It's their World: Engaging Students in Critical Thinking to Address Bias in AI

PROBLEM OF PRACTICE

The Peel District School Board is strategically and proactively integrating Artificial Intelligence into teaching and learning. Harnessed with intent, integrity, authenticity and kindness, it has the potential to transform education by enabling personalized pathways, enhancing assessment practices, and supporting teachers with powerful, adaptive tools.

However, without intentional safeguards and inclusive design, AI can reinforce existing inequities, introduce new biases, and compromise ethical standards—especially for racialized, underserved, and marginalized student communities. Our ongoing work is focused on effectively integrating AI into teaching and learning in ways that:

• Enhance personalized learning experiences for students
• Build educator capacity and confidence
• Ensure ethical use of technology
• Actively mitigate algorithmic and systemic bias
• Protect student privacy and data
• Promote equity, inclusion, and human rights for all learners

As a board committed to anti-racism, innovation, and student success, PDSB will continue to ensure that the deployment of AI aligns with its core values and strategic priorities.

|	
Organization:	**PDSB - Library Support Services**
Province:	Ontario
Date:	Spring 2025
Leads:	**Bernadette Smith**, Superintendent Innovation & Research
	Tony Moscone, Coordinating Principal Innovation & International Programs
	Melanie Mulcaster, LLC Ed Tech Innovation Resource Teacher
	Jennifer Fenzau, Teacher Librarian
	Ryan Collings, Head of Social Science, EML Lead Teacher
	And **Secondary School Staff** across the Peel DSB

It's their World: Engaging Students in Critical Thinking to Address Bias in AI. Peel District School Board
Integrating AI in Education: Transforming Learning — An AI Use Case Initiative for Canadian Education
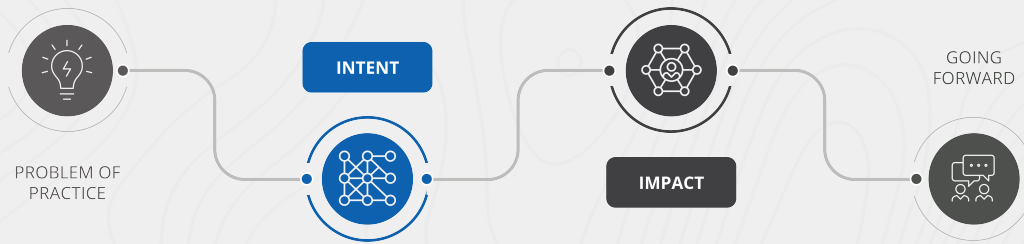
Intent

Peel DSB has established interim guidelines to ensure the responsible use of generative AI, to empower educators, and leverage student agency. Implementing and embedding AI into teaching practice must also ensure that it is ethical, transparent, inclusive and aligns with privacy/security guidelines. The project aligns with the principles outlined in the **Peel DSB AI Interim Guidance**.

A cohort of Peel DSB Secondary teachers across various subject levels collaborated with the TL and the LLC EdTech Innovation Resource Teacher to successfully drive this initiative.

> **"** AI is already being used in education by all stakeholders; the question is not can it be used ethically, but rather that we as the educators need to ensure that it IS used ethically and responsibly. With proper guidance students can take advantage of the tools and improve their learning. **"**
>
> —*Educator, PDSB*

> **"** Before I never really thought about using AI ethically or even using AI at all but now I learned about how ai can be used in education and how to use it responsibly. **"**
>
> —*Student PDSB*

Student Survey

Understanding of AI use - Student Survey

We have explored AI tools in our classes this semester and as we move forward we want to know how this has changed your thoughts on AI in education. The more honest you are, the more we know how to best use AI with students :)

ldremu01@gmail.com Switch accounts
Not shared

On a scale of 1 to 10 rank your knowledge of AI use at the beginning of the course.
1 2 3 4 5 6 7 8 9 10
No Knowledge ○○○○○○○○○○ Thorough Knowledge

On a scale of 1 to 10 rank your knowledge of AI use now
1 2 3 4 5 6 7 8 9 10
No Knowledge ○○○○○○○○○○ Thorough Knowledge

Teacher Survey

AI Use Staff Feedback

On a scale of 1 to 10, how comfortable did you feel about incorporating AI tools in your classroom instruction and assessments PRIOR to this project?
1 2 3 4 5 6 7 8 9 10
Not comfortable ○○○○○○○○○○ Total comfort

On a scale of 1 to 10, how comfortable do you feel about incorporating AI tools in your classroom instruction and assessments AFTER your involvement with this project?
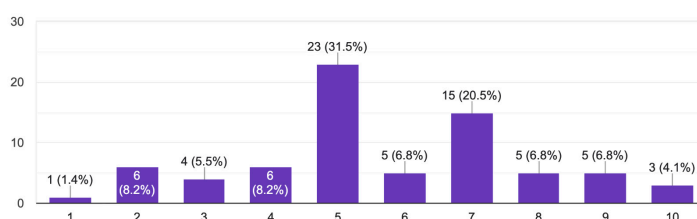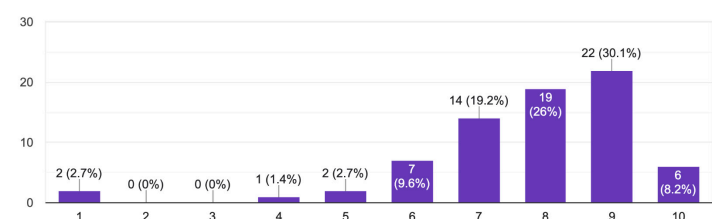1 2 3 4 5 6 7 8 9 10
Not comfortable ○○○○○○○○○○ Total comfort

In your opinion, can AI be used ethically in education? Explain.

On a scale of 1 to 10 rank your knowledge of AI use at the beginning of the course.
73 responses

On a scale of 1 to 10 rank your knowledge of AI use now
73 responses

Impact

Ten classrooms and approximately 300 students participated in 20 of activities in 7 classes for the Teaching and Bias AI Use Case for Peel DSB

Measurable outcomes included:

1. **Student Satisfaction Survey to measure interest, level of engagement and student performance/new learning**:
   82% of students stated that their knowledge of appropriate, ethical bias free use of AI improved over the course of the initiative.

2. **Teacher Satisfaction Survey to measure interest, level of engagement and new learning**:
   100% of participants stated that they would feel more comfortable incorporating AI tools ethically and without bias in their classroom instruction and assessments after the project.
   40% of participants stated they would feel over 50% more confident incorporating AI tools ethically and without bias in their classroom instruction and assessments after the project.

In summary, the ethical and bias-free use of artificial intelligence in teaching and learning can create more equitable, inclusive, and responsive educational environments. When AI tools are designed and implemented responsibly, they help personalize learning, support diverse student needs, and empower educators with fair and transparent insights—without reinforcing systemic inequities. When grounded in care and accountability, ethical AI use in teaching and learning practice can enhances human-centered education, where every learner is seen, respected, and supported to succeed. These findings highlight the transformative potential of AI when implemented thoughtfully, centering student equity, educator empowerment, and responsible innovation.

Professional Learning insights

Peer to Peer, informal learning, AI courses available to educators allowed for some professional development for this initiative.

Formal PD at scale to embed ethical, equitable AI integration into teaching practice will be considered in line with current strategic priorities going forward and extend to our elementary feeder schools. Secondary Educator Leads will facilitate AI sessions for the elementary school communities we serve.

Going Forward

To scale AI integration equitably across the system, PDSB should develop structured, tiered professional learning pathways for educators, moving beyond informal peer learning toward a formalized continuum of capacity-building. These pathways should:

- Progress from Introductory to advanced levels, accommodating varying degrees of familiarity with AI—from foundational digital literacy and responsible use, to advanced applications in personalized learning, assessment design, and data-informed instruction.

- Extend the interdisciplinary AI leadership team to iterate on the AI Interim Guidance and to inform development of more resources including for parents/caregivers

- Be aligned with the AI Interim Guidance, MYSP Priorities and EML Vision, ensuring each level reinforces ethical, inclusive, and human-centered approaches to technology integration, with explicit connections to equity, innovation, and student achievement.

- Incorporate Microcredentialing or Digital Badging (possibly), enabling educators to document and showcase their learning, and supporting professional growth, leadership development, and succession planning.

- Include Embedded Equity Audits and Case Studies - ensuring educators learn to critically assess AI tools for potential bias, accessibility, and impact on diverse learners.

- Delivery of PL through multiple modalities through EdTech Team, including synchronous workshops, self-paced modules, coaching sessions, and professional learning communities—maximizing access and uptake across panels and roles.

Resources

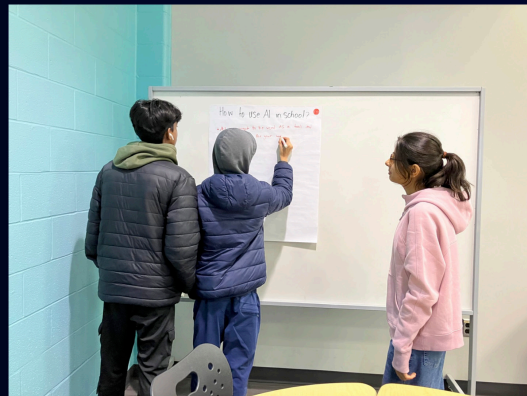**Learning Overview: Fletcher's Meadow Secondary School**

Podcasts:
- **AI FM Podcast #1**
- **AI FM Podcast #2**
- **AI FM Podcast #3**
- **AI FM Podcast #4**

Peel DSB AI Interim Guidance

Webcasts:
- **AI TV Webcast #1**
- **AI TV Webcast #2**
- **AI TV Webcast #3**

WHAT WAS YOUR PERCEPTION OF A.I. AT THE BEGINNING OF THIS COURSE?

C21 Canadians for 21st Century Learning & Innovation

DELL Technologies