

To what extent should the Library Learning Commons be the center of AI literacy in a school?

By Jennifer Casa-Todd

Artificial Intelligence (AI) is rapidly transforming the way we learn, work, and interact with the world. This has been seen in both a negative and positive light by educators, scholars, and students alike. Within *Leading Learning, Standards of Practice for School Library Learning Commons in Canada*, “Fostering Literacies to Empower Life-long Learners” is a standard by which teacher-librarians have modeled professional practice (Canadian School Libraries, 2020a). The literacies included in the standard are: Literacy Leadership, Information Literacy, Critical Literacy, Digital Media Literacy and Citizenship, Cultural literacy, and Literacy Partners (Canadian School Libraries, 2020b). One could argue that AI Literacy should be added to the document, or one could argue that AI literacy lives within each of these themes. Regardless of where the argument resides, this paper posits that AI literacy needs to be explicitly addressed and that the teacher-librarian should be integral to student (and staff) understanding of what AI is and how it might be used ethically and responsibly. If education systems have a responsibility to prepare students for a society in which they will have to “live and interact with AI”, then “AI education will enable young people to discover how these tools work and, consequently, to act responsibly and critically” (Casal-Otero et al., 2023, p.11).

AI literacy can be defined “as a set of competencies that enables individuals to critically evaluate AI technologies; communicate and collaborate effectively with AI; and use AI as a tool online, at home, and in the workplace” (Long & Magerko, 2020, p.2).

The scope of this paper is limited to my own experiences in a high school library learning commons and my wonderings beyond. I recognize that as AI continues to evolve, so too will the role we as teacher-librarians will play.

Background

In December of 2022, I wrote a blog post called “Learning More About Chat GPT in Education” (Casa-Todd, 2022), based on a conversation I had with a student in my library learning commons. He had just learned about ChatGPT from TikTok and told me that he believed that completing essays and assignments would never be the same again. The student proceeded to show me. He put in his theology question in the Chat GPT prompt and it gave him a response that, although perhaps not the most articulate ever, would definitely fool a teacher. When we asked it to write a poem about Christmas in iambic pentameter, it did a decent job. We decided to put the responses into Turnitin, a plagiarism detection tool, and were surprised at the low similarity percentage. Since that time, Turnitin has added an AI detector, which, like many similar products, may produce false positives.

We started to attract more and more students: not just students looking for shortcuts, but high achieving students as well. Students shared the concern that anyone who prides themselves on working hard is actually at a disadvantage when an AI platform could yield a decent output in several seconds (Casa-Todd, 2022). As I began to wonder about the implications, my news feed became inundated with similar concerns and conversations. A Washington Post headline: “Teachers are on alert for inevitable cheating after release of ChatGPT” (Meckler & Verma, 2022), and “The College Essay is Dead” by Stephen Marche which posits that AI could produce a paper that may not be an A, but might get a B or B- (Marche, 2022).

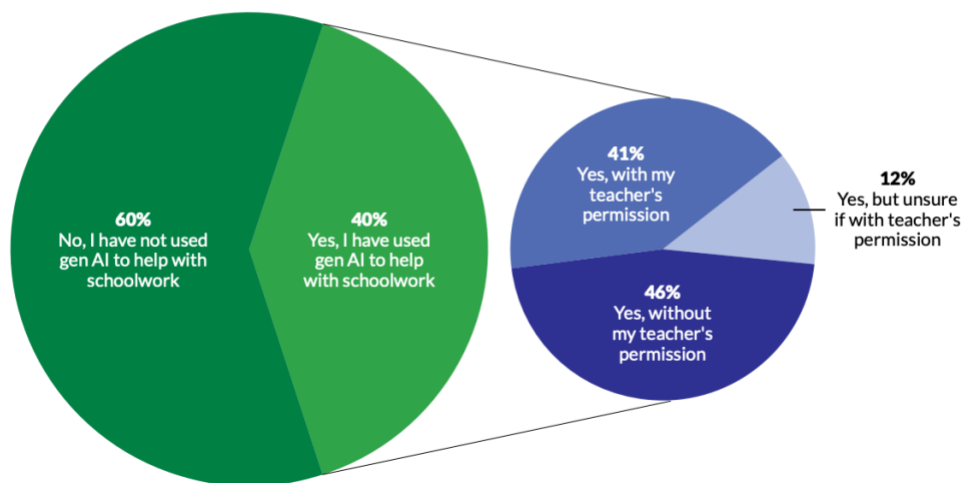
Fast forward to the next school year, and it was commonplace for students to have a tab open to Chat GPT and as I walked around, they quickly hid it from me. I would always ask them if ChatGPT was helping them to learn or if it was a shortcut limiting their actual learning. I tried to be curious rather than judgemental and so students were often honest with me. The responses were varied and in many cases, students articulated how they were using AI as a springboard for brainstorming ideas, for personalized feedback including strengths and weaknesses on a paper. Soon, students

began to share with me that they were using Co-Pilot and Google Gemini to help them with their work because both of those platforms gave them research leads .

A 2024 research report of approximately 1,045 adolescents aged 13 to 18 found “[t]wo in five (40%) teens report using generative AI for school assignments, with a nearly even split between those who use gen AI with their teacher's permission and those who do not” (Madden et al., 2024). In my library learning commons, I would bet the percentage is higher.

Figure 1: Percent of teens who have used Gen AI for school assignments, and those who did so with or without teacher’s permission (Madden et. al, 2024, p 7).

Two in five teens use generative AI for schoolwork, with a nearly even split between those using with and without teacher permission
Percent of teens who have used gen AI for school assignments, and those who did so with or without teacher's permission



Teacher Responses and Support for Subject Teachers

The response of teachers on staff was to move to paper and pen tasks and forbid the use of AI completely. In December of 2022, my “New and Notable” newsletter, a weekly

feature I share with staff which highlights new tools and platforms, books, and more, had a link to my blogpost and the provocation “We need to talk about AI”. I asked the principal to make space in our staff meeting. The only requests I got for anything having to do with AI had to do with detection tools. I received about an email a day from teachers who wondered how I could help them prove that a student had used AI to complete their work. Of course, as a teacher-librarian, my role is to support teachers and meet them where they are, but I was extremely frustrated that the question wasn’t more about how we could be innovative and create lessons for which it would be difficult for AI to create the final product and how we might shift from process to product. More and more, teachers moved to entirely paper and pencil tasks to prevent AI, and while this is fine some of the time, many students with Individualized Education Plans (IEPs) need technology to be able to show what they know.

The sentiment of many teachers was articulated by the following question by a teacher on staff: “What’s the point of school now that AI exists?” Ironically, I was showing her students not only research skills, but how to create a multi-media final product on Google Sites that would be extremely difficult for AI to replicate. I told her that I truly believe that more than ever students need teachers and also teacher-librarians to help them research effectively, discern biases sometimes generated by AI, and develop critical thinking skills.

AI forces educators to revisit assignments to ensure we are giving students tasks that aren’t entirely content based and that wouldn’t take AI 3.1 seconds to complete. The teacher-librarian is perfectly poised to help both teachers and students at their school think thoughtfully and critically about AI and it’s use with regards to rethinking lessons and assessments.

I personally used AI to help me support teacher requests and I was sure to be completely transparent when I did so in order to model the ways in which AI could help teachers with productivity. For example, one teacher asked me for a modern application for the text *Persepolis* (Satrapi, 2007). I hadn’t read the text and would not have time to

do so and respond to the teacher's request in a timely manner, so I asked ChatGPT. Although I didn't use any of the suggestions, it gave me a springboard for a suggestion for the teacher. The idea resonated and I made sure to share that I used AI to help me.

An IB School

As an International Baccalaureate (IB) school, I was interested in the stance the IB was taking when it came to generative AI in the classroom. In *Artificial intelligence (AI) in learning, teaching and assessment* (International Baccalaureate, 2023), it states that, "AI tools are designed in a way that they can be used to encourage students to think critically and creatively by engaging students in thought-provoking discussions and challenging them to think beyond the usual perspectives." The IB further suggests practical examples for using AI in the DP programme including, using AI to create an instructional video, a culturally relevant lesson ideas, generate questions, change the point of view of a text, create images from literature, and interview an important historical figure (International Baccalaureate, n.d.).

In both IB and regular classrooms, I wanted to move beyond academic dishonesty conversations to creation and critical thinking. I began to curate resources which I could use in classes that were open to the idea. In particular, the new grade nine de-streamed English curriculum (Ontario Government Ministry of Education, 2023), offers explicit opportunities for co-teaching and as a bonus, students were really interested in the topic. We spent a few of our "Media Mondays" on exploring AI: what it is and how it impacts us.

Research Ethics and Lateral Reading

One of the most immediate intersections of AI and the library learning commons is in research. Tools like ChatGPT, Grammarly, and AI-powered search engines have revolutionized how students gather and process information. However, this also raises ethical questions. How do we ensure that students understand the boundaries between

appropriate and inappropriate use of AI in research? How can we teach them to evaluate the credibility of AI-generated content?

In my February 2023 “New and Notable” I invited conversations about academic integrity by citing a post by Matt Miller, “AI in the classroom: What’s cheating? What’s OK?” (Miller, 2023), I used Miller’s framework to create my own template (Figure 2), which I used with students every time I co-taught a research lesson. This forced conversations with teachers about what they thought an acceptable use of AI was and helped students come to a clear understanding of what their teacher considered acceptable use. Rarely, when doing this activity with students was there a match except for a very basic understanding that copying a prompt into AI, copying the response and handing it in to the teacher was unacceptable.

Figure 2: Is it Academic Dishonesty?

IS IT ACADEMIC DISHONESTY??
Group names: Luka, Mario, Matteo

IS IT ACADEMIC DISHONESTY??
Group names: Elizabeth, Gabriel #1, Gabe #2, Ellen

Scenario	Luka, Mario, Matteo	Elizabeth, Gabriel #1, Gabe #2, Ellen
1 Student copies prompt into AI, copies the response and submits it to the teacher.	✗	✗
2 Student copies prompt into AI, student reads, edits, and submits the new response to the teacher.	✗	✗
3 Student writes the main ideas and put it into AI as a prompt. AI generated a draft and offered feedback to improve. Student uses the feedback to improve their essay and submits the response to the teacher	✓	✗
4 Student Googles the topic and copies and pastes different items into their paper.	✗	✓
5 Student Googles the topic and copies and pastes information into their paper and cites direct quotes and summary information into Works Cited/Bibliography.	✓	✗
6 Student copies prompt into AI and asks AI to generate an outline for a response. Student uses this as a basis for a response based on quotations from their text as well as their own ideas.	✓	✓
7 Student copies prompt into AI and asks AI to generate an outline for a response. Student uses this as a basis for a response based on quotations from their text as well as their own ideas. Student cites that they used AI in their Works Cited/Bibliography.	✓	✓

based on a graphic by @jmattmiller DitchThatTextbook | jmattmiller DitchThatTextbook

Engaging in this group activity prior to showing students how to cite AI in MLA and APA formats was really helpful. All of my research lessons included how to cite AI whether we had the time to engage in this group activity or not. Interestingly, one student

asserted, during a lesson about citing AI, that he thought teachers should also be citing when they are using AI. This was an interesting observation which I did not follow up on with staff, but wish I had.

As teacher-librarians, it is within our mandate to also help students and teachers consider copyright concerns and the role of human authorship. When Notebook LM came on the scene, everyone was excited about the way in which this platform could take a text and synthesize it by creating a deep dive conversation (audio podcast), a briefing doc, study guide, or timeline. And many, including students, were wowed by this platform. This tool does not, when it creates a new text, provide embedded citations or parenthetical references, nor does the final product have a “Works Cited” or bibliography. Not many students have a critical awareness of copyright or citation on their own. Tools such as these fuel growing concerns of academic integrity combined with a decline in motivation to apply critical thinking skills (Alasgarova & Rzayev, 2024; Famaye et al., 2024).

Learning about AI and Machine Learning

Recognizing that we need to move beyond the conversations of AI detection and citation however, I began to offer to co-teach lessons on AI itself: what it is and how it impacts different careers and subject areas. Again the easiest match was to the new grade 9 de streamed course, ENG1LW (Ontario Government Ministry of Education, 2023), where I co-taught “Media Mondays” with two English teachers.

I began the mini-unit with a silent brainstorm asking students to brainstorm everything they thought of when they heard the term AI and then to connect their ideas to others. This was an excellent way to determine the background knowledge students had as a springboard for discussion. The responses were quite varied and the silent brainstorm allowed for multiple entry points for students. As the teacher-facilitator, I was able to

prompt student thinking with my own questions. What became very obvious was the limited knowledge students had about what AI actually was.

Figure 3: Silent Brainstorm



Day of AI (Day of AI, 2025) curriculum (registration required) offered lessons which allowed students to determine if a technology was AI (or not) based on the following criteria:

1. Does it perceive its environment?
2. Can it learn over time?
3. Does it make plans on its own?
4. Does it interact with the environment?
5. Is it intelligent or is it following its programming? (AI and Social Media, 2024)

The curriculum is designed to help students understand how AI works in general terms, but also how it impacts social media and news.

In a Science class, during a co-taught unit on climate change, we played an Hour of Code game, AI for Oceans which first explained what Machine learning is and how models are trained. Students then proceeded to train the model how to identify fish vs trash.

Both these activities were somewhat simplistic and I would have liked the opportunity to delve more deeply with staff and students on how machine learning and AI work.

Critical Thinking, AI Bias, and Misinformation

Teacher-librarians have always helped students to understand bias by asking critical questions like, “Who created this text and why?” When it comes to AI, we can help students understand the ramifications of bias and how it can be harmful. This statement by the National Institute of Standards and Technology (NIST) is one which I have shown students and asked them to reflect upon:

Bias in AI can harm humans. AI can make decisions that affect whether a person is admitted into a school, authorized for a bank loan or accepted as a rental applicant. It is relatively common knowledge that AI systems can exhibit biases that stem from their programming and data sources; for example, machine learning software could be trained on a dataset that underrepresents a particular gender or ethnic group (US Dept of Commerce, 2022).

One explicit lesson about bias came from a working group of which I am a part. Tara Natrass, the Managing Director of Innovation and Strategy at ISTE +ASCD who runs a monthly AI Community Network group of which I am a part, asked several AI platforms to create an image of “Two Nurses and a Doctor” to see what the standard output would be:

Figure 4: Two Nurses and a doctor

Two nurses and a doctor



Tara Natrass, ISTE + Intel AI Community Network group

My provocation to students: “What do you notice”? Many students noticed the gender and racial stereotypes reinforced by the AI output. We engaged in a similar discussion by guessing what AI would think the driver of various vehicles looks like, and then reading the article, “Here’s how AI thinks the stereotypical driver for each car brand looks like” (Farmazian, 2023). For the BMW, the image is of a strong jawed man with slicked hair projecting “an air of entitlement and superiority” (Farmazian, 2023). The discussions around both visual activities helped students conceptualize bias more concretely than with text. An important next step would be to analyze language that shows stereotyping, bias, and hate speech which would be ideal for a senior level English or Law class.

We all know that even a Google search is not neutral. Just as our traditional research lessons include helpful tips on how to create searches that will lead to unbiased results, so too must we help students understand that they need to think carefully about the prompts they put into AI, but they also need to understand that AI is drawing from sources that may not be neutral and that once a result is generated, the original source and its intent is lost.

AI tools can assist students in analyzing and synthesizing information, but they can also make it easy to bypass deeper engagement with content. For instance, a student might rely on AI to summarize an article without critically evaluating its arguments or sources. Thus, facilitating activities where students compare human-written and AI-generated texts to identify strengths, weaknesses, and biases in each, would be an excellent lesson for any grade or subject.

Our “Media Monday” lessons also focused on being able to determine ways to spot misinformation created by AI. Students read about the ways in which misinformation via the news is permeated via AI and to look for “quirks’ in AI (Gonzalez, 2023) As a follow up, students enjoyed determining whether or not an image was AI generated using a game, AI or Human? Teaching students about misinformation is not new; as teacher librarians, we have been supporting students to identify credible vs non-credible sources for years. We have also been teaching students to read laterally; that is, open up several tabs to authenticate the information we are seeing. In the age of AI, when Google provides an overview after every search, it was important to me that we talk to students about using several different search engines, as well as different AI platforms to arrive at responses.

Lessons on prompt creation would help students understand how outputs change because of the precise wording of prompts. Thus taking students through a compare and contrast activity whereby they use the same prompt in several different AI platforms to compare results. I would suggest for a high school class (with parent permission): Google Gemini, Microsoft CoPilot, Perplexity AI, and Claude AI since most students seem to default to Chat GPT.

Despite the fact that every AI platform warns of misinformation, having students interrogate a response in order to find the misinformation within it, in addition to cross referencing sources provides a way to help students understand how to. I was using a

platform designed so students can interview historical figures called Humy AI, when I came across a response by “Chief Tecumseh” which I found interesting.

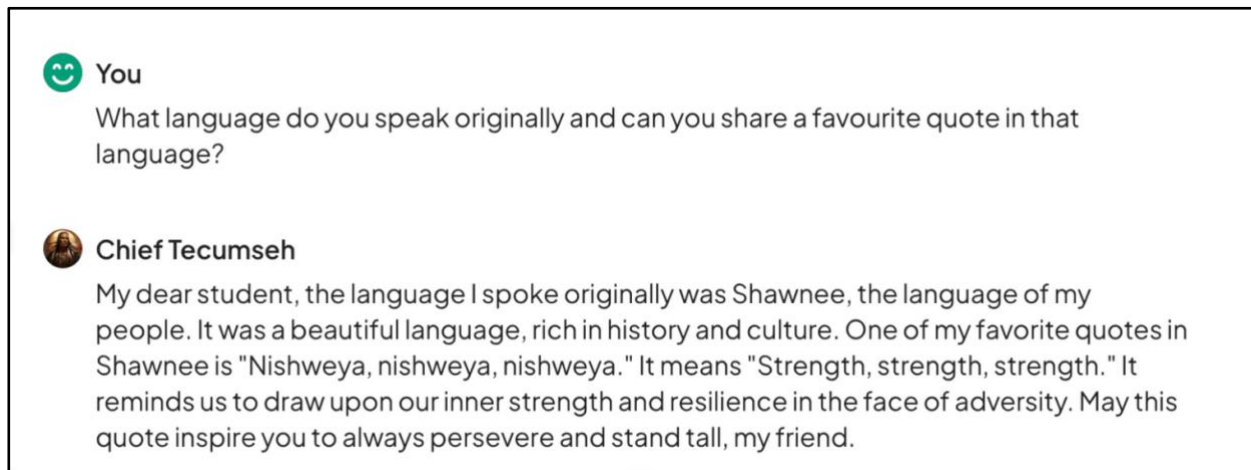


Figure 5: Humy AI

Upon cross-referencing, I actually could not find any information on the word Nishweya and the phrase that is supposedly Chief Tecumseh’s favourite in the Shawnee language. I use this example often when I talk to kids about misinformation and AI.

AI and Creativity

AI has enormous potential to augment creativity, from generating artwork and music to assisting in brainstorming sessions. For instance, tools like DALL-E can help students visualize abstract ideas, while writing assistants can support the drafting process. It was important to me to be able to give students the experience of creating AI generated images using tools within our technological ecosystem (Adobe Express and Canva) to exercise their own creativity but also to understand how easy it is to manipulate images. I feel like I need more support and understanding of platforms to truly help students embrace AI as a partner in creativity. I love the idea of creating personalized, *choose your own adventures* using AI.

Further reflection and questions:

I was fortunate to be one of two secondary teacher-librarians at our district level AI steering committee, created to inform our district's policy on AI.

At that time, a colleague shared a resource created by UNESCO, *AI competency framework for students* (Shiohira, & Miao, 2024). These competencies include: Human-centred mindset, ethics of AI, AI techniques and applications, and AI system design as well as progression levels: Understanding (Level 1), Applying (Level 2), and Creating (Level 3) (Shiohira, & Miao, 2024). At the "Understand level", students should be able to understand values as well as ethical issues, processes and technical uses of AI tools (Shiohira, & Miao, 2024). In the "Apply level" students will have "constructed a sound and transferable foundation of conceptual knowledge and associated AI skill-sets" (Shiohira, & Miao, 2024, 19). Finally at the "Create" level, students would co-create using AI, "developing human-centred solutions to positively impact the design and use of AI" (Shiohira, & Miao, 2024, p. 20).

I think it would be worthwhile to explore this competency framework and apply it to co-teaching opportunities with teachers in a variety of subject areas.

I continue to wonder the following:

- What does it look like to model the ethical and responsible use of AI in younger grades?
- How might we facilitate projects that combine human creativity with AI capabilities, such as creating multimedia presentations or designing digital art.
- How can we justify the costs of premium features of AI, school specific platforms with our ever-shrinking budgets?
- In school boards where the teacher-librarian is being removed, who will assume the role of teaching AI literacy?
- Do school librarians have the AI literacy skills to support students and who/how might that knowledge be facilitated?

- What are some of the issues with data privacy and the use of AI and where should that learning be situated?
- How might teacher-librarians sit at policy tables where decisions about purchasing of and allowing of AI platforms occurs?
- Will AI increase value of the school library or diminish it?

Concluding Thoughts

The library learning commons is already a hub for inquiry, collaboration, and creativity, making it an ideal space for embedding AI literacy into learning. Students often interact with AI without realizing it—through search engines, social media algorithms, and digital assistants. This makes it crucial to address AI literacy explicitly. By demystifying AI, teacher-librarians can help students understand its role and impact, empowering them to use AI tools thoughtfully rather than passively consuming them.

Moreover, AI literacy aligns with the broader goals of the library learning commons, such as fostering digital citizenship, promoting critical inquiry, and supporting lifelong learning. In this evolving landscape, teacher-librarians have an opportunity to lead by example, demonstrating how AI can be leveraged for research, collaboration, and innovation while acknowledging its challenges.

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