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The Impact of Visiting Ininewak Communities in Northern Manitoba on Engineering Students and Faculty

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ABSTRACT

BACKGROUND & CONTEXT

Colonialism and its systems continue to suppress Indigenous ways of being, knowing, doing, and relating, creating a legacy of institutional distrust among Indigenous populations. This contributes to the underrepresentation of Indigenous peoples in HEIs and, by extension, in many professions, including engineering. To increase the number of Indigenous engineers, we must increase the number of Indigenous engineering students. However, engineering and engineering education have long historical and contemporary legacies in maintaining colonial and racial capitalist domination.

PURPOSE OR GOAL

We took 16 students, faculty and industry members to visit six Ininewak Nations in Northern Manitoba to experience firsthand the impact of hydroelectric projects on Indigenous Lands, Waters, cultures, and ways of life, and learn what communities are doing to enact their sovereignty. Our aims were to 1) build authentic relationships with Indigenous communities and support Indigenous sovereignty; 2) listen to community members' experiences; and 3) change how engineering faculty and students learn, teach, and research engineering.

APPROACH OR METHODOLOGY

We used visiting methodology and narrative inquiry to learn how we, the authors, were impacted by these community visits. We consider our narrative data collectively to enhance our understanding.

OUTCOMES

These visits profoundly impacted us as engineering students and faculty. Witnessing the devastating impact of hydroelectric projects on six Ininewak First Nation communities, and hearing community members' stories of racism and violence, changed the way we understand engineering. Witnessing community members' resilience was humbling.

CONCLUSIONS

Visiting communities and building authentic relationships is one way to help engineering students and faculty understand how Ininewak Peoples in Northern Manitoba experience hydroelectric generating projects. It is a privileged way of learning that will require navigation and negotiation in the Academy, so it can be made available to more students and faculty.

KEYWORDS

Hydro dams, engineering education, Indigenous sovereignty, visiting, narrative inquiry.

Introduction

Historically, First Nations, Inuit and Métis Peoples (collectively referred to as “Indigenous Peoples”) in Canada have lower enrolment in higher education institutions (HEIs) and obtain fewer degrees (Deonandan et al., 2019; Forrest, 2024). Indigenous ways of being, knowing, doing, and relating have been largely ignored throughout Canada’s history and development, and colonial systems that continue to be exclusive of Indigenous populations foster distrust (Forrest, 2024; Ricci, 2016). This contributes to Indigenous Peoples being underrepresented in HEIs, which contributes to Indigenous Peoples being underrepresented in many professions, including engineering (Engineers Canada, 2020; Forrest, 2024). To train more Indigenous engineers, we must recruit and retain more Indigenous engineering students. However, engineering and engineering education have long historical and contemporary legacies in maintaining colonial and racial capitalist domination (Tran et al., 2025), and relationships between Indigenous Peoples, government, and Crown Corporations have been contentious throughout Canada’s colonial past and present history. For example, in Northern Manitoba (MB), the construction and operation of hydroelectric generating stations and diversions have destroyed Indigenous communities’ Lands and Waters and had far-reaching negative social and cultural impacts. Engineers promote colonization – intentionally or unintentionally – through a lack of consultation and understanding of Indigenous communities, their needs and their rights.

Canadian scholars caution that many reconciliation initiatives in HEIs ignore Canada’s coloniality, further legitimizing and maintaining white settler and university futurities (Daigle, 2019; Gaudry & Lorenz, 2018; Snelgrove et al., 2014; Tran et al., 2025). Understanding how coloniality is perpetuated in engineering will help engineering students and faculty challenge colonialism. To engage in this learning, we took 16 undergraduate and graduate students and faculty members to visit six Ininewak Nations in Northern MB on a “hydro impact tour”. We aimed to build relationships and help students and faculty understand how community members experience the impacts of hydroelectric projects in their communities and on their Lands and Waters by witnessing these impacts firsthand. This paper introduces a visiting methodology and employs narrative inquiry to share the authors’ experiences on this tour. This work is part of an ongoing cycle of reflection and narrative co-analysis to help students and faculty understand how community members experience engineering and explore how this understanding impacts students and faculty. Ultimately, this work is being done to help change how engineering is perceived, learned, and taught in Canada.

Context

Postsecondary institutions in Canada are called on to increase access, representation, and success for Indigenous students and faculty, initiate and fund programs to eliminate Indigenous and non-Indigenous educational gaps, and integrate Indigenous knowledge into classrooms (Government of Canada, 2024). Forrest (2024) noted, “Indigenous peoples account for 5.0% of Canada’s total population, but only 0.6% of students in undergraduate engineering programs, 0.7% of undergraduate engineering degrees conferred, and 0.73% of the engineering profession (Engineers Canada, 2020).” Engineering associations across Canada are concerned, calling for an increase in Indigenous engineering professionals (e.g., Engineering Geoscientists MB’s (2024)). Engineers Canada, the national regulatory body for the engineering profession, cites barriers to education and initiated preliminary work to understand how Indigenous students, staff and faculty experience engineering education (Wolf & Martinussen, 2022).

Following the Truth and Reconciliation Commission (TRC) 94 Calls to Action (2015), Canadian HEIs initiated “Indigenization” (incorporating Indigenous peoples, knowledges and worldviews), reconciliation, and “decolonization” (identifying and addressing colonial thinking and systems) efforts (Stein, 2022). While these conversations are reaching mainstream engineering education, there has been limited work to Indigenize and decolonize engineering

pedagogies and confront engineering's colonial and capitalist roots (Engineers Canada, 2021a; Peach et al., 2020; Seniuk Cicek et al., 2021; Tran et al., 2025). In engineering education, initiatives are diverse and are at different stages of development across the country (Masta et al., 2025). Work is largely being advanced by a few communities of practice and is comparatively sparse compared to other topics in the field. For example, the Canadian Engineering Education Association-Association canadienne de l'éducation en génie's (CEEAA-ACÉG) annual conference proceedings provide a snapshot of national engineering education practice and research. Very few papers (e.g., under 4% up until 2022) focus on or mention Indigenous Peoples or Knowledges. Additionally, there are few journal articles published on Indigenous engineering and engineering education in Canada (see Masta et al. 2025). While it is important that some work is being done to decolonize engineering education, a deeper understanding of the implications of colonization in engineering is necessary.

Engineering is historically and currently implicated in maintaining colonial and capitalist rule, and perpetuating Indigenous dispossession and elimination (Tran et al., 2025) (e.g., the “man-camps” built to support engineering workers for Northern projects are linked to Murdered and Missing Indigenous Women, Girls and Two-Spirited Peoples (MMIWG) (Morin, 2020)). The relationships Indigenous Peoples have with engineering Crown Corporations have been and are contentious. In MB, for example, MB Hydro and Indigenous communities in Northern MB have had issues since the mid-1900s that remain largely unresolved (Kulchyski, 2013 & 2018). MB Hydro is a public energy utility and provincial Crown Corporation that provides all of MB's electricity and profitably exports electricity to wholesale markets in Canada and the midwestern United States (MB Government, n.d.). However, the construction and operation of hydroelectric generating stations in Northern MB have destroyed Indigenous Land, Water, communities and cultures, forced relocations, maintained the colonial legacy of stolen land, and devastated Indigenous sovereignty (Dipple, 2022; Friesen, 2019; Whyte, 2018).

Purpose and Research Question

This research is part of the first author's larger effort to understand how Indigenous community members and Indigenous and non-Indigenous engineering students and faculty experience engineering and engineering education, including Indigenous and decolonized curricula. She, along with several of her co-authors, works to identify systemic barriers in engineering education to advance anti-colonial and inclusive curricular practices. Part of this work involves taking engineering students and faculty to visit communities in Northern MB to learn firsthand how community members experience engineering and how these visits and community members' stories impact students and faculty. In this paper, we ask, *How do students and faculty experience engineering in communities and on the Land?*

Authors' Collective Positionalities

We are undergraduate and graduate students, faculty, and industry members with different homelands: we come from Treaty 5 and Treaty 1 territories in MB, Douglas Treaties territory in British Columbia, Brazil, and France. All of us except one now live in Canada, and most of us study and work at the University of Manitoba (UM). One of us is Ininewak; one of us is Métis; some of us have Latin or European ancestry and identify as guests and allies. We are women and men; two of us are Queer. Some of us are engineers; others are adjacent to engineering through lived experiences. We are all motivated in diverse ways through our professional and personal lives, connections to the Land and Water, and commitment to community engagement and Indigenous sovereignty, to Truth and Reconciliation with First Nation, Inuit and Métis Peoples. We work to understand coloniality, identify its systems, and mitigate its impacts on and through our learning, teaching, and living.

Theoretical Orientation

Our work is grounded in relationality and accountability as taught by Indigenous scholars, Wilson (2001, 2008) and Kovach (2021), and further informed by the “Six Rs of Indigenous Research” (Tsosie et al., 2022):

1. *Respect* guides our interactions with the community members we visit, the environment (Land, Water, living beings), and each other.
2. *Relationship* “is founded on kinship and accountability, built on mutual honesty and trust, and shapes Indigenous realities” (Tsosie et al., 2022). We will build relationships with the community members we visit and be honest about our purpose and motivation (Cajete, 2000; Kovach, 2008; Wilson, 2001, 2008; Kimmerer, 2013; Brayboy & Maughan, 2009).
3. *Relevance* requires our research to be “meaningful and useful to Indigenous communities” (Kovach, 2008), including understanding communities’ historical, social and cultural contexts, choosing appropriate methods and research protocols, and identifying, honouring and sharing outcomes important to communities. We commit to relevance in our work.
4. *Reciprocity* requires us to acknowledge that relationships are dynamic, must be negotiated equally, and that resources are gifts (Knudtson & Suzuki, 1992; Kimmerer, 2013). We will acknowledge with honoraria, gifts, and gratitude community members’ time and knowledge.
5. *Responsibility* is being accountable to the community members we visit and each other and building trust. It is acknowledging “Indigenous communities are responsible for their own narratives, stories, people, and histories” (Kirkness & Barnhardt, 1991; Wilson, 2008).
6. *Representation* is ensuring Indigenous community members and participants have a voice. It empowers Indigenous communities “to identify and share what is relevant and important to their people” and results in “increased social justice” (Tsosie et al. 2022).

These Indigenous research principles and values inform our work and project methodologies.

Methodology

Our work is conducted through visiting methodology and narrative inquiry.

Visiting methodology is taught by Indigenous scholars. It was brought to the first author’s awareness as a methodology by Paula, who is a PhD student in engineering education at UM. Gaudet (2018) teaches about visiting from Ininewak and Métis perspectives, in the context of building relationships, ethics, and balance. It is “a methodology that aims to build and maintain loving relationships, and to ensure the transmission of knowledge and language (Makokis, 2011, cited in Gaudet, 2018, p. 53). Simpson (2014) emphasizes the importance of learning on the Land, how “learning changes when the relational context changes” (p. 18). She explains, “Visiting is lateral sharing in the absence of coercion and hierarchy, and in the presence of compassion. Visiting is fun, enjoyable, nurturing of intimate connections and relationship building (p. 18)

It is important for readers to understand that much learning and care precede community visiting and that Peter and Dennis had established relationships with members of the communities we visited, and that we were invited to visit. In visiting, we followed protocol, learned about the communities beforehand, gave honoraria and paid for services, and brought gifts and shared food. Readers who are interested in visiting Indigenous communities should be aware of the work that needs to be done to build relationships before, during, and after visiting. We encourage readers to learn from Ferland et al. through *Working in Good Ways* (2022).

We used *narrative inquiry* to learn about the impact of the community visits on us, as authors of this paper and students and faculty on the tour. Narrative inquiry enables researchers to gain a deeper, contextualized understanding of people, places, and events (Adama et al., 2016). We wrote a reflective narrative about our experiences visiting. We reflected on these

narratives to offer preliminary understandings. This is part of an ongoing cycle of reflection and narrative co-analysis that the first author will be engaging in to enhance collective understandings of how these experiences with community impact engineering education.

Visit

In August 2024, Peter and Jillian took a group of 16 undergraduate and graduate students, one recently graduated student working in industry, and faculty members, all largely from the Price Faculty of Engineering, to visit community members in six Ininewak Nations in Northern MB. In doing this, we relied on Dennis, from Makeso Sakaihikun, and Peter, and the relationships they already have with members of these communities. We intended to learn about how community members experience the impact of hydroelectric projects on their Land, Water, and in their communities. We met community members in Misipawistik, Kinosa Sipi, Pimicikamik, Tataskwayek, O-Pipon-Na-Piwin, and Nisichawasihk. We went on three boat rides in three communities, viewing the Waters and Lands damaged by the hydro dams. We met community members who lived in Gillam when the hydro dams were first constructed, a small, so-called “Hydro town”, and listened to their stories. We learned about how their town changed, and how, while they attended their schools and grew up in their community, they experienced racism, discrimination, and verbal, emotional, sexual, and physical abuse and violence at the hands of Hydro employees and their families. We saw the Jenpeg structure, artificial channels, the Keeyask, Kettle, Long Spruce, and Limestone dams, and the Notigi Control Structure associated with the Churchill River Diversion and Lake Winnipeg Regulation projects. We witnessed “apple core” islands, where continued erosion caused by the hydroelectric projects has worn away land, leaving shapes akin to eaten apples, as well as leaving floating debris, dry riverbeds, and other environmental hazards caused by the hydroelectric projects. We saw evidence of continued work to build the infrastructure for a new dam, Conawapa, despite the MB Hydro Board putting this project on hold. We travelled in rental vehicles and stayed in hotels, eating food catered by locals or in local restaurants. We shared food with community members. We brought gifts and honoraria and offered tobacco when appropriate. The trip was seven days.

Reflections

Here, we share our narratives in their early stage, at the individual level, in their raw form. We then share some preliminary understandings of these narratives.

Jill

Grand Rapids. How dry it was! The rocky riverbed where the great rapids used to flow, their melody cherished by community members. Standing in the rocky now-dry riverbed, in the hot sun, with bushes and small trees growing out of the mud, listening to Ernie tell the story of the Elder who awoke one day to silence. Imagine that – the rush and flow and energy of the great river silenced overnight, in one instant, when MB Hydro shuts the gate upstream. Humans controlling the water. It is unnatural, against Mother Earth. And depending on your worldview: we are strangling the spirit of the Water, which has unimaginable impacts on the Land, the plants, trees, insects, the four-leggeds and two-leggeds... including humans. The desolation of spirit, and of the physical, which also destroys/unbalances the emotions, and the mind. It impacts all living creatures’ ways of being, knowing, doing and relating. Community members also lost their livelihood, as fish were poisoned, and fishing disappeared. The silencing of Grand Rapids happened decades ago; but the silence reverberates. A highway cutting through the town, a massive gravel dike travelling the length of the mouth at the dam, the flooded lands as far as the eye can see, and the damaged earth where pits of gravel were dug out of the Land and left, gaping, injured, dry. Dry, dry. The graveyard, half preserved in a copse of trees, with dimes, nickels, pennies and quarters, dolls and trinkets, and tiny disintegrating running shoes scattered at the base of crumbling headstones and in the roots of trees. Imagine Winnipeg, capital city of MB, expanding Kenaston highway through Brookside cemetery in the middle of the city – would citizens allow this? Would they have the privilege of choice? Then, standing atop a great hill, looking down, down, down at the tiny snake of a river slowly flowing

through marsh and boulders in what looks from a distance to be a valley: another river bottom, exposed. Ernie described this as the highway of his youth. Elders, mothers, fathers, bringing their children back from Pow Wow ceremonies to the community in a canoe, a boat, the river rushing boldly downstream, flooding this now-valley, river water rising, up the sides of the now-hill upon which we stand and gaze far below for a trace of what once was. Ernie's own story: his move away from the community for several years, his drinking, his sense of loss, of failure. We say goodbye to him, thanking him for sharing his stories, his memories, his pain. And then we see him again, accidentally, in the local gas station off the highway, sitting at a table with Marlene, the Mayor, having a coffee and a chat and a laugh with two other community members. We are privy to this vignette, peeking into their resilience, their humour, their refusal to go away, to leave their community. Their make-do. And still with love and laughter, they hold space together. It's a small miracle I witness with a sense of shame, of anger, for what we have done to Ernie, his family, his friends. To his community. And so began the hydro impact tour...

Hannah

I was left with the lesson that relentless hope is at the core of change. Despite the projects, systems, and people that have attempted to decimate the livelihoods of First Nations Peoples and continue oppressing their existence today, each resident we spoke with remained hopeful that slow change was better than no change. Engineers often hope to change the world, but as was seen by the effects of the MB Hydro projects, this approach has often failed to recognize the perspectives of people who [are] most impacted by the work, especially when [engineers] are removed from the land where the work is taking place. Without true and honest partnership with First Nations communities, as well as reconciliation over past failures, the autonomy of each resident from the past, present, and future is dismissed and the motive behind engineering work will be rightfully questioned.

Julien

When I heard about our trip into MB First Nations, more specifically the northern Ininewak communities, I was expecting to see clearer and better demarcated native lands. However, I learnt directly from some of the Indigenous people that the promises of reserve lands were either never fulfilled or only partially so, just as the case of the South Indian Lake. Moreover, I [I directly observed] the negative consequences from hydro development in their communities. The houses from the [Indigenous] Peoples are poorer and less maintained than those of Hydro workers, and all the Ininewak people that we had the chance to talk to told us that they can no longer sustain their traditional way of life: hunting, fishing and trapping became endangered, if not extinct, because of erosion and other social factors... some of the Indigenous people told me, that their communities are not the same as they used to be.

Kari

The tour had a profound impact on me. In the academic field that I am trained in – science and technology studies – we often talk about how technologies are political and social. More than having effects or impacts on the world around them, technologies are instantiations of politics. They are results of the political and social systems in which they are designed and constructed, and once made, they can perpetuate (or challenge) those same systems. I am very familiar with reading and thinking about technologies in this way, but the hydro tour made me a witness to it.

Deb Chachra, an infrastructure studies scholar, has written that infrastructures “centralize benefits and displace harms” (Chachra, 2023). I can't think of a plainer example of this than the dams and generating stations that we saw on the trip. They centralize benefits in the south, by delivering cheap, plentiful electricity, and displace harms to communities that many in Winnipeg know nothing about.

But there is another kind of harm displacement that also struck me as important. The “control structures” that we saw are aptly named. They are technologies of control in multiple ways:

through controlling the flow of water, they also control fish, control livelihoods, control community well-being...and so on down the line. The control of each of these things become less direct and obvious with each step away from the literal function of the control structure, but that doesn't mean it's less powerful. However, as our attention moves farther away from the structure itself and its literal function, it gets easier for outsiders to dismiss the connection between the technology and its consequences. Harms are displaced locally, as the physical and social distance between a control structure and a nearby community allows people (MB Hydro employees, southerners, non-Indigenous people, etc.) to question or obscure the connection between the technology and its harms. The responsibility for substance abuse or physical assault within a community can thus be displaced, away from the technological system and the people and organizations who had a hand in creating it.

So, my academic reflection on the experience is that the trip deepened my understanding of something that I thought I already knew quite well and gave me an enriched perspective to bring to my research and teaching. Personally, I'm most grateful for the time that we got to spend with community members (including you, Dennis!). What an amazing experience to be invited into people's boats, cars, yards, parks, camps, and living rooms! I was blown away by the generosity of everyone that we encountered in sharing their time, their stories, and their homes with us. The time that I spent driving around Grand Rapids with Marlene [the mayor] was a highlight of the trip, and her perspectives on her community will stay with me for a long time. Hearing people's stories made me reflect on the countless ways in which colonialism is entrenched and intertwined. I think that in engineering contexts, we often struggle to connect engineering work with things that may seem (to many of us) like more obvious harms of colonialism, e.g. residential schools. While I would have recognized hydro developments as colonial before the trip, hearing people's stories helped me to connect some dots between hydro development, externally imposed governance systems (e.g. band councils, reserves), residential schools, and other aspects of the colonial system. I'm thankful for this learning, and for the patience of everyone that we met during the trip in answering our questions.

Paula

For a week I drove cars on gravel roads with low maintenance, went boating on lakes, rivers and channels that were suffering from pollution and erosion from the careless way MB Hydro manages the water levels. We went to overpriced stores with limited amount of food options, which is the normal in north Manitoba. I heard from different community members that the fish were gone and that the water was getting them sick. I had to drink from water bottles because everything was contaminated. Several times we were pointed tiny islands with just a couple of trees standing and heard that they were big enough that there used to be Land camps on them, where people went fishing and spent time on the Land. The islands are gone, and the few standing ones are going with the water flow. It is disturbing to think that these engineered atrocities are made by human beings, made by the same flesh and blood as me. They were calculated by engineers that took the same university courses as I did: math, physics, structural resistance, production processes, energy generation. All these learnings can be aimed towards destruction. Engineers are constantly being weaponized against Indigenous Peoples, against the Land. I try to hide from people I am an engineer, afraid they will mistake me for the destroyers of their Lands. I feel ashamed to have been trained to destroy. And also ashamed for not being prepared to assist. Yes, of course, I kept a journal, I will probably publish just as I am doing now. This could make a difference. For my career it will. I will get one more publication. But what about the community. What are they getting out of it? How can us engineers stand on the other side? How can we stop being the weapons and start becoming allies in the fight for Indigenous sovereignty?

Renato

When I chose to leave Brazil to come to Canada, I was sold [on] the idea of a free, just, multicultural, inclusive, and welcoming country. In my ignorance, I believed that Canada was

a very prosperous country, with vast lands and rich natural resources. I saw Canada as the benchmark of a country that took care of its people and its lands.

As a newcomer, I was very much focused on learning “to survive” in a new place and did not have much time (or opportunity) to learn about Canada’s history. But after a short while, I *settled* in Canada and, with that, came time, space and interest to learn about Canada’s history – i.e., the ongoing colonization process and its impact on Indigenous peoples.

One of the most transformative experiences in this process was the Hydro Impact Tour. Throughout seven days in Northern MB, I could see, listen, and feel things that are not written in books (or engineering reports, for that matter), taught in schools (and engineering degrees), or shared widely on the internet or television.

I saw the damage that “successful” engineering projects caused to the environment and on Indigenous communities, and how we very narrowly define “for the benefit of society” – both in terms of what counts as benefit and who counts as society. I could see the living conditions that many Indigenous communities are forced, and I would say, trapped to live in. I could see the dying and dead waters that used to be the source of life for Indigenous peoples and how Canada is treating them. Thanks to the Hydro Impact Tour, I could see what many are trying to bury.

I could also listen to the stories, knowledge, and perspectives of Indigenous Peoples; of those who live in that reality day after day, and... are not just passing by for a week. There is knowledge, wisdom, care, concern, sadness, hope, anger, willpower, courage, and love in everything they say. They know, and we know they know, but we pretend they don’t know. It is easier and more comfortable to deny the stories of those whose reality, if true, would make ours in “the city” very *unsettling* to live with. Their stories show how *our* stories are *engineered* on a foundation of exploitation, oppression and aggression to the bodies of people and water. All in the name of progress while following the engineers’ code of ethics. Thanks to the Hydro Impact Tour I could listen to those who many are trying to shut up.

More importantly, I can now feel. I can feel the weight of knowing and peeking behind the curtains. I can feel the responsibility of using my privilege to make space for a different (and true) story to be told. I feel the actual cost of using water and power, that we so often take for granted when we open the tap or flick the switch. I feel sad that I am dependent on colonized and colonizing structures. I feel angry that so much injustice is going on while engineers choose to be “neutral” and “apolitical”. I feel powerless that so much needs to be done, and I don’t know where or how to start. Thanks to the Hydro Impact Tour, I now feel uncomfortable and *unsettled*.

Preliminary Understandings & Implications

Our narrative reflections demonstrate the power of experience and observation for the authors, and more deeply, the power of witnessing the impact of hydroelectric generating structures on the communities we visited. We describe “profound” and “transformative” experiences through seeing, feeling, listening, and “peeking behind the curtain”. Renato remarks, “I can *feel* the responsibility of using my privilege to make space for a different (and true) story to be told. I *feel* the actual cost of using water and power” (italics added). We witnessed dying/poisoned waters and poor living conditions. We felt “uncomfortable, unsettled”, angry at the injustice, sad at our own reliance on colonialism. We feel shame for being trained as engineers, for not recognizing the harms that technologies, which are beneficial for many, have on some. We witnessed the resilience of the people we met, the generosity, the hope, the knowledge, wisdom, care, concern, sadness, anger, willpower, courage, and love, and we are in awe of these emotions in the face of these injustices. We feel the tension from benefiting from the visit as an academic and a student.

These experiences caused us to recognize the connection of engineering projects (e.g., a hydro dam) to destruction (e.g., of a way of life); to recognize engineering as a weapon of

destruction; to recognize the complicity of engineers under the shroud of engineering ethics, and the complicity of our larger society, who, removed from the destruction, can wilfully focus on the benefits. Kari conceptualized this as Chachra's (2023) "displacement of harms": the illusion/exclusion of intellectualizing "the benefit of society" – both in terms of what counts as benefit and who counts as society – which ultimately perpetuates racism, neglect, and injustice. This recognition of displaced harms led us, through community members' stories and in various ways, to "connect some dots" between hydro development, externally imposed governance systems, residential schools, and other aspects of the colonial system; to recognize the countless ways colonialism is entrenched and intertwined.

Visiting in some ways combats this "displacement of harms". It is an essential, yet privileged, engineering curricular activity. Visiting has pedagogical and professional implications—and we will continue to examine how faculty and student learning from the tour might influence curriculum, teaching and learning, and engineering practice. Unfortunately, visiting is predicated on small numbers, as is building relationships, and both are counter to postsecondary education, which is driven by economic reasoning, big numbers, and the "whitestream academy" (Grande, 2004; Stein et al., 2021).

Conclusions and Hopes

These visits profoundly impacted us. Witnessing the devastating impact of hydroelectric projects on six Ininewak First Nation communities and hearing community members' stories of racism and violence changed the way we understand engineering. Witnessing community members' resilience was humbling. The trip helped us recognize our own coloniality and identify barriers in our relationships with Indigenous communities.

Visiting communities and building authentic relationships will help those living in Canada address Truth and Reconciliation, the TRC 94 Calls to Action, the Murdered and Missing Women, Girls and Two-Spirited Peoples (MMIWG) Calls to Justice, and the calls for extractive and development industries to consider and honour Indigenous sovereignty. However, it is a privileged curricular activity, and how it and its impact can be made available to more students and faculty will require navigation and negotiation with entrenched academic structures and the administration that guards it.

We are hopeful that visiting will help us build new relationships between students, faculty, and industry and community members in Northern MB and strengthen existing ones. We hope that visiting will help to further community members' work to spread their stories about the devastating impact hydroelectric projects have on their Lands, Waters, and social, cultural, and economic ways of life and gain public support to address these devastating and critical issues. By developing and building relationships between UM students and faculty and local Indigenous community members, we hope to foster trust and respect, change how engineering is understood and taught, and better recognize the impact of colonization through engineering. Ultimately, this will help us attract and retain more Indigenous engineering students and educate more engineering allies for a better collective future.

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