




A Story of Change

Exploring the Intersect of
Indigenous Knowledge(s),
Creativity and Innovation,
and Power Dynamics as a
Catalyst for Change.



Presented by Amy Morrell

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Land acknowledgement

I WOULD LIKE TO ACKNOWLEDGE THAT THE LANDS ON WHICH I LIVE TODAY AND THOSE I HAVE RESIDED ON IN THE PAST, ARE NOT MINE.

THEY BELONG TO THE ORIGINAL KEEPERS – THE ANISHINAABEK, THE HURON-WENDAT, HAUDENOSAUNEE, AND COAST SALISH PEOPLES.

I ACKNOWLEDGE THE PRIVILEGE AFFORDED TO ME BY TREATIES 3, 4, 13, 14, AND 61 TO LIVE, WORK, AND PLAY ON THESE LANDS.

I ACKNOWLEDGE THERE IS MUCH TO LEARN AND UNDERSTAND ABOUT THE HISTORY OF THESE LANDS AND OF INDIGENOUS PEOPLES.

I COMMIT TO EXPAND MY KNOWLEDGE; TO LISTEN, THEN ASK, AND LEARN.

I COMMIT TO BEING A GOOD GUEST ON THESE LANDS AND TO TREAT THEM WITH RESPECT AND HONOUR.

Abstract

If learning is transformative, then what potential transformation could happen with learning Indigenous Knowledge(s)? This Major Research Project is the story of my learning journey as I seek to better understand the intersectionality of creativity and innovation at an individual level, and how this meeting place intersects at an organizational level in higher education. I explore how power dynamics and different worldviews (Western and Indigenous) influence the innovation process, while observing the learning through autoethnography, specifically reflexive practice. Bringing attention to the interplay between creativity, power dynamics, and Indigenous Knowledge(s), I note the relative constraints and freedoms among these three domains, offering dialogue for action, as I design for conversation. This project is about bringing awareness to systems and ideologies that can inspire and promote change within oneself. It is a synthesis of the change I have undergone; it is the story of how I became a Designer.

Keywords: Creativity, Innovation, Power Dynamics, Indigenous Knowledge(s), Autoethnography, Design





Recognition

I arrive at this place, joined by my treasured advisors and learning partners, Angela Bains and Peter Morin, who have questioned me in the most generous way, nurturing my creativity and in sharing their knowledge. Our conversations were wonderfully rich and deeply meaningful. I am honoured to have learned from and with you.

I have arrived at this place, thanks to the valued guidance and enthusiasm of Rebecca Diederichs, and the incredible support of friends, fellow SFI classmates, and beloved family who have cheered me on along the way and held me up when the task seemed impossible.

I am grateful to all of you who have walked this journey with me.

Dedication

To my little love.

I hope this journey inspires you, like you inspire me, everyday, to be better.

I love you sweet pea!

Table of contents

AN INVITATION TO THE READER	8
STATEMENT OF POSITIONALITY	9
INTRODUCTION	11
Background	13
RESEARCH QUESTION	14
PROBLEM FRAMING	16
DOMAINS OF INQUIRY	17
Domain: Creativity & Innovation	19
A:: Nurturing Creativity as a Driver of Innovation	20
B :: Innovation as a Process	21
Domain: Power Dynamics (in Higher Education)	22
A :: Hierarchy	23
B :: Power & Oppression	24
Domain: Responsibility to Indigenous Knowledge(s)	26
A :: Wholism	28
B :: Respect	29
RESEARCH SAPIENCE	30
Methodology	31
Autoethnography	32
Secondary Research	34
Limitations	35
SYNTHESIS	36
Theme 1: Systems	38
Theme 2: Relations	40
Theme 3: Learning & Knowledge	42
Theme 4: Questioning	44
Theme 5: Time	45
Theme 6: Stories	46
Theme 7: Worldviews	47
FINAL REFLECTION	50
REFERENCES	54



An Invitation to the Reader

I invite you to imagine moving through the forest with me.

Take a moment to rest your eyes on the large evergreen rising up from the Earth tall and proud. This tree symbolizes my learning journey through the major research project.

The trunk, the core of this project, has grown from secondary research and reflects a more traditional academic research paper and approach.

The tree branches, my reflections, are the off-shoots of the learning I observed and of my coming to know and understand through reflexive practice.

The pine cones, and the seeds they contain, are the questions I pose throughout. These seeds are for all of us to consider.

Thank you for joining me on this journey.

STATEMENT OF POSITIONALITY

I am a mother, wife, woman, friend, and mature student, currently working in academia, while living and learning through the COVID-19 Pandemic. I share this with my reader for the context that has shaped, influenced, and informed this project. By locating myself in the research (Lavallée, 2009), I invite the reader to learn with me.

I grew up just under the poverty line, in Sault Ste. Marie, Ontario, and was raised predominantly by my mother. Living in a small town with limited exposure to diversity, my understanding and assumptions of the world were narrow. The city was built on Anishinaabek land, home to the Batchewana First Nation and the Garden River First Nation (*Ketegaunseebee*). Thinking back to my time there, having travelled often though the Garden River reserve along Highway 17, I recall seeing *This is Indian Land* graffitied on a rail bridge. If you travelled East towards Sudbury, you drove passed this bridge. Many of my friends and family would have seen this too, yet I do not recall ever discussing it or what it meant; it was as if it did not exist. I have since come to know what took place in the past, and who's land I am on. I am committed to treat this knowledge with respect, recognizing the responsibility that comes with knowing.

With knowledge, also comes power*. I learnt through observation that those who were educated – in the Western education system – were highly regarded. They became doctors and lawyers, earning wealth and power over those that did not. They 'knew' and therefore their words and perspectives mattered more; they themselves mattered more. I watched and experienced how this dynamic eroded confidence and fuelled a fear of questioning. Earning an education was the only opportunity I had to shift my own trajectory. As long as I got good grades and got into a good school, there were possibilities for me. I was privileged to have those opportunities.

This Major Research Project (MRP), and my almost two-year journey through the Strategic Foresight & Innovation (SFI) program, took place during the COVID19-Pandemic. I enrolled in the full-time stream, with eager plans to attend on campus, in person. Like most others, I was forced online due to provincial mandates and local public health guidelines. Completing this Master's program online fundamentally changed the learning journey for me, consequently impacting the way in which I approached this MRP. One year into the pandemic, with hopes and anticipation for in person learning (and life), I over-ambitiously mapped out a range of participatory design research to collect primary data. My intention was to engage in dialogue and build relations.

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STATEMENT OF POSITIONALITY (cont'd....)

As we entered yet another year of the pandemic, I noticed my levels of anxiety and stress rise. The thought of reaching out and engaging with Indigenous Knowledge Keepers and other potential participants through virtual means was overwhelming. I am a people person – I enjoy building relationships. Doing this virtually has been hard and uncomfortable, though not impossible; it simply takes more energy to initiate and sustain. Trying to balance home life, work life, and school life, was depleting my energy well to the point that even the thought of facilitating workshops online, trying to engage with strangers, was paralyzing.

Reflecting back, I was also afraid. Genuinely afraid of offending anyone through this project due to my ignorance. So, I retreated within. I took this opportunity to explore reflexively; to learn by observing and by being observed. In this process I include myself as a research subject. I am not looking in from the outside like an expert, I am engaged from within, mapping my experience to bring richness and depth to this MRP through story – the story of my learning journey and change.

My learning has been guided by the four “organizing principles of Respect, Relationship, Reciprocity, and Responsibility”, as described in OCAD University’s Indigenous Learning Outcomes (2019). I acknowledge that as a white settler, I come to this work from a place of privilege. I acknowledge that as an “interpreter” / researcher I hold power through the decisions I make about what information to include and exclude which can “shape public opinion and knowledge” (Finegan, 2019, p. 283). As such, I have made every effort to be responsible, acknowledging there are many differences among Indigenous Peoples, from language to customs to knowledge.

Recognizing my privilege and power, I commit to honouring the knowledge I gain through this process by sharing it, inviting others to question it, reflect on it, and discuss it.

*According to García (2001), the phrase “knowledge is power” was originally conceived in 1597 by Francis Bacon. Michel Foucault wrote in *Discipline and Punish* (1975) that “power produces knowledge” and that “power and knowledge directly imply one another” (p. 113), suggesting these two are caught in a reinforcing feedback loop, amplifying each part (Senge, 2006). According to Smith (2021), this is a “colonial adage” that is addressed within Indigenous communities by sharing knowledge, embodying the principle of reciprocity (p. 16).

INTRODUCTION



REFLECTIONS

(March 2022) I am learning what it means to be a “designer”, and what it means for *me* to be a designer. I better understand the responsibilities that come with being a designer. To be open and inclusive, to be future-oriented towards sustainability, and to lead by example. Inherent within design is a creative ability and sensibility. It calls on you to look through different lenses, to see, hear and feel differently. This journey has been about challenging my own thinking, to question what I know. This is what being creative can do - open your mind to the novel. Creatives are inquisitive, they question their own thoughts and those of others; they question organizational culture, theories, and systems. Art – the most familiar form of creativity, has the power to provoke questions and in itself questions; just like design.

I am designing for conversation, a conversation for possibility. Applying Dubberly & Pangaro’s (2018) definition of second-order cybernetics, I have created the conditions to learn together and imagine, creating a conversation of exploring and understanding the intersect of three domains: creativity and innovation, power dynamics, and Indigenous Knowledge(s). This MRP is my work as a designer, told as a story of change through autoethnography.

Predominantly a visual learner, I understand by seeing, often by seeing connections between related and unrelated items; this is how I organize information to make sense of things. I often say that I think in systems, which aligns with how Jamshid Gharajedaghi (2004) describes systems thinking - a “visual narrative for knowledge translation”. In working through this project, I noticed how often I was drawn to systems as a way to anchor the process. It also felt like a good fit given its ability to visually tell a story. That visual aspect is inspiring because it holds power to spark creativity and innovative thinking.



(March 2022) I struggle to bring this project to a close, to organize all the disparate thoughts and ideas I have had along the way. I recognize now, how hard it is to bring words together. If I could use symbols and other visuals this process would be much easier for me. As language develops and evolves it can give power to those who know, whereas visuals may serve as an equalizer, especially if the visuals are designed properly. The use of symbols and visual artefacts date back to the beginning of time (e.g. Egyptian hieroglyphics); they have the power to communicate simply and effectively like brand logos and wayfinding signage. The value of OCAD University’s SFI (Strategic Foresight & Innovation) program lies in this interplay between strategy and visual design, to the point that I wish my artistic skills were stronger. Even at this late stage, as I finalize the draft and revisit readings, I question if I have done enough. There are so many tools I could have used along the way yet didn’t. Now I wonder if they would have brought more credibility to this work. There is this ongoing tension between what I think I should be doing with what I am doing. This process requires a level of confidence and conviction, along with an active commitment to trust the journey and myself. There is no right answer. I have had to remind myself of this many times throughout this process, and that I am not trying to solve something. This is about inspiring one to reflect, to question, and to imagine.

Gharajedaghi states that our way of knowing has shifted over the past 50 years in response to the emergence of challenges from socio-cultural systems, resulting in the need to look at the interdependent variables (systems thinking) for understanding the complex and chaotic, rather than simply assessing independent variables (analytical thinking) (2004). It is this systems thinking approach that I apply in exploring the role of power dynamics in Higher Education Institutions (also referred to as ‘the Academy’) on individual creativity and innovation potential, while learning and reflecting on Indigenous Knowledge(s) as a catalyst for change.



An introduction to Foucault’s power and agency as you’re skinning a moose

– Peter Morin, December 2021

Change and changemakers are essential to the sustainability of our planet and our lives. Yet change is slow, particularly in the Academy. Attempts to decolonize and/or Indigenize the teaching practice and curricula are front and center in academic plans, however the same is not always true for the administrative side of the institution (management, operations, HR, etc.) where colonial order appears firmly planted. Higher Education is a colonial construct rooted in order, rules, and structure. It is a construct that demands everything be proven, be supported by research and data as evidence for change.



(March 2022) The SFI program is intended to develop our creative problem-solving skills; the key word (for me) being ‘creative’. There are many proven methods, approaches, and tools that can be used to solve problems, but given this is an Art and Design University, I was excited to explore different / alternative ways of problem solving, ones that reinforce creative and innovative thinking over traditional models. From what I have learned of Indigenous Knowledge(s), it appears that Art and Design are central to various aspects of Indigenous life and worldview(s) as demonstrated through storytelling, the use of Symbols, Artwork, Song, and Regalia as ways to communicate, exchange, and validate decision making. This illustrates that evidence can come in many forms.

Background

The original intent of this MRP was to identify and explore the causal relationships between creativity and innovation, power dynamics, and Indigenous Knowledge(s), within the context of hierarchical structures, specifically the Academy, to design a framework for change. According to Joseph & Joseph (2019), reconciliation is “an act of conscious decolonizing your thinking, actions, and words” (p. 6), so I started this journey, and will continue, learning about Indigenous Peoples and Ways of Knowing.

Key to this research project was understanding how new knowledge influences current ways of thinking and working. If innovation today is perceived to come from creative thought and new ways of doing things, one could argue that a benefit of having “access to alternative knowledges is that they can form the basis of alternative ways of doing things” (Smith, 2021, p. 38). This is important because creativity and innovation can offer a gateway to a better future [and a better, more prosperous Canada] (Joseph, 2018, p. 105). To achieve ‘better’, we need to change as individuals to help create a shift within the Academy to ultimately transform society.

Ideally this MRP will create a spark in the reader to imagine new possibilities, to be inclusive of diverse ideas and perspectives, and to encourage responsibility to Indigenous Knowledge(s) in the innovation process. Change at an individual level is critical in influencing cultural change at the institutional level, as well as at a societal level (Crossan & Apaydin, 2009). Therefore, emphasis will be placed on how to empower and inspire internal change.

One of the ways internal change occurs is through learning – an expanding of the mind and broadening of beliefs through curiosity (Davidson & Davidson, 2016) and questioning. Even from an early age, I asked why. I have always been curious, always wanting to know and understand. While this did not always serve me well (not everyone likes to be questioned), I knew it came from a genuine place; an innate drive for better.

In Higher Education, questions are encouraged in the classroom as a way to deepen the learning, yet this same approach does not always present in the boardroom. Similar to other hierarchical structures, questions might be viewed as a sign of disrespect i.e. questioning someone who is perceived to have more knowledge and therefore, more power. Encouraging questions and promoting a learning culture in the office can create an equalizing shift in power.

I was inspired by the statement that “the power of the mind, which when combined with the power of visualization, has the capacity to manifest desired outcomes” (Davidson et al., 2016). If “story telling is about creativity” and as noted by Stó:lō Scholar Jo-ann Archibald, “story as work [that] educates the heart, the mind, the body and the spirit” (Smith, 2021, p. 166), then how might we apply story-telling as a method to generate visual narratives for building support and alignment of change?

Today I courageously question, I challenge for personal growth and to learn. This is the story of (my) change.



Keep your heart and mind open

Elder Gerry Martin, Mattagamí First Nation of Ojibways, Muckwa (Bear Clan)

Gimaajitaamin (“We are moving forward together”), TRC Gathering 2020, March 11-13 2020, Thunder Bay, ON

RESEARCH QUESTION



(October 2021) Given this is a major ‘research’ project, defining a research question was required. The question, or rather questions, evolved several times from the first incarnation to what is noted below. While these questions guided the direction and initial exploration, the work evolved; it shifted and reformed several times. Looking back, I see that so much of the initial planning and strategizing is about making assumptions and/or proclamations in order to get started. As I read, reflected, and learned I was pulled in different directions. Seeing multiple connections sent me down rabbit holes that led to more rabbit holes. It was easy to get a 1,000 feet away from the research question, but that is exactly what helped me arrive at this place. This iterative explorative learning journey would have suffered from being boxed through framing. Not having a box allowed me to venture down a more intuitive and creative path.

Primary Research Questions

What if we include responsibility to Indigenous Knowledge(s) within the innovation process, and how might that affect change at an individual level within a hierarchical organizational structure, like Higher Education?

- A. If reconciliation is “an act of conscious decolonizing of your thinking, actions, and words” (Joseph & Joseph, 2019, p6), how might responsibility to Indigenous Knowledge(s) serve to do this?
- B. Can we “learn to see the forest in a whole new way” (Kimmerer, 2003, p11) as part of being responsible?



(February 2022) I certainly do – see the forest in a new way. I also see in a whole new way. I find myself pausing more to consider what is behind a decision or perspective. More often, I think about the land I live on and the life that came before me. I wonder about what it would be like to have my home and my child taken from me. I wonder about little things, like whether that design on a patterned shirt in my closet has been stolen from an Indigenous culture. I wonder how many times I have said something inappropriate due to my lack of awareness and ignorance. This MRP has brought these things forward, so they are in view, holding me accountable.

Secondary Research Questions

To help shape and address the primary areas of research, this project was also intended to explore:

1. How can Creativity and Innovative Thinking be nurtured by learning Indigenous Knowledge(s).
2. Where business decisions are evidence-based and explicit, how might we support innovation through tacit knowledge, and other ways of thinking and doing?
3. How has Western-based organizational structure (i.e. Higher Education) and colonization influenced (encouraged or hindered) the innovation process?
 - a. To what end do the inherent power dynamics impede creativity and innovation?
 - b. For whom, or what, does this structure benefit?
4. What is the etymology of the word innovation?
5. How might we apply story-telling as a method to generate visual narratives for building support and alignment of change?



(n.d.) This has been a journey, a way of learning and understanding to validate and bring meaning to that which I didn't previously understand. I have a greater appreciation for how looking at things through different lenses opens the mind to different perspectives. How can we leverage this within Higher Education Institutions (beyond the classroom)?

PROBLEM FRAMING

The first step in design thinking and in systemic design is to frame the problem or system, to set the boundaries for where the real problem or solution lies. Or, as Kolko (2010) states in the context of design, boundaries help constrain a problem by bringing focus and narrowing the scope. The challenge is, this (MRP) is a design project, not a problem to be solved. While the tools and frameworks taught in the SFI program are intended to guide the design process, this is an exploratory research project – divergent by design. Imposing boundaries could bias the work by making assumptions early on; what if the problem lies just outside that boundary?



(November 2021) Any line I put around this project would be arbitrary, at best. If this is truly a learning project, there needs to be freedom to explore. No limits, especially given the three domains and their respective vastness. I do not want to inhibit possibility but what I would gain from framing the problem is focus and perhaps speed. This project could go on forever and I do not have the luxury of time. There is a deadline I am working towards, and must meet, and yet this does not feel like it should end. Maybe its just me not wanting it to end.

Perhaps it is the nonlinear and fluid quality of Indigenous Knowledge(s) (Joseph, 2016) that makes it impossible to bind; at least within the Western perspective that I currently hold. Soft boundaries did emerge organically through the learning journey and in mapping the intersectionality of the three domains: Indigenous Knowledge(s), Creativity and Innovation, and Power Dynamics. These are outlined in the next section.

Domains of inquiry

Creativity &
Innovation

Indigenous
Knowledge(s)

Power
Dynamics

DOMAINS OF INQUIRY

This MRP, my learning journey, began with an initial curiosity about how to affect change in Higher Education, specifically in ways of working within it. I was curious about creativity and its ability to inspire and spark change through innovation. I was curious to examine my own perspectives and move to expand them by learning about Indigenous Knowledge(s) and Ways of Being. At some point, I saw a connection between these areas that I was curious about; I could see relationships and parallels between the three domains and among their attributes.

While extensive research has been conducted on all three domains independently i.e. how to improve innovation and creativity; the role of power dynamics in Higher Education; and Indigenous Knowledge systems; I did not find any research exploring the intersect of all three domains. By applying an autoethnographical approach supported by secondary research, this project explores each domain to identify points of commonality and overlap. Specifically, I seek to understand how learning Indigenous Knowledge(s) can influence, inform, and shape new ways of thinking and doing as a catalyst for change.

New ways of thinking demonstrate creativity. Not all environments are accepting of new ways of thinking, and even if they are, there are certain factors needed to nurture creative thinking. Motivation (intrinsic and extrinsic) is one of the core factors that impact individual creativity, and it is also considered “the heart of organizational behavior” according to Gagné (as cited in Fischer, 2019, p. 127). When working in environments where I feel valued and have a sense of purpose, I am more motivated. It is in these places that I am more inspired and creative because there is an openness to different ways of thinking and doing.

Power dynamics influence organizational behaviours, and can negatively impact an individual’s intrinsic motivation if certain needs are not met. Ryan and Deci (2000) state that the “basic psychological needs – competence, relatedness, and autonomy” impact motivation (as cited in Fischer, 2019, p. 4). If we think about autonomy as the “need for power over one’s own actions as well as the choice to engage in activities to enable self-fulfillment” (p. 4), you could imagine how working within a hierarchical structure, like a Higher Education institution, where the power distance between leaders and employees is high, might negatively impact motivation.

Throughout this project I have engaged in a reflexive practice, a type of conversation with myself, to identify and understand the significance of relationships in these three domains of inquiry which are outlined below.

Domain: Creativity & Innovation



(January 2022) This process (the MRP process) is challenging to do in isolation. I have observed that conversations with friends, my advisors and colleagues have helped inspire me and have sparked new ideas. Reflecting on these conversations, I notice how they helped shift and shape the direction of this project, how the differing viewpoints helped me see differently, bringing a fresh take to the work. Had I not engaged in dialogue along the way, who knows where I would have landed, or what direction I would have continued on. That is not to say the alternative would have been less than, but from my own experience and perspective, I believe I am better for it. I can see that my view has expanded by having engaged in dialogue. I am seeing new connections and parallels beyond what was there at first glance. It is like tiny little sparks are lighting new paths, new ideas. It is exciting and inspiring, and I am open to all of it.

Creativity could be described as “idea generation” and innovation as “idea implementation” (Fischer et al., 2019, p. 8), providing some distinction between the two while still centering around a common denominator, the idea. I see ideas being generated by the individual as a product or, the demonstration of their creativity, and innovation as the process (Crossan & Apaydin, 2009) the organization (in this case the Academy) uses to implement ideas.

Through the innovation process, we can creatively solve problems. According to Valerie Fox, Chief Innovation Consultant at Pivotal Point and former executive director and co-founder of (formerly) Ryerson (now Toronto Metropolitan) University’s Digital Media Zone incubator, innovation is “a promise of better things, achieved by continually striving to be better, together” (Government of Canada, 2016).

If creativity and innovation can offer a gateway to a better future, then how can we increase our creative capacity to look beyond the ‘learning horizon’ (Senge, 2006, p. 23) – beyond what we experience and know today to create a better future tomorrow? One way would be to use Hodgson & Sharpe’s (2007) *3 Horizon Framework* which looks at: today’s challenges (horizon #1), the pathway to change (horizon #2), and visions of the future (horizon #3). “Horizon 3 exists as possibilities brought forth by values and beliefs that we feel have a better fit with the future” (p. 139). The steps to achieve the future vision require exploring alternative thinking patterns to define the steps for change.

The future economic development and sustainability of what is now known as Canada, is dependent on innovation. It is a key priority for many organizations within most sectors yet not all are successful in supporting, inspiring, or nurturing individual creativity to flourish. According to Vicente (2003), human factors such as structure, rewards, time, and team factors like authority and responsibilities (p. 61) influence power dynamics and impact performance and culture. This is particularly apparent in hierarchical institutions like Higher Education where power dynamics and colonial operating structures can impede perspectives from being heard, potentially silencing individual creativity and limiting potential innovation.

To explore this further, I look at the innovation process, and what can help nurture creativity.

Domain: Creativity & Innovation

A / Nurturing creativity



(n.d.) Watching my son play with other children, seeing them come together to solve a problem, they seem to dive right in with ideas. They do not stop to judge where the idea is coming from. They actively and proactively share their ideas. At what age do we learn to gatekeep our thoughts? Why are those adults, who speak up in a meeting or with colleagues, seen as brave? We expect children to have wild ideas; to be creative. They are free, and are encouraged, to dream and imagine. They are not being 'brave' by sharing their ideas, they are just being with their ideas. How can we create a work environment that encourages people to dream? How can we nurture a culture that recognizes and rewards creativity?

Play is an act of imagining, or reimagining, by breaking, bending, dismantling, building ideas, without limits. Play is iterative, cycling between idea (creativity) and action (innovation), similar to the cycling between divergent and convergent thinking done in the Double Diamond Design Process, as described by the British Design Council (Stickdorn & Schneider, 2011, p. 127). Play though, seems to have fewer restraints and constraints. How often do we play as adults? Play, for me, is when you are lost in the moment, freely discovering joy. It is about pushing boundaries to explore what is possible. To what extent do individual heuristics and institutional culture constrain our ability to play, even figuratively?

Part of play is the ability to imagine. Imagination is prevalent in creative thinking and innovation. It is a way of seeing and understanding the world, or a way of understanding how people either construct the world or are constructed by the world. Toni Morrison argues that "imagination can be a way of sharing the world" (Smith, 2021, p. 41). Storytelling is a way to share our imagination, and can be used to inspire, motivate, and/or influence change. Imagining possibilities requires creativity, something that is used in the 3 *Horizon Framework* (Hodgson & Sharpe, 2007) to envision a better future. From this initial ideation phase, we can look at building an implementation plan.

According to Fischer et al. (2019), there is a strong correlation between motivation and creativity, particularly when people work on tasks they find interesting or that bring them joy; "the higher the intrinsic motivation, the higher the creative and innovative outcome" (p. 137). The pursuit of play and its enjoyment is also driven by an intrinsic motivation. How might play or play-based activities nurture creativity? When do we lose our sense of play? Is it lost naturally over time or does it weaken by lack of use like a muscle? Learning new things and new ways of doing things can inspire creative thought and increase innovation potential (Fischer et al., 2019; Owen, 2007). Learning by trial and error is essentially a form of play. To embrace it requires communication and vulnerability, to openly explore the emotions resulting from both success and failure. This is akin to the innovation cycle, an iterative approach that is fluid, non-linear and relational - similar to how Margaret Kovach describes Indigenous epistemology in *Research as Resistance* (as cited in Lavallée, 2009).

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A / Nurturing creativity cont'd...

Not only is it important to spark creativity, it must be nurtured by giving space, unbounded by current hierarchy and time, allowing it to grow. Time plays an important role in Western thinking and operating. It is constrained around fiscal calendars, deadlines, and the work week. Whereas, “First Nations believe in expansive concepts of time where the past, present, and future are mutually reinforcing” (Blackstock, 2011). If time can impact creativity and innovation; how much time is needed for a creative idea to emerge? What impact does time have on the innovation process? I work better under pressure, which could positively impact the idea implementation phase, but my creativity needs time and space, ideas need to marinate. Imagine if we built in more time to reflect, to explore and learn, to savour the words and ponder to deepen learning?

B / Innovation as a process



(April 2022) Innovation is one of those words that can be defined in many ways. Innovation to me, is a novel way of working and thinking. It comes from being creative in approach and in learning; learning through trial and error, conversation, reading, reflecting, and writing. For most of my career I have focused on incremental changes that can improve ways of working, process innovation, thinking differently, testing, and learning. What I found is that those micro innovations can be hard to articulate and even replicate. There is something intangible about them, like creativity, where it is hard to truly define what the innovation was. If you focus on innovation as an outcome, it becomes a goal-oriented project to achieve. These ‘innovation projects’ tend to be supported within the organization because they are tangible, and therefore can be understood. I believe the process is more important than the outcome because it is about the ‘how’ rather than the ‘what’ (Crossan & Apaydin, 2009). If innovation, as the process of questioning and learning, were part of the organizational culture perhaps it would create a more welcoming environment for curiosity and creativity. It might open the space to share ideas and spark dialogue, nurturing a more organic innovation process.

This project explores the internal drivers (available knowledge and resources) and sources (ideation) of innovation, within the innovation process. (Crossan & Apaydin, 2009, p. 1169). Innovation is non-linear, or more aptly, fluid, similar to Indigenous Knowledge(s) systems (Davidson & Davidson, 2016; Finnegan, 2019; Yunkaporta, 2020). Innovation is messy, cycling through divergent and convergent activities (Crossan & Apaydin, 2009, p. 1164) as part of its process. This fluid and somewhat organic process seems out of place within the highly structured, rule dominant environment of Higher Education administration. Perhaps the tension contributes in a productive way by forcing the individual and the system to be creative, to work around and within the inherent linearity?

In the Academy, the importance of data to support evidence-based decision making is high. If innovation is novel, then one could assume it is not proven and therefore there is no data to support it. While there may be trends and signals that point to the need and opportunity, and other factors indicating potential success, there is still an element of jumping into the unknown, necessitating a level of faith to pursue. The innovation process needs one to have the conviction to explore (intuition), an openness to fail, and confidence to sit with the messy. I might be very comfortable in this space but not everyone is. How can Higher Education Institutions find a level of comfort and freedom with this type of innovation process?

Domain: Power Dynamics (in Higher Education)



(February 2022) Having worked at various organizations (public and private) with deeply rooted hierarchical structures, it seems that those with less rank and status have less of a voice or are silent, fearing the repercussion of questioning authority. Power dynamics inform and often define what is deemed creative and innovative within an institution, which is inherently at odds with the openness and limitless qualities of creativity and innovation. I have always been curious, and am always looking to understand why certain decisions have been made and if there are different ways to solve a problem. This way of working stems from a desire to learn and a comfort and confidence with trying different things. Working in risk averse environments I notice a deep fear of failure and concern for optics. As children, we are open, we use our sense of wonder to explore and learn, yet as adults, this ability to remain open seems to shift. What are the risks of not being open to learning, or even new ways of learning? When do we become cynical, skeptical, arrogant? There is value in skepticism as it sparks questions and can lead to new thoughts and ideas, if open to them. What if we sat with curiosity instead of judgement? Could this shift the power dynamic between those that 'know' and those that are learning?

I believe ideas can be generated from anyone, from anywhere. Within hierarchical institutions, where those in positions of power – positions earned by having a required level of education, are the one's being tapped to provide ideas. Without a mechanism for ideas to come forward from any position, organizational innovation may be limited to those in power because it excludes other voices from being heard.



Innovation thrives in a culture that is open,
trusting & conducive to risk taking.

SFIN6010 The Human Factor, OCAD University, Lecture 5, October 7, 2020

Power dynamics exist within hierarchies and are present within oppressive systems. Below explores these two sub-topics.

Domain: Power Dynamics (in Higher Education)

A / Hierarchy



(n.d.) I have an appreciation for the structure and order hierarchy brings, especially if roles and responsibilities are clearly defined, allowing people to work more efficiently. At times, I do find hierarchical structures frustrating to work within if decision making power resides solely at the top. It can be demotivating to be hired for a role and not be empowered to make decisions. Having ideas that could be helpful but no mechanism to voice them fuels part of that frustration. It is generally those in positions of power and authority that determine how and when ideas come forward. Does hierarchy, by design, limit or inhibit creativity and innovation? From my experience working in Higher Education I notice there is an attempt to incorporate more horizontal management practices through co-creation exercises, decision making by committee, and town halls to gather input on major initiatives. The challenge I see is with having one foot in hierarchy while the other walks horizontally. The colonial roots of Higher Education are hard to sever. It will take time and a shift in mindset, behaviour, and culture to embrace a new organizational structure. My hope is the new structure can integrate components of each in a way that nurtures continued growth of the Academy and its community.

Higher Education Institutions could be considered ‘learning organizations’ given its core business is teaching and learning, however how they operate and how they are organized may not translate into the behaviours and patterns of a learning organization. According to Shin et al. (2016), there are five factors that contribute to being a learning organization: having clear and clearly communicated vision and purpose; empowering employees at all levels; knowledge sharing across all levels; a mechanism to capture and embed external data; and, a culture that encourages questioning and creativity.

From my observation, the teaching and learning of students (pedagogy) embraces Shin’s five critical factors, demonstrating a deep understanding and appreciation for what constitutes a learning organization. However, as Brenda Small shared (at *Gimaajitaamin*, TRC Gathering 2020, March 11-13 2020, Thunder Bay, Ontario), “the existing college governance structure is colonial, and tied to authority versus Indigenous councils that advise.” The disconnect is in the processes and culture of the Academy. There is a desire and attempt to operate as a horizontal structure but the reality is the Academy is built as a hierarchical, top-down organization, particularly on the administrative side of the business. Being publicly funded and governed by a Board means there are defined rules and governance within which we must follow. Processes and policies are very prescriptive. There are rigorous standards, documentations, series of approval steps and levels to ensure quality control, leaving little room for deviation. As result, the Academy, a (teaching and) learning institute, must follow protocol and uphold a strict adherence to policies and procedures because they are required to do so. However, this way of working does not allow for employees to be empowered, nor can it nurture learning, the kind that happens through trial and error, because there is no allowance for it. *The system was not designed for flexibility and agility*, illustrating a mismatch of goals if the intent is to increase creativity and innovation within the Academy.

A / Hierarchy cont'd...

There is also a disconnect in the ongoing attempts of the Academy to decolonize and/or indigenize. Kuokkanen (2008) refers to this progress as a “guest-master” relationship, whereby the Institution acknowledges the host who’s land it occupies but does not respect the host’s rules, or rather continues to operate and retain colonial rules and practices (Gaudry & Lorenz, 2018, p. 223). If the Academy was organized with distributed control, as seen in “healthy living systems, like the human body or wetlands” (Senge, 2006, p. 269), could this help transform the Academy? Could it create space for an environment that nurtures questioning and continuous improvement?

Hierarchical structures can lead to and promote:

- Oppressive structures in the form of reinforcing loops of power and knowledge
- Culture that does not embrace people challenging the status quo
- Lack of true empowerment
- Fear
- Risk aversion
- Limited Imagination

Organizational structure is predominantly based on worldviews, and denoted by two very different shapes. Western organizational structure and hierarchy is presented as a pyramid, denoting a single position of control and power at the highest order. Even Bloom’s taxonomy, the hierarchical framework for learning and cognition (Bloom et al., 1956) follows this format, suggesting that the highest level of learning is what one should aspire to for deep understanding and knowing. Contrast this visually with concentric circles, where old knowledge is at the center and is built upon to create new knowledge. The circle demonstrates an interconnectedness, a respect for what has come before by reflecting an Indigenous worldview, where “all living things are equal” (Joseph & Joseph, 2019, p. 27).

Changing an organizational structure takes time. It requires careful thought and consideration to how the parts relate, interact, and contribute to the whole. Looking at the organization as a living system – one that is connected to the environment and land it resides on, may help to imagine a different structure. “Treaty-based decolonial Indigenization” (Gaudry & Lorenz, 2018, p. 224) is a living agreement intended to be revisited, reviewed, refreshed, renewed. This is how we bring agility into an organizational structure.

B/ Power & Oppression



(February 2022) Power can rest with those holding certain knowledge to dictate where ideas come from. Thinking about power and privilege, looking back on my experiences, I see how my voice was dismissed because presumptions were made about what I knew or understood. This happens everywhere. It is everywhere. We presume through hierarchy – giving voice to those in positions of power because ‘they know’. We make assumptions, dismiss and control through hierarchy. I wonder how much more difficult it must be for those who are marginalized, who repeatedly experience and fight against this dismissal. It must be so exhausting and demoralizing to have to fight to be heard and seen. How many opportunities have been missed for others to learn, grow and understand?

B/ Power & Oppression cont'd...

Power in hierarchical institutions typically comes from holding onto positions of knowledge; it is used to dominate and control. The hierarchical structure of the Academy assigns decision making power to the most senior, most (Western) educated members; it gives them voice and agency. It can be intimidating for those in other roles, potentially eroding confidence and creating unease with speaking up or questioning. Hierarchy can serve a purpose, particularly in situations where resources are limited and skills are varied (Koski et al., 2015), by creating efficiency and order. However, it is this order, and way of organizing, that can create a barrier – both social and psychological, through its rigid construct. It can be intimidating and challenging for individuals to feel comfortable and safe to express their opinions if the culture does not invite it. This type of environment can inhibit creative thinking and limit innovation potential by arbitrarily silencing voices while privileging power for a few.

Societal norms, gender norms, cultural norms – these are known and are often deemed acceptable. These types of norms hold power and privilege over what is unknown or identified as alternative or considered different. Innovation is (by definition) different, and therefore can be met with resistance because its results are, and will always be, unknown in practice, potentially inciting feelings of fear and anxiety when presented. We see this with institutional norms that contribute to systems of oppression (Simmons University, 2021) through hierarchy, restraining innovative thinking. As noted by Smith (2021), colonizers exerted power and dominance over Indigenous Peoples by excluding (ignoring and denying) Indigenous Ways of Knowing, Indigenous languages, and Indigenous cultures. This form of “discipline” was sanctioned to “destroy every last remnant of alternative ways of knowing and living” to “suppress” Indigenous Peoples (p. 78-79). Dallas Hunt (2016) describes in *Nikikiwan: Contesting Settler Colonial Archives through Indigenous Oral History*, how his grandmother “felt” when the colonizers “took her Cree away”. *How can new ideas emerge if certain voices are quieted and everyone thinks the same?*

Audre Lorde (1983, as cited in White, 2020) wrote of the need to embrace difference – not to “merely tolerate” people who are different, but to embrace difference because it provides a “fund of necessary polarities between which our creativity can spark like a dialectic.” Inclusion and a sense of belonging can help to equalize the power imbalance by creating space for diversity, for other voices to be heard. With inclusion you are asked to embrace what is in front you. “Trees alone don’t make a forest” (Kimmerer, 2003, p. 145) – looking at only the trees, or rather only one perspective amongst many, limits our visibility; there is so much more to see, feel and experience in our world. Being open to these unknowns and learning with them can help minimize feelings of discomfort with the unknown. By bringing awareness to the limiting nature of hierarchy we may be able to better organize ourselves and empower others in the process.

“

I yarn with those people [who make me uncomfortable] because they extend my thinking more than those who simply know what I know.

Tyson Yunkaporta, 2020 (pp. 13-14)

Until power dynamics are addressed, creativity and innovation will be stifled by bureaucracy. “Imagination enables people to rise above their own circumstances, to dream new visions and to hold on to old ones” (Smith, 2021, p. 180). Imagine if we gave space to creativity as a way to empower people? Could this bring agency to all and help shift strongly entrenched power dynamics within hierarchical structures?

Domain: Responsibility to Indigenous Knowledge(s)



(n.d.) The belief that certain knowledge, specifically Western and scientific knowledge, is superior to other knowledge systems is not only narrow-minded, it is oppressive and controlling. Smith (2021) states that “academic writing is a form of selecting, arranging and presenting knowledge” (p. 39), which leads me to think it is quite easy for other knowledge to be ignored, or even erased if it is systematically absent. Even the phrase ‘presenting knowledge’ makes me uncomfortable; it sounds like ownership of knowledge. That said, throughout this journey I have noticed how my first instinct is to organize and categorize what I am learning, to find a way to anchor everything and put it in a box. I wonder how much of this is rooted in my (colonial) education, or whether it is entirely my way of coping with an ADHD brain. If it is the latter, that may be more of a challenge to move away from; still, I can challenge my own thinking and (un)learn to expand my understanding of the world.

My goal throughout this project is to be responsible to Indigenous Knowledge(s). As a white settler, with limited knowledge and practice of Indigenous Knowledge(s), it would be inappropriate for me to try to define Indigenous Knowledge(s), particularly given the sacredness and uniqueness to the Indigenous Nations that have built their respective Knowledge. For the purpose of theorizing about the inclusion of Indigenous Knowledge(s) within the Innovation process, I offer these words from a variety of sources:

- Indigenous Knowledge is “living knowledge – holistic, contextual and relational” (Finegan, 2019; Lavallée, 2009; Davidson & Davidson, 2016; Joseph & Joseph, 2019)
- “Different communities and nations hold different Indigenous knowledge...it is part and parcel of the community in which it originates” (Finegan, 2019, p. 289)
- Indigenous Knowledge is “living ways of making sense of the world embedded in community practices, rituals, and relationships” (OISE, n.d.)

This learning journey has opened up a space to question my own perspectives and thinking, along with opening up possibilities to develop the ways in which I approach problem solving within my work. In reading *Decolonizing Methodologies* by Linda Smith (2021), I am learning about the concepts of imperialism and colonialism, and am learning about ‘history’, ‘Western Civilization’, and their connections to how knowledge, and knowledge production, happens in academic research. Smith states that “coming to know the past has been part of the critical pedagogy of decolonization” and that “to hold alternative histories is to hold alternative knowledges” which is the basis of “alternative ways of doing things” (p. 38). If innovation is about being open enough to do things differently, then how might holding different histories and knowledges improve creative thought?

Domain:

Responsibility to Indigenous Knowledge(s)

In the Foresight Studio course (SFIN6021), we learnt of various tools and techniques to design plausible futures. These were presented as novel and modern. They may in fact be this, however had we looked to Indigenous Knowledge(s) we would have found that foresight thinking is inherent in many of these epistemologies. The Seventh Generation Principle, based on an ancient Haudenosaunee philosophy (Indigenous Corporate Training Inc, 2020) encourages us to see beyond our everyday, to consider the impact of decisions and actions on communities seven generations from now. This feels similar to the *3 Horizon Framework* (Hodgson & Sharpe, 2007) which uses three different horizons to envision an alternative way or path to innovation, to drive change in the system.

Although futures studies were formalized and popularized by Jim Dator, I would argue that the practice of considering the impact of decisions and actions seven generations from now, is an original form of futures thinking. This illustrates how [Indigenous Peoples have been practicing foresight for generations](#). This foresight is wholistic – it looks at how everything is connected, and considers how to be respectful to all living things. I explore these two sub-topics: wholism and respect, below.

Domain: Responsibility to Indigenous Knowledge(s) A / Wholism



(n.d.) In the forest, in nature, if I listen carefully, I can hear and feel an exchange from simply being in that environment. By being close to nature I notice my breath slow and my spirit reenergize. I feel connected which brings comfort, comfort of knowing I am part of something and interconnected beyond myself. I am struck by how inspired I feel leaving this space. As we build offices and towers disconnected from the land, to what extent have we inhibited our creative power?

Embedded within the structures that inform and produce Indigenous Knowledge(s) is a wholistic consideration and awareness of the mind, body, spirit, and heart (McCabe, 2008). Western knowledge centers on the mind/brain, in terms of how Western culture comes to know. The practice of knowing is more than the steps involved in learning something. In learning the steps, it is important to understand how they relate to one's spiritual, moral, emotional, and physical. "Western science emphasizes that only evidence-based concrete models for explaining and understanding the world are acceptable (Suzuki, 1997). Indigenous cultures have tended to adopt a mind, body, emotions and spirit dialogue." (McCabe, 2008, p. 143)

We have internal dialogues with ourselves as we wrestle to find the confidence needed to speak up and the bravery to challenge conventional thinking. We tend to second guess and shy away from 'listening to our gut' because we do not understand how to rationalize what we were feeling. However, we should listen; it is a physiological sensation resulting from a 'conversation' between the gut and the brain along the Vagus nerve (Bergland, 2014).

In the SFI program, we learnt about human factors and human-centered design thinking; a wholistic way of looking at a problem through the human experience including thoughts, feelings, and actions. Through this lens designers can develop more meaningful and lasting solutions. While the human lens is important, I wonder if it needs to be broader; what if design was 'life'-centered? Imagine how we could expand our horizon as designers by considering human interaction with the land, and the lands' interaction with humans.

Domain: Responsibility to Indigenous Knowledge(s)

B / Respect



(n.d.) I have a responsibility to do something with my life, with my time on this land. I acknowledge that what I do while I am here has an impact (direct and indirect). So, I aim to learn. To better myself, to grow and develop. To decolonize my way of thinking, and way of knowing. I came to understand through secondary research, which although is publicly available, has not been gifted to me; I must be careful and honour this knowledge with respect. I will take note of my own experience, growth, and development of learning as something to share with others.

For me, showing respect is questioning to better understand. Questioning in this project, is of my own thinking and beliefs, rather than that of others. In Robin Wall Kimmerer's essay *The Web of Reciprocity: Indigenous Uses of Moss*, we learn that "each living being has a particular role to play" in this web that "connects us all" (2003, p. 100). We have a responsibility to ourselves and others. I subscribe to this belief by building relationships that acknowledge and honour the gifts of each other through respect for what each other brings. Imagine if we all held this belief: could it break down power dynamics and create space for open sharing, for sparking innovation? Imagine if we expressed these values, as humans towards each other and to the land, and within the Academy? How might this shift our approach to innovation?



(February 2022) I worry that what I am doing is wrong, that I am crossing a line, even with good intentions. Is it my place to do this work, to write and observe this? Should I be doing this work? I am grateful for my two advisors who encouraged me to pursue this path, who gave me permission to explore, and inspired me to create. Peter Morin of the Crow Clan, Tahltan Nation is guiding me, questioning me, and holding me accountable to this learning journey. He, along with Angela Bains (primary advisor), are gifts. The conversations we have are a flow of exchanges, a weaving in and out of knowing and learning to strengthen ourselves. Respect flowing between us and within us.

RESEARCH SAPIENCE



(October 2021) I have struggled with, and feel like I am fighting against the term ‘research’, particularly if it is defined as knowledge production – something to acquire or commoditize. I have questioned if what I have done is enough, yet know that this MRP has opened my eyes, mind, and heart to thinking differently. Perhaps it is less a question of whether I am producing knowledge, and more about whether there is value in the knowing. As Harrington (n.d.) suggests, part of the research process involves questioning – not taking what is written as truth, advancing understanding by “being wrong in an interesting way”; is this not at the heart of innovation? Of thinking creatively? I notice how questioning inspires me to imagine, sparking new ideas and connections with what I am learning. This journey has been about learning for myself while learning about myself.

“The word itself, ‘research’, is probably one of the dirtiest words in the Indigenous world’s vocabulary” (Smith, 2021, p. 1).

I have intentionally crossed the word research out in the above heading to signify the shift in my approach and perspective of this project; it is meant to honour the process by being more open and fluid to this learning journey. Questioning the word ‘research’ and the process has served to guide my learning, encouraging me to reflect on what I am learning and how it fits with my current perspectives, then observing how they shift and reform. This process is one of sapience*.

According to Smith (2021), the organizing and classifying of Indigenous Peoples, along with the theorizing associated with these systems, was considered research and ultimately, “about power and domination” (p. 69). Mindful of this and with respect, I chose a methodology that supports a learning journey over knowledge acquisition.

*Sapience: a “type of wisdom described as going beyond mere practical wisdom and includes self-knowledge, interconnectedness, conditioned origination of mind-states and other deeper understandings of subjective experience” (Wikipedia).

Methodology

This MRP is not about solving a problem, rather it is intended to be exploratory and reflexive. It is about finding patterns by intersecting my learning in three domains – Indigenous Knowledge(s), Power Dynamics, and Creativity & Innovation, while being mindful of diverse values and beliefs. I applied a combination of creative thought processes through systems thinking, human-centered design thinking, and innovative thinking.

My process involved a series of steps which I took several times and not always in the same order. The steps are listed here in chronological order in terms of how I began the work:

- Reviewed all course material, articles, and personal notes
- Looked for patterns across courses and within articles to identify themes
- Reflected on learning through journaling and contemplation, questioning earlier interpretations and thinking; repeated this process several times throughout the MRP
- Attempted various tools to help shape the learning journey
- Synthesized my summative learning of the program

Over the past year, I drew parallels between concepts and identified connections in a non-linear and regenerative fashion; a combination of “constructivist learning in action” (Jones & Bowes, 2017, p. 231) and wholism, because “disorderly, mixed-up borders are sources of diversity and creativity” (Meadows, 2008, p. 95). There was a frequent looping-back on previously reviewed material, a re-questioning of patterns, and the creation of multiple journal entries as I worked through my thinking and feeling about a topic.



Methodology

Autoethnography



(October 2021) There is this tension as I start to get into the work. As I try to figure out the way to approach this major research project; the typical forms of research don't feel right. How can I conduct primary research on the intersect of the domains when I don't even understand how the pieces fit together myself? It feels like I am trying to force this. I shared this with my advisors as I sought their guidance. Peter (Morin) said – “this is the work”. He talked with us about land-based education programs, like those hosted by Dechinta* in BC. Reflecting on this brought to mind the process of journaling, of letting the thoughts and feelings – integrated thinking and connections, just flow, free form.

(December 2021) I shared with my advisors my plan to use autoethnography. I was still learning about the methodology when I spoke with them. Peter seemed to have a good grasp of its purpose and value; with excitement he said “this is an intro to Foucault's power and agency as you're skinning a moose”. An act of learning and knowing at the same time. I did not realize this at the time, but his words so eloquently captured what I was trying to accomplish with this project. It took awhile before I understood his statement, and even now I find reflecting on it, it takes on different meanings. I am drawn in by the visual it conjures and appreciate how it has provided a much-needed walking stick on this journey.

An autoethnographical approach includes the identification of patterns from journal entries and secondary research, then describes the analysis and learning through narrative (Ellis et al., 2010; Dawson et al., 2017). It brings the researcher into the study (Méndez, 2013) whereby their personal experience and “epiphanies” are observed, analyzed, and documented (Ellis et al., 2010). It is a qualitative research methodology that can take many forms depending on “how much emphasis is placed on the study of others, the researcher's self and interaction with others, traditional analysis, and the interview context, as well as on power relationships” (Ellis et al., 2010). The form which most closely aligns with this project is Layered Accounts which I selected for several reasons:

1. It is by nature disruptive as it intersects science and art (Ellis et al., 2011) to “create a social scientific art form” (Wall, 2006, p. 151), feeling akin to the Strategic Foresight & Innovation program;
2. It, according to Carolyn Ellis, “does not proceed linearly” (Wall, 2006) – nor does innovation or Indigenous epistemology which is “fluid, nonlinear, and relational” (Margaret Kovach, 2005 as cited in Lavallée, 2009), thereby bringing a strong paralleled approach to exploring the Domains of Inquiry;



Autoethnography cont'd...

3. It questions and challenges to find emergent properties (Ellis et al., 2011), a process similar to creative thinking, ideation, and systemic design;
4. It is action-oriented, in that, according to Bochner and Ellis (1996), it wants the “readers to feel and care and desire” (as cited in Méndez, 2013), which aligns with my intent; I want to make a difference and inspire change by evoking an emotional and cerebral response; and,
5. As a method, it is both process and product (Ellis et al., 2011), similar to innovation which is both a process and an outcome (Crossan & Apaydin, 2009).

“Autoethnography also challenges traditional writing conventions that attempt to validate empirical science and uphold the power that accompanies scientific knowledge” (Wall, 2006, p. 149). By using autoethnography, I can move from situating myself outside of the design process to into the design process as an observer.

Given the exploratory nature of this learning journey, and the vast number of Indigenous voices and perspectives that could have been included, I recognized a risk in selecting one perspective over another. By keeping this focused on my own experience I engage the reader on an emotional level through my personal reflections, connecting through heart and mind (Ellis et al., 2011; Méndez, 2013) to encourage introspection and change (Wall, 2006).



Methodology

Secondary Research



(January 2022) : I am wrestling with trying to navigate a path (looking for the 'right' path) between exploring and charting – trying to prove something vs bringing awareness and attention to my learning. I am wrestling with the exploration as a process – free form vs using the prescribed set of tools we learned, and which I am normally drawn to because I have learned that Proof + Process = Validation. But there is that tension again – why is that the only way? Why is that the tool, step, process, etc. that I must follow, complete, and document for this to be valid?

A review of 39 journal articles, 11 books, and numerous blog posts, web pages, conference papers and videos helped inform this project. Many of these readings came from the SFI course curriculum. Core concepts and inspiration were drawn upon from the SFI program courses and electives:

SFIN6010 The Human Factor – human factors (Vicente, 2005), knowledge (Cohen & Levinthal, 1990; Martin & Moodysson, 2013; Nonaka, 1994), motivation (Fischer et al., 2019; Pink, 2009), sensemaking (Kolko, 2010; Jones & Bowes, 2017), system archetypes (Senge, 2006)

SFIN6011 Understanding Systems – cybernetics (Dubberly & Pangaro, 2018), systems thinking and systemic design (Meadows, 2008; Ryan & Hamilton, 2012; Van Ael et al., n.d.)

SFIN6014 Leading Innovation – communicating and implementing innovation (Denning, 2006; Doblin, 2015), learning organization (Garvin et al., 2008; Serrat, 2017; Shin et al., 2017), positionality (Verbos & Humphries, 2014), organizational innovation (Crossan & Apaydin, 2010)

SFIN6020 Innovation Research Methods – Indigenous research and pedagogy (Lavallée, 2009; Smith, 2021; Davidson & Davidson, 2016; Hunt, 2016; Finegan, 2019)

SFIN6021 Foresight Studio – futures thinking (Hodgson & Sharpe, 2007; Dator, 2009)

DIGI6041 Experiences & Interfaces – play

DIGI6899 Contingencies of Care – nurturing our creative selves



Methodology

Limitations



(March 2022) I keep wanting to solve this with everything I learn. I am so accustomed and wired to solve – it's one of the ways in which I describe myself: a creative problem solver. My first instinct is to figure it all out so that I can fix it. But with this project, it feels like trying to fit a square peg into a round hole. This process of deciphering, sorting, assigning value, discarding, bringing together of ideas, is all just part of the learning journey. And learning doesn't end. Even if I were to solve something, the learning continues through reflection so I am chasing a goal that likely shouldn't be there in the first place.

I am also finding the process of doing the work alone restrictive and limiting; the isolation seems to punctuate the importance and value of conversation. If Design is conversation, then working to achieve or accomplish a Master of Design should be rooted in conversation. While conversation could have been part of the research process, it would have been designed as conversation for input into the research rather than conversation for co-creation, which is what the SFI program is all about – collaborative problem solving. So why then, at the most critical learning juncture do we separate the theory from the practice?

Notable limitations to the process are:

1. Lack of Dialogue. This research would benefit from dialogue, to examine, critique, and/or improve (Dubberly and Pangaro, 2018) through conversation beyond the one I am having with myself through reflexive practice. Relationships are core to reconciliation and in the learning process. By not engaging in dialogue with Indigenous Knowledge Keepers or other members of an Indigenous community, I have created a boundary around my learning potential. Not only is this a limitation to the MRP, it is a significant miss in personal development.
2. Bias. My personal opinion and experience is that hierarchical structures, like those in government or Higher Education Institutions, are not designed or structured to be conducive to creativity and innovation.
3. Subjectivity. Research, predominantly scientific research, must be objective to remove bias and be deemed legitimate (Wall, 2006). Using autoethnography to conduct this project means I am in it, a part of it, and the subject of it. This aligns with Indigenous epistemologies and research methodology which is rooted in interconnectedness, making it "impossible to be free of emotion and subjectivity in research" (Lavallée, 2009, p. 23). I do not view subjectivity as the opposite of objectivity, rather subjectivity is "an inner state, involving thoughts, feelings, emotions, and beliefs" (Jupp, 2006, p. 293). Subjectivity gives texture and depth to data which can be seen as cold and hard.

"Ever since the Industrial Revolution, Western society has benefited from science, logic, and reductionism over intuition and holism. Psychologically and politically we would much rather assume that the cause of a problem is "out there", rather than "in here". It's almost irresistible to blame something or someone else, to shift responsibility away from ourselves, and to look for the control knob, the product, the pill, the technical fix that will make a problem go away." (Meadows, 2008, p. 4). I am looking 'in here', actively practicing looking within to learn, grow, and connect.

Synthesis

Creativity &
Innovation

Indigenous
Knowledge(s)

Power
Dynamics

SYNTHESIS



(n.d.) These connections or triangulating of ideas, were inspired by what I am learning of Indigenous Knowledge(s). This is the research. I am actively applying what I have come to learn and observe through reflection. Noting that point of inspiration; how does it help me to see and experience differently? How does Indigenous Knowledge(s) connect me to each of our gifts? In learning Indigenous Knowledge(s) there is a responsibility to one another to share these gifts. How do I, as a white settler, give back to Indigenous Knowledge(s) and show gratitude for what I have learnt, and the benefits I have received from including this learning into my work and life?

Similar to the learning process I have undergone through this project, the design synthesis is also generative (Kolko, 2010). Imagine water flowing, in a sort of dance, ebbing and flowing, taking different shapes, thinning and then filling up again, along a river where it is incorporated into and released as it evaporates in the hot sun.

Rather than in empirical study, where reductionism is central, this reflexive project has generated new ideas and thoughts for consideration. By bringing together points of intersectionality, I have come to understand through questioning and in creating space for emergent properties. In a recent issue of *Mindful* (December 2021), the practice of mindfulness was related to Indigenous practices, as told by Indigenous contributors. This peaked my interest, this relating of two seemingly disparate practices, and how this in itself was a way of connecting and bringing together (relating); to me, this is innovative thinking.

After reviewing and reflecting on what I have absorbed and observed, I found parallels and correlations within various themes: systems, relations, learning, questioning, time, stories, and worldviews. These seven themes are covered in more detail below.

Theme 1: Systems



(*n.d.*) In a simplistic way, I see a parallel between Indigenous Knowledge(s) and systems thinking. Both look at the whole and the parts to see and understand how everything is connected. There is an ability to view a situation beyond what is obvious, to see the connections and interconnectedness as a web. This way of looking inspires me to see more and from unusual angles. A process, ignited by curiosity and fueled by creativity, for innovative thinking. If the intersection of different voices and perceptions produces knowledge, then learning is also wholistic and interconnected - like systems thinking.

Through Systems Thinking, I wanted to understand the potential connections between the three domains. I am unaware of any formal system where all domains operate together, so I began by looking at each domain as its own system.

- Power Dynamics exist within Systems of Power present in the Academy and social relations (García, 2001). Power is a form of discipline, which according to Michel Foucault (as cited in Smith, 2021) “became ‘formulas of domination’ which were at work in schools, hospitals and military organizations” (p. 77); these organizations are colonial in their structure, built on hierarchy.
- Indigenous Knowledge(s) centers around Mother Earth and the belief that the “earth is living entity” (Smith, 2021, p. 114) – a living system where everything is connected, and “it is understood that each living being has a particular role to play” (Kimmerer, 2003, p. 100).
- Creativity is one part of an Innovation System (Crossan & Apaydin, 2009; Fischer et al., 2019; Owen, 2007).

Gharajedaghi (2004) states that the synthesis of distinct findings ‘into a coherent whole’ provides greater clarity and understanding of the system than looking through multiple lens. I do not agree with Gharajedaghi on this; I see value in looking at the distinct parts and then, enhancing that view by expanding our perspective through different lenses which could increase creative capacity and spark innovation. Gharajedaghi (appears) to be referring to the nature and operating of systems in a formal sense, whereas I am intentionally looking through each system as their own lens to observe a different way of working and problem solving.

Theme 1: Systems cont'd....

Coding, categorizing, classifying – all are ways to organize people, data, stories to bring order and understanding to the world. This is an approach I am most familiar and comfortable with. It is also a very colonial approach. As someone who proclaims to think in systems, which is intended to hold a holistic view (Gharajedaghi, 2004) of seeing the parts of the whole, I am also quick to organize the parts as a way to anchor what I am learning. I do this organizing subconsciously as a way to find connections, see patterns, and build upon existing knowledge, but it might unintentionally block sight of the whole. I wonder how often I have done this to the detriment of seeing possibility? Could assigning or even force-fitting an idea into a box I am already familiar with potentially limit my creative capacity? “Perhaps the desire to create closed systems and keep time going in a straight line is the reason for Second Peoples’ obsession with creating fences and walls, borders, great divides, and great barriers” (Yunkaporta, 2020 (pg. 46).



(n.d.) I was excited by the idea that the three domains could come together to create a system, and that I would be the one to maybe do this for the first time. I made several attempts to create a systems map showing how the domains influence one another and that there are common attributes among them. Reflecting back, not only did my ego show up, so did my ignorance. I was forcing something and hesitant to let go of it. I was trying to put a box around this work, in part because that is what we were taught, and also because there is comfort in ‘knowing’ where the lines are. There is comfort in knowing my place and where I can or should play. And yet, I also observe how I am drawn and pulled towards questioning, to try different and enter the unknown. I like the challenge. I like to explore. So why then, was I so focused on trying to create boundaries when my intention was to truly explore? I notice this tension more frequently as I challenge my thinking and ways of working, questioning if these deeply rooted heuristics are serving me. I have always been intuitive and now I am more confident in listening to my intuition; I am learning to better connect with it. Building trust with myself.

Theme 2: Relations



(February 2022) I didn't realize it, but I needed to free myself of rules and expectations. I needed to let go of what I thought was expected of me by my advisors. Although this work is for me and reflects my personal learning journey, I still felt like I had to answer to my advisors, as if the relationship was hierarchical. And perhaps to some extent it is – they hold the power to determine if I will pass or fail. They will judge my work and assign value. So how does this relationship influence my process? How do I stay true to this work and trust myself (my intuition) that I'm on the right path? Maybe it is simply noticing this is the path. No need to place judgement on it, at least not until the end.

Systems thinking is all about connections, seeing the whole through the various relationships between its parts. Connecting and drawing patterns is a way to bring people in, a way of relating which can be strengthened and deepened through conversation. In design, feedback and collaboration underpin synthesis (Kolko, 2010) by bringing different perspectives and points of view into the conversation to promote learning (Klein et al. 2006). If we work in isolation, with no one to bounce ideas off of or to help check our biases, our own barriers can skew how we perceive what is clearly right in front of us (Vicente, 2004).

It is also unreasonable to think that one person can be the creator of all ideas, rather it is the dialogue and interactions that spark creativity (Johnson, 2010; Peri, 2020). This is why I have designed for conversation. I prefer the term conversation over discussion because it feels more open and involves sharing to keep it going in. You can connect and relate through conversation but discussion feels formal and goal-oriented.



(n.d.) Doing this work alone can be frustrating and overwhelming at times. It also punctuates the importance and value of conversation. If Design is conversation, then working to achieve or accomplish a Master of Design should be rooted in conversation

Theme 2: Relations cont'd....



Morning Walk.

Deep breath.

The wet bark mixed with fresh dew
welcomes me.
A familiar scent
on this early morning,
deep in the forest.

Birds fill my ears
as the sun rises.
Chirping,
squawking,
calling,
singing.

A gurgling
draws my attention
as I see
the cold clear water sparkles, dancing.
It hugs up against a rock with a gentle splash,
pauses,
then rejoins the rest of its silky, fresh existence.

I stand surrounded by beauty,
history and knowing.

I feel it all as the tiny bumps ripple down my arms.
I am loved.

Theme 3: Learning & Knowledge

(August 2021) When I started working in higher education I was surprised to observe that what is a learning institution by definition, it appears difficult for the institution to learn. I suspect this is predominantly due to high risk aversion creating fear-based resistance of making mistakes, of learning through trial and error. More surprising is that there is a level of this within the academic side, in the classroom, but often the way the academy operates is less demonstrative of the principles of a true learning organization. If we recognize that a potential path to innovation starts with questioning, then we must be comfortable with challenging the status quo.

In the book *Indigenous Relations: Insights, Tips & Suggestions to Make Reconciliation a Reality* (2019), authors Bob Joseph and Cynthia F. Joseph share tips for reconciliation centered around learning as a starting point. Yet, all “too often Indigenous Knowledge(s) is still seen as source material to be analyzed by the intellectual traditions of the West” (Gaudry & Lorenz, 2018, p. 224). I feel that it is important – or specifically important to me, to learn “so we can best live together” (p. 225) by respecting differences and different Knowledge(s) as a way of learning to understand. To understand one another, we must learn about, listen, and reflect on one another’s worldview(s).

Knowledge must be seen as more than something to acquire for personal gain. There is “no word for ‘work’ in many Indigenous languages”, yet the education system, particularly the College system, serves to educate for employment – for work, “the only sanctioned reason for acquiring knowledge” (Yunkaporta, 2020, p. 140). For the Academy to Indigenousize, a monumental shift in goals in our society is likely needed.

Kimmerer wrote that once stripped of the old growth, new moss cannot grow on the bare bark of young trees because it is too smooth; there is nothing to hold onto (2003). As traditional Indigenous Knowledge(s) have been stripped from history, there is little left to grasp onto. As a white settler, it is not my place to try and latch onto these Ways, but I can learn and understand for my own growth and development.

(December 2021) A friend suggested that Western knowledge is about learning for problem solving. Perhaps this is what reconciliation means to me – to learn for, with purpose. There is something of value to learn with purpose – to understand and explore, and be open. I want to expand my knowledge to see things differently, to imagine what else could be. This is part of how I am being responsible to the Innovation Process.

Theme 3: Learning & Knowledge cont'd

How can you pursue knowledge if it is connected to everything else (Goodchild, 2021)? It is not something to conquer. According to Marie Battiste (2002), “knowledge is not what some possess and others do not; it is a resourceful capacity of being that creates the context and texture of life. Thus, knowledge is not a commodity that can be possessed or controlled by educational institutions, but is a living process to be absorbed and understood” (p.15).

“

Knowledge has beauty and can make the world
beautiful if used in a good way.

- Linda Tuhiwai Smith, 2021 (p. 183)

Learning and discovery are building blocks of innovation. Key to learning is reflective practice, specifically the act of reflecting on how a decision was made, a new product was created, or new knowledge was acquired, in the context of understanding. At the core is an openness and willingness to make mistakes as a way to further reinforce the learning cycle.

The future of Canada’s economic development and sustainability is dependent on innovation for job creation, market expansion, and increased productivity (Government of Canada, 2016). Innovation is a key priority for many (if not most) organizations, including Higher Education Institutions, who are aiming to remain relevant, grow, or differentiate (Purcell, 2019). Success requires business to adapt and change, however unless they are a “learning organization” (Shin et al., 2016), the culture may not support or nurture behaviours that contribute to change. This is particularly apparent in hierarchical institutions where power dynamics and colonial operating structures impede and/or create barriers to innovation by placing greater importance and voice to those in positions of power.

Lavallée (2009) looks at Indigenous research as epistemology in an attempt the decolonize* the Academy. The author encourages further exploration into “bridging Indigenous Knowledge and Western principles”. Through partnership and conversation, a coming together, we can learn. “Real learning gets to the heart of what it means to be human. Through learning we re-create ourselves. Through learning we become able to do something we never were able to do. Through learning we re-perceive the world and our relationship to it. Through learning we extend our capacity to create, to be part of the generative process of life” (Senge, 1990, pp. 13-14). It can enhance creative capacity by broadening, opening, and expanding the mind (p. 14), and the spirit.

* Dian Million states (as cited in Hunt, 2016) that to “decolonize means to understand as fully as possible the forms colonialism takes in our own times”.

Theme 4: Questioning



(February 2022) In thinking about conversations, and where they are effective within the Academy, I am reminded of dialogic pedagogy. The back and forth exchange, conversation between teacher and student, is 'agile' by nature, requiring the teacher to adapt as the dialogue unfolds. It is an exchange which invites the learner to question ideas and perspectives from both peers and teacher for shared learning. Is dialogic pedagogy similar to the way Indigenous Knowledge(s) is shared, as an exchange between Elders, Knowledge Keepers and 'student'? This type of exchange, of learning, is acceptable in the classroom, so why doesn't it exist within the office? Should this not be part of the organizational culture as a way of working?

There is much written on how to nurture innovation and creativity in pedagogical practices, signaling the importance of this to improve the learning experience, to produce graduates who can contribute to the economy. By being innovative, bringing their new fresh thinking to the workplace, these graduates enter the workforce with big ideas and energy for changing the world. And then, they are swiftly put in their place – a box, a cubicle where their ideas go to die because no one wants to hear them. No one cares what the junior coordinator thinks – *what do they know? They haven't lived. They haven't experienced the world. They don't understand this place yet.* In other words, they are written off before even given a chance to share, or more importantly – if not perhaps most importantly – before being given a chance to question.

In some workplace cultures, questioning is akin to challenging authority; it is viewed as being disrespectful or unprofessional. In these cultures, the belief is that you must always know your place and position. What if we actually spent more time with new employees (regardless of their position), hearing what they really think about the way work is done, how decisions are made, where opportunities are being missed? What could we learn? While being open to learn is a critical first step, being committed to act on that knowledge, or at least explore it further to deepen the learning, is the equally important ground for that first step to land on and leap from.

Audre Lorde (1983, as cited in White, 2020) wrote, "... survival is not an academic skill. It is learning how to stand alone, unpopular and sometimes reviled, and how to make common cause with those others identified as outside the structures in order to define and seek a world in which we can all flourish. It is learning how to take our differences and make them strengths."



(n.d.) Another benefit of doing this work as a collective is the internal questioning and dialogue that occurs to help focus; it can serve as a way to bring ideas together, to converge. It is hard to let go of all the ideas I have, all the thoughts and scribbles I have made over the past year. A dialogue with co-creators helps to filter and hone which is important when trying to stay on schedule and meet a deadline.

Theme 5: Time



(April 2022) The ideas – or rather, the connections and epiphanies, come to me when I am not forcing it. They come when I am brushing my teeth, or when reading something unrelated to the project. Rarely do they come when I am sitting in front of the computer, facing the deadline, anxious to have it all come together. We are so caught up with time and meeting deadlines that we leave little room for ideas and thoughts to emerge on their own, in their own time. This MRP has taken on many shapes and iterations along the way as it shifts and morphs. What I have noticed is that the more I leave it alone (metaphorically), the more it reveals itself. As much as I need the pressure of a deadline serving as an external motivator, the stress that comes with that pressure actually limits my creativity by blocking me because the joy is gone; my mindset is action-oriented and not learning-oriented. Under pressure I am no longer in a place of possibility. There is no space for imagination, and no space to play. Time provides space.

Learning from Indigenous practices we see there is a way of working, of relating, that promotes an exchange to unfold on its own time (Joseph & Joseph, 2019). It requires courage and patience to allow the story to unfold. Institutions are focused on being nimble and agile, to iterate and move quickly. In striving for operational efficiency and streamlining work to save on time, what are we sacrificing? What are we missing by rushing? “Slowing down and coming close, we see patterns emerge and expand out of the tangled tapestry threads. The threads are simultaneously distinct from the whole, and part of the whole” (Kimmerer, 2003, p. 11). Time provides space to see the threads.

I have run out of time on this project. There is so much more I wanted to do. So many ideas I wanted to explore and develop. I must remind myself that while this specific piece has come to an end, my journey is not over.



Standing in the Forest

Leaves whisper to me
Breathing in time with love
I feel connected

Theme 6: Stories

Sharing stories can help connect people, bring people together. They have the power to inspire and nurture the creative mind. Through stories, one can hold a vision of what *is* alongside a vision of what *could be* – is this not what is needed to imagine a better future and embrace change? The “Haida understanding of the power of the mind, which, when combined with the power of visualization, has the capacity to manifest desired outcomes” (Davidson, 2016, p. 16). Mary Kovach argues (as cited in Smith, 2021) “that stories are connected to knowing, that the story is both method and meaning, and is a central feature of Indigenous research and knowledge methodologies” (p. 166). Yet stories tend to be dismissed, partly due to concerns around bias and singularity, and the inability to quantify or qualify the data empirically.

Common Western-based research methodologies and ways of working that are rooted in evidence-based decision making prioritize objectivity, giving power to this type of knowledge. Indigenous worldviews center around connectedness and wholism, and therefore by design, mean “Indigenous research is not objective” (Lavallée, 2009, p. 23). It recognizes the role relations play in the research. Creativity is also subjective given its value and worth is subject to personal interpretation. Similar to first person narratives and lived experiences. This highlights the importance of including lived experience(s) in our collective knowledges.

Through dialogue one can learn and understand, and ideally, challenge current thinking to gain a different perspective or simply, a broader one. In Dallas Hunt’s *Nikikiwan: Contesting Settler Colonial Archives through Indigenous Oral History*, we learn about “felt analysis”, how his grandparents’ lived experiences brought a nuanced perspective to the documented historical accounts of their Peoples’ displacement from Swan River (2016). Being absent from the archive negates the “local knowledge” and impact experienced by the community. Can stories provide the ‘evidence’ to validate new paths forward?

Subjectivity, being connected to one’s personal feelings and emotions, can be easily dismissed or at least challenged, in academia. Ultimately discrediting the individual by invalidating subjective data ensuring power remains with those who are objective. “Our culture, obsessed with numbers, has given us the idea that what we can measure is more important than what we can’t measure” (Meadows, 2008, p. 175), “it means we make quantity more important than quality” (p. 176). However, “one must accept that reality cannot always be quantified” (Lavallée, 2009, p. 23). The Western worldview, an obsession with evidence, suggests a lack of trust in one’s internal compass. If we think about creativity or innovative thinking, one must rely on their gut instincts to explore and push boundaries. “In Indigenous Knowledge, we say a thing cannot be understood until it is known by all four aspects of our being: mind, body, emotion, and spirit. The scientific way of knowing relies only on empirical information from the world, gathered by body and interpreted by mind” (Kimmerer, 2003, preface vii). By being tied to quantifiable data as a requirement for investing in new ideas or ways of working there is risk of limiting potential; restricting the possible.

Theme 7: Worldviews



(January 2022) If inclusion can spark innovation, then decolonization can create space for innovation. This feels like design work. Could the Systemic Design Toolkit evolve to include responsibility to the innovation process? If Systems Thinking + Design Thinking = Systemic Design, then Systems Thinking + Design Thinking + Decolonized Thinking is more aptly Wholistic Design. I'm seeing all three woven, or rather they are weaving in and out and through, to solve problems by seeing through different lenses.

Looking at Indigenous and Western worldviews, there are some core differences (as outlined in the Table below) which may influence individual creativity and innovation, and have shaped the dynamic of knowledge and power within the Academy. An Indigenous worldview could be characterized as relational and wholistic, whereas a Western worldview is more individualistic. I am learning to understand how my worldview interacts with other worldviews, seeing the inherent power dynamics, particularly between Western and Indigenous worldviews (Yunkaporta, 2020, p. 20). If learning is transformative, then what potential transformation could happen with learning Indigenous Knowledge(s)? For me, this journey of learning has shifted my perspective, beliefs, and way of problem solving. Is this not the type of transformation we want and need for our society to change?

By only seeing through Western eyes, and even narrowly through one's own lens, we completely miss seeing the gifts of knowledge all around us (Kimmerer, 2003). We are arrogant to the limited field of visibility our biases create and power structures uphold. We are trying to solve by using what we already know (or learn by a prescribed way of researching) but it is still limited. *To expand our view, expand our horizons, we need to look beyond the trees.* "Every way of knowing has its own strengths and weaknesses" (p. 105), hence the need to include alternative ways of knowing into our way of learning, thinking, and doing. And into the way we organize ourselves within the Academy.



(October 2021) I've started reading about two eyed seeing and wonder how that can inform this work, or rather if that is in effect what I'm doing already, or at least working towards modelling. The word 'modelling' may not be appropriate. I started out thinking I needed to stick within the confines of what we learned in the program – wanting to demonstrate my supposed mastery of what I have learned. Formal processes, tools, concepts. All of which hold value, but at the same time, are prescriptive and defined. Perhaps the creative freedom I am being offered is the key to seeing through different eyes, to expand my capacity and consideration towards new sensemaking?

Theme 7: Worldviews cont'd...

INDIGENOUS WORLDVIEW(S)	TOPIC	WESTERN WORLDVIEW	Potential impact or influence of seeing with “two-eyes” as a white settler on the innovation process
Spiritual	BELIEF	Scientific	Expanded understanding of what is and what could be beyond what is quantifiably proven; ability to envision other and more possibilities
Many and Individual	TRUTH	One	Questioning one “universal truth” creates a valuable tension in the innovation process through curiosity, sparking creativity
Connected	SOCIETY	Compartmentalized	Ability to see beyond the boundaries, bringing awareness to and identifying unintended consequences of decisions and actions
Sacred	LAND	Resource	Look to alternative ways of working with the land rather than simply taking from it; introduces a different lens on what sustainability means and inspires creativity to work within this parameter
Cyclical	TIME	Linear	Iterative process with ongoing refinements; potentially more future or forward-thinking
(Quality of) Relationships	WORTH	Accomplishments	Creates a sense of community through collective problem solving
Part Of	HUMANS	Most Important	Shift from Human-centered design thinking to Life-Centered design thinking, where life is the whole self and inclusive of all living things; Brings greater respect for all life and appreciation for diversity
Community Gain	WEALTH	Personal Gain	Increased potential for sustainability if the innovation serves the community

Table 1 – Comparing Indigenous and Western worldviews, and the potential emergent property of holding both in one’s mind. Adapted from <https://www.ictinc.ca/blog/indigenous-peoples-worldviews-vs-western-worldviews>

Theme 7: Worldviews cont'd...

Etuaptmumk (two-eyed seeing) is a “popular framework for linking Indigenous Knowledge systems and Western Knowledge system” described by Mi’kmaq Chief Elder Albert Marshall (Iwama et al., 2009). I am inspired by this because it is additive; it is not about replacing one way with another but rather about building upon while maintaining integrity of the parts. According to Hatcher, Bartlett, Marshall, & Marshall (2009) *Etuaptmumk* “seeks to avoid knowledge domination and assimilation by recognizing the best from both worlds” (as cited in Goodchild, 2021, p. 93). In Robin Wall Kimmerer’s book *Gathering Moss* (2003), her essays bring voice and awareness to both Indigenous ways and scientific ways of knowing, “letting matter and spirit walk companionably side by side. And sometimes even dance” (preface vii). Allowing the two ways of knowing to dance together with each playing a role in the combined movement, we can give voice to both the felt experience and the observed (Kimmerer, 2003).



A Forest Waltz

You, me, and the trees
We dance as two, one then two
Knowing intertwined

Imagine if we came together, in dialogue, to better understand and explore what seeing with two (different) eyes (Iwama et al., 2009) could create. What impact could this have on the way we work and interact with one another? Could this framework help with decolonial indigenization* to “fundamentally reorient knowledge production based on balancing power relations between Indigenous peoples and Canadians, transforming the Academy into something dynamic and new” (Gaudry & Lorenz, 2018)? In Higher Education, the focus tends to be centered on decolonizing curriculum, but what about looking at the organizational structure and culture of the Academy? To truly shift mindset and behaviour, to deepen it beyond one operational component, one must question “power structures of the academic elite” (Lavallée, 2009, p. 125) and current ways of thinking and doing.

* Indigenization: “a move to include Indigenous perspectives in transformative ways” (Kuokkanen, 2008, p. 2)

FINAL REFLECTIONS



FINAL REFLECTIONS



(n.d.) As I learn more about Indigenous Knowledge(s), I am noticing how my thoughts about life, work, relationships, are shifting. I am drawn to the horizontal, self-governing way, and the way knowledge is transferred, particularly through stories. I am inspired to learn more and continue questioning. What if we led in a way that is more consistent with Indigenous values; what could be? What are the possibilities?

What if?

I changed my research question from ‘how might we’ to a more open one, to explore ‘what if’. This small change in wording had a significant impact on how I approached this project. It allowed me to spend time imagining, envisioning, and most importantly, questioning. It allowed me to pause and reflect by removing the pressure of finding a solution to a problem I had yet to define. The term research, seen as the production of knowledge, has a capitalist undertone to it that elicits a ‘take’ feel, like mass consumerism with an exploitative quality. Knowledge production implies ownership, that once you have produced it, it is yours to own. The “pursuit of knowledge” is actually the problem (Smith, 2021, p. 2) – it sounds like a goal, a means to an end rather than an opening of the mind to learn, which is really what it should be.

Rather than a pursuit of knowledge, what if research was simply a pursuit of knowing - to understand and relate? “When is research not research?” (Smith, p. 17); perhaps when research is for learning. Learning is active and ongoing. If we pursued knowing over knowledge, could this give voice to those who are learning? The work that follows may look like, and qualify as, research, but I see it as learning.

There was nothing linear about this process. My original intention was to use the Systemic Design Toolkit (Ryan & Hamilton, 2012) as the backbone. I was drawn to it because of its clearly defined steps with associated tools and methods. This project has become a sensemaking endeavour, an exercise in framing and reframing because there was not a “clear beginning or ending point(s)” (Klein et al., 2006, p. 72). Too often we jump to solve, using heuristics and ways of working we are most comfortable with as our guide. The “Horizon 3” mindset, as described by Hodgson & Sharpe (2007), looks to what is possible, letting the steps evolve based on an envisioned future. This project evolved in a similar fashion, more organically.

While I attempted to bring structure to the journey by employing various tools, concepts and techniques learned in the SFI program, I often found it was restrictive. Rather than force the tools, I noted the conflicts and adjusted my approach. In the beginning I felt I needed the structure but now, as I make sense of the work completed, the reflections and the learning, there is a level of self-confidence that has emerged, along with inspiration.

FINAL REFLECTIONS



Through my learning, I posit that the colonial foundation of the Academy inherently limits innovation potential of the institution. From the structure (hierarchical power dynamics) to ways of thinking (orthodoxically), the Academy must embrace and embed the principles of a learning organization (Serrat, 2007; Shin et al., 2016) if true change is to be achieved. This would manifest as the suggested learning environment with related characteristics and culture (Crossan & Apaydin, 2009, p1172):

Learning Environment:

- Provides financial and resource support for experimentation
- Is tolerant of failed ideas
- Adopts risk-taking norms
- Supports learning and development
- Accepts diversity

AND creates a Culture of Innovation by:

- Having a clearly stated, attainable, valuable shared vision
- Promoting autonomy, calculated risk taking, and aligning individual motivations with opportunities for development and growth

This project is the story of my learning journey. It is about me becoming a designer, earning my Master of Design through reflexive practice and innovative thinking. It is me analyzing what we have been taught, looking at with a critical eye to extract the pieces and parts that resonate, questioning what I know and how I have come to know it. I have pulled out the concepts, articles, and quotes that have helped make sense of it all. It was about seeing connections through systems thinking, while considering human factors using an innovative research method. It was about drawing parallels and finding patterns between seemingly disparate parts. “In many ways, this is the unique skill of design: the ability to temporarily exchange or at least supplement one’s own perspective with that of another” (Kolko, 2010, p. 8).

I have learnt that:

1. There is so much still to learn and understand
2. We must change how we do things in order to change what we can do
3. Tools and toolkits are useful, particularly when unsure of where to start, but unstructured play is also useful.
4. SFI is about creative problem solving and there are many tools we can use, however there is no one way to solve.
5. A consistent thread is the ability to see all the parts, to understand, to explore and question, and look through different lenses for new angles and perspectives; this is what sparks innovation and creativity.
6. “Two people with different perspectives test different potential improvements and increase the probability of an innovation” (Page, 2007, p.7). We saw this in the program as we collaborated and co-created through design. It is also what I noted as a limitation to this project, as I work in isolation. Primary research would provide data as input into the process, and depending on the method, could be a part, but not part of the solutioning exercise.

FINAL REFLECTIONS



Future Reflections for consideration:

- Bring one aspect of this into a power dynamic scenario; how would it rebalance and return agency to the individual? What could it bring to the creative thinking process?
- What if storytelling and narrative applied to this scenario or process? What then?

On the other side of this journey, at least this phase of my learning journey, I see with greater clarity and feel more connected. My vision is still a bit blurry, requiring me to pause. Take the time necessary to reflect and imagine. What I cannot see will become seen through time, attention, an open heart and mind, and dialogue. “Attentiveness alone can rival the most powerful magnifying lens” (Kimmerer, 2003, p. 8)



(May 2022) This is it. I have (finally) arrived at the end, at least in terms of an official deadline to submit. I arrive here with so many mixed feelings and emotions. Part sadness and grief as I try to reconcile my original vision for this work with the place I have arrived at. Part fear of being judged and a vulnerability that comes from sharing such personal thoughts with a broader audience beyond my own mind and journaling. A friend noted how indoctrinated we are to how a research paper should be written. I feel exposed and apprehensive about having taken a different approach with this work, of being different. How can we change if we don't push boundaries and current ways of thinking? If we fear 'different', then the real risk is that we will all lose out.

I have felt different for a long time. This program and this project helped me see that there is a place for different, and there is value. The past two years of learning have helped expand the lens through which I see and experience the world. A few months ago I was diagnosed with ADHD. Learning this sparked an understanding and appreciation for how I think and comprehend. I am learning to see my neurodivergence as a gift, one that has helped me be a creative problem-solver and innovative thinker.

I love that I am forever changed.

REFERENCES

- A Model of The Creative Process*. (n.d.). Retrieved February 21, 2022, from <http://www.dubberly.com/concept-maps/creative-process.html>
- Allan, B., Perreault, A., Chenoweth, J., Biin, D., Hobenshield, S., Ormiston, T., Hardman, S. A., Lacerte, L., Wright, L., & Wilson, J. (2018). *Responsively Creating Space for Indigenous Knowledge from Elders and Other Knowledge Keepers/Authorities*. <https://opentextbc.ca/indigenizationinstructors/chapter/responsively-creating-space-for-indigenous-knowledge-from-elders-and-other-knowledge-keepers-authorities/>
- Antonelli, C. (2017). Endogenous innovation: The creative response. *Economics of Innovation and New Technology*, 26(8), 689–718. <https://doi.org/10.1080/10438599.2016.1257444>
- Battiste, Dr. M. (2002). *Indigenous Knowledge and Pedagogy in First Nations Education—A Literature Review with Recommendations*. Apamuwek Institute.
- Bergland, C. (2014, May 23). How Does the Vagus Nerve Convey Gut Instincts to the Brain? | Psychology Today Canada. *The Athlete's Way*. <https://www.psychologytoday.com/ca/blog/the-athletes-way/201405/how-does-the-vagus-nerve-convey-gut-instincts-the-brain>
- Blackstock, C. (2011). *The Emergence of the Breath of Life Theory*. 8(1), 16.
- Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *Taxonomy of Educational Objectives*. David McKay Company Inc. https://web.archive.org/web/20201212072520id_/https://www.uky.edu/~rsand1/china2018/tex/Bloom%20et%20al%20Taxonomy%20of%20Educational%20Objectives.pdf
- Bohensky, E. L., & Maru, Y. (2011). Indigenous Knowledge, Science, and Resilience: What Have We Learned from a Decade of International Literature on “Integration”? *Ecology and Society*, 16(4). <https://www.jstor.org/stable/26268978>
- Brice, M. (2021). A Review of Decolonizing and Indigenizing Education in Canada Edited by Sheila Cote-Meek and Taima Moeke-Pickering. *In Education*, 26(2), 114–116. <https://doi.org/10.37119/ojs2021.v26i2.502>
- Business Development Bank of Canada. (8:36:57 PM). *What is innovation?* BDC.Ca. <https://www.bdc.ca/en/articles-tools/business-strategy-planning/innovate/what-is-innovation>
- Carlsson, B., Jacobsson, S., Holmen, M., & Rickne, A. (2002). Innovation systems: Analytical and methodological issues. *Research Policy*, 31, 233–245.
- Collins, S. (2021, September 15). *LibGuides: Anti-Oppression: Anti-Oppression*. <https://simmons.libguides.com/anti-oppression/welcome>
- Crossan, M. M., & Apaydin, M. (2010). A Multi-Dimensional Framework of Organizational Innovation: A Systematic Review of the Literature. *Journal of Management Studies*, 47(6), 1154–1198. <https://doi.org/10.1111/j.1467-6486.2009.00880.x>
- Davidson, S. F., & Davidson, R. (2016). Make Your Mind Strong: My Father’s Insights into Academic Success. *Canadian Journal of Education*, 39(2), 1–21.
- Denning, S. (2006). Effective storytelling: Strategic business narrative techniques. *Strategy & Leadership*, 34(1), 42–48.

REFERENCES

- Doblin. (2015). *Ten Types of Innovation*.
https://doblin.com/dist/images/uploads/Doblin_TenTypesBrochure_Web.pdf
- Drawson, A. S., Toombs, E., & Mushquash, C. J. (2017). Indigenous Research Methods: A Systematic Review. *The International Indigenous Policy Journal*, 8(2), Article 2.
<https://doi.org/10.18584/iipj.2017.8.2.5>
- Dubberly, H., & Pangaro, P. (2018). *Chapter 3 Cybernetics and Design: Conversations for Action*.
<https://www.semanticscholar.org/paper/Chapter-3-Cybernetics-and-Design-%3A-Conversations-Dubberly-Pangaro/1dba6c42ff4091ada2ad3c65cd9d7a2b8261e401>
- Edwards, J. (2021). Ethical Autoethnography: Is it Possible? *International Journal of Qualitative Methods*, 20, 1609406921995306. <https://doi.org/10.1177/1609406921995306>
- Ellis, C., Adams, T. E., & Bochner, A. P. (2011). Autoethnography: An Overview. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 12(1), Article 1.
<https://doi.org/10.17169/fqs-12.1.1589>
- Finegan, C. (2019). The interpreter as researcher: Ethical heritage interpretation in Indigenous contexts. *Journal of Heritage Tourism*, 14(3), 282–294.
- Fischer, C., Malycha, C. P., & Schafmann, E. (2019). The Influence of Intrinsic Motivation and Synergistic Extrinsic Motivators on Creativity and Innovation. *Frontiers in Psychology*, 10, Article 10.
- García, J. M. R. (2001). Scientia potestas est – Knowledge is Power: Francis Bacon to Michel Foucault. *Anglia - Zeitschrift Für Englische Philologie*, 119(1), 1–19. <https://doi.org/10.1515/ANGL.2001.1>
- Garvin, D. A., Edmondson, A. C., & Gino, F. (2008, March 1). Is Yours a Learning Organization? *Harvard Business Review*. <https://hbr.org/2008/03/is-yours-a-learning-organization>
- Gaudry, A., & Lorenz, D. (2018). Indigenization as inclusion, reconciliation, and decolonization: Navigating the different visions for indigenizing the Canadian Academy. *AlterNative: An International Journal of Indigenous Peoples*, 14(3), 218–227.
<https://doi.org/10.1177/1177180118785382>
- Gharajedaghi, J. (2004). *Systems Methodology: A Holistic Language of Interaction and Design—Seeing Through Chaos and Understanding Complexities*.
- Goodchild, M. (2021). Relational Systems Thinking: That’s How Change is Going to Come, From Our Earth Mother. *Journal of Awareness-Based Systems Change*, 1(1), 75–103.
<https://doi.org/10.47061/jabsc.v1i1.577>
- Government Of Canada. (n.d.). *Innovation for a Better Canada: What You Told Us - Innovation for a better Canada* [Consultation Reports]. Innovation, Science and Economic Development Canada; Innovation, Science and Economic Development Canada. Retrieved August 16, 2021, from https://www.ic.gc.ca/eic/site/062.nsf/eng/h_00051.html
- Green, E. (2013, June 20). *Innovation: The History of a Buzzword*. The Atlantic.
<https://www.theatlantic.com/business/archive/2013/06/innovation-the-history-of-a-buzzword/277067/>
- Greenberg, S. S. (2021). *Creative Acts for Curious People*. Ten Speed Press.

REFERENCES

- Guidelines for Conducting Autoethnographic Research*. (2015). 6.
- Harrington, B. (n.d.). *How to plan a research project | Psyche Guides* [Digital Magazine]. Psyche.
<https://psyche.co/guides/how-to-plan-a-research-project-in-four-clear-steps>
- Heke, I., Rees, D., Swinburn, B., Waititi, R. T., & Stewart, A. (2019). Systems Thinking and indigenous systems: Native contributions to obesity prevention. *AlterNative: An International Journal of Indigenous Peoples*, 15(1), 22–30. <https://doi.org/10.1177/1177180118806383>
- Hodgson, T., & Sharpe, B. (2007). Deepening Futures with System Structure. In *Scenarios for Success: Turning Insights into Action* (pp. 123–143). John Wiley & Sons, Inc.
- Hunt, D. (2016). Nikikiwan: Contesting Settler Colonial Archives through Indigenous Oral History. *The University of British Columbia - Canadian Literature, Autumn-Winter*(230–231).
- Indigenous Ways of Knowing | Queen's University*. (n.d.). Retrieved January 9, 2022, from <https://www.queensu.ca/indigenous/ways-knowing/about>
- Iwama, M., Marshall, M., Marshall, A., & Bartlett, C. (2009). Two-Eyed Seeing and the Language of Healing in Community-Based Research. *Canadian Journal of Native Education*, 32(2), 3-23,117.
- Jeffery, T., Kurtz, D. L. M., & Jones, C. A. (n.d.). *Two-Eyed Seeing: Current approaches, and discussion of medical applications*. 5.
- Jones, P., & Bowes, J. (2017). Rendering Systems Visible for Design: Synthesis Maps as Constructivist Design Narratives. *She Ji: The Journal of Design, Economics, and Innovation*, 3(3), 229–248.
<https://doi.org/10.1016>
- Joseph, B. (2016, January 26). *Indigenous Peoples Worldviews vs Western Worldviews*.
<https://www.ictinc.ca/blog/indigenous-peoples-worldviews-vs-western-worldviews>
- Joseph, B. (2018a). *21 Things You May Not Know About The Indian Act*. Indigenous Relations Press.
- Joseph, B. (2018b, April 6). *What Does Indigenous Knowledge Mean? A Compilation of Attributes*.
<https://www.ictinc.ca/blog/what-does-indigenous-knowledge-mean>
- Joseph, B., & Joseph, C. F. (2019). *Indigenous Relations: Insights, Tips & Suggestions to Make Reconciliation a Reality*. Indigenous Relations Press.
- Jupp, V., & Sage Publications (Eds.). (2006). *The Sage dictionary of social research methods*. SAGE Publications.
- Kaplan, S. (2019, March 21). *Is Organizational Structure The Secret to Innovation?* Inc.Com.
<https://www.inc.com/soren-kaplan/is-organizational-structure-secret-to-innovation.html>
- Kaplan-Myrth, N., & Smylie, J. (2006). *Sharing What We Know About Living a Good Life*. 60.
<http://www.welllivinghouse.com/wp-content/uploads/2014/04/Sharing-what-we-know-Summit-Report.pdf>
- Kimmerer, R. W. (2003). *Gathering Moss: A Natural and Cultural History of Moss*. OSU Press.
- Klarer, M., Arnold, M., Günther, L., Winter, C., Langhans, W., & Meyer, U. (2014). Gut Vagal Afferents Differentially Modulate Innate Anxiety and Learned Fear. *Journal of Neuroscience*, 34(21), 7067–7076. <https://doi.org/10.1523/JNEUROSCI.0252-14.2014>

REFERENCES

- Kolko, J. (2010). *Sensemaking and Framing: A Theoretical Reflection on Perspective in Design Synthesis*. Design Research Society (DRS) international conference: Design & Complexity, Montreal, QC. www.drs2010.umontreal.ca/data/PDF/067.pdf
- Lapadat, J. C. (2017). Ethics in Autoethnography and Collaborative Autoethnography. *Qualitative Inquiry*, 23(8), 589–603. <https://doi.org/10.1177/1077800417704462>
- Lavallee, L. F. (2009). Practical Application of an Indigenous Research Framework and Two Qualitative Indigenous Research Methods: Sharing Circles and Anishnaabe Symbol-Based Reflection. *International Journal of Qualitative Methods*, 8(1), 21–40.
- Levac, L., Mcmurtry, L., Stienstra, D., Baikie, G., Hanson, C., & Mucina, D. (n.d.). *LEARNING ACROSS INDIGENOUS AND WESTERN KNOWLEDGE SYSTEMS AND INTERSECTIONALITY: RECONCILING SOCIAL SCIENCE RESEARCH APPROACHES*. 48.
- Lindner, R., Daimer, S., Beckert, B., Heyen, N., Koehler, J., Teufel, B., Warnke, P., & Wydra, S. (2016). *Addressing directionality: Orientation failure and the systems of innovation heuristic. Towards reflexive governance* (Working Paper No. 52). Fraunhofer ISI Discussion Papers - Innovation Systems and Policy Analysis.
- Martin, R., & Moodysson, J. (2013). Comparing knowledge bases: On the geography and organization of knowledge sourcing in the regional innovation system of Scania, Sweden. *European Urban and Regional Studies*, 20(2), 170–187. <https://doi.org/10.1177/0969776411427326>
- McCabe, G. (2008). Mind, body, emotions and spirit: Reaching to the ancestors for healing. *Counselling Psychology Quarterly*, 21(2), 143–152. <https://doi.org/10.1080/09515070802066847>
- McKinsey & Company. (2012, Setpember). *Making innovation structures work*. McKinsey & Company. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/making-innovation-structures-work-mckinsey-global-survey-results#>
- Meadows, D. H. (2008). *Thinking in Systems: A primer*. Chelsea Green Publishing.
- Mendez, M. (2013). Autoethnography as a research method: Advantages, limitations and criticisms. *Colomb. Appl. Linguist*, 15(2), 279–287.
- Nonaka, I. (1994). A Dynamic Theory of Organizational Knowledge Creation. *Organization Science*, 5(1), 14–37.
- OCAD University. (2019). *OCAD University's Indigenous Learning Outcomes*.
- OISE. (n.d.). *Indigenous Ways of Knowing*. Indigenous Education. Retrieved January 9, 2022, from <https://www.oise.utoronto.ca/abed101/indigenous-ways-of-knowing/>
- Owen, C. (2007). Design Thinking: Notes on its Nature and Use. *Design Research Quarterly*, 2(1), 16–27.
- Page, S. E. (2007). Making the Difference: Applying a Logic of Diversity. *Academy of Management Perspectives*, 21(4), 6–20.
- Pink, D. H. (2009). *Drive: The surprising truth about what motivates us*. Riverhead Books.

REFERENCES

- Postmodernism and the Challenges Facing 21st Century Educators | The Professional School of Psychology*. (n.d.). Retrieved March 19, 2022, from <https://psychology.edu/about/four-models-of-adult-education/postmodernism-and-the-challenges-facing-21st-century-educators/>
- Purcell, W. (2019, October 31). The Importance of Innovation in Business. *Northeastern University Graduate Programs*. <https://www.northeastern.edu/graduate/blog/importance-of-innovation/>
- Ramaccia, B. (2021, September 15). Decentering the Designer. *Greater Good Studio*. <https://medium.com/greater-good-studio/decentering-the-designer-c74725d0d23a>
- Roussel, D. C. S. (n.d.). *Relationships between knowledge and power: Towards a sociological approach of knowledge creation process*. 18.
- Ryan, A. J., & Hamilton, B. A. (2012). *Thinking in Systems*.
- Schrepf, B., Kaplan, D., & Schroeder, D. (2013). *National, Regional, and Sectoral Systems of Innovation—An Overview, Report for FP7 Project “Progress”* (Deliverable 2.2; p. 32). https://www.progressproject.eu/wp-content/uploads/2013/12/Progress_D2.2_final.pdf
- Schultz, W. (2015). Manoa: The future is not binary. *APF Compass*.
- Senge, P. M. (2006). *The Fifth Discipline: The Art and Practice of the Learning Organization* (First). Currency.
- Serrat, O. (2017). Building a Learning Organization. In O. Serrat (Ed.), *Knowledge Solutions: Tools, Methods, and Approaches to Drive Organizational Performance* (pp. 57–67). Springer. https://doi.org/10.1007/978-981-10-0983-9_11
- Shin, H. W., Picken, J. C., & Dess, G. G. (2017). Revisiting the learning organization: How to create it. *Organizational Dynamics*, 46(1), 46–56. <https://doi.org/10.1016/j.orgdyn.2016.10.009>
- Smith, L. T. (2021). *Decolonizing Methodologies: Research and Indigenous Peoples* (Third). Bloomsbury.
- Stickdorn, M., & Schneider, J. (2011). *This is Service Design Thinking*. John Wiley & Sons, Inc.
- Systems Innovation. (2020, November 20). *Systems Design Principles*. Systems Innovation. <https://www.systemsinnovation.io/post/systems-design-principles>
- TEDx Talks. (n.d.). *Decolonization Is for Everyone | Nikki Sanchez | TEDxSFU*. Retrieved August 16, 2021, from <https://www.youtube.com/watch?v=QP9x1NnCWNY>
- TEDx Talks. (2016, June 13). *Etuaptomuk: Two-Eyed Seeing | Rebecca Thomas | TEDxNSCCWaterfront*. <https://www.youtube.com/watch?v=bA9EwcFbVfg>
- Van Ael, K., Vandenbroeck, P., Ryan, A., & Jones, P. (n.d.). *Systemic Design Toolkit Guide*. <https://www.ellenmacarthurfoundation.org/assets/downloads/SystemicDesignToolkit-Guide-2019.pdf>
- Verbos, A. K., & Humphries, M. (2014). A Native American Relational Ethic: An Indigenous Perspective on Teaching Human Responsibility. *Journal of Business Ethics*, 123(1), 1–9. <https://doi.org/10.1007/s10551-013-1790-3>
- Vicente, K. (2004). *The Human Factor: Revolutionizing the Way We Live with Technology* (Vintage Canada Edition). Vintage Canada.

REFERENCES

- Wall, S. (2006). An Autoethnography on Learning About Autoethnography. *International Journal of Qualitative Methods*, 5(2), 146–160. <https://doi.org/10.1177/160940690600500205>
- Ways of Knowing. (2020, October 29). *Dialogue 4: “Two-Eyed Seeing and Beyond.”* <https://www.youtube.com/watch?v=XqGRTLolYIY>
- What Does It Mean to Decolonize Design?* (2019, June 5). Eye on Design. <https://eyeondesign.aiga.org/what-does-it-mean-to-decolonize-design/>
- White, M. (2020). *Meaning of “The master’s tools will never dismantle the master’s house.”—Audre Lorde*. Activist School. <https://www.activistgraduateschool.org/on-the-masters-tools>
- Winks, L., Green, N., & Dyer, S. (2020). Nurturing innovation and creativity in educational practice: Principles for supporting faculty peer learning through campus design. *Higher Education*, 80(1), 119–135. <https://doi.org/10.1007/s10734-019-00468-3>
- Wisdom. (2022). In *Wikipedia*. <https://en.wikipedia.org/w/index.php?title=Wisdom&oldid=1079955072>
- Working in High-Leverage Zones with the Double-Loop Learning Matrix*. (2016, January 15). The Systems Thinker. <https://thesystemsthinker.com/working-in-high-leverage-zones-with-the-double-loop-learning-matrix/>
- Yunkaporta, T. (2020). *Sand Talk. How Indigenous Thinking can Save the World*. HarperCollins.