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Using Generative AI to Make Learning More Accessible: Insights from Ontario PSE Students and Staff

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The rapid growth of generative AI (GenAI) has raised concerns in postsecondary education (PSE) about cheating, academic integrity and the value of credentials in an increasingly digital future (Vanzella Yang & Stadnicki, 2024; Bin-Nashwan et al., 2023; Chan, 2023; KPMG, 2023; Reid, 2023). These issues, while critical, often overshadow the positive potential of GenAI to make learning more accessible[1] for students, including those with disabilities. Canadian PSE students who use GenAI report improvements in the quality of their work, their understanding of course materials and their overall learning experience; they use these tools to generate ideas, aid in research tasks and receive feedback on their writing (Academica Forum, 2024; Vanzella Yang & Stadnicki, 2024; KPMG, 2023). Researchers in other jurisdictions have gathered evidence of how GenAI can support K–12 and PSE students with learning disabilities and other accommodation needs (Bhatti et al., 2024; Garg & Sharma, 2020). More broadly, a 2023 US-based study argued that GenAI "has the potential to reshape teaching and learning methodologies, enhance student engagement, and improve overall educational outcomes" (Easwaramoorthi et al., 2023).

This brief explores this potential in the context of Ontario's PSE sector. In March 2024, HEQCO surveyed students across the province to learn about their experiences with GenAI, their attitudes towards this technology and whether and how they use it to support their learning. We also interviewed teaching, learning and accessibility experts from Ontario colleges and universities; these conversations offered valuable insights into how institutions view GenAI and its relationship to accessibility, as well as their plans for integrating these tools into classrooms and operations.

GenAI is quickly transforming higher education, creating an opportunity for Ontario's PSE sector to reimagine how it supports student success. Doing so will require collaboration between students, faculty, departments and institutions, which includes engaging in ongoing dialogue and sharing best practices. It will also require increased clarity and awareness around how students and staff can use GenAI to make learning more accessible, as well as under what circumstances the use of these tools is permissible. Our findings highlight the importance of sector-wide discussion and

[1] This brief uses "accessibility" as a broad term that applies to all students, including, but not limited to those with disabilities. It refers to making learning more approachable and tailored to students' needs, and to improving the way that students interact with course materials and assessments.

collaboration on GenAI, with the hope of encouraging further engagement between stakeholders moving forward.

Research Questions and Methodology

This project explored the following research questions:

- How are students at Ontario PSE institutions using GenAI in their studies, and what are their attitudes towards this technology?
- How can GenAI make learning more accessible for all students, including those with disabilities? To what extent are PSE institutions exploring this?
- What barriers prevent PSE students, instructors and staff from using GenAI to make learning more accessible?

Analysis relied on two data-collection approaches. In March 2024, 511 Ontario PSE students were surveyed about their experiences with GenAI in their studies; among them, 402 had used GenAI and 109 had not.[2] Questions focused on which tools students used, how often they used them and for what purposes. Students who did not use GenAI in their studies were asked why they had not used these tools. All respondents were given opportunities to share their thoughts on GenAI more broadly, including how they used this technology in their daily lives and the role they felt it would play in their future careers.

The survey sample included representation across institution types, credentials and fields of study. Most respondents were attending either university (68%) or college (31%), and credentials included bachelor's degree (60%), diploma (15%), post-graduate certificate/diploma (7%), advanced diploma (6%), master's degree (5%) and certificate (5%) programs. Just over half of respondents (52%) listed their field of study as "BHASE" (business, humanities, arts, social science and education) and 45% listed "STEM" (science, technology, engineering and mathematics). The sample also included

[2] By design, the survey was administered primarily to students who had used GenAI in their studies so that researchers could learn more about experiences within this group. As such, the sample's distribution of GenAI users versus non-users does not necessarily reflect the frequency of GenAI use among students in Ontario's PSE sector.

96 students (19% of the total sample) who identified as having a disability. Quantitative data were analyzed using SPSS and open-text responses were analyzed via thematic analysis using NVivo.

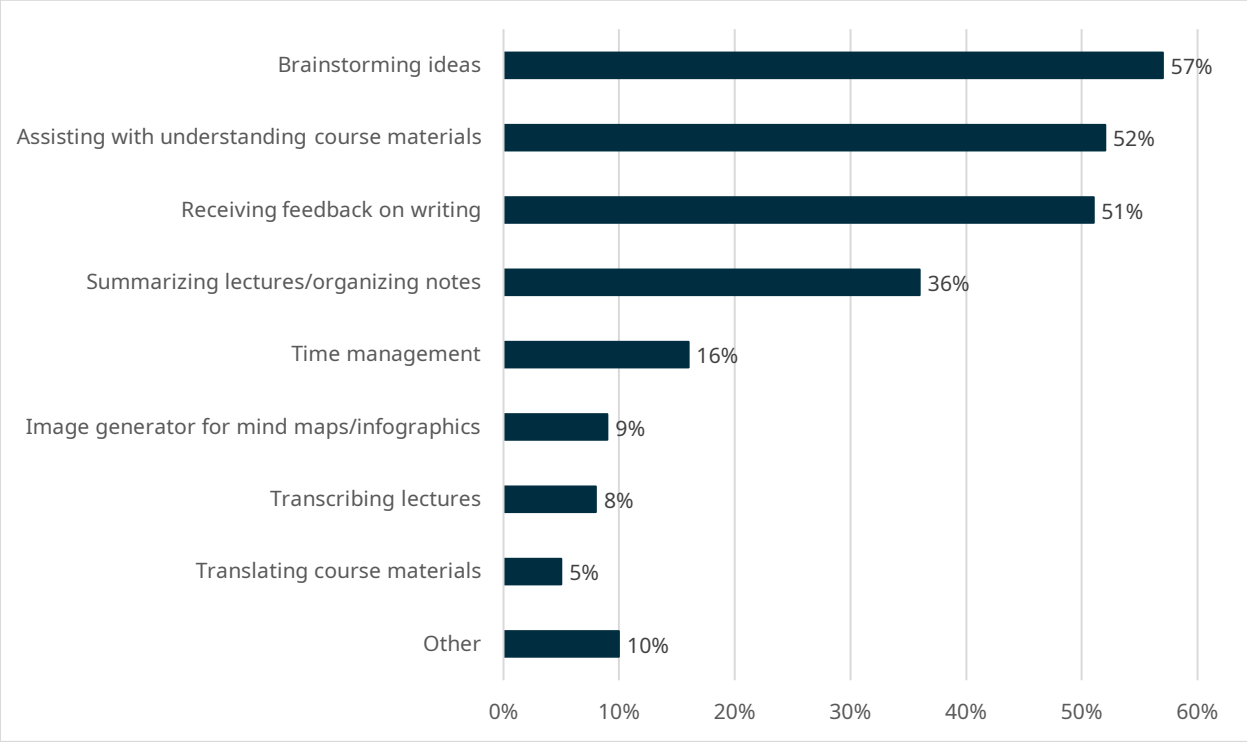
In addition, semi-structured interviews were conducted in Spring 2024 with eleven support staff from nine of Ontario's publicly assisted colleges and universities. This included representation from teaching and learning centres and offices for students with disabilities (OSDs), as well as urban and rural PSE institutions from several regions across the province. Questions focused on: whether and how institutions were using GenAI to support accessibility, both broadly and for students with disabilities; whether staff saw potential for GenAI to support accessibility; whether and how staff had observed students using GenAI in their studies; and institutions' approaches to GenAI policy development. Interview notes were analyzed via thematic analysis using NVivo.

Findings and Discussion

GenAI has the potential to make learning more accessible for students, including those with disabilities.

Ontario PSE students use GenAI often and in a variety of ways to assist in their studies. Forty-seven percent of GenAI users in our survey reported weekly usage, with most opting for ChatGPT (62%) and Grammarly (57%). Fifty-seven percent used these and other GenAI tools to brainstorm ideas, 52% to understand course materials, 51% to receive feedback on their writing and 36% to summarize lectures or organize notes (Figure 1). Other, less common uses included time management, generating images, transcribing lectures and translating course materials.

Figure 1
How Have You Used GenAI Tools in Your Studies?



n = 402
Note. This chart shows how students used GenAI tools in their studies; it includes only those students in our survey sample who said they had used GenAI in their studies.

These data suggest potential for GenAI to make learning more accessible. Students' GenAI use aligns with established accessibility frameworks, including Universal Design for Learning guidelines, which encourage tools that help students understand course content, generate ideas and articulate their knowledge in writing (CAST, 2024). Students also use GenAI as a substitute for formal academic accommodation: 38% of GenAI users relied on these tools when their instructor was unable to adapt course materials or requirements to suit their needs, and 38% used them when they needed alternative format materials.

Testimonials from institutional staff support the idea that GenAI can make learning more accessible. Interviewees highlighted ChatGPT, Gemini and Quizlet as flexible, efficient alternatives to traditional tutoring methods. These tools, they argued, could identify and adjust to students' unique interests and learning styles, helping them interact with difficult ideas and prepare for exams. Others had seen GenAI serve as a "simulation

partner" to students in more applied courses (e.g., nursing or culinary arts) by providing interactive training and emulating "real-life" scenarios.

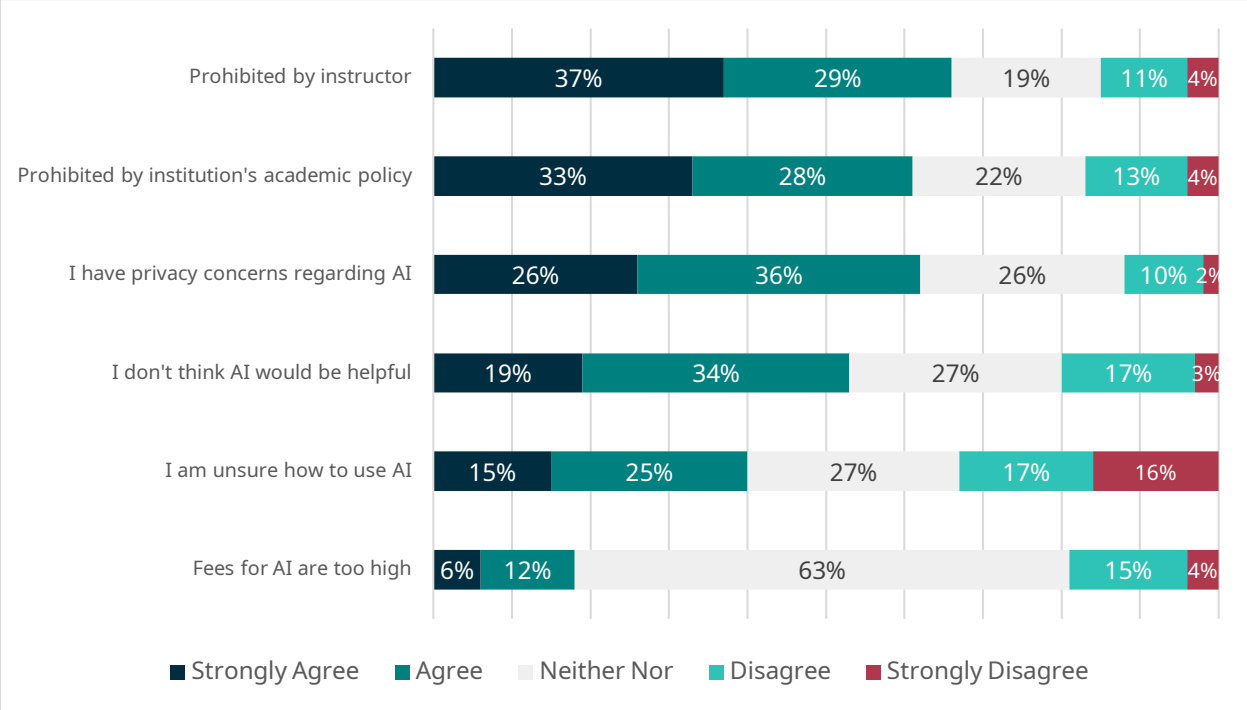
Examples like these have led instructors and institutions to encourage GenAI use under certain circumstances. Interviewees shared that some instructors have allowed access to GenAI tools under supervision or with restrictions in place (e.g., only for certain components of an assignment, such as a literature review). Others have promoted tools offered by Contact North, such as AI Tutor Pro (Contact North, 2024). In addition, we heard that some institutions had made these and similar programs available to students through their library systems, with others going a step further and developing institution-specific GenAI chatbots.

Interviewees also shared examples of how GenAI can provide support and accommodation to students with disabilities. We heard that students with hearing- or writing-based disabilities had used GenAI-based transcription tools, such as OtterAI, to transcribe lectures from voice recordings, and that students with reading- or writing-based learning disabilities had used GenAI to perform speech-to-text functions and summarize assigned readings. In addition to providing students with quick access to accommodations, GenAI tools like these can reduce workload for staff in Offices for Students with Disabilities (OSDs), who have faced increased demand for accommodation services since the early 2010s (Lanthier et al., 2023). OSDs are working to streamline these services so that students have access to timely supports, and GenAI tools can serve a useful role in developing accommodation strategies and accomplishing this goal. Interviewees also emphasized that instructors can use GenAI as an "accessibility checker" for PowerPoint slides, handouts and other learning materials, ensuring these documents consistently meet accessibility requirements.

Realizing GenAI's potential to make learning more accessible will require increased clarity and awareness among students, instructors and support staff.

Survey data indicated students who avoid using GenAI in their studies do so for a variety of reasons. Some cited prohibitions, either by their instructor(s) (66%) or their institution's academic policy (61%), while others avoided GenAI tools because of privacy concerns (62%), being unsure how to use them (40%) or not finding them helpful (53%) (Figure 2).

Figure 2
Why Do You Think You Haven't Used GenAI in Your Studies?



n = 109
Note. This chart shows reasons why students chose not to use GenAI in their studies, ranked by how much they agreed or disagreed with each statement. It includes only those students in our survey sample who did not use GenAI in their studies.

In open-text responses, we heard concerns that GenAI would negatively impact quality of learning. Some students shared a desire to avoid “taking shortcuts” and ensure they were learning in a way that adequately prepared them for their careers after graduation. Others felt the content of GenAI tools was sometimes unreliable or not ethically sourced.

Students’ reasons for avoiding GenAI, in some cases, may be rooted in a lack of clarity around institutional policy. Two-thirds of non-users (66%) said they avoided GenAI because their institution prohibited it (Figure 2), and 85% of all respondents (both users and non-users) said they were aware of GenAI policy or guidelines at their institution. A jurisdictional scan conducted by the Higher Education Strategy Associates, however, reveals that only 14 of Ontario’s 47 publicly assisted institutions had either developed new GenAI-specific policies or guidelines or added reference to GenAI into existing

documents (HESA, 2024). Echoing this, only a few of the interviewees we spoke to had GenAI policies in place at their institution, with some in the early stages of developing policy and others waiting to see how other institutions would approach this evolving issue. This inconsistency suggests some students have misconceptions about GenAI policy, including whether one exists at their institution and, by extension, whether and under what circumstances their institution prohibits GenAI use. In our survey, a student shared that, “at this point it is just being stressed that we could be in trouble if we use anything during school, and therefore I’ve been ensuring I’m not getting mixed up in AI while studying, even though I know there are ways it could help inside and outside of the classroom.” This uncertainty extends to support staff as well: Interviewees shared that they often hesitate to encourage GenAI use, even when they feel these tools would be helpful or provide needed accommodation.

Interviewees also stressed a need for increased GenAI awareness and literacy. Some suggested institutions provide a training module to students that would introduce them to various GenAI programs and provide techniques and strategies for using these tools effectively (e.g., how to craft prompts, generate ideas and check the accuracy of generated content). Students we surveyed added support for this idea, with just over half (51%) of respondents expressing interest in institution-provided opportunities to learn more about using GenAI to assist in their studies. Interviewees felt this training could be extended to instructors and support staff as well to help them guide students effectively. They also highlighted the importance of ongoing conversations with students about using GenAI in ways that benefit their learning without jeopardizing their development, the value of their education or their academic integrity.

Conclusion

As GenAI continues to evolve, Ontario’s PSE institutions have an opportunity to use and promote this technology in a way that makes learning more accessible, both broadly and for students with disabilities. Used effectively, tools like ChatGPT and Grammarly can improve how students interact with course materials, making it easier for them to understand complex ideas, organize their thoughts, prepare for exams and receive accommodations. Fully realizing this potential, however, requires immediate guidance from institutions on how students, instructors and support staff can use GenAI tools to support positive learning outcomes without infringing on academic integrity or detracting from the value of students’ academic programs. Institutional policy and training

opportunities, such as workshops and resource hubs, can play a critical role in accomplishing this goal.

Moving forward, Ontario's PSE sector will need evidence-based research on effective strategies for integrating GenAI into learning environments, accommodation strategies and students' broader PSE experiences. Researchers should seek to build understanding of how students with disabilities can interact with and benefit from GenAI tools, including how these tools can be used as alternatives to traditional accommodation strategies. They should also consider the role of PSE institutions in equipping graduates with GenAI skills to support their transition into the labour market. GenAI presents exciting opportunities and complex challenges, and conducting timely research on its intersection with higher education will be critical in ensuring this technology contributes to positive learning outcomes for all students.

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