfairly accuses scholars of AI plagiarism. *The Serials Librarian*, 85(5–6), 181–189. <https://doi.org/10.1080/0361526X.2024.2433256>
- Grimes, M., von Krogh, G., Feuerriegel, S., Rink, F., & Gruber, M. (2023). From scarcity to abundance: Scholars and scholarship in an age of generative artificial intelligence. *Academy of Management Journal*, 66(6), 1617–1624. <https://doi.org/10.5465/amj.2023.4006>

References

- Grinschgl, S., Papenmeier, F., & Meyerhoff, H. S. (2021). Consequences of cognitive offloading: Boosting performance but diminishing memory. *Quarterly Journal of Experimental Psychology*, 74(8), 1477–1487. <https://doi.org/10.1177/17470218211008060>
- Hosseini, M., Rasmussen, L. M., & Resnik, D. (2023). Using AI to write scholarly publications. *Accountability in Research*, 30(8), 715–723. <https://doi.org/10.1080/08989621.2023.2168535>
- Islam, G., & Greenwood, M. (2024). Generative artificial intelligence as hypercommons: Ethics of authorship and ownership. *Journal of Business Ethics*, 192(4), 659–663. <https://doi.org/10.1007/s10551-024-05741-9>
- Kaebnick, G. E., Magnus, D. C., Kao, A., Hosseini, M., Resnik, D., Dubljević, V., Rentmeester, C., Gordijn, B., & Cherry, M. J. (2023). Editors' statement on the responsible use of generative AI technologies in scholarly journal publishing. *Hastings Center Report*, 53(5), 3–6. <https://doi.org/10.1002/hast.1507>
- Kim, J., Yu, S., Detrick, R., & Li, N. (2024). Exploring students' perspectives on Generative AI-assisted academic writing. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-024-12878-7>
- Kosmyna, N., Hauptmann, E., Yuan, Y. T., Situ, J., Liao, X.-H., Beresnitzky, A. V., Braunstein, I., & Maes, P. (2025). *Your brain on ChatGPT: Accumulation of cognitive debt when using an AI assistant for essay writing task* (arXiv:2506.08872). arXiv. <https://doi.org/10.48550/arXiv.2506.08872> [In your existing references slide but not cited in any slide text. Either add an in-text citation or remove.]

References

- Kuteeva, M., & Andersson, M. (2024). Diversity and standards in writing for publication in the age of AI — between a rock and a hard place. *Applied Linguistics*, 45(3), 561–567. <https://doi.org/10.1093/applin/amae025>
- Liang, W., Yuksekgonul, M., Mao, Y., Wu, E., & Zou, J. (2023). GPT detectors are biased against non-native English writers. *Patterns*, 4(7), Article 100779. <https://doi.org/10.1016/j.patter.2023.100779>
- Malik, A. R., Pratiwi, Y., Andajani, K., Numertayasa, I. W., Suharti, S., Darwis, A., & Marzuki. (2023). Exploring Artificial Intelligence in Academic Essay: Higher Education Student's Perspective. *International Journal of Educational Research Open*, 5, 100296. <https://doi.org/10.1016/j.ijedro.2023.100296>
- Nazari, N., Shabbir, M. S., & Setiawan, R. (2021). Application of Artificial Intelligence powered digital writing assistant in higher education: Randomized controlled trial. *Heliyon*, 7(5), e07014. <https://doi.org/10.1016/j.heliyon.2021.e07014>
- Potkalitsky, N. (2025, August 21). *Rethinking the 80/20 rule: The epistemic stakes of AI integration* [Substack post]. Educating AI. <https://nickpotkalitsky.substack.com/p/rethinking-the-8020-rule-the-epistemic>
- Risko, E. F., & Gilbert, S. J. (2016). Cognitive offloading. *Trends in Cognitive Sciences*, 20(9), 676–688. <https://doi.org/10.1016/j.tics.2016.07.002>
- Wang, C. (2024). Exploring Students' Generative AI-Assisted Writing Processes: Perceptions and Experiences from Native and Nonnative English Speakers. *Technology, Knowledge and Learning*. <https://doi.org/10.1007/s10758-024-09744-3>
- Yasin, Y. M., & Al -Hamad, A. (2023). Harnessing AI for enhancing scientific writing in nursing research: Prospects, pitfalls, and solutions. *Research in Nursing & Health*, 46(4), 379–380. <https://doi.org/10.1002/nur.22326>