



Conversations on Indigenous Centric ODDE Design

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Abstract

In reviewing Indigenous approaches to open, distance, and digital education, the authors found that Indigenous people have been keen to adopt and adapt technologies for their own uses and purposes but are less successful in controlling and creating technologies that dominate the learning landscape. Given the scant literature available on this topic, using the methodologies of kitchen table talks, the authors dialogue their experiences working with Indigenous people and designs in open, distance, and online teaching and education. Through their storytelling, the authors elicit examples of experience in postsecondary education contexts in Canada including the use of talking circles, blended and inclusive learning, development of safe spaces and hubs, and challenges balancing home life and online learning. The importance of relationships, community connection, and validating self and identity in the learning experience were strong themes that emerged from the dialogue. Indigenous pedagogies and knowledges online is a relatively unexplored phenomenon and this initial foray into characteristics,

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successes, and challenges may be a starting point for future scholars to follow. By sharing highly contextualized narratives from Canada, we aim to increase the global dialogue around decolonizing ODDE and therefore end the chapter by examining our experience against ongoing international discussions.

Keywords

Indigenous pedagogy · e-Learning · Postsecondary

Introduction

Within Canada, reproduction of colonial systems and values is exhibited at all levels of education, so it is unsurprising to see the impacts of non-Indigenous values permeating online education, both in the development of the tools of learning and the ways in which they are adopted and used. Dron (2021) argues all technology fits into typology consisting of two categories. Hard technologies, he classifies as those which fall into predictable, anticipated patterns of use that cannot be changed by participants, while soft technologies are those whose use can be influenced by the user. The Dron (2021) characterization provides a lens for exploring the permeating values of digital learning tools predominating open, distance, and digital education (ODDE) in Canada, which can be identified as both hard and soft when the cultural values underpinning the design of the technology are evaluated. For example, most formalized education systems have adopted some form of Learning Management System (LMS) as a centralized and secure place for digital education. This tool determines how students and teachers behave and what can be shared and determines patterns of communication, based on the expectations of the designers. This is considered a hard technology and as this chapter will discuss is made considerably more impenetrable when the cultural values of the users are different from the designers of the technology. Many institutions in Canada from K-12 public education to postsecondary have made valiant efforts to soften technologies used, to increase accessibility, and to engage with more open educational resources adopting social media and more flexible tools than the aforementioned LMS. Some of these efforts will also be explored, through a discussion and analysis of the critical points, which make technologies culturally harder or softer to navigate. Numerous articles have been written from multicultural, social justice, and critical pedagogy perspectives outlining that online learning design is not culturally neutral (McLoughlin & Oliver, 2000; Myers, 2021; Öztok, 2019); however, very little has been written about the conflict between Indigenous worldviews and the biases inherent in educational technology. In the absence of a large body of evidence to draw upon, creating a reference work seated in third party research becomes challenging. Furthermore, to minimize the impact of pan-Indigenizing, or reducing the Indigenous experience to themes, we begin, as is common practice with research in Indigenous communities, with the highly contextualized stories and locations. From there, we move outward to international issues and themes, which have arisen from colonial contact globally.

Therefore, this chapter diverges from others in this series as the discussion progresses. It is first important to clarify through use of a generalized characterization of Indigenous world view as it relates to education, where the hardness or conflicts in values arise for Indigenous students and educators. Next, a traditional synthesis of the limited literature available is shared with critical themes impacting systemic and classroom-based ODDE adoption by and for Indigenous students. However, perspectives on the challenges and opportunities differ somewhat, depending on individual positionality. How colonial systems are experienced as an Indigenous person is very different from that of a non-Indigenous person. Therefore, to deepen discussion, the themes are unpacked through a process of storytelling, as the authors, from their alternative positions, share their research, struggles, and efforts in decolonizing, or softening education and technologies, respectively. The chapter closes with an invitation for further research and discussion on the role grass-roots, or microlevel interventions can play in beginning the process of dismantling systemic bias.

Framing the Landscape

Although each Indigenous people has a distinct expression of worldview developed over long periods of relation with land and community, there are many remarkable similarities across Indigenous peoples that contrast with Western (non-Indigenous) worldviews. Of course, there are individuals and subsections of both Indigenous and Western peoples who counter, resist, or differ from the norms ascribed to their culture, but the generalizations are nonetheless instructive. In creating a list of characteristics of Indigenous approaches to teaching and learning and knowing, for the sake of comparison for an international audience, it is necessary to make some generalizations.

Indigenous epistemology is characterized by Castellano (2000) as holistic, narrative, orally transmitted, experiential, and personal. Storytelling, which embodies these characteristics, is a central tool for teaching and learning in Indigenous contexts (Cajete, 2017). Everyone is a potential teacher, and the Land is the supreme teacher. How each person experiences their relationships with land and community, and contemplates and processes the meanings to be made from these relations, can lead to deep learning. “Ways of knowing and learning in an Indigenous paradigm are . . . profoundly personal and spiritual, based upon a journey into the inner meta-physical and spiritual worlds of the self” (Madjidi & Restoule, 2017, p. 167).

Equally important to Indigenous pedagogy are the various modes of experiential learning, such as modeling, observation, in-context learning, apprenticeships, learning games, and tag-along teaching as methods for “learning by doing” (Simpson, 2000, p. 257). “Through observation, experience, and practice children learned the skills, beliefs, values, and norms of their culture” (Swan, 1998, pp. 51–52). “Indigenous epistemology conceptualises education and learning as both life-wide (happening across formal, nonformal, and informal settings) and lifelong” (Lanigan, 1998, p. 106). Learning, in an Indigenous paradigm, tends to be experiential, personal, and highly contextual.

Arising from the tensions of worldview and the literature review, two complex themes emerged: contextuality of learning design and relationality, authenticity, and Indigenous identity online, both in and outside of education.

Contextuality in Learning Design

In some of the earliest discussions of contextual needs in website design, Collis and Remmers (1997) characterized websites in two typologies, those with low-level context designed for international or universalized navigation and understanding and those designed to be highly contextualized for very specific local needs. While critiquing instructional design practices specifically, Henderson (1994) identified most design for online learning at that time, fell into one of three approaches with respect to culture: inclusive, inverted, and unidimensional. Inclusive design, according to Henderson (1994), examined perspectives of minority groups but did not challenge dominant culture, while inverted designs began from the minority perspective first, but potentially failed to prepare learners with the cultural capital needed to succeed in mainstream society, and finally unidimensional designs ignored diversity entirely assuming cultural neutrality in learning. Henderson (1994) called for a fourth model, which reflected the multicultural realities of society, included multiple cultural ways of learning and promoted equity of learning outcomes. These two early works have been contrasted to highlight that it is not only the “hard” design choices of online learning structures, but also the “soft” pedagogical and teaching positionalities which need consideration. As early as 1999, Joo (1999) warned that the universal design of the Internet has the potential to impact microlevel student-teacher interactions as well as the macroculture of education and politics by enculturating students into universal expectations. Since that time, there have been repeated calls for systemic attention to culturally inclusive learning environments, through the adoption of local cultural context, values, and language (McLoughlin & Oliver, 2000; Myers, 2021; Öztok, 2019).

In Canada, despite the Truth and Reconciliation Commission’s calls to action (2015) addressing systemic challenges in all areas of Canadian society, with specific calls for education, strategic change to support Indigenous centric digital learning has not yet been addressed. Digital infrastructure, for communities with low populations separated by large distances, has only become a recent concern of national funding initiatives (Kuersten, 2018). Remote learning, for these communities, which are predominantly Indigenous, has been dominated by correspondence models, with very few e-learning opportunities (Barbour, LaBonte, & Nagle, 2020). This appears to be a consistent challenge internationally as Reedy (2019) describing the experience of Indigenous students in Australia has reported parallel issues of unrealistic institutional expectations for technology infrastructure, access, and reliability as a key challenge to participating in online higher education.

In contrast, Internet and social media usage is as ubiquitous in Indigenous communities as it is in mainstream Canada, and while there are differing views regarding the acceptance and use of the Internet within Indigenous communities, its

adoption by communities continues to be fundamental for the development of basic rights such as social security, cultural expression, and conservation (Castleton, 2018). Pfeifer (2019) described Inuit usage of social media as a tool for resistance of colonial oppression and amplification of cultural values. Pfeifer (2019) contrasted his observations of the usage of Facebook, by non-Indigenous users as a space for self-promotion, while Inuit usage was a space for community support and aid. Through this same discussion, he cautioned non-Indigenous researchers to critically examine their analysis of Indigenous social media usage, against their personal, potentially misplaced, and unacknowledged cultural bias. Unlike digital learning tools, Internet and social media have been quickly adopted and become important elements supporting community and contextualized learning (Bujold, Fox, Prosper, Pictou & Martin, 2021). In more examples from the north, social media and mobile devices have been used to ensure community safety through report conditions of the ice for hunters/travellers, disseminating traditional stories, teaching traditional skills, and recording a collective history of communities and experiences (Castleton, 2018; Cook, 2018; Hicks & White, 2000). Indigenous youth are avidly using digital technologies, which they have the ability to mold, to build relationships, and to support their learning, culture, and identity with the wider world (Bujold et al., 2021).

Relationships, Authenticity, and Identity

Bennett, Tanoa, Uinik, and van den Berg (2021) have discussed the need for online learning with Indigenous students founded in a relationship's first approach, concentrating on designing inclusive learning approaches and taking digital inequity into consideration. The development of authentic relationships in online learning is not solely a challenge for Indigenous students. However, Reedy (2019) identified Indigenous students face greater challenges to relationship building in online learning spaces because they had no safe mechanism to self-identify nor connect with other Indigenous students, which contributed to greater feelings of isolation in learning. Within this study, conducted pre-COVID-19, students also identified the feeling of being forced into online learning as the only option to continue study without having to physically relocate, which led to feelings of resentment which were amplified by the lack of Indigenous specific supports provided for distance students. Finally, students identified a conflicting values frame in the relationships they attempted to make with online peers, describing relationships as uncomfortable because they felt they were competitive rather than supportive connections. Arising from these findings, Reedy (2019) developed recommendations for online learning designs for Indigenous students, which included designing for social connection, facilitating interaction between Indigenous students, nourishing interaction via cultural interfacing, ensuring the teacher is present and plays a supportive role, ensuring content is diverse and ensuring materials are accessible through flexible ways of interacting.

As has been observed in multicultural learning environments, Reeves and Reeves (1997) argue that miscommunication and challenges in learning arise when cultural expectations differ, or the teacher shares a form of interaction/learning that is not universally accepted or understood by the students. The language of the learning and tools in Canada is predominantly English or French, while in person learning languages can be as flexible as the speakers in the room, work online is limited to the language of the tool, and the Roman orthography limitations of most interfaces. Beyond cultural misunderstandings, Moodley and Dlamini (2021), sharing examples from South Africa, describe the pragmatic challenges of incorporating less common African Languages in digital tool development in relation to issues of political recognition, translation of technical terms where no Indigenous term preexists, and accessibility of information when translation is not possible.

In short, scant literature could be found presenting rigorous analysis of the role and function of ODDE with Indigenous communities, but rather case examples of practices. Therefore, towards building a systematic analysis, the remainder of this article takes a parallel approach, as authors share our research and experiences as highly contextualized examples, as Indigenous researcher and ally in relation to describing decolonized approaches to online learning.

Kitchen table talks, a method identified by Tootoo (2018), was adopted as a methodology to describe and analyze issues of Indigenous ODDE while making the authors' positions apparent. This approach is founded in informal conversation and can also be considered a form of storytelling. Storytelling is an accepted means of knowledge gathering in Indigenous contexts, and as Smith (1999) discusses, a means to privilege Indigenous ways of knowing by shifting the balance of power from Western communication patterns to Indigenous. Our table talk sessions took place both asynchronously and through phone conversations as we worked together on opposite sides of the country currently called Canada.

The Conversation

JPR: My first foray into designing an online course was a MOOC (Restoule, 2013), the first MOOC ever taught at Ontario Institute for the Studies of Education (OISE) at the University of Toronto. The Dean felt it fitting that the first MOOC should be about Indigenous education and invited me to design it. My main concern when teaching face to face was fostering community in the classroom, building relationships with the students and ensuring they all could bring forward their gifts in our meetings as we discussed the readings and held circle. Translating this experience online, and to a MOOC no less, was going to be a challenge. An activity we held in face-to-face classrooms was to draw a place that holds special meaning that we then linked to one another and/or displayed on the wall while discussing the themes that emerged. Our technology translator helped convert the activity to online space where we could upload pictures or files about our special place before the thematic reflections.

One of the early hard (Dron, 2021) technological limitations of the MOOC platform I discovered was that video lectures anchored everything. If you wanted people to upload their special place and then discuss it, they could not simply do that activity. There had to be a lecture video that led them there. We created videos to explain the activity. I have to admit that this could be a useful tool to have the instructor discuss the activity in a friendly way but I abandoned scripts early on as they felt too rigid, unnatural. When I used a teleprompter I felt robotic (even if I wrote the words!!). I preferred to have a sketch of what to cover and then talk as it felt more direct, natural and like the classroom experience. But when it comes to activities and graded portions, precision and accuracy in expectations is significant, and videos, while useful, could sometimes seem to present a different nuance or weighting on parts of the assignment. The more content added and in different formats, the more potential for multiple meanings and for misunderstanding. As much as MOOC course design has this idea that you can wind it up and let it run on its own, I see this as one of the central tensions in designing online learning with First Nations approaches to learning in mind. Whereas First Nations learning is highly contextual, located in a specific community or context, where the teacher and the learner know each other and have a relationship, with online learning the teaching is transactional and generally designed to apply to a wider audience, assuming in the process there is a universal learner (Restoule, 2017). In the same way Western science knowledge assumes universality, much online learning assumes universality in the knowers and learners, rather than situating the learning in the relationship between them, not unlike Henderson's notion of inclusive design.

KMS: While JPs first experience designing online learning in higher education focused on relationality and context overcoming the limitations of the tools, my first experience was a partnership design with the Indigenous services department supporting pre-nursing students' transitions which sought to apply university adopted tools to a better purpose (Snow, 2016a). In this example, building on the literature of accessibility, which pointed to the need for flexible learning, community and authenticity (Shield, 2004). I worked with a nursing instructor to design online supports, such as recorded lectures, pre-lesson scaffolds (in the form of power point lecture notes), and an asynchronous discussion space. Over the course of 1 year, I interviewed students multiple times to determine what if any of the online scaffolding was useful. I learned, very little was. Looking back, it makes sense, we had applied our colonial deficit thinking to the "problem" at hand. The problem was content acquisition in a content, terminology dense subject, fundamentals of clinical biology for nursing. We didn't acknowledge the students position. While the pre-distribution of course materials offered flexibility, students found the discussion space onerous; if they had questions, they emailed the faculty member directly, or a friend. They didn't have time to read all the posts to discuss, they needed answers quickly. The recorded lectures were still lectures; they were useful if a student missed a class, they were useful for revision because students could fast forward and rewind, to review, but it was still a lecture, which shared compartmentalized, decontextualized biological concepts. The prepared notes faced similar challenges, designed to teach content, not students, but identified these as the most beneficial

support because they enabled students to pre-read and freed them from the arduous task of taking detailed notes during lectures, but rather annotate the lecture notes with their understandings. The primary criticism of the supports was lack of context. Students told me, “I can’t see the forest for the trees.” In one of the most poignant conversations I had, a participant told me they entered the program to be a nurse but feared the disconnected knowledge shared in biology class could potentially cause harm to future patients. The connection between course content and nursing practice was not transparent and this lack of understanding was perceived as scary.

My second attempt at supporting Indigenous students in higher education came at the request of the program Manager for a First Nations community based Bachelor of Education program. My supervisor, again seated the challenge of the course in flexibility and accessibility offered by online learning design (Snow, 2016b). The concept was to offer a blended learning course during winter term to reduce driving for the students, most of whom lived more than 60 min of prairie highway driving away. The first critical lesson about the systemic barriers exacerbated by online learning controlled by the institution, for band and employer funded students, arose immediately. As the fee paying organizations worked on independent timelines from the university, many students were placed on “academic holds” and barred from online learning while the university waited for bills to be paid. Academic holds posed no problem in face-to-face courses where students could enter at the instructors’ discretion, and the working practice was to keep a department-created instructor register separate from the official register, until all the fees were paid. However, as we moved online, it became quickly apparent to me as instructor who had paid and who had not, because students with late fees were blocked from online systems in an automated and cascading process that no doubt was efficient for university systems, but from my perspective was an invasion of privacy. As instructor I did not want to know, who has paid and who has not. I just want to teach. Students were forced into the position of explaining, and asking me to develop workarounds for their courses, which I did readily, pulling material out of the university mandated tools, such as the LMS, and placing them in open access locations, such as google docs, where everyone could access. This forced me, in an effort to support all students, to abandon university provided technologies and to act as an advocate with the finance office, to allow the students into courses.

JPR: Observation, experiential learning and relationship are important aspects of Indigenous pedagogy (Simpson, 2000). I remember as an undergraduate that if I really liked a lecturer or a topic that I could sit in the room and learn from the lesson whether I had registered or not. I sat in on a number of lectures on Ancient Egypt that were fascinating but never appeared on my transcript as I was not formally registered. That is simply not possible with courses taught online at a university or college. Maybe that is part of the point with LMS—further institutional control. If you don’t pay you can’t play (learn) and it furthers neoliberalism of post-secondary education as a business rather than a public service. At first I thought this was a side comment but perhaps really it’s the point!

KMS: Beyond the limitations of flexibility and hierarchical institutional control of adopted technologies in post-secondary, there was a second fundamental learning

I realized within this blended learning course (Snow, 2016b). Taking away scheduled in person class time, doesn't necessarily increase flexible learning time for students. Many of my students continued to make the 60 min drive to the city to meet with their cohort at coffee shops or in our abandoned classroom, because this was time negotiated away from home that families could understand. It was much harder to ask family to respect independent study time at home, and for many the space at home was not conducive to learning.

JPR: Relationality, and family and community responsibilities often take priority over learning and technology can support students. There was an occasion when a student taking her degree from Sudbury was attempting to select only online courses in order to get her M.Ed. She really wanted an Indigenous focused course but all the OISE offerings were in person. She asked whether she could come to some classes in person, monthly, yet be videoconferencing with the group other days. I decided to give it a try and it was very DIY. . . I literally called her on my laptop (using Skype) and put the computer on a table or chair within our circle. She could see everyone with the exception of the people seated on either side of her (the laptop). When we had group work, she would be assigned a group and her group members carried her to wherever they were meeting. We ensured she knew who was talking by introducing ourselves when we spoke and indicated when we were finished.

This student told me she always felt like part of the class and was not missing anything. The students in person told me they didn't feel put out by having her there on screen (I've participated in some courses where it is a little disconcerting. . .for instance when someone is on a large screen and their image is larger than life, or the volume settings make their voice boom over everyone's). This participation was relatively seamless.

I allowed some future students to do the same when a situation warranted it, including one student who had to be in Africa for a month during the course. So I suppose I had flirted with ways of doing Indigenous pedagogy (like circle) with modifications to allow distance learning and technological inputs for some years before the MOOC. My goal was inclusion and accessibility. How can we facilitate participation and learning for someone who is not always able to be there physically? And If we could adapt our processes to allow someone coming in via computer, what if everyone was on a computer? That was part of the thinking with the MOOC and something we'd adapt differently when doing our smaller private online course for principals (Tessaro et al., 2018).

KMS: Building on my first attempt at blended learning with Indigenous students, my second attempt was better positioned in Indigenous pedagogy to support trans-cultural learning through relationship and consensus building (Snow, 2020). As I started my first job, as an assistant prof in a faculty of education, I was faced with teaching two cohorts of students concurrently, the mainstream, predominantly non-Indigenous Cape Breton Island campus students and a second cohort in community on mainland Nova Scotia. Separated by about 350 km, a daily or even weekly commute was not possible during the winter months. However, we adopted a blended learning approach that saw lessons delivered face-to-face once a month, within the separate cohorts, while the majority of the work was completed online or

in working and learning contexts where the students were located. From simple open ended tasks that allowed students to illustrate their perspectives and creativity through product creation (for example videos of lessons, lesson plan design, experiment development) L'Nu students were able to invite us into wider perspectives on education, learning and community life. The sharing of perspectives and spaces across the two cohorts allowed students a glimpse into one another's world that was discussed at length in the individual cohort face-to-face sessions. The challenge of this course, was building trust across the cohorts, though they were very open among themselves, discussion between the two groups in the online space was often reduced to affirmations "love your work!" or questions "how did you. . ., can you tell me more about. . .", if they acknowledged one another at all.

JPR: I'm struck by the description of how simple videos and sharing of spaces opened up possibilities for transcultural learning. When a team at OISE working with the Martin Family Initiative created a 200 hour online post-secondary course for principals working in First Nations schools, one of the design choices we made early on was reducing the amount of writing and journaling (Tessaro et al., 2018). A first pass through our draft 10 modules made us realize that we'd put a lot of additional writing assignments on principals who are already quite stretched. We decided to reduce writing requirements and demand on their time by using simple video uploading and sharing. The videos allowed participants to easily record their speech and upload for sharing. Additionally, they could show what they were talking about by recording their community and school contexts. While the full potential of this capability was largely untapped in practice, what emerged for me was the value placed on relationship building and being able to see one another. At the midpoint of the course, participants met synchronously to discuss the capstone project. Enjoying the synchronous meeting so much, the pilot course participants advocated to change the course so we would meet synchronously for each of the remaining modules (once monthly). This feature became standard in all subsequent offerings and demonstrated to the course design team the importance of relationship for learning in First Nations contexts (see Tessaro et al., 2018). Relationship was one of the foundational "Rs" we attempted to incorporate into each module of the course. The other R's were respect, relevance, responsibility, and reciprocity (Kirkness & Barnhardt, 2001).

KMS: Writing online in formalized tools, the discussion forum of an LMS for example can be problematic. The community based cohort, did something different. They took ownership of discussions and created a safe space for themselves using a Facebook group. They invited me in, for the duration of the course, but let me know, not all instructors are allowed in, so I was only permitted in because they felt I could contribute respectfully to their community without overwhelming the space. In other words, the rules for me were outlined as they welcomed me in, I wasn't to get too "teachery" in there. I participated there for the semester, observing student conversations about the courses, answering questions when I could, but mostly keeping quiet, unless directly asked. It helped me to understand some of the challenges students were facing both with the courses and balancing work, life and school. This is where the real conversations about the course happened, not in the artificial spaces

created in discussion forum. They let me stay, after the course ended, for a while, but as the program ended I was removed from the group (Snow, 2015).

JPR: I remember when the MOOC was active in its first offering in spring of 2013, I was getting off the elevator when I saw a poster for people taking the MOOC. It read, “Meet up Tuesdays in the seminar room.” This was just down the hall from my office! Yet I knew nothing about it. The MOOC was designed to release new content weekly on Mondays. Apparently, this group was getting together after new content came out so they could discuss and work together on the assignments. Amazing! This group was gathering literally 30 steps from my office. But others were forming Facebook groups in cities across Ontario from London, Windsor, Sudbury, Kingston, Thunder Bay, and in Regina, Vancouver, Halifax. These were just the ones I became aware of (I’m not on Facebook, or other socials. . .word just got back to me). Jan Hare, designer and instructor of a UBC MOOC called “Reconciliation through Indigenous Education,” discussed with me the way hubs of learning formed around her MOOC. It’s something we noticed happened formally and informally as people gathered to create a space to meet in person about things they were learning online. In Toronto I was asked to meet a group of librarians who wanted to create MOOC hubs where people taking MOOCs could gather on a regular basis with peer learners to go through experiences together instead of being isolated sole learners at home.

KMS: Recognizing the limiting linear, hierarchical and instructor focused pattern of LMS construction, I tried again, to decolonize this space. In a class designed to examine global and Indigenous perspectives on online learning, rather than a discussion forum, I adopted a cobbled together asynchronous virtual “talking circle” using the LMS blogging tool and a wiki front page, to act as the circle. Students used an electronic talking stick to indicate who was the speaker, with their names (links to their personal blogs) arranged in a circle on the Wiki page. They were required to check back periodically, read the blogs of the people before them in the circle, and when it was their turn, move the talking stick to their name and respond to the issue being discussed by directly building on the thoughts shared by the people before them. From my perspective as the instructor, the conversations were better, but the students, in this case, predominantly non-Indigenous, complained the process was “too much work” and “too difficult to follow”. Danyluk and Hanson (2021), have written about Hanson’s techniques for bringing in talking circles to synchronous discussions. Their work focuses on the importance of recognizing the talking circle protocols, and respecting them in the face of tensions around cultural appropriation. I struggle with this too, as a non-Indigenous scholar, to what degree is it respectful to adopt Indigenous pedagogy full stop, but more so in an online space where misunderstandings are more likely to manifest both for me and my students.

This past 2 years has seen an incredible shift in my work, and not necessarily for the positive, brought about by COVID travel restrictions. The Certificate in Educational Leadership in Nunavut is designed as a co-taught face-to-face program where an Inuk practitioner and frequently a university based academic like myself work together to teach about and for Inuit centric leadership transformation. As this program moved online, we saw declining Inuit participation, challenges bridging

between supported technology in schools and university, as well as infrastructure limitations. The content has always been highly contextual, but much of the learning was through dialogue and reflective practice. To accommodate technology limitations of the arctic and teachers' busy schedules we resorted to almost a correspondence model, with readings shipped in a paper based course pack, teleconference calls, in addition to virtual sessions. As we determined what technology could support, we increased synchronous sessions because reading and writing asynchronously was not sustainable for the teachers. Time to type responses, particularly if English was not first language, the LMS inability to support Inuktitut, time to read and time to process responses into writing was much more difficult than a live conversation. The live sessions, though we assumed would be the greatest challenge as we spanned 4 time zones in Canada, were the most appreciated by the students because that was time people could lock in and concentrate. Ultimately, we had to adopt a highly flexible approach to course completion, with timelines outside of the traditional course calendar and individualized.

JPR: During the pandemic, I noticed the challenges learners had with screentime taking up so much of their daily lives. Parents of young children were distracted having to take time to see to their children's wellbeing and own screentime expectations imposed by schooling online.

In 2020, one student dropped the UVIC Indigenous Education summer institute because he could not find time to plan care for two kids under 5 while taking an intensive when we shifted mode of delivery with only 8 weeks to spare. The summer institute in Indigenous Education at UVIC consists of 4 courses taken over 4 weeks in June. It means 6 h of class daily. (He enrolled the following year, once he had time to plan child care, and had a successful experience). One of the adaptations we made to our summer institute going online was reducing each class meeting from 3 h to 1.5 h synchronous. We made up the additional 90 min with activities, additional videos to be consumed at their own pace/time and other readings. But the focus was on activities that learners could do outdoors, on the land, with family. The idea being you need to get out and away from screens and if you're a parent, you need to balance student life with family responsibilities, so why not make an activity you can do together? We had such assignments as finding sit spots and reporting back on observations. What is a space like at different times? Or find a local plant and learn its Indigenous uses, medicinal, food, other. Share in a video upload. These activities could be done with young people. One of the courses is an arts-based course where the students made a drum and incorporated Coast Salish designs on it—another activity that can be done with children.

Concluding Thoughts

As we reach the end of our chapter, we realize there are more questions raised and starting points identified than conclusions. We began by noting that Indigenous infrastructures and approaches are largely ignored in writing about open learning and digital education. Indigenous people as always have adopted and adapted

technology for their own uses and purposes (Pfeifer, 2019; Valentine, 1996), but are less successful in creating the technologies that dominate the learning landscape. In this way, there is continued cultural imperialism embedded in the dominance of the most prominent learning platforms, software, and management systems. They are culturally “hard.” Though we began with the specific example of Canada, this same colonial domination permeates LMS design internationally (Dreamson, Thomas, Lee Hong, & Kim, 2017). In the case of online learning delivered in postsecondary education contexts for Indigenous learners or about Indigenous topics, English dominates, and so do assumptions about the delivery of knowledge. In the authors’ experiences, platforms are designed largely to instill or reinforce hierarchies of knowledge while delivering content over geographic spaces and across time (asynchronous) as though they could be removed from contexts and the places and times people are located in. This is a frequent rationale for the adoption of ODDE in higher education internationally, simply a tool for access (Prayaga, Rennie, Pechenkina, & Hunter, 2017). But it fails to address fundamental assumptions underpinning ODDE design. When Indigenous learners or design teams are involved, relationships matter and influence the way learning takes place.

While relationship-building in learning is not exclusively an Indigenous domain, literature indicates it is a must for Indigenous students (Cueva et al., 2018). We saw this in the tension between content removed from relationship and tools that make communication between learners less immediate. Similarly, relationship was critical in large courses, whether fostered in activities linking learners to each other or with personalizing knowledge exchanged horizontally. Content that assumes a universal learner also requires a disembodied transactional approach, one that goes against the ways Indigenous learning has traditionally been done and methods that Indigenous learners prefer.

We witnessed technology in postsecondary education becoming a barrier to learning with students locked out if their tuition was unpaid. Rather than maintaining privacy in their account status, students have the potential shame of explaining their financial status to their professor. We talked about blended learning and how inclusion can be facilitated using adapted Indigenous pedagogies like circle and ways to adapt circle to online spaces. We talked about ways that Indigenous students use technology to connect and create safe spaces for themselves beyond the course, with social media platforms. We discussed additional learning hubs created by learners that create community in contrast to online learning that can feel isolating.

Future research could examine the technological and cultural determinism introduced by learning hardware and software and implications for Indigenous knowledge in online education. Adaptations and changes that bring Indigenous pedagogies and knowledges online can be further examined for their characteristics, successes, and challenges. And the ways learners adapt and interact in online learning spaces for their own benefits, particularly those from and in Indigenous communities would be welcome additions to the larger conversation on open, distance, and digital education.

References

- Barbour, M. K., LaBonte, R., & Nagle, J. (2020). State of the nation: K-12 e-Learning in Canada. *Can eLearn*. <https://k12sotn.ca/wp-content/uploads/2021/09/StateNation20.pdf>
- Bennett, R., Tanoa, A., Uinik, B., & van den Berg, C. (2021). Creativity in reactivity: Application of a “relationships-first” strategy in the rapid transition to online learning for indigenous university students curing covid-19. *Journal of Global Indigeneity*, 5 (1), 1–13. <https://www.journalofglobalindigeneity.com/article/19440-creativity-in-reactivity-application-of-a-relationships-first-strategy-in-the-rapid-transition-to-online-learning-for-indigenous-university-student>
- Bujold, R., Fox, A., Prosper, K., Pictou, K., & Martin, D. (2021). Etuaptmunk-two-eyed seeing: Bringing together land-based learning and online technology to teach indigenous youth about food. *Canadian Food Studies*, 8(4), 49–63. <https://doi.org/10.15353/cfs-rcea.v8i4.466>.
- Cajete, G. (2017). Children, myth and storytelling. *Global Studies of Childhood*, 7(2), 113–130. <https://doi.org/10.1177/20433610617703832>.
- Castellano, M. B. (2000). Updating aboriginal traditions of knowledge. In G. J. S. Dei, B. L. Hall, & D. G. Rosenberg (Eds.), *Indigenous knowledges in global contexts: Multiple readings of our world* (pp. 21–36). Toronto, ON: University of Toronto Press.
- Castleton, A. (2018). Technology and Inuit identity: Facebook use by Inuit youth. *AlterNative: An International Journal of Indigenous Peoples*, 14(3), 228–236. <https://doi.org/10.1177/1177180118782993>.
- Collis, B., & Remmers, E. (1997). The World Wide Web in education: Issues related to cross cultural communication and interaction. In B. Khan (Ed.), *Web based instruction* (pp. 85–92). Englewood Cliffs, NJ: Educational Technology Publications.
- Cook, O. (2018). Don't fuck it up, Oliver! Creating the eNuk software: A case study of community-based participatory design with Inuit in Rigolet, Canada [Unpublished Masters thesis]. University of Guelph.
- Cueva, K., Cueva, M., Revels, L., Lanier, A.P., Dignan, M. Vishwanath, K., Fung, T.T., & Geller, A.C. (2018). A framework for culturally relevant online learning: Lessons from Alaska's tribal health workers. *Journal of Cancer Education*, 34(4), 647–653. <https://link.springer.com/article/10.1007/s13187-018-1350-8>
- Danyluk, P., & Hanson, A. (2021). Using indigenous talking circles in online environments (learning object). University of Calgary, Calgary, AB. http://hdl.handle.net/1880/113550learning_object
- Dron, J. (2021). Educational technology: What it is and how it works. *AI & SOCIETY*, 37, 155–166. <https://doi.org/10.1007/s00146-021-01195-z>.
- Dreamson, N., Thomas, G., Lee Hong, A., & Kim, S. (2017). Policies on and practices of cultural inclusivity in learning management systems: Perspectives of indigenous holistic pedagogies. *Higher Education Research & Development*, 36(5), 947–961. <https://doi.org/10.1080/07294360.2016.1263830>.
- Henderson, L. (1994). Reeve's pedagogic model of interactive learning systems and cultural contextuality. In C. McBeath and R. Atkinson (Eds.), *Proceedings of the second international interactive multimedia symposium*, 189–203. Perth, Western Australia, 23–28 January. Promaco Conventions. <http://cleo.murdoch.edu.au/gen/aset/conf/iims/94/hj/henderson.html>
- Hicks, J., & White, G. (2000). Nunavut: Inuit self-determination through a land claim and public government? In J. Dahl, J. Hicks and P. Jull (Eds.), *Nunavut: Inuit regain control of their lands and their lives* (No. 102). IWGIA.
- Joo, J.-E. (1999). Cultural issues of the Internet in classrooms. *British Journal of Educational Technology*, 30(3), 245–250. <https://doi.org/10.1111/1467-8535.00113>.
- Kirkness, V. J., & Barnhardt, R. (2001). First Nations and higher education: The four R's – respect, relevance, reciprocity, responsibility. In R. Hayoe and J. Pan (Eds.), *Knowledge across cultures: A contribution to dialogue among civilizations*. Comparative Education Research Centre, University of Hong Kong. <https://www.uaf.edu/ankn/publications/collective-works-of-ray-b/4-Rs-2nd-Ed.pdf>

- Kuersten, A. (2018). The arctic digital divide. In B. O'Donnell, M. Gruenig, & A. Riedel (Eds.), *Arctic Summer College yearbook: An interdisciplinary look into Arctic sustainable development* (pp. 93–105). https://doi.org/10.1007/978-3-319-66459-0_8.
- Lanigan, M.-A. (1998). Aboriginal pedagogy: Storytelling. In L. A. Stiffarm (Ed.), *As we see: Aboriginal pedagogy* (p. 106). Regina: University of Saskatchewan.
- Madjidi, K., & Restoule, J. P. (2017). Comparative indigenous ways of knowing and learning. In K. Bickmore, R. Hayhoe, C. Manion, K. Mundy, & R. Read (Eds.), *Comparative and international education: Issues for teachers* (2nd ed., pp. 155–182). Toronto, ON: Canadian Scholars Press.
- McLoughlin, C., & Oliver, R. (2000). Designing learning environments for cultural inclusivity: A case study of indigenous online learning at tertiary level. *Australian Journal of Educational Technology*, 16(1), 58–72. <https://doi.org/10.14742/ajet.1822>.
- Moodley, M., & Dlamini, R. (2021). Experiences and attitudes of Setswana speaking teachers in using an indigenous African language in an online assessment platform. *South African Journal of Education*, 41(Supplement 1), 10.15700/saje.v41ns1a2149.
- Myers, J. (2021). Critical pedagogy online. In N. Osei-Kofi, B. Boovy, & K. Furman (Eds.), *Transformative approaches to social justice education: Equity and access in the college classroom*. New York: Routledge.
- Öztoğ, M. (2019). To be or not to be: Social justice in networked learning. *Education sciences*, 9(4), 261. <https://doi.org/10.3390/educsci9040261>.
- Pfeifer, P. (2019, October 6). *Inuit resurgence and resistance through social media*. 21st Inuit studies conference: Montreal, Quebec, Canada.
- Prayaga, P., Rennie, E., Pechenkina, E., & Hunter, A. (2017). Digital literacy and other factors influencing the success of online courses in remote indigenous communities. In J. Frawley, S. Larkin, & J. A. Smith (Eds.), *Indigenous pathways, transitions and participation in higher education* (pp. 189–210). Singapore: Springer. https://doi.org/10.1007/978-981-10-4062-7_12.
- Reedy, A. (2019). Rethinking online learning design to enhance the experiences of indigenous higher education students. *Australasian Journal of Educational Technology*, 35(6), 132–149. <https://doi.org/10.14742/ajet.5561>.
- Reeves, T., & Reeves, P. (1997). Effective dimensions of interactive learning on the World Wide Web. In B. Khan (Ed.), *Web based instruction* (pp. 59–66). Englewood Cliffs, NJ: Educational Technology Publications.
- Restoule, J. P. (2013). Massive open online courses and the future of adult education. In C. Kawalilak & J. Groen (Eds.), *Proceedings from Canadian Association for the Study of Adult Education 2013* (pp. 514–520).
- Restoule, J. P. (2017). Where indigenous knowledge lives: Bringing indigenous perspectives to online learning environments. In E. A. McKinley & L. T. Smith (Eds.), *Handbook of indigenous education*. Singapore: Springer.
- Shield, R. (2004). The retention of indigenous students in higher education: Historical issues, federal policy, and indigenous resilience. *Journal of College Student Retention: Research, Theory and Practice*, 6(1), 111–127. <https://doi.org/10.2190/HWKH-8LC1-WP90-45K0>.
- Smith, L. T. (1999). *Decolonizing methodologies: Research and indigenous peoples*. New York: Zed Books.
- Simpson, L. (2000). Anishinaabe ways of knowing. In J. Oakes & others (Eds.), *Aboriginal health, identity, and resources* (pp. 165–185). Winnipeg: Aboriginal Issues Press, University of Manitoba.
- Snow, K. (2015). Blending in while standing out: A case study of blended learning design for in-community indigenous teacher education. In *Proceedings of the Online, Open and Flexible Higher Education Conference*, Hagen, Germany, October 23, 2015.
- Snow, K. (2016a). Opting in or opting out: The role of hybrid learning course design on student persistence decisions in an indigenous pre-nursing transitions program. *International Journal of E-Learning & Distance Learning*, 32(1), 1–14. <https://www.ijede.ca/index.php/jde/article/view/948/1609>

- Snow, K. (2016b). Social justice or status quo? Blended learning in a Western Canadian Teacher Education Program. *Canadian Journal of Learning and Technology*, 42(3), 10.21432/T23K8T.
- Snow, K. (2020). Different worlds same province: Blended learning design to promote transcultural understanding in teacher education. *The Canadian Journal for the Scholarship of Teaching and Learning*, 11(3). <https://doi.org/10.5206/cjsotl-rcacea.2020.3.8303>.
- Swan, I. (1998). Modelling: An aboriginal approach. In L. A. Stiffarm (Ed.), *As we see: Aboriginal pedagogy* (pp. 51–52). Regina: University of Saskatchewan Press.
- Tessaro, D., Restoule, J. P., Gaviria, P., Flessa, J., Lindeman, C., & Scully-Stewart, C. (2018). The five R's for indigenizing online learning: A case study of the first nations schools' principals course. *Canadian Journal of Native Education*, 40(1), 125–143. <https://hdl.handle.net/1807/91087>.
- Tootoo, B. (2018). Strengthening young Inuit male identity. In F. Walton & D. O'Leary (Eds.), *Sivumut: Towards the future together* (pp. 121–140). Winnipeg, Manitoba: Fernwood Press.

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