

# Exposing and Challenging Bias in AI through Critical Discourse Analysis (CDA)

PROBLEM OF  
PRACTICE

How does AI shape students' worldviews through its use—and how can we, as educators, meaningfully address this in the classroom? Our role as educators is to help students see, question and reshape those narratives. Students increasingly engage with AI tools in everyday life—via chatbots, image generators, and algorithm-driven platforms. These tools are often seen as neutral or objective, but they are trained on data that reflect historical, cultural, and political biases. This project seeks to help educators and students recognize how generative AI can reinforce dominant narratives and power structures, and to explore pedagogical strategies that promote critical engagement, equity, and digital agency. Educators must guide students to think critically, not just computationally.

*“CDA is a tool that can disrupt cycles of oppression and power in classroom settings and school communities. It makes oppressive systems of institutions visible in order to intentionally interrogate and dismantle them rather than unintentionally reproducing them in educational spaces” (Murray & Desrochers, 2021, p. 129).\**



SEVEN OAKS  
SCHOOL DIVISION  
*community begins here*

Organization: **Seven Oaks School Division**

Province: Manitoba

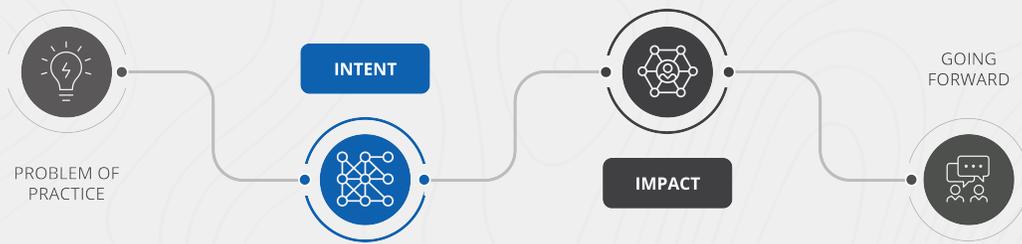
Date: Spring 2025

Lead: **Monica Gadsby**, Tech Coordinator & Heather Marks – Assistant Superintendent of Curriculum and Instruction  
**Jacob Carson** – Teacher  
**Matthew Turner** – Teacher  
**Kewal Kaler** – Teacher  
**Alexander Lucy** – Teacher  
**Sara Clarke** – Teacher  
**Tim Gysel** – Teacher  
**Michael Pohorily** – Teacher  
**Kevin Oliver** – PHD Student UofM

**Exposing and Challenging Bias in AI through Critical Discourse Analysis. Seven Oaks School Division**

Integrating AI in Education: Transforming Learning — An AI Use Case Initiative for Canadian Education

<https://c21canada.org/ai-use-case-initiative/> © 2025 C21 Canada. All Rights Reserved.



# Intent

This Use Case explores how generative AI can be critically examined through the lens of Critical Discourse Analysis (CDA) and multimodal literacy to uncover and challenge embedded bias, power, and omission in AI-generated content.

## The intent is twofold:

- To help educators uncover how AI shapes meaning, representation, and dominant narratives through language and media, and
- To develop practical, classroom-ready strategies that empower students to question, critique, and reshape those influences.

Teachers first engaged in hands-on exploration using tools such as ChatGPT, DALL·E, Claude, and Gemini to surface patterns of bias in AI-generated text and images. Special emphasis was placed on subtle forms of bias—those embedded in word choice, framing, omissions, and representational defaults—beyond more obvious stereotypes.

Educators experimented with prompting and re-prompting techniques, used CDA “look-fors” to guide their critique, and began designing early prototypes for classroom use. In the second session, the group introduced prompt personas—a method for analyzing AI outputs from the perspective of specific, often marginalized, identities or contexts. AI mirrors society’s biases with a distorted reality of how the world is. Our job as educators is to examine this and get students to read in between the lines of the information presented. What was missing? Who was missing? What perspectives are being left out? Whose voices are centered? This helped deepen critical insight and model how students might adopt similar lenses in their own learning.

The work is rooted in the belief that AI is not a neutral tool. Instead, it encodes historical and cultural power relations that actively shape students’ understanding of the world. The goal is to equip educators with the tools, language, and confidence to guide students in becoming critical consumers and ethical users of AI.

## Digital Tools Used:

- Generative AI platforms: ChatGPT, DALL·E, Claude, Gemini
- Education-specific tools: MagicSchool, Diffit — used in early-stage audits to surface assumptions and biases in classroom-oriented content platforms
- Diffusion Bias Explorer — to investigate visual bias in AI-generated images
- Shared documents (Google Docs, Slides) for collaboration
- Curated readings and frameworks (e.g., The promises and Perils of AI in Education, Data Grab, Unmasking AI, The A.I. Roadmap: Human Learning in the age of Smart Machines)

## Human Resources:

Monica Gadsby (Use Case Lead and PL facilitator)

Participating educators across content areas ranging from Elementary to University (ELA, Social Studies, Science, Elementary)

Educators collaborated over two structured sessions and asynchronous reflection to test ideas, share insights, and begin building cross-curricular tools that will inform broader departmental practice.

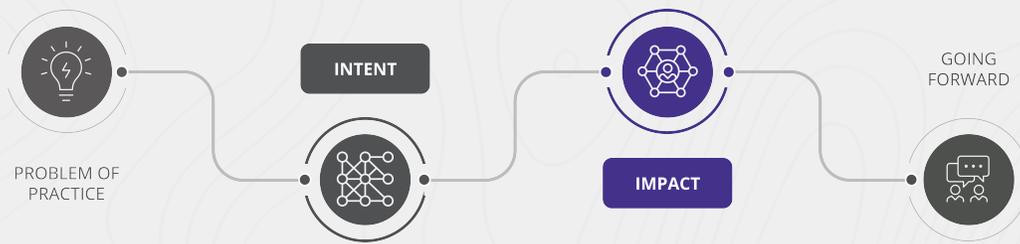
## 2. | Exposing and Challenging Bias in AI through Critical Discourse Analysis. Seven Oaks School Division

Integrating AI in Education: Transforming Learning — An AI Use Case Initiative for Canadian Education

<https://c21canada.org/ai-use-case-initiative/> © 2025 C21 Canada. All Rights Reserved.

“ We looked at what was missing, who was left out, the voice that was included, where there was power and privilege— and how AI’s default responses reflect those biases. It pushed us to ask: whose knowledge is prioritized, and how can we reprompt to make it more inclusive and accurate? ”

—Monica Gadsby Learning and Instruction Support Teacher Seven Oaks SD



# Impact

Even at the mid-point, this Use Case has had a measurable impact on educators' understanding and use of AI. Through structured exploration and guided critical discourse analysis (CDA), teachers began to shift their thinking—moving away from accepting AI outputs at face value toward a more critical, reflective approach. They started asking deeper questions such as:

- Whose perspective is being presented?
- What assumptions are embedded in this language?
- What's missing—and why might it be excluded?

Educators reported that these sessions were both “eye-opening” and “urgent.” One teacher asked, “Why isn't this the first thing we talk about when looking at AI?” Another shared concern and hope: “How do we collectively come together for the good of humanity, rather than letting the history embedded in the internet tear us apart?”

Teachers began applying these insights not only to general-purpose tools like ChatGPT, but also to education-specific platforms being introduced in their schools. This shift in awareness is already spreading through informal peer conversations, as participants bring their learning into department meetings and staff discussions.

Several educators are now drafting lesson plans and classroom activities rooted in this critical lens. Others are working on prototype tools (such as annotated prompt guides or subject-specific reflection activities) to share with colleagues. The inclusion of prompt personas in the second session helped educators frame AI critiques through specific identity-based lenses, sparking new ideas for how to engage students in meaningful inquiry.

AI became both a subject of critique and a tool for exploration. By experimenting with how AI platforms generate responses based on user prompts, educators were able to surface and analyze bias, stereotype, and omission—turning the AI itself into a living text for classroom analysis. This deepened teacher understanding of AI's social and cultural dimensions and opened the door for more intentional, equity-focused use in teaching.

## Professional Learning insights

The Seven Oaks Use Case centered its professional learning around a critical exploration of how generative AI shapes meaning, reinforces bias, and influences power dynamics in classrooms. Two structured sessions blended foundational theory with hands-on experimentation, allowing educators to interrogate AI outputs and build toward equitable classroom practices.

- Session 1: Exploring AI, Power, and Critical Discourse
- Session 2: Prompt Personas and Applied Practice
- Session 3: From Awareness to Action: Uncovering Bias in AI Tools and Building Equitable Practice
- Session 4: Conclusion and Next Steps

## What Could Be Improved?

More time is needed for resource co-creation and peer feedback. Participants expressed strong interest in drafting lesson materials, visual guides, and cross-curricular tools but needed structured time to do so.

Future sessions and follow-up will focus on supporting educators as they scale this work across departments and contribute to a shared resource bank of classroom-ready tools and practices.

## 3. | Exposing and Challenging Bias in AI through Critical Discourse Analysis. Seven Oaks School Division

Integrating AI in Education: Transforming Learning — An AI Use Case Initiative for Canadian Education

<https://c21canada.org/ai-use-case-initiative/> © 2025 C21 Canada. All Rights Reserved.

# Going Forward

GOING  
FORWARD



This Use Case began as a small-scale, inquiry-driven exploration—and the team remains deeply committed to continuing the work. As individual educators reflect on their learning and apply early insights to their classrooms, the next step is to share what was created—lesson ideas, prompt persona strategies, and bias detection tools—with colleagues to invite broader awareness and conversation.

## The focus going forward is on:

- Inviting more educators into the conversation through informal sharing of resources and reflections
- Continuing to explore how critical AI literacy can be integrated into different subject areas in meaningful, developmentally appropriate ways
- Encouraging individual teachers to pilot small practices in their own classrooms and reflect on what they learn
- Gathering feedback to refine the early-stage tools developed during the sessions
- The group recognizes that critically examining AI bias and representation is not a one-time initiative—it's an ongoing need. This team is committed to deepening that inquiry, both in their own practice and by helping others begin to see AI not just as a tool, but as a cultural force worth questioning, understanding, and teaching responsibly.

## From Awareness to Action



#### 4. | Exposing and Challenging Bias in AI through Critical Discourse Analysis. Seven Oaks School Division

Integrating AI in Education: Transforming Learning — An AI Use Case Initiative for Canadian Education

<https://c21canada.org/ai-use-case-initiative/> © 2025 C21 Canada. All Rights Reserved.

# Going Forward

GOING  
FORWARD



## Additional Resources/ Links

- Algorithms of oppression - Safiya Noble
- Should robots replace teachers - Neil Selwyn - <https://criticaledtech.com/>
- Unmasking AI - Joy Buolamwini - <https://www.ajl.org/>
- Taming Silicon Valley: How we can ensure that AI works for us - Gary Marcus
- Teaching Machines: The history of personalized learning - Audrey Watters - <https://audreywatters.com/>
- Weapons of math destruction - Cathy O'neil
- The age of surveillance capitalism - Shoshana Zuboff
- Data Grab: The New Colonialism of Big Tech and How to Fight Back – Ulises A. Mejias and Nick Couldry
- The promises and Perils of AI in Education: Ethics and Equity have entered the chat – Dee Lanier and Ken Shelton
- The AI Roadmap: Human Learning in the Age of AI Smart Machines – John Spencer
- [AIAAIC - AIAAIC Repository](#)
- [EcoLogits Calculator - a Hugging Face Space by genai-impact](#)

## Video Clips from Interview

What was your approach:

- [Can you share an overview of your group's work \[wevideo.com\]?](#)
- [How did you move from Theory to your Approach \[wevideo.com\]?](#)
- [What inspired this work \[wevideo.com\]?](#)

What did you do:

- [What were you questioning in this work \[wevideo.com\]?](#)
- [How did you look into the 'default answers \[wevideo.com\]?](#)
- [Can you share a compelling example \[wevideo.com\]?](#)

What did you find:

- [What did you discover about assessment and AI \[wevideo.com\]?](#)
- [What were some of the big take-aways \[wevideo.com\]?](#)
- [What did you want your teachers to walk away with \[wevideo.com\]?](#)

What's Next:

- [What are the opportunities for moving forward \[wevideo.com\]?](#)
- [How does a school get started \[wevideo.com\]?](#)

\*Murray, D. D., Desrochers, M.C. (2021). Applying critical discourse analysis in the classroom: A guide for educators. Current Issues in Comparative Education, 23(2), 129-144. <https://journals.library.columbia.edu/index.php/cice/article/view/10289>

<https://c21canada.org/ai-use-case-initiative/> © 2025 C21 Canada. All Rights Reserved. Dell and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.