

INTEGRATING AI IN EDUCATION: TRANSFORMING LEARNING — AN AI USE CASE INITIATIVE FOR CANADIAN EDUCATION

Why Incorporate AI in the Classroom?



PROBLEM OF PRACTICE

Al has the potential to transform education. It gives us an opportunity to innovate student learning, improve student achievement, and help support the well-being of staff and students.

Done right, AI has the potential to impact every single student and staff member across our board. We believe,

- Every student and staff member should have access to Al tools.
- We have a responsibility to teach Al literacy to students to provide them with skills to navigate today's world.

We recognize that AI has several risks that must be mitigated. We will do this by adhering to our AI Guiding Principles and encouraging all staff and students to use critical thinking skills when using AI tools.





District: Ottawa Catholic School Board

Province: Ontario

Date: October 2024

Leads: Tom D'Amico, Director of Education

Geoff Edwards, Superintendent of

Learning Technologies

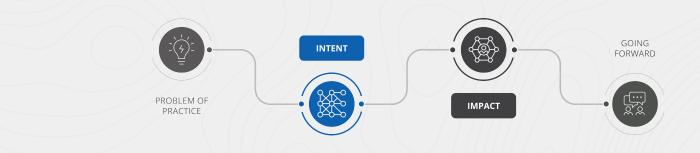
Heather Bilder, Consultant of

Learning Technologies

Julian Daher, Consultant of Learning

Technologies

and Staff from across the OCSB



Intent

Our use case involves documenting district and school based exemplars of AI in use. We used AI to create the form for staff submission of their AI use examples. AI assisted in coming up with the research and list of benefits. AI tools are being directly highlighted as part of our documentation process.

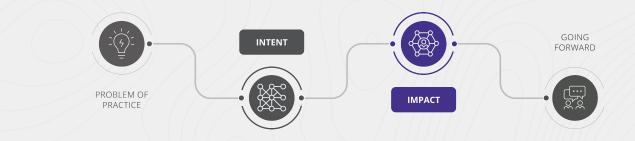
Tools Used

Google Gemini, Chat GPT, Brisk AI, Quizizz AI, School AI, HeyGen AI, Magma Math AI, DiffitAI, GoblinAI, Ideogram AI, Grok AI, Google NotebookLM are tools we are using and highlighting in our use cases. Interdepartmental Human support includes the Director of Education and a steering committee, learning technologies department staff, special education and student services staff, assistive technology mentors, and the student success department staff. Our C21/Dell mentor, has provided professional coaching to our steering committee meetings on a bi-weekly basis. Our communications team meets bi-weekly to provide support and to update both our parent AI website and our internal staff AI website.

As a member of C21 Canada, we connect regularly with district CEO colleagues across Canada. The chance to document our Use Case examplars with a Dell coach was just what we needed to support sharing our success strategies to continue growing our learning.

Dr. Tom D'Amico, Director of Education, Ottawa Cathollic School Board





Impact

Documenting OCSB Use Cases has provided the opportunity to illuminate AI Learning exemplars in alignment with AI Guiding Principles and ongoing strategic priorities across the district. Documentation models highlight the impacts of AI Learning and integration across the OCSB Community:

- **Lesson Planning and Learning Activities**: Create lesson plans and interactive activities tailored to student interests and learning differences.
- **Assessment and Evaluation**: Generate feedback based on teacher-created rubrics, providing timely feedback and saving time.
- Language Translation: Facilitate language translation, aiding English language learners by making learning accessible in their native language.
- **Data Analysis**: Act as a virtual data analyst for educators and administrators by scanning documents and summarizing insights.
- **Studying and Tutoring Support**: Personalize study materials, flashcards, and quizzes, to accomodate learning styles and preferences.
- **Creativity**: Generate images, poems, and songs to summaries of complex documents or videos, enhancing creative learning experiences.
- **Reading Support and Text Differentiation**: Adjust reading levels, simplify vocabulary, and modify texts to accommodate learning needs for differentiated instruction.
- **Executive Functioning Support**: Al-powered tools support time and task scheduling, reminders, management, goal setting, and students autonomy.
- **Socialization Support**: Conversational practice and social cues in a non-judgmental, predictable learning environment, helping students navigate social situations and improve their social skills.
- **Communication Support**: Assistive technologies, such as *Lookout* and *Look to Speak*, enhance communication for students with visual impairments or other needs.
- **Accessibility**: Al enhances existing accessibility features, such as text-to-speech, voice typing, and screen readers, making learning more inclusive for students with disabilities.
- **Time-Saving for Educators:** Al can generate/edit letters, create newsletter templates, and provide summaries from various media sources, saving educators valuable time.
- **Skill Development:** Teaching students about AI is essential because these skills are becoming more important in the workforce. We have a responsibility to prepare students for a world where AI is a common tool.

Professional Learning insights

Incorporating Critical Thinking: Al literacy is more than just knowing how to use the tools. To mitigate the potential risks and biases of Al, our Al guiding principles were introduced to students using age-appropriate language. Additionally, educators in all grades will continue emphasize the global competency of Critical Thinking. Students will be reminded to use their critical thinking skills when reviewing the output of Al tools.

GOING FORWARD

Going Forward

OCSB AI Guiding Principles

The OCSB's AI Guiding Principles are the foundation for all our work using Artificial Intelligence. They provide direction to staff and students for how artificial intelligence is to be used within our schools and school board.



· Prioritize Humane & Ethical Use

A key priority in the OCSB is the humane and ethical use of AI (and all technology). AI has to be used for good —not for cheating, deep fakes, or scams. We want our students to make ethical decisions that align with our Catholic Social teachings and focus on the dignity of all.

· Focus on Education & Learning

We are incorporating AI in our classrooms because we strongly believe that it will help students learn, help our educators teach, and empower students to do some learning on their own. AI gives us an opportunity to innovate student learning and improve our learning environment.

· Champion Equity & Justice

We know that generative AI can have inherent biases and the potential for hallucinations and incorrect information. We need to educate our students to be aware of this when assessing AI output to ensure it respects and reflects the identities and cultures in our community.

· Be Transparent

As a Board, we will indicate and teach our students to indicate when AI has been used to assist in creating a body of work. When the use of AI is approved in student work, students will be expected to be clear and honest about AI's role in the work and properly cite its use.

Safeguard Privacy, Security & Data Protection

Any Al tools that we provide for students or staff on our portals will have undergone a privacy impact assessment. We have also created a framework for staff to evaluate additional Al tools not on our portal to ensure they adequately protect student and staff privacy and data.

Parent website - https://www.ocsb.ca/why-ocsb/humane-use-of-technology/artificial-intelligence-at-the-ocsb/
Staff website - https://sites.google.com/ocsb.ca/aiattheocsb/home
Sample Al Use Cases - https://bit.lv/3ClgApO



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