

Data Skaters, A Use Case in First Nations Data Sovereignty and AI Literacy


PROBLEM OF
PRACTICE

How can First Nations students engage with data, AI, and emerging technologies in ways that strengthen student ownership, reflect community interests, and protect the right of students to tell their own data

For First Nations students and communities, this question is not abstract. Historically, data has too often been something done to First Nations communities rather than something governed by them. Western systems have entered First Nations communities to extract data, interpret it through deficit-based lenses, and use it in ways that misrepresent or harm those communities. Data was also weaponized as part of the residential school system and other colonial structures that collected, controlled, and used information about First Nations children, families, and communities without honoring their voice, ownership, or consent.



The Data Rink at Dakota Plains Wahpeton Nation School — April 9, 2026



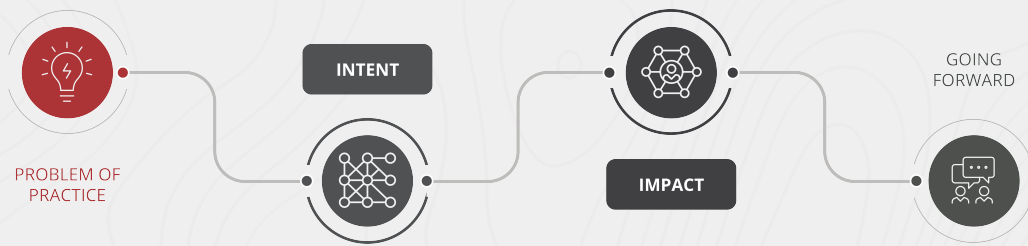
Manitoba First Nations Education Resource Centre Inc.

Organization: **Manitoba First Nation School System (MFNSS), MFNERC**
Province: Ontario
Date: **2026**
Lead: Karl Hildebrandt,
MFNERC/MFNSS

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Problem of Practice

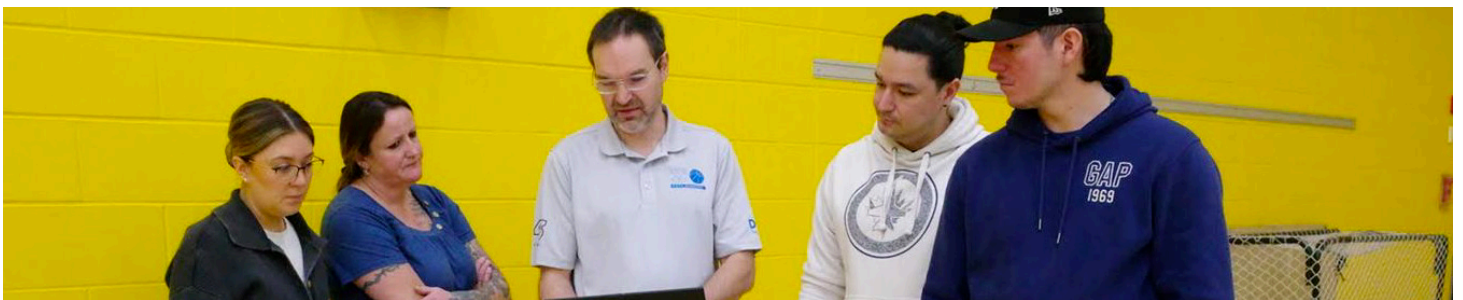
With the rapid growth of AI tools that can collect, process, classify, adjust, and display data, this concern becomes even more urgent. AI systems can reflect bias, assumptions, or gaps in the data and digital content they are built from. Without an explicit framework for First Nations Data Sovereignty, AI-driven data collection and analysis can unintentionally repeat older patterns: harvesting data from First Nation youth, analyzing it externally, and using it to create stories about students rather than with them.

Building on the Data Dunkers experiences already provided across the MFNSS school network, Data Skaters was developed to extend student engagement with data into a context closely connected to students' interests and community life. Data Dunkers had helped students see how their own activity and performance data could become a source for learning, reflection, and storytelling. Data Skaters extended that foundation through hockey, esports, AI-driven analytics, and performance-based learning, creating a high-engagement way for students to explore data connected to their own athletic and digital excellence.

The problem of practice for Data Skaters was how to disrupt the older cycle. The work needed to help students engage with their own performance data in ways that were meaningful, visible, and accountable to them. Students needed to see how their data could be collected, organized, interpreted, and used to support analysis, reflection, and storytelling while still respecting their ownership and the Principles of OCAP®: Ownership, Control, Access, and Possession. AI added an important layer by helping transform student-generated data into outputs such as player archetypes, personalized cards, team placements, and game-like experiences.

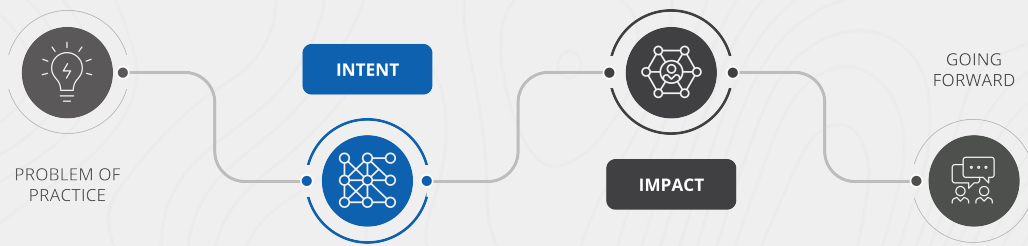
At the same time, AI could not become the authority over students or their stories. Students needed opportunities to understand that AI-supported outputs are shaped by the data being used, the assumptions built into the process, and the design decisions made by the people creating the experience. The goal was not to have AI define students, label them, or speak for them. The goal was to place data back into the hands of students as the rightful authors of their own stories.

Grounded in the Manitoba-specific concept of Mino Pimatisiwin, The Good Life, Data Skaters treated data as more than numbers on a screen. Data became a tool to support holistic well-being, student identity, community connection, and future-ready learning to help First Nations students understand, question, govern, and tell the story of their own data.



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Intent

From the MFNERC/MFNSS and development team perspective, Data Skaters was designed to move the Data Dunkers work into a new context while keeping its most important principle intact: students should learn with data connected to their own activity, identity, and story. Data Dunkers had already shown that students could engage meaningfully with data when they were not simply analyzing someone else’s information. Data Skaters built from that foundation through hockey, esports, AI-supported analysis, and First Nations Data Sovereignty.

Hockey and esports provided the high-interest entry point. The team wanted students to see that data is everywhere in performance environments: every shot, reaction, movement pattern, scoring zone, and strategic choice can become information that supports analysis and decision-making. This also allowed the work to connect student interest to future-ready fields such as coaching, athletics, gaming, design, AI, sports analytics, and technology.

AI was built into the experience as part of the broader data learning process. Rather than treating AI as a separate tool demonstration, the team wanted students to see how AI can use data to classify, compare, suggest, and represent information. Just as importantly, the AI-supported outputs were meant to become something students could examine and question. Students would be able to ask whether an AI-supported interpretation matched what they knew about themselves, their effort, their relationships, and their performance.

From the beginning, First Nations Data Sovereignty shaped the design. MFNERC/MFNSS and the development team wanted students to experience ownership and choice as part of the learning, not simply hear about those ideas as abstract principles. This meant thinking carefully about what data would be collected, how it would be used, how AI would interact with it, and what choices students would have throughout the experience.

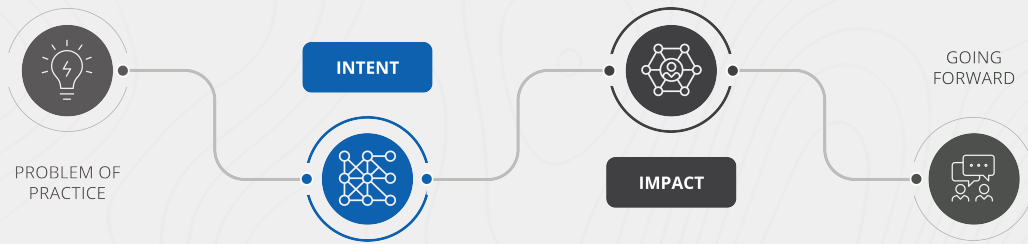
“For many people, data sovereignty starts with the question of where data is stored. In our context, that matters, but it is only one part of the issue. Data sovereignty is also about who controls the data, who decides how it is used, and whether the people represented by the data have ownership over the story it tells. With Data Skaters, we wanted students to see that their data belongs to them and that they have a right to understand it, question it, and decide how it represents them and their community.”

— Karl Hildebrandt, MFNERC/MFNSS

The design also needed to produce something tangible for students. The personalized player card was important because it turned student-generated data into an artifact students could hold, discuss, question, and connect back to themselves. It helped make the larger purpose visible: data can support learning and identity when students understand how it is used and have agency over what it represents.

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Intent

“During the development process, we really pushed ourselves to think about Data Sovereignty as a core design element. Hockey and esports gave us a powerful way to connect with student interests, but the deeper design question was how to make sure students had choice, understanding, and ownership in how their data was used. That changed how we thought about the activities, the player cards, the data workflow, and the role of AI in the experience.”

— Development team member

The work was collaborative by design. MFNSS led from the perspective of First Nations education priorities, student experience, and community trust. Dell supported the broader AI use case work and helped frame the project within responsible and meaningful AI integration. The Data Dunkers Development Team brought the AI/data design needed to translate student-generated data into usable outputs. Lotus 8 contributed expertise connected to esports, digital engagement, performance, and student interest.

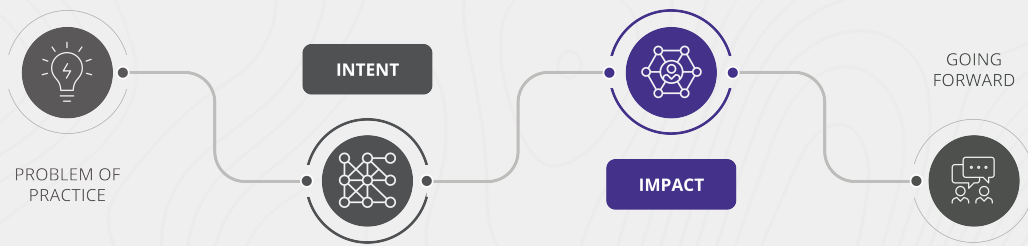
Ultimately, Data Skaters set out to test whether AI and data learning could be active, culturally respectful, career-connected, and grounded in student agency. The goal was to develop a model that could be refined across the MFNSS network and potentially adapted by other communities while keeping student ownership, First Nations Data Sovereignty, and responsible AI use at the center.



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Implementation: Bringing Data Skaters to Life

The proof-of-concept experience took place at Dakota Plains Wahpeton Nation School, with MFNERC/MFNSS organizing and leading the school-based experience. The day was designed to show how students could use their own data with AI in a meaningful and responsible way. Rather than beginning with an AI tool or technical demonstration, the Data Skaters program began with students' activity, interests, and performance. The gym was transformed into a "data rink," where students participated in hockey-based and esports-connected activities that generated data connected to movement, accuracy, reaction time, strategy, and performance.



The gym becomes a Data Rink — mini-nets, marked distances, and Dell laptops staged for the day.

The gym becomes a Data Rink — mini-nets, marked distances, and Dell laptops staged for the day.

That student-generated data became the foundation for analysis, reflection, and AI-supported application. The Data Dunkers Development Team stood up and ran a controlled AI/data environment so the team could carefully manage where data was stored, who had access to it, how it was processed, and how long it would be kept. This was a deliberate implementation choice, given that the work involved personal student data and was designed around First Nations Data Sovereignty and Stewardship.

AI was used to help process, analyze, interpret, and apply the data students generated. Student results informed player archetypes, alignment to different player personas, team-building activities, personalized player cards, and an example game experience. At the same time, AI was not treated as the final authority. Students could see where the AI placed them based on their data and then discuss whether that placement made sense.

The personalized player cards served as one of the clearest examples of the implementation model. They showed how student-created data could move through a process of collection, organization, AI-supported interpretation, and representation. Each card connected student identity, performance data, and AI-informed archetypes in a tangible format students could review, question, and choose to receive.

First Nations Data Sovereignty was embedded throughout the implementation. Students were introduced to the idea that their data belonged to them, and they had choices about how much of their data would be used and whether they wanted their information included in the player card process. Data was stored in Canada on a server housed through an in-province university environment, access was limited to those running the program, and the data was deleted shortly after the event once all player card needs were resolved.

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Impact: Engagement, Ownership, and Student Voice

One of the clearest areas of impact was student engagement. Students were not asked to learn about data or AI in the abstract. They created data through movement, play, reaction, performance, and strategy. This gave them a reason to care about the numbers because the numbers came from their own actions.

That shift mattered. Students could look at their own performance information, compare it with player profiles and archetypes, and discuss whether the AI-supported interpretation felt accurate. This created an important learning moment: students were not simply accepting what the AI produced. They were invited to agree, disagree, question, and respond. In doing so, they practiced a form of AI and data literacy grounded in their own experience.

The personalized player cards became a visible artifact of this ownership. Each card represented student-generated data in a format connected to hockey, esports, and player identity. Students could see their information reflected back to them in a way that felt personal and recognizable. The cards helped make abstract ideas more concrete: data can represent performance, AI can help interpret patterns, and students should have a voice in shaping the story their data tells.

The work also had an impact on the adults who observed and supported the experience. Educators, leaders, and partners saw students participating actively, asking questions, completing the activities, and responding to the AI-supported outputs. The engagement was not limited to the novelty of hockey or technology. Adults recognized that the program gave students a way to connect physical activity, data, AI, and identity in a format that felt relevant and respectful.



Personalized player cards — student-generated data made tangible.

“What stood out was how engaged the students were. They were not just doing activities. They were seeing themselves in the data and making decisions about what that data should say about them.”

— Adult observer / school or community leader

Digital and AI Impact: AI as Analysis, Application, and Conversation

The AI component was central to the use case because it helped students see how data can be processed, interpreted, and applied. AI was used to support alignment to player archetypes, connect students to different player personas, and create a game-like experience that students could review and discuss. This helped students see that AI does not operate separately from data. It depends on the information provided, the design of the system, and the choices made by the people building and using it.

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Data Skaters made AI visible as a system that interprets and applies data. Students could see how an AI-supported process might place them into a role or profile based on their results. They could then ask whether that placement made sense. This was an important impact because it shifted AI from something hidden or mysterious into something students could examine.

The experience helped students understand the limits of AI. The system could work with data such as reaction time, shot accuracy, performance patterns, and other measurable inputs. But students and facilitators could also discuss what the AI could not fully see: effort, relationships, confidence, mood, leadership, teamwork, and context. This positioned AI as a tool to be questioned and guided, not a system to be accepted without review.



AI made visible: a facilitator walks the room through projected archetype results.

“I think the best part was that students didn’t just take the AI result and move on. Some of them looked at the archetype and immediately started saying, ‘Yeah, that’s me,’ or ‘No, I don’t think that fits.’ That’s where the real conversation started.”
 — Facilitator

The controlled AI/data workflow also shaped the impact. It showed that the digital design of an AI learning experience can either support or undermine student ownership, depending on how data access, processing, and use are handled.

Data Sovereignty as a Lived Experience

One of the most important impacts of Data Skaters was that First Nations Data Sovereignty moved from being a background ethical concern to something students could experience. Students were not only told that data ownership matters. They were given choices about how much of their data would be used and whether they wanted their information included in the player card process.

For First Nations students and communities, this is significant. Data has too often been collected, interpreted, or used by others in ways that did not reflect community voice, student agency, or cultural context. Data Skaters intentionally worked against that pattern by treating student data as something students generate, understand, question, and control.

Seeing the model in action also helped clarify how Data Skaters could support broader conversations with First Nations communities about AI and data. The work created a concrete example that could be shown, discussed, questioned, and adapted. It gave leaders a way to talk about AI not only as a technology issue, but as a question of ownership, governance, consent, interpretation, and community responsibility.



Impact

“Seeing Data Skaters in action helped me think about how we can bring conversations about AI and Data Sovereignty to Elders and First Nations communities in a more concrete way. These can be difficult topics when they stay at the level of policy or technology. But when you can show how students are creating their own data, how AI is being used to interpret it, and how students still have choice and ownership, it opens the door to a much deeper conversation about what we want to protect, what we want students to learn, and how communities should guide the use of these tools.”

— Karl Hildebrandt, MFNERC/MFNSS

Broader Impact and Early Momentum

The proof-of-concept experience created early evidence that Data Skaters can become more than a one-time event. The model can support AI literacy, data literacy, career-connected learning, student agency, and respectful data practices at the same time. Leaders, educators, and partners recognized that the program gave students a meaningful reason to explore AI and data while protecting the principle that their data and story belong to them. That adult recognition matters: broader implementation will require trust, shared understanding, and confidence that the model can remain respectful as it grows.

Above all, Data Skaters showed that AI and data learning can be powerful when students are not treated as passive users of technology or subjects of analysis. Students became participants in generating, interpreting, questioning, and sharing their own data. The program made AI more understandable by connecting it to student experience, and it made data more meaningful by connecting it to identity, performance, choice, and story.

Professional Learning: Learning Together Through the Work

The professional learning from Data Skaters was about building shared capacity. The work helped partners and local educators better understand how AI, student-generated data, First Nations Data Sovereignty, and high-interest learning can be brought together in a way that is practical, respectful, and ready to be refined for broader use.

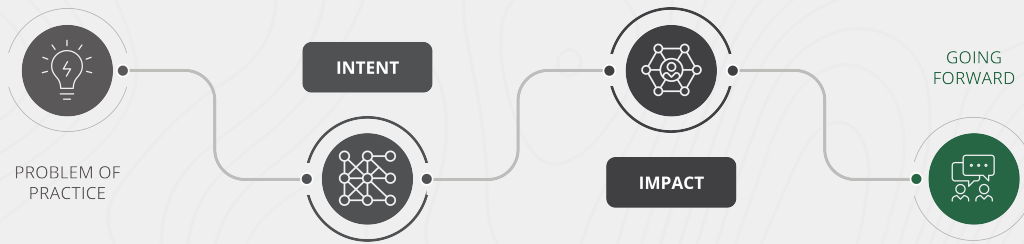
Professional learning for Data Skaters happened through the development and implementation of the model itself. This was not a case where one partner created a finished program and trained others to deliver it. MFNERC, Dell, the Data Dunkers Development Team, Lotus 8, and the local school team learned together by designing, testing, observing, and refining the experience. Each partner brought different strengths to the work, and the learning happened at the intersections of those strengths. The work included developing and refining the resources needed to run the session, including the activity structure, presentation materials, data collection tools, player card workflow, and student-facing explanations of how AI would be used.

Co-teaching in the school was also an important part of the professional learning. Local teachers and school staff were able to see the model in action alongside the partners, rather than only hearing about it afterward. Watching students move through the activities, respond to their player cards, and question AI-supported archetypes helped adults understand both the potential of the model and the kinds of support students may need as they engage with AI and their own data.

The proof-of-concept experience helped the adults involved learn how to talk about AI in a more concrete way. Instead of discussing AI only as a tool or risk, Data Skaters gave educators and leaders a visible example of AI being used to analyze student-generated data, support reflection, and open conversations about ownership, consent, interpretation, and student choice.

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Going Forward

What's Next: Expanding the Model While Keeping Data Local

The next phase for Data Skaters is both regional and broader than the region. Within the MFNSS network, the goal is to continue refining the model and expand it to additional schools. Outside the region, the April 9 experience has already created interest from other organizations and communities looking for meaningful ways to connect AI, data literacy, student engagement, and First Nations Data Sovereignty.

A major next step is the continued development of a local AI model and local processing workflow. The first run of Data Skaters used a controlled AI/data environment so the team could carefully

understand where student data was stored, who had access to it, how it was processed, and when it was deleted. Moving forward, the goal is to strengthen that even further by allowing both the data and the AI processing to remain local.

This matters for both sovereignty and access. Local AI processing would strengthen the commitment to First Nations Data Sovereignty by reducing reliance on external systems and giving students, schools, and communities greater confidence that data is not being sent elsewhere, used for unrelated purposes, or stored beyond the intended learning experience. It would also make the program more reliable for remote First Nations schools, where internet connectivity may be limited or inconsistent. A local model would allow Data Skaters to run more dependably offline or in low-connectivity settings.

As the model expands across the MFNSS network, the team will also continue refining the resources needed to support implementation. This includes facilitator guides, student-facing explanations of AI and data use, activity materials, player card workflows, consent and choice processes, and guidance for helping students question AI-generated outputs. These resources will help the program run consistently while still allowing each school and community to adapt the experience to its own context.

The next phase also creates an opportunity to deepen conversations with First Nations communities, including Elders, about AI, data, ownership, and student learning. Data Skaters provides a concrete example for those conversations. Rather than discussing AI only as an abstract technology or risk, communities can look at a real student experience and consider what should be protected, what should be encouraged, and what conditions need to be in place for AI to be used respectfully.

Outside the MFNSS region, Data Skaters may also serve as a model for other communities and organizations. The strongest opportunity is not to copy the program exactly, but to share the design principles: start with student-owned data, connect to student interests, make AI visible and questionable, build in consent and choice, and keep data use aligned to community values. Other regions could adapt the model to different sports, cultural contexts, career pathways, or student interests while preserving the deeper commitment to ethical AI and Data Sovereignty.



Data Skaters started with one school, one day, and twenty students. The principles it tested of student-owned data, visible AI, community-guided learning can scale. The work ahead is not to copy the program. It is to honor those principles wherever the program goes next.

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Going Forward

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Resources and Links

Program Resources

- [The First Nations Principles of OCAP®](#) — Ownership, Control, Access, Possession
- [Data Skaters Web Resources](#) — program landing page and activity resources

Companion Documents

- [Data Skaters Day Report](#) — the story of April 9, 2026 at Dakota Plains Wahpeton Nation School
- [Infographics and Visuals](#) — program overview visuals
- [Data Skaters Presentation with Students](#) — the deck used in the opening circle

Historical and Contextual Resources on Data Misuse with First Nations

- [Honouring the Truth, Reconciling for the Future \(Executive Summary\)](#) — foundation of self-determination and broken trust
- [What We Have Learned: Principles of Reconciliation](#) — the legal basis of the Doctrine of Discovery
- [The Métis Experience \(Vol. 3\)](#) — structural invisibility and jurisdictional gaps
- [Missing Children and Unmarked Burials \(Vol. 4\)](#) — gaps in records and destruction of data
- [Canada's Residential Schools: Reconciliation \(Vol. 6\)](#) — the role of archives and civic trust
- [Truth and Reconciliation Commission of Canada: Calls to Action](#) — records and corporate responsibility



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