Collaborative Writing as a Process of Inquiry within Knowledge Ecologies

MAIRI MCDERMOTT, BARTLOMIEJ LENART, SEFAT JESHIN RIMPU, KATHRYN RUDDOCK, LAURA REID, ABIGAIL WILLIAMS

Abstract: While the content presented in this article is propositional in form, what it aims to reveal is the processual/procedural nature of emergent multi-vocal research, as well as the tacit knowledges that grow through the process of collaborative writing within the complex networks (root systems) of knowledge ecologies. This contribution hopes to unearth the ephemeralities of the various processes, which do not and cannot appear on the page (a place and form commonly utilized as the medium of choice for academic knowledge transmission). This article starts by mapping the multi-pronged and multi-layered landscape of our research assemblage and explores the notion of epistemic justice as an orientation towards entangled knowledge ecologies through the medium of collaborative writing and metaphor-work, which we take up in the second part of the article. Finally, we journey back to the broader research project and what our co-writing as a method of inquiry revealed along the way. We revisit how our journey of communal gathering continues to reflect and rebuild our evolving curiosities and attunements to the broader research terrain on Expanding Knowledge Landscapes.

Keywords: exploring knowledge landscapes, non-traditional theses, collaborative writing, knowledge ecology, epistemic diversity

There is so much that goes into research, knowledge creation, and scholarly communications that never makes it to the screen-page. In this article, we imagine these supposed absences as vital entities that provide nutrients to sustain knowledge ecologies needed to address the complex interconnected web of relations shaping our contemporary worlds. As a research assemblage presently made up of a faculty member with graduate supervision responsibilities (Mairi McDermott), four faculty from Libraries and Cultural Resources (Bart Lenart, Kathryn Ruddock, Laura Reid, and Christie Hurrell), and two graduate research assistants (Abigail Williams and Sefat Jeshin Rimpu), we took up the "On Gathering" call for papers as an invitation to dwell in these incommensurable

aspects of our work. As we prepared for our collaborative writing, we desired to both describe and embody the organic processes we have cultivated through the course of our gathering and communicating with one another. Then, through the process of formally writing together and trying to surface or give name to that which we have felt, we hoped we might be able to make the ephemeral, fleeting, felt-beyond-mind-only-cognition aspects of our scholarly work more tangible—to ourselves and to others who may encounter this piece. In the end, while we appreciate one reviewer's caution that the writing could feel too navel-gazy as we turn inwards to reflect on and share what we have felt through our collaborations, and without which we may not have been able to name, we remain committed to our approach. The importance of inviting others to witness these vulnerabilities, by sharing our stories, is to unsilence that which cannot be otherwise articulated in institutionally and rigidly framed conversations with the hope that others, too, may come to presence and legitimize the vital yet obfuscated aspects of their knowledge creation and scholarly communications.

All that said, in the collaborative writing process, we realized that our ambitions of explication and fulsome encapsulation for this article would not be satisfied in the expansive, creative, formally playful ways we imagined. Instead of seeing this as a failure, the resistance to tidy summary has amplified certain threads of collective critical scholarly inquiry, including the limitations of textual expression and the challenges of platforming process within disciplined or habituated scholarly emphasis on outcome/product (and subsequent discomfort with ephemerality).[1] In sharing these vulnerabilities, we invite you to know-feel the texture of what is produced on the page in relation to a set of unmet or shifting desires as an opening—as possibility—with us. We hope that what we share nudges you into the ephemeralities of that which cannot, does not, will not show up on the screen-page in the act of communicating-creating-nurturing scholarly knowledge. We hope it might encourage you, as it has encouraged us, to re-attune to the incommensurabilities (what is not easily counted or measured) and the processual aspects shaping what becomes scholarly communications.

As we will go on to discuss in more detail later, one of the early yearnings in our approach to writing was to model a lived experience of the research topic that holds us together as an assemblage. In the ongoing research titled Expanding Knowledge Landscapes, we are interested in how to support students and supervisors working on theses that break formal expectations and conventions throughout the thesis life cycle. By naming the research Expanding Knowledge Landscapes, we are asking for a critical questioning of the accepted terms, assumptions, and practices that contour the habituated forms, genres, and boundaries shaping the field(s) we work within.

---

1. Mairi McDermott, *Mapping the Terrains of Student Voice Pedagogies: An Autoethnography* (New York: Peter Lang, 2020).

Through our research and process of collaborative writing as a process of inquiry, we became particularly and evermore passionately attuned to some layers of what graduate students experience when they try to create theses that break, refuse, and repurpose scholarly communication conventions within their fields. This experience will certainly feed into the ways we read, interpret, and sense-make with the data created as part of our research. Before we go on, we would like to introduce you to the broader research terrain on which we have gathered as a research assemblage and how the call for papers for this special issue allowed us to dwell in the metaphorical spaces already sprouting in our research assemblage. In this unfolding of stories that bring us to the here and now of writing, there are purposeful repetitions as we circle back to ideas and remind ourselves (and, now you, the reader) of what holds our collaborative writing together.

On Being Called to Gather

At the time of this writing we are just over two years into some form of our research assemblage. It is quite difficult to locate a specific originary moment, and as you will read, we each have our own trajectories into the project. One tentacular starting place might be when the research formalized in the summer/fall of 2023 when Mairi, Bart, and shortly after Kathryn decided to apply for a scholarship of teaching and learning (SoTL) grant at our university. The broad emphasis of our Expanding Knowledge Landscapes project, as articulated in the grant application, is to find ways to fully support the integration of values and ways of knowing that might not seamlessly fit into the conventionally recognized product-oriented and rigidly bounded scholarship.[2] We want our research to seed and nurture a knowledge ecosystem that emphasizes what Fung calls strengths-based scholarship, or scholarship that is interested in ideas that matter to the scholar *and* the community they are working within; able to lean on the authenticity of the scholars' ways of knowing the world; and rife with humility to internally expand how we come to know the world in dialogue with others, including through the gifts of knowledge, shared in products such as theses, journal articles, and books.[3] As a

---

2. Katina L. Rogers, *Putting the Humanities PhD to Work: Thriving in and beyond the Classroom* (Durham, NC: Duke University Press, 2020).

3. Dilly Fung, "Strength-Based Scholarship and Good Education: The Scholarship Circle," *Innovations in Education and Teaching International* 54, no. 2 (2017): 101–10, https://doi.org/10.1080/14703297.2016.1257951; Robin Wall Kimmerer, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teaching of Plants* (Minneapolis: Milkweed Editions, 2013); Mairi McDermott, "Mapping Contours of Gender and Knowledge Production: Towards Scholarly Writing as Gifts of Knowledge," in *Women in Scholarly Publishing: A Gender Perspective*, edited by Anna Kristina Hultgren and Pejman Habibie (New York: Routledge, 2023), 189–202; and Mairi McDermott, "Teaching Citation Politics through Literature Review Topographies: Towards Cultivating Relational Writing Practices," *Feminist Pedagogy* 4, no. 4 (2024), https://digital-commons.calpoly.edu/feministpedagogy/vol4/iss4/6.

research assemblage, our specific avenue of inquiry into those broad considerations is to engage with graduate students and supervisors at our institution to ask about their experiences creating a "non-traditional" thesis in their field of study through surveys and focus groups.[4] In emphasizing our collaborative writing as a process of inquiry, inspired by Laurel Richardson's work, we animate our lived sense within our assemblage that "[t]hinking-with makes the work of thought stronger, it supports its singularity and contagious potential. Writing-with is a practical technology that reveals itself as both descriptive (it inscribes) and speculative (it connects)."[5] We can say, returning to this introduction during our revisions, that our process of co-writing indeed helped us describe and speculate, or reveal connections not already present in the experience and commitment to expanding knowledge landscapes.

Mapping the Broader Terrain of the Research and Our Assemblage

Academic settings do not really value eclectic writing-with, especially when it explodes the category of disciplined "peers."[6]

> Someone recalls—What bothered me when I came to anthropology was that so many people said, "You'll have to leave the poetry behind now." There was a sense that social science required a distance from direct testimony or direct engagement in people's lives, in order to have some kind of authority. I detested the whole idea of this authority—it seemed to me that a text didn't have authority, it had authenticity.[7]

In a world surging with pain, violence, suffering, uncertainty, and oppression, we have sensed a shift in the interests in and reasons for pursuing higher education among students at our institution. There is increased concern with investing time, money, and energy in knowledge production that more directly reaches the communities for whom and with whom they are hoping to engender material change, which is linked with institutional commitments to the San Francisco Declaration on Research Assessment

---

4. University of Calgary, "Non-traditional Thesis," Faculty of Graduate Studies, accessed February 2, 2024, https://grad.ucalgary.ca/current-students/thesis-based-students/thesis/non-traditional-thesis. "Non-traditional" is local institutional terminology.

5. María Puig de la Bellacasa, "Nothing Comes Without Its World': Thinking with Care," *Sociological Review* 60, no. 2 (2012): 203, https://doi.org/10.1111/j.1467-954X.2012.02070.x; Laurel Richardson, "Writing: A Method of Inquiry," in *Handbook of Qualitative Research*, ed. Norman K. Denzin and Yvonna S. Lincoln (Thousand Oaks, CA: Sage, 2000), 923–48. Richardson provides notion of writing as method of inquiry.

6. Puig de la Bellacasa, "Nothing Comes," 202.

7. Paper Boat Collective, "Introduction: Archipelegos, a Voyage in Writing," in *Crumpled Paper Boat: Experiments in Ethnographic Writing*, ed. Anand Pandian and Stuart McLean (Durham, NC: Duke University Press, 2017), 12.

(DORA).[8] Simultaneously, though, through the marketization, conservativism, and neoliberalization of post-secondary education, we have witnessed an ever narrowing of the "acceptable" and "recognizable" forms of scholarship.[9] Limiting what knowledge is produced and how the knowledge is (re)presented by way of form and genre inhibits the democratization of education. In different ways, these noticings resounded in each of our bodies calling us to ask these questions: What knowledge is of most worth? And Who decides? Little did we know, at the outset, how entrenched the forces limiting what comes to constitute scholarly communication really are. We are in a time when more folks from diverse backgrounds, lived experiences, interests, and politics are pursuing post-secondary education. Simultaneously, electronic publishing possibilities are purportedly no longer limited by the material costs of printing longer pieces or how ideas-words can show up on a screen. Yet our work remains wedded to print-based models for publishing scholarly communications, and (perhaps unsurprisingly, given the neoliberalization of post-secondary education) the publication form and style decisions are made through business models of the scholarly journal publishers with little to no direct theoretical or practical experience in creating scholarship.[10]

Have you ever wanted to include something beyond text in your writing, even in electronic publishing, only to be told the journal platform, or other preservation space, could not support it? Maybe you never considered or asked, instead keeping yourself and your articulation well within the parameters expressed by the author guidelines on many journal submission sites. Perhaps you have taken the stance that you will wait to express yourself more fully until *after*: after you are more firmly situated in the academy, after you graduate, after that manuscript is finally published in a top-tier journal, after you get a tenure-track job, after the successful grant application, after tenure and promotion, so you must remain legible to the supervisory committee, hiring committee, funding agency, your peers, and on and on it goes. Given how vast and entangled these narrowing forces are, we set our intention to focus on graduate level theses both because of the interests expressed by graduate students we named earlier in this section, as well as with the hope that we can seed change towards more expansive and ecologically diverse knowledge landscapes as graduate students breathe new life into what is possible in their/our fields and beyond *before* habits become entrenched.

8. Declaration on Research Assessment (DORA), "San Francisco Declaration on Research Assessment," December 16, 2012, https://sfdora.org/read/.

9. Miriam Bartha and Bruce Burgett, "Why Public Scholarship Matters for Graduate Education," *Pedagogy* 15, no. 1 (2015): 31–43, https://doi.org/10.1215/15314200-2799148; Matthew D. Barton, "Dissertations: Past, Present, and Future" (PhD diss., University of South Florida, 2005), https://digitalcommons.usf.edu/etd/2777; Rogers, *Humanities PhD*; and Kathleen Shearer, Leslie Chan, Iryna Kuchma, and Pierre Mounier, *Fostering Bibliodiversity in Scholarly Communications: A Call for Action*, April 15, 2020, https://doi.org/10.5281/ZENODO.3752923.

10. Janneke Adema, "The Poethics of Openness," in *The Poethics of Scholarship*, ed. Post Office Press (Coventry, UK: Post Office Press and Rope Press, 2018), 16–25, https://hcommons.org/deposits/item/hc:19815/; and Barton, "Dissertations."

Our collaborative inquiry, the full title being *Expanding knowledge landscapes by generating supports to enhance graduate student experience and mentorship in preparing theses*, then, delves into fundamental questions circulating in the broader atmospherics of scholarly communications, including the following: What is scholarship? What happens when ways of knowing and being are muted and discounted within the classificatory regime determining and valuing knowledge? What is higher education for, or what is the role of higher education in the world? These questions move us to explore the realms of ecologies of knowledge production, mobilization, and dissemination, storage, and searchability that have potential to transform and expand conceptualizations of scholarship at the early stages of a formal scholarly pursuit through a particular focus on thesis creation in graduate education from the perspectives of students and thesis supervisors. In other words, through our concern with expanding knowledge landscapes, we want to consider the full ecosystem of knowledge production from inception through to sustainable and ethical storage and searchability.

Part I: Multiple Pathways into Gathering to (Re)Introduce? the Research and Our Processes of Co-writing

In many ways, as noted above, throughout the life cycle of our work, in and as an assemblage, we have been co-writing the research, while a more literal process of collaborative writing materializes in the creation of this article. What we mean by this will become textured/textualized in and through your experience reading the article, as much as we will try to share signposts to help you navigate the affective terrain of the collaborative scholarly communication we are mapping in our writing.

Now we find ourselves with the challenge of finding a way to share with others how our collaborative writing/creating within the ecology of our emergent research assemblage has been taking shape. Doing so, we continue to express the tensions of being pulled into conventional writing, which we believe dishonors the core of our research, while also being unsure how to expand our scholarly communication in the act of writing together with variant interests and investments in the research. Before we continue, we would like to introduce you to the research assemblage, the "we" of this collaborative writing.

Opening A(nother) Pathway into Ecologies of Knowledge Production through Gathering Our Voices

As we worked through the preparation for the proposal, we found ourselves collectively desiring to honor the overall focus of our research—expanding form and genre possibilities

of scholarly communication, as discussed above. Even as we take up the first-person plural pen, the "we," we also sought to honor the different "I"s that form the assemblage. Each of us who has been involved in the research assemblage brings our own interests and desires to the work which offer particular contours to how it is being articulated, as addressed in the previous section. Reflecting on this, three members of the assemblage (Mairi, Bart, and Sefat) decided to pose a series of questions for everyone to respond to (see Appendix A).[11] Some of the responses directly show up in this piece of writing, while others were held and carried through in different ways in the process of collaborative writing. As you read, know that a core principle of the way we work is grounded in a more holistic approach to how research comes into being. Rather than emphasizing "getting things done," setting rigid timelines, and demanding that each of our contributions be "equally" measured (as if they are measurable) and accounted for, the invitation was offered with the caveat that if this is not where your mind-heart-body-spirit is at this moment, there are other ways in which our voices may be presenced and preserved in the writing. You will notice in Appendix B, for example, that not every voice is present in the responses, and yet each member of the assemblage at some point shared their thoughts and reflections on the questions posed (in hallway conversations, email exchanges, edits to this article, or comments during meetings). Indeed, none of the writing would have taken shape the way it has without the various contributions from each member of the shifting assemblage that were not always directly related to the writing of this article.

Of the questions we hope will further illustrate our layering of voices as an enactment of ecologies of knowledge production were *What brought you here to this project? What desires/interests/investments/expectations do you bring with you to the possibilities of/for the research?* To which we garnered the following responses:

Christie Hurrell:
All graduate students at the University of Calgary deposit their thesis into our institutional repository at the time they complete their degree. The primary goal motivating me in this work is to make our repository a more welcoming home/resting place for "non-traditional theses"—this encompasses everything from the deposit process for students to discovery and long-term preservation.
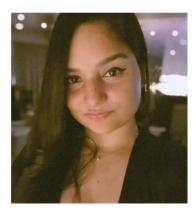
---

11. We appreciate one of the reviewers of this article asking us to pause and reflect on the purpose of Appendix A within the overall intentions of the article. If much of how we communicate with large research assemblages is through emails, the tact, tone, and nature of our email conversations are crucial forces in the kinds of knowledge we may produce through our research, particularly with regard to the affective energies circulating beneath the surface of text on the screen-page. Again, this is meant to illustrate the incommensurabilities and in-processness of our research and, in this instance, of co-writing as a method of inquiry.

Abigail Williams:

. . . I'm reconnected to the meeting we had in the library about what it really means for students to be able to be themselves through their work and how we are, in our own way, defending that. . . . So, in this sort of advocacy, I find an excitement, this new excitement I see going forward.

I am also thrilled by a space for academic work to be thought through differently, an accepted way that considers an-other way of doing and knowing . . . that can enable diverse students and their ideas equitably, and can permit a space for the inclusion of distinct voices. . . . I recognize an authenticity that can be accessed through bridled creativity, and it opens up the possibility for me to consider doing the same.

Sefat Jeshin Rimpu:

My journey of non-traditional thesis started when I was doing my thesis in my first master's program. As a secondary school teacher, I wanted to push the boundaries of conventional language teaching in my classroom and wanted to explore the spaces to address those complexities in my thesis, venturing beyond the traditional boundaries of scholarship and checkboxes. In my journey with the process of non-traditional thesis, I find the freedom of curiosity, vulnerabilities, and adaptability in the form of alternative spaces of scholarship that address the diversity of perspectives and allow the tensions in the process of intellectually adventurous journey surging in a pluralistic world of epistemic diversity.

Laura Reid:

My interest in this project is two-fold. One, my academic and professional experience as a musician/creative artist has presented many instances of either conforming to external expectations to justify work or make work tangible, and this often feels like having to change the shape of what you are actually doing, resulting in a compromise in expression, process, and / or result. There has been an influence from

these external expectations of "valid" forms becoming integrated into practice, but there still remains a discomfort or awkwardness in how these expressions relate to the nature of artistic disciplines beyond the gates of academic work or grant writing. This experience of navigating misfits/misalignments and what is often lost (honesty of expression) and what is gained (professional opportunities) is a perspective that I think applies beyond arts work and fits within the research question of defining knowledge and defining rigour and validity in process and production in academia. The second impulse stems more from my support role and perspective as a librarian, my experiences with considering Indigenous epistemologies and knowledge practices (working with Maskwacis College, current work with COPPUL's [Council of Prairie and Pacific University Libraries] Indigenous Historical Publications group) and the local context of University of Calgary Indigenous Strategy ii'taa'poh'to'p.[12] I think this research project allows for a practical lens into the experience of Indigenous scholars and how culturally relevant processes and formats have been received. This information can provide grounded insight into where we are in our parallel pathway journey beyond high level language and policy and into meaningful experience of students and scholars.

Mairi McDermott:

I have shared this story before, and so it might be in one of the meeting recordings. What really prompted me to initiate this project was from personal experience. I encouraged students to think-write beyond the rigid and narrow parameters of what counts as scholarly writing in my teaching and supervision. I noticed great energy and epistemological playfulness through creative assessments in courses at the same time as I noticed students struggling to contort themselves into the recognizable and acceptable articulations when reading thesis proposals and final theses (see McDermott 2023, 2024 where I discuss this more

---

12. University of Calgary, "About ii' taa'poh'to'p," Office of Indigenous Engagement, accessed April 30, 2024, https://www.ucalgary.ca/indigenous/about-ii-taapohtop/explore-strategy.

thoroughly). When speaking to grad students their ideas would flow, conversationally and pedagogically, and then when they had to write them down, so much seemed to come undone. Finally, in co-writing a piece with a couple of graduate students and an undergraduate student, I had to witness the deflation from the peer-review comments when time and again we/they were told that the ideas were great; however, they needed to be formatted differently, they needed to come into line with the conventional section headings. Realizing that I did not have the resources to find journals that would be amenable to playing with form and genre, I felt like I was letting the students and the writing down. (Good news, we did find a journal that published the piece; see Tyler et al. 2022!) Ultimately, I wanted to be able to have more resources to support students in their creative, playful, expansive writing as they come into their pens (their writing voices). If we continue to limit ourselves to ever-narrowing forms and genres of knowledge creation, then we are going to lose so much fertile ground. We need the diversity of entities (ideas, genres, forms, people) to ensure that we are able to attend to the complex and ongoing oppressions, violences, climate catastrophes in our world.

Kathryn Ruddock:

We have supported some archiving and disseminating non-traditional theses through our repository, the Vault, yet there is still a lot of room for improvement. Students come to us when they are ready to archive, and we've had to be creative in creating a submission and preservation strategy that will fit into our current infrastructure. A deeper understanding of the thesis creation process from both faculty and student perspectives is crucial. This will enable us to build systems and processes that work for emerging needs, rather than try and fit unique forms into a box. I'm particularly interested in the intake, description, submission, digital preservation, and discovery of non-traditional work.

The Vault not only preserves the history of our students' thesis work but also allows us to track the evolution of thesis formats at the University of Calgary over time. By analyzing this history, we can develop tags that enhance the discoverability of various forms and methods and adapt our processes to accommodate emerging thesis formats. The challenge lies in updating controlled vocabularies at a pace that matches the rapid evolution of academic terminology, ensuring that new forms are integrated rather than marginalized.

Bartlomiej Lenart:

Mairi's experience was the causal reason why I'm part of this assemblage [as we were initially in conversation around publishing unconventional work in quite conventionally minded journals—our larger project and this article are examples of how this conversation never really ceased and how it continues to evolve], but my broad interest in recognizing our biases and situatedness with regard to what knowledge is being produced and where it is being discovered resonates with the spirit of the project.

A Few Notes on Ecosystems of Knowledge as Theoretical and Conceptual Terrain

As a research assemblage consisting of members with various histories, desires, and lived experiences, we each believe different, alternative, creative, or non-normative forms of scholarship contain the promises of epistemic diversity and testimonial justice.[13] Through our process of collaborative writing, we came to recognize a broader conceptual container, what we refer to as ecosystems of knowledge production, that more radically (as in getting at the roots of our assemblage) holds our diverse interests, desires, and imaginations. The notion of ecosystems of knowledge production, while introduced to

---

13. Linda Martín Alcoff, "Epistemology and Politics," *Radical Philosophy Review* 16, no. 3 (2013): 817–20; Miranda Fricker, *Epistemic Injustice: Power and the Ethics of Knowing* (Oxford: Oxford University Press, 2007); and José Medina, *The Epistemology of Resistance: Gender and Racial Oppression, Epistemic Injustice, and Resistant Imaginations* (New York: Oxford University Press, 2013).

us early on in the research, took on enhanced resonance within the context of the "On Gathering" call for papers and like a theoretical framework helps to hold it together and give it shape. In other words, working through common commitments to epistemic diversity and testimonial justice brought us towards ecosystems of knowledge production. This orientation to ecosystems of knowledge production, then, iteratively shapes both the Expanding Knowledge Landscapes research as well as our methods of gathering and collaborative writing.

Let us describe this in another way. Ecosystems of knowledge production contour two aspects of our work: (1) methodologically how we approach our research, orienting us outwards to the ways we interact with participants and how we pose questions, and (2) relationally how we work together as an assemblage, turning inwardly to our interactions with one another. What we noticed in this collaborative writing was how when we gather, whether in meetings or through various acts of co-writing, we layer our voices and experiences to create an entangled web of possibilities that carries this research and nurtures epistemic diversity (you're invited to witness one illustration of this in Appendix B).

One of the initial goals we had for this article was to include video recording snapshots of our meetings to invite you, the reader, to witness how we layer our voices in the act of creating material outputs, such as the survey, for our research. Since that proved to be unavailable, for a variety of reasons, we invite you to imagine the unfolding of a meeting with us. First, picture what your research team meetings are usually like. How do you feel? What is the overall atmosphere, sense, or affect in the space, be it virtual, in person, or dual modality? Who is present with you? Whose voices and perspectives are prominent? During our first formal meeting once the grant was awarded (May 16, 2023), after a land acknowledgment, we opened by responding to these prompts: *What brings you to this work? What's a word/phrase that comes to mind when you think about this work? What's one desire you have for the project?*

Before further describing the meeting, we would like to share a bit more of the history of the research taking shape, another pathway towards the work and how we relate with one another in collaboration. In preparing the SoTL grant proposal, we indicated that no graduate assistant researchers were involved in writing the grant due to our ethical commitment to refuse the institutional undertow of extracting free labor from already under-compensated graduate students. So, this meeting in May was the first time we were gathering as a whole team, with the recently hired graduate assistant researchers, Abi and Sefat. This is vital to know because we have stated and tried to enact a less hierarchical positioning of members of the assemblage. While Abi and Sefat were not involved in the broad conceptualizing of the research as articulated in the grant application, their voices, questions, perspectives, and contributions have and continue to significantly shape the contours of the research. Since that first meeting, we have instituted different practices to encourage all voices to have a space to be heard

Expanding Knowledge Landscapes
May 16, 2023
Agenda

How might we orient towards expansiveness across multiple aspects of the project?

1. Groundings and getting situated in space, place, and relations
    a. Territorial Land Acknowledgement
    b. Introductions: *What brings you to this work? What's a word / phrase that comes to mind when you think about this work? What's one desire you have for the project?*
2. Project Timeline Overview
    a. First steps:
        i. Background reading / familiarizing / sharing resources (Kathy to share the document with annotated notes on the resources)
        ii. Treasure hunting in the Vault
        iii. Ethics application
        iv. Survey
3. Familiarizing ourselves with project tools (do we need demos, what's everyone's comfort level?)
    a. Microsoft Teams
    b. The Vault[1]
    c. IRISS[2]
        i. Does everyone have the TCPS2 Core Tutorial certificate (https://tcps2core.ca/welcome) and an account with IRISS?
    d. Data Management Plan (DMP) assistant
    e. Submitting Hours
    f. Zotero (or some other citation manager for team folders)
4. Next Steps
    a. Who wants to work on what?
    b. When will we meet again, and what do we want to have accomplished (or in the works for team review)?

The expansive moments may not show up in the output. How do we share the organic unfolding of the project that shape the contours of our work?

Figure 1. Expanding Knowledge Landscapes sample agenda

1. The Vault is the thesis repository space at the University of Calgary.
2. IRISS (Institutional Research Information Services Solution) is the online system that is used at the University of Calgary to go through institutional ethics review.

within the team, and while we are not naïve to imagine we can reach singular consensus, by talking through the different possibilities together, we work to ensure everyone feels okay with the decisions being made and direction of the work. This process can feel slow and tedious; however, we believe, after co-creating a survey from the ground up, that the care and attention we afford one another is infused into the instrument itself. Unsolicited commentary shared with some of us indicate that several survey respondents felt it was a particularly humanizing survey, one in which their perspective was genuinely invited and held with care. One core practice that we instituted as we worked through the bumpy, and at times frustrating, process of co-creating the survey was

purposeful carving out of time at the beginning and close of every meeting for folks to share what had come up for them between meetings (at the beginning of the meeting) and what they were thinking-with and holding on to from the conversations during the meeting (which occurred at the end). These sentiments allowed us to air our affects, struggles, and "aha"s, cultivating fertile ground for the research and our own growth as individuals and as an assemblage.[14] We certainly do not wish to suggest that because we instituted these relational practices there were no tensions—there were. However, we continued to work towards establishing a caring space rife with dignity (not competition and supremacy) where we encouraged and held the complex sentiments and lived realities shaping our lives and our ability to be present or contribute at different times throughout the research.

Both the emphasis in our Expanding Knowledge Landscapes research as well as how we gather as an assemblage are thus punctuated by epistemic diversity (variously called bibliodiversity and epistemic justice), which necessarily includes who is present and what parts of ourselves we welcome into and embrace within the space.[15] Epistemology—ways of knowing—resides in more than just the brain; it is embodied *and* situated within our lives beyond the walls of academe. As we hope you are getting a sense of, epistemic diversity theoretically holds us and guides us towards fertile and vital ecologies of knowledge production. Embracing lessons from the natural world, we know deep in our bones that monocultures focused on profit (in the world of academia, by way of quantitatively counting and valuing publications that have become more rigidly confined, as we addressed earlier) are at greater risk of dis-ease and that ecologically diverse landscapes have the best chance at flourishing.[16] In Appendix B, we share our rough responses to some of the questions posed to the research assemblage (see Appendix A) as a part of our process of co-writing. This will give you a raw sense of the layering of voices, ideas, and different orientations, the diversity within the ecology of our research assemblage that might yet allow it to flourish while being held together with a broad commitment to epistemic diversity and ecologies of knowledge. For now, we wind down this section with a re-emphasis that

14. Civic Laboratory for Environmental Action Research, "CLEAR Lab Book version 3: Part Two: Protocols, 2c. Lab meetings," last modified September 3, 2021, https://civiclaboratory.nl/clear-lab-book/; and Gesturing Towards Decolonial Futures, "Shared Responsibilities," accessed April 29, 2024, https://decolonialfutures.net/shared-responsibilities/. While our relational practices emerged organically and responsively through suggestions made by different members of the assemblage, throughout time we came to notice others who were disrupting the conventional "business"- and "outcome"-focused management of meetings we experienced more regularly in our institution. In an effort to invite more relational approaches to working collaboratively, we want to share the two examples of the articulations of lab meetings of Civic Laboratory for Environmental Action Research and the working draft of shared responsibilities in intellectual and affective labor from Gesturing Towards Decolonial Futures.

15. Kathleen Shearer et al., *Fostering Bibliodiversity in Scholarly Communications: A Call for Action*, April 15, 2020, https://doi.org/10.5281/ZENODO.3752923; and Alcoff, "Epistemology and Politics"; Fricker, *Epistemic Injustice*; and Medina, *Epistemology of Resistance*.

16. Suzanne Simard, *Finding the Mother Tree: Discovering the Wisdom of the Forest* (New York: Penguin Random House, 2021).

ecologies of knowledge production hold all aspects of the Expanding Knowledge Landscapes work as a theoretical vessel. In other words, while we appreciate the importance of describing theory in a stand-alone section of an article, we hope that you will sense how it is lived throughout our work—in particular, throughout our collaborative writing before, after, and throughout this section.

Part 2: Metaphor-Work: Going Beneath the Surface to Unearth Diverse Ways to Think-Live-Move with the Research

As indicated earlier, we were particularly drawn to the ecological metaphors in the "On Gathering" call for papers, specifically the ideas of ecologies of knowledge production and knowledge production life cycles. This language resonated deeply with the roots of the research, which was already playing, unintentionally, in ecological terrain, with the name *Expanding Knowledge Landscapes*. It was as though ecological metaphors were seeded early on, and at different times, those seeds have been nurtured, allowing them to grow, including through collaboratively writing into the container in the "On Gathering" call for proposals. In this section, then, we lean into some other metaphors that have helped shape the way we are gathering in and around this research, metaphor-work that affords expanding knowledge landscapes through ecologies of stories. When we are thinking-with metaphors, we find Chessa Adsit-Morris's weaving of Donna Haraway and Chet Bowers particularly resonant. As she writes:

> We have, as Haraway (2008b) describes, "metaphor-work" to do. Yet these metaphors (or figurations) "are not representations or didactic illustrations, but rather material-semiotic nodes or knots in which diverse bodies and meanings coshape one another"; such metaphors (and figurations) are where the "biological and the literary or artistic come together with all of the force of lived reality" (ibid., 4). This type of metaphor-work requires a biosemiotics—or eco-semiotics as Chet Bowers (2015) prefers—understanding of our relations or intra-actions because "reality is more complex than any [single] account that can be given of it" (Reid 1981, 182; as cited in Gough 1998). Thus, we need to create ecologies of stories—or ecotones—in which emergent new species and worlds appear.[17]

In Expanding Knowledge Landscapes, and our focus on graduate theses, we are cultivating the conditions to "create ecologies of stories" that may yet bring forth worlds

---

17. Chessa Adsit-Morris, *Restorying Environmental Education: Figurations, Fictions, and Feral Subjectivities* (Cham: Palgrave Macmillan, 2017), 47–48.

beyond harm, competition, extraction, and individualism.[18] The metaphor of ecologies of knowledge also resonates with the organic ecology of our research assembling, which, in turn, dovetails surprisingly accurately with theoretical (philosophical) musings on the expanded nature of cognition as not only situated in the head.[19] Interestingly, Suzanne Simard, a professor of forestry, has recently made ecological connections to how our brain works in her discussion of mycorrhizal (fungal) networks functioning in forest ecosystems. Similar to neural networks, mycorrhizal networks use the same amino acids—glycinate and glutamine—to pass on information, or to communicate.[20] Furthermore, challenging the previously held beliefs that trees in forests are in competition for scarce resources, such as sun for photosynthesis and nutrients in the soil, Simard's research demonstrated that trees share resources, moving nutrients and communicating warnings with one another so that no single tree is fully responsible for holding all the information required for life and flourishing.[21] We sense connections with this to the philosophical considerations of interconnectedness between tools and embodied cognition allowing for offloading in cognitive processes in humans.

Philosophers Andy Clark and David Chalmers propose that cognition occurs beyond the bounds of the brain; they argue that the introduction of tools and technologies has allowed for the offloading of cognitive tasks.[22] For example, using pencil and paper to perform long division allows a mathematician to only partially calculate internally while offloading some of the processes involved in the calculation onto the paper. Similarly, they propose relying on a calculator to multiply numbers while solving a larger problem literally extends the cognitive process to encompass the neural activity involved in the problem-solving as well as the electronic system encased in the calculator. Clark and Chalmers argue that we offload memory tasks by writing things down, utilizing digital planners, or saving phone numbers in mobile phones. Environments themselves can function as systems for cognitive offloading. When navigating a trail, for example, hikers need not rely on internal memory and processes to map the environment, as such mapping can be offloaded onto environmental markers and landmarks (the building of cairns as signposts is an example of how communal such offloading can be). This inspires our intention to create similar markers in the metaphorical thesis

18. Sheliza Ladhani, Stephanie Tyler, and Mairi McDermott, "Preserving Fugacious Stories through Metho-pedagogical Gatherings to Carry Forth Otherworlds," *Journal of Electronic Publishing* 27, no. 2 (2024). Discussion on imagining otherworlds.

19. Alison Bartlett, "Breastfeeding as Headwork: Corporeal Feminism and Meanings for Breastfeeding," *Women's Studies International Forum* 25, no. 3 (2002): 373–82, https://doi.org/10.1016/S0277-5395(02)00260-1; and Elizabeth Wilson, *Gut Feminism* (Durham, NC: Duke University Press, 2015).

20. Simard, *Mother Tree*.

21. Simard, *Mother Tree*.

22. Andy Clark and David Chalmers, "The Extended Mind," *Analysis* 58, no. 1 (1998): 7–19.

environment to create signed pathways that graduate students, and their supervisors, can navigate.

In "Making Things to Think With," Daniel Dennett offers another example of such cognitive offloading.[23] Dennett goes so far as to argue that intelligence itself is dependent on our intrinsic habit of offloading cognitive tasks into our environments. Dennett offers the example of individuals with Alzheimer's disease, which in part results in the deterioration of memory. While people have difficulty following daily routines in assisted living facilities, when returned to their own homes with the benefit of years of sensing their bodies in a particular space and offloading their routines into a familiar environment, the symptoms of dementia become much less pronounced. What follows is an attempt to glimpse into the mechanics of what has been a very organic and thus sometimes messy process of knowledge generation within our research assemblage. We employ the analytic language of philosophical contemplations, which while metaphorical in nature, benefit from the kind of logical coherence philosophical musings tend to pursue to unearth some of the underlying and mostly invisible mechanisms (much like the mycorrhizal networks underground) that contribute to the organic nature of our process.[24]

John Sutton argues that "[t]he human mind is 'leaky' both because it thus extends beyond the skin to co-opt external devices, technologies, and other people, and because our plastic brains naturally soak up labels, inner objects, and representational schemes, internalizing and incorporating such resources and often redeploying them in novel ways."[25] The idea is that, functionally speaking, we are able to utilize *exograms*, which are external symbols, as well as *engrams*, which are the brain's neural memory traces. Since exograms last longer and are easier to transmit, retrieve, and manipulate, they are ubiquitously utilized by embodied cognitive systems. It can be further argued that "since exograms can be manipulated by more than one mind (since they are publicly available), cognitive processes that involve exograms can in certain contexts be instances of multiple minds sharing external cognitive resources or even processes to perform individualized as well as synchronized computations."[26] While the above conversation leans heavily on the cognitive realm, we re-imagine cognition as "brain-only," expanding it to relational, affective, and embodied processes that contribute to sense-making

23. Daniel C. Dennett, "Making Things to Think With," in *Kinds of Minds: Toward an Understanding of Consciousness* (New York: Basic Books, 1996), 134–47.

24. Simard, *Mother Tree*.

25. John Sutton, "Exograms and Interdisciplinarity: History, the Extended Mind, and the Civilizing Process," in *The Extended Mind*, ed. Richard Menary (Cambridge, MA: MIT Press, 2010), 190.

26. Bartlomiej A. Lenart, "Shadow People: Relational Personhood, Extended Diachronic Personal Identity, and Our Moral Obligations toward Fragile Persons" (PhD thesis, University of Alberta, 2014), 171–72, https://doi.org/10.7939/R3GT5FQ05.

in our lives.[27] Thinking-with Haraway, María Puig de la Bellacasa similarly animates and calls on us to remember that knowledge is not and cannot be individually owned, that it is always co-produced, thus requiring an ethics of care.[28] This idea that multiple individuals can be collaborators in a unified cognitive process lends support to Robert Wilson's social manifestation thesis, which "is the idea that individuals engage in some forms of cognition only insofar as they constitute part of a social group."[29]

These groups can vary in size and constitution. On the large scale, culture, for example, shapes how we think about ourselves and the world around us and how we express our thoughts and other mental states, including how we express as well as how we experience and feel our emotions.[30] On a smaller scale, the specific constitution of a research assemblage, much like our own, will shape the process and direction of research, as well as what questions are pursued and how they are framed. The external influences, however, do not stop with the researchers themselves, but include modes of communication and tool use as well. Having worked remotely and meeting via Microsoft Teams and occasionally Zoom, and choosing to utilize organizational tools in Microsoft Teams, has also shaped the dynamics of our team in ways that, in turn, have influenced the process underlying the research project. One of our team members described how the use of particular tools has shaped their engagement with the research in the following way:

> One of the contributions in that piece (Adema 2018) demonstrates how the move to electronic publishing has ultimately done very little in expanding forms/genres/representation. Instead, that electronic space takes the book or print article as the form and places it into an electronic format! Something else that occurred to me after a conversation with Bart and Sefat is around the different tools that we are taking up within this research. I consider this another language technology. Specifically, the use of Teams, which Kathryn proposed to get (and keep) us organized right away. There was, and continues to be, a steep learning curve; however, I am so grateful for this container as it proves to be a fertile archive of our gathering. Indeed, in getting into the writing for *JEP*, I returned to some of our posts and was able to situate the time and return to the

27. Sara Ahmed, *The Cultural Politics of Emotion* (New York: Routledge, 2004); Bartlett, "Breastfeeding as Headwork"; Mairi McDermott, "Mo(ve)ments of Affect: Towards an Embodied Pedagogy for Anti-racism Education," in *Politics of Anti-racism Education: In Search of Strategies for Transformative Learning*, ed. George J. Sefa Dei and Mairi McDermott (Dordrecht, Netherlands: Springer, 2014), 211–26; and Robert A. Wilson, *Boundaries of the Mind: The Individual in the Fragile Sciences: Cognition* (Cambridge: Cambridge University Press, 2004).

28. Puig de la Bellacasa, "Nothing Comes."

29. Robert A. Wilson, "Collective Memory, Group Minds, and the Extended Mind Thesis," *Cognitive Processing* 6, no. 4 (2005): 229. For an extended discussion of the social manifestation thesis, see Wilson, *Boundaries*.

30. Sara Ahmed, *The Cultural Politics of Emotion* (New York: Routledge, 2004); Sue Campbell, *Interpreting the Personal: Expression and the Formation of Feelings* (Ithaca, NY: Cornell University Press, 1997); Sue Campbell, *Relational Remembering: Rethinking the Memory Wars* (Lanham, MD: Rowman & Littlefield, 2003); and McDermott, "Mo(ve)ments of Affect." The preceding sources present different explorations of the argument that our emotions are relational.

feelings of intrigue when Christie shared the call for papers. Another technology and language I had to learn, and was grateful for the generous and patient teachers in this process, was that of Qualtrics and the survey. While I am learning these technologies, and they are crucial to the particular inflections and articulations within this research, I also know that I can lean on team members who are more familiar with the grammars and horizons of these tools.[31]

While some of the philosophical musings on cognition and the embodied mind's connection to its environment are themselves metaphorical in nature, they are useful metaphors that aid in the unraveling of the many moving parts that constitute the ecology of our assembly. The "leakiness" of the human mind, the sharing of exograms, the conversion of external inputs into engrams, the reactive and collaborative nature of groups, the utilization and integration of environmental resources, and the difficulty of individuating parts from wholes and both wholes and parts from processes resonate both with the organic nature of collaboration and the ecological metaphors we have been utilizing to examine our process.

Returning to Thesis Life Cycles

We believe that we are at a crucial moment within our institution to establish better resources that allow for offloading so that creativity and diversity become the directions where energy is exerted throughout the thesis life cycle and, in doing so, can offer more complex, nuanced, and practical knowledge that is better able to attend to the issues facing society. As Jeff Frank suggests, "We cannot get an accurate picture of our world if we cannot hear the arguments of individuals who argue differently than we do, or who emphasize different aspects of the world as salient, or who question whether the authority we have established for ourselves is due to unearned privilege or to the truthfulness of our arguments."[32]

Where we are now as a research assemblage co-writing through questions of gathering is with a further commitment to defamiliarize the normative assumptions underpinning scholarly communications. If we continue to narrow the horizon of possibilities for what counts as knowledge, if we refuse to take a critical look at our own habituated practices within the institution, then we are participating in and complicitous with the ongoing harms and violences ravaging the world. Another way to phrase this is through

---

31. Mairi McDermott, personal reflection, April 2, 2024.
32. Jeff Frank, "Mitigating against Epistemic Injustice in Educational Research," *Educational Researcher* 42, no. 7 (2013): 365, https://doi.org/10.3102/0013189X12457812.

Rosalind Gill's queries: "What would it mean to turn our lens upon our [scholars'] own labour processes, organizational governance and conditions of production? What would we find if, instead of studying others, we focused our gaze upon our own community, and took as our data not the polished publication or the beautifully crafted talk, but the *unending flow of communications and practices* in which we are all embedded and enmeshed?"[33]

    When Gill prompts us to dwell in the "unending flow of communications and practices" or the ephemeral aspects of knowledge production that can go unnoticed with a product-oriented emphasis, we sense further generative possibilities of the ecological (and now cognitive) metaphors we have been thinking-with throughout our research process and co-writing.[34] In particular, as discussed earlier, ecologies of knowledge production, as a conceptual container, have invited us to think differently and attune to the messy, incomplete, multi-vocality inflected with multi-desirous aspects of our processes gathering and working together—our flows of communication. Gathering in the ways we have, honoring each of our desires, has similarly allowed us to both lean into the strengths we each bring to the research and offload particular tasks on one another and with the tools we have been working with and, we might suggest, which have been working on us—but that's another article!

Part 3: Reflecting on What We Have Learned through Co-writing as a Method of Inquiry Entangled in Expanding Knowledge Ecologies: Towards the Vitality and Flourishing of Processual/Procedural Knowledge

> [I]f research hasn't changed you as a person, then you haven't done it right.
> —Shawn Wilson, *Research Is Ceremony*[35]

Through this process, we have been reminded that writing is a central, yet often undertheorized, aspect of knowledge production.[36] In particular, with regard to co-writing, we admit that we placed high expectations on what we could do, given the diversity of our assemblage and the different skills, knowledges, and tools we each have to offer. We have come to realize that so many of the great ideas and possibilities put on the table for us to disrupt scholarly communication conventions remain under the surface of what we have here on the screen-page, yet they still offer nurturance to our overall

---

33. Rosalind Gill, "Breaking the Silence: The Hidden Injuries of the Neoliberal University," in *Secrecy and Silence in the Research: Feminist Reflections*, ed. Roísín Ryan-Flood and Rosalind Gill (London: Routledge, 2009), 229 (italics added).
34. Gill, "Breaking the Silence."
35. *Shawn Wilson, Research Is Ceremony: Indigenous Research Methods (Black Point, Nova Scotia: Fernwood Press, 2008), 135.*
36. McDermott, "Mapping Contours."

commitment to cultivating expansive knowledge ecologies. We have surrendered to what we were able to create through our co-writing, rather than bemoaning what we weren't able to do. This seems particularly vital in our potential empathy with graduate students who may set out to create non-normative theses only to feel pulled back into line. While the pulling can happen through many means, not all are nefarious, as some of us may have initially assumed—the institution is full of gatekeeping and hierarchy, but that is not *all* that shapes our research and scholarly communication. Plainly, we have been changed through the course of this collaborative writing, as a part of research. We have lived, in our own ways and as an assemblage, a nested life cycle embedded within our broader research terrain in the process of collaborative writing as a method of inquiry. These reflections and learnings are already showing up and shaping our engagement with the responses to the survey that we are beginning to sit with as we prepare our focus group protocols for the next stage of the research. With everything that we have been able to articulate, we begin to close the circle through a final discussion on life cycles and processual/procedural knowledge as vital to research-knowledge ecosystem flourishing.

Knowledge Ecologies in the Life Cycle of Co-writing as Gathering

So, we frame our fragmented story/ies as a process of the life cycle and ecosystem that addresses our knowledge and vulnerabilities in a gathering. We signify our assemblage by being able to *access* knowledge across our life cycle as a human and scholar, in ways that are appropriate and meaningful to us and pieces that extend and deepen the ecological and cognitive metaphors, in relation to scholarly communication and/or digital publishing collaboration. According to neo-evolutionary economists, such as Metcalfe and Ramlogan, knowledge or innovation ecology refers to "the set of individuals, usually working within organizations, who are repositories and generators of existing new knowledge."[37] Returning to Simard who illustrates the limited reading of Darwin's evolutionary theory that dominates the field of forestry through stories of competition and individualism as driving forces of/for "survival of the fittest," we are committed to the collaborative and interdependent (she uses the term "obligatory" to describe relations that resonates with Puig de la Bellacasa's conversation on thinking-with care) ways in which we ensure more flourishing within knowledge ecologies.[38]

37. Stan Metcalfe and Ronnie Ramlogan, "Innovation Systems and the Competitive Process in Developing Economies," *Quarterly Review of Economics and Finance* 48, no. 2 (2008): 18, https://doi.org/10.1016/j.qref.2006.12.021.
38. Simard, *Mother Tree*; and Puig de la Bellacasa, "Nothing Comes."

The concepts of ecology and ecosystems offer valuable insights into innovation through highlighting the intricate web of interdependencies within and between innovative organizations. Additionally, these frameworks provide a clear structure for analyzing specific patterns of technological advancement.

The navigation of the concept of ecology and ecosystem lies in the recognition of a complex interdependent relationship among individuals within and across innovative organizations as well as environment since an ecosystem implies that "everything is connected to everything; everything feeds back through the ecosystem on itself. The interconnectedness preserves the overall system."[39] As Mairi shared her experiences in the assemblage: "I agree, I feel that the group's commitment to gathering resources and articulating pathways into and through the thesis journey holds us together. Because we each have subtly nuanced foci, I am hopeful that we will be able to create a robust and inviting and supportive environment for students and supervisors throughout the entire knowledge ecology."

It ought to be noted that ecology and ecosystem draw a fine line of difference by their focus on "interactions between living organisms and their environment" and "systemic interconnections generated through the interactions."[40] So, ecology and ecosystem are not separated but interconnected by the interrelations of adjustment and readjustment to a dynamic environment to cultivate and reward innovations. Our gathering for Expanding Knowledge Landscapes encourages us to observe and experience how innovation resembles the living organism growing in a changing, historically contingent environment; branching out from and connected and nurtured by the mother tree metaphorically leads to a theory of innovative ecosystems of knowledge production.[41] We metaphor our work as experiential and accumulative when we dwell in the uncertainty and unfinishedness of the polyvocality and polylocality of perspectives. The adoption of the ecological metaphor in our assemblage of innovation in scholarship leads us to question: What needs to be composted? What can we work with and what do we need to release in our process of conjuring or manifesting spaces of hope, expansion, and potentiality in/as scholarship?

As we echo with our ecology of knowledge production, a pluralistic approach is not enough to address epistemic differences as situated within power relations but also connecting academic work with larger social context and asking for more flexible, integrated conceptions of scholarly work/capacious views of thesis research that embrace

---

39. G. Tyler Miller Jr., *Living in the Environment: Concepts, Problems, and Alternatives* (Belmont, CA: Wadsworth, 1974), 77.

40. Theo Papaioannou, David Wield, and Joanna Chataway, "Knowledge Ecologies and Ecosystems? An Empirically Grounded Reflection on Recent Developments in Innovation Systems Theory," *Environment and Planning C: Government and Policy* 27, no. 2 (2009): 321, https://doi.org/10.1068/c0832.

41. Simard, *Mother Tree*.

situated and critical pluralism in epistemology and not relativism in epistemology.[42] If the perspectives of those positioned without power in our social world go unheard, then our collective epistemic resources are less robust than they otherwise would be. Thomas Wartenberg's point illustrates the role of social actors and their actions in shaping power dynamics.[43] While the general idea is that power is influenced by the overall social context, Wartenberg's specific contribution is to emphasize the direct and significant dependence of power relationships on the actions and coordination with particular individuals or groups within that social context. Wartenberg states, "we must move away from 'individualistic and agent-centered analyses' to an interactive and relational view that judges individuals, acts, and the social conditions within which they occur."[44]

We situate knowledge production life cycles as potentially nested in broader ecologies of justice—be they epistemic, representational, material, or spiritual. While in dominant articulations, cycles are often simplified as linear and staged, moving from one discrete moment to the next; much happens in between the seemingly neat movement through cycles and in our contribution. We hope you allowed yourself to dwell in our "unending flow of communications and practices" within our research ecologies that are inclusive of publication and research-based knowledge creation cycles, as well as the variously positioned and interested members of our research assemblage.[45] In your dwelling, the entangled, contradictory, multi-voiced processes that often get left to the side—as excess—within the overdetermined focus on final products that are knowledge outputs can be considered and amplified. In other words, we hope you get a sense of our desire to further dwell in and expand on, as well as share with others, how the various voices and entangled entities of our assemblage have come together into an emergent project through our gathering.

The Possibility of Processual/Procedural Knowledge in Knowledge Ecologies

Finally, our focus on process has also unearthed an epistemic layer, which tracks an insightful distinction made by Gilbert Ryle in the 1949 book titled *The Concept of Mind*. Ryle proposed that there are two very distinct kinds of knowledge: propositional and procedural.[46] Propositional knowledge is sometimes referred to as *knowing-that* and

---

42. Fricker, *Epistemic Injustice*.

43. Thomas E. Wartenberg, "Situated Social Power," in *Rethinking Power, ed. Thomas E. Wartenberg* (Albany: State University of New York Press, 1992).

44. Wartenberg, "Situated Social Power," 819.

45. Gill, "Breaking the Silence."

46. Gilbert Ryle, *The Concept of Mind* (Chicago: University of Chicago Press, 1949).

points to knowledge we acquire when we learn things like what is the constitution of Jupiter's atmosphere or that Calgary is a city in Alberta. Procedural knowledge, however, is contested to be of a different nature and is sometimes referred to as *knowing-how* because it denotes the kind of knowledge that cannot be acquired by just learning facts or steps to how to perform an activity, but rather must be learned by doing, by living in the process (which is why we link processual and procedural). Some examples of procedural knowledge include *knowing how* to play the piano, to ride a bike, to box, to paint, or to co-write as a method of inquiry!

While there is active philosophical debate regarding whether *knowledge-how* can be reduced to *knowledge-that*, Ryle advocated for the position that *knowing-how* is a completely separate type of knowledge, which cannot be reduced to *knowing-that* and thus cannot be transmitted in any other way but by taking part in the activity one is learning. By consciously reflecting on our process, we realized that in addition to producing research outputs that clearly fall into the category of propositional knowledge (as is exemplified by this very article), we were also acquiring deep layers of procedural knowledge, which, in turn, has had a great impact on our propositional outputs. You might think metaphorically again with the mycorrhizal networks as the unseen, underground, processual/procedural entanglements that nurture the work and the fruiting mushrooms as the propositional outputs, that which we can see, touch, feel, smell, taste above ground. This metaphor aptly captures how much goes on underground as the mushrooms only burst through the earth sporadically, representing so much more that goes on in their making.[47]

Moreover, the very constitution of our team, the individuals who make it up, has played an integral role in how this processual/procedural knowledge has been acquired by the members of our assemblage. Our collective, relational, and embodied cognitive activities have given rise to an emergent process through which we have grown as researchers by, among other things, becoming more reflective about language. This has included being conscious of the ways language use can move us in directions we do not desire, such as the marginalizing propensities in the language of the "non-traditional" thesis that continues to trouble us;[48] more sensitive to distinct as well as communal voices; more perceptive with regard to varying and sometimes hidden layers within the data we have collected; and more aware of our own influences as researchers.

Additionally, the conscious reflection on process has shaped a tacit understanding of research in a very pronounced processual/procedural way, as we each have started to

---

47. Simard, *Mother Tree*.
48. Az Causevic et al., "Centering Knowledge from the Margins: Our Embodied Practices of Epistemic Resistance and Revolution," *International Feminist Journal of Politics* 22, no. 1 (2020): 6–25, https://doi.org/10.1080/14616742.2019.1701 515. This reading has anchored our theoretical container of ecologies of knowledge production, particularly through the lens of epistemic justice and resistance.

approach and conduct research in a more self-reflective manner. These are the kinds of research outputs that are not usually shared in more traditional settings, such as conference presentations that emphasize data analysis or paper publications. Nevertheless, these more internalized ways of generating knowledge are just as tangible and efficacious as more traditional outputs. Unfortunately, we can point to their existence, but we cannot easily share this type of knowledge in an article, which involves the transmission of *knowing-that*, since the *know-how* we as team members have acquired is processual/procedural and inseparably linked to the process. What we can do, however, is emphasize that a focus on process generates valuable knowledge outcomes. We hope that sharing our reflections on our own process will inspire other research teams to be self-reflective in this manner and to place more emphasis on the value of such procedural outcomes, since, in our collective opinion, these have been profound in our individual experiences and have resulted in the shaping of standpoints and the relationship between us, the researchers, and our research as process.

Acknowledgments

Appendix A: February 26, 2024 Email with Writing Prompts

Dear EKL Assemblage!

We hope that this email (note in Teams) finds you well.

Rimpu, Bart, and I have been playing around with the possibilities for our writing for the *Journal of Electronic Publishing* special issue "On Gathering." As we noted in our meetings, we have started to identify different texts/resources we can draw upon and animate as part of our unfolding story of gathering and doing this research. We have now loosely organized the kinds of materials into several containers, which we believe will become sections in the overall text we will create. Unfortunately, there is less room for truly expansive forms of representing our thinking/ideas within the journal, but we still believe we can be disruptive and playful in how we bring things together.

Now we have a request from you, which we hope is not too onerous. We would love to have the final text be as multi-voiced and multi-layered as possible; we also need your insights and memories. So, our request is that you help us generate some of the texts. I use the language of generate to try to capture the variety of ways these texts may come into being: creating/writing new text in response to the prompts; reminding us of particular conversations we had during previous meetings (hopefully we can snag the video and/or transcripts for those moments); other work that has been done that is not yet named.

If you could do this by **Monday, March 4**, that would be great (the submission due date is April 15!).

When you go into the folder (in our teams folder under Files → Reading Reflections → Call for Paper (JEP) → Draft writing and Notes JEP Special Issue: you will see four files, only three of which we would like you to turn your attention to at this time (Container 1: Mothertree & Knowledge Ecologies Notes; Container 2: Ethics of Care and Language Notes; and Container 3: On Gathering and Assembling Notes). When you go in, you will notice a series of prompts/questions that we hope will guide your thoughts and gathering/generation of text. Here are a few suggestions:

- Please choose a color to make any notes or annotations with that color in each document
- If you can remember a conversation from a meeting and have time to try to go find it, please do, otherwise give us enough detail that we may find it
- Add further questions and/or ask for clarity as you work through the prompts

    Container 1 (Mothertree & Knowledge Ecologies) Notes
    Suggested Materials to Draw from:

- Grant proposal
- Ethics application
- Invitation for GAR [Graduate Assistant Researcher] applications
- Invitation to complete the survey

Epistemic justice
What is considered scholarship?
Ecologies of knowledge production

- What is epistemic justice to you? How does it relate to what counts as scholarship?
- How have we been bringing epistemic justice into our processes of working together as well as into landscapes of knowledge ecologies?
- What nourishes you/sustains you in your participation in this research?
- How have we been expanding the landscape of scholarship and knowledge ecologies in our processes for you?

Container 2 (Ethics of Care and Language) Notes
Suggested materials to draw from:

- The survey itself (how it was described by a respondent as a humanizing survey), we can pay particular attention to the way we languaged questions
- The transcripts and recordings of meetings as we designed the survey
- The Vault treasure hunting (and question of the language of tags in the metadata)
  Writing/gathering material prompts:
- During our meetings, what language or terms have you been introduced to and or challenged to rethink as we work from different perspectives and positions? (E.g., because of the different orientations we each bring to this work, and our own intellectual inheritances, we speak different "languages" and introduce one another to them . . .)
- How have you experienced an ethics of care in our gathering/working together? Where have you sensed an ethics of care within the project? (This might link to the careful attention to language, e.g., our increasing discomfort with the marginalizing propensities of "non-traditional.")
- How would you describe your agency in voice within the processes we have undertaken so far?
- What desire, interest, recommendation do you have for something we may yet want to incorporate?
- At this point in the project, what is your relation to the concept and language of non-traditional theses?

Container 3 (On gathering and assembling) Notes
Writing/gathering material prompts:

- What brought you here to this project? What desires/interests/investments/expectations do you bring with you to the possibilities of/for the research?
- What holds us together? What is the core of our gathering?
- How do we make decisions from your perspective? The experience we've each had in making decisions at different points in the unfolding of the project. How has your experience been working in this assemblage?
- What have you noticed, been surprised by, or been troubled with regarding how we have been working together?

Container 4 (Temporalities) Notes—Analysis/Interpretation
We are at the half-way point for our funding, are we "on schedule"? What is expected of us and this research at this point? What do we have to show for the year's work? Navigating different expectations of/for scholarship? Pressures to be made legible, to potentially oversell the work while at the same time, obfuscating all the knowledges and ideas presenced in the process

Not a linear process, not rigid, but fluid and relational processes, going beyond the rigid boundaries and check-list approach – more organic and responsive

How will we hold this moment in time in the unfolding of the research?
In-processness, rather than final outcome/product, not an end product, that knowledge is generated (not in finality, but still in generative ways) in the process

- What has been the knowledge generation *within* and *because* of the processes/in-processness?
- What knowledges are in motion or made possible?
- What has surprised you? What learnings and challenges have you experienced?

Appendix B

Container 1 (Mothertree & Knowledge Ecologies) Notes

Christie = purple

Laura

Mairi

Bart

Suggested Materials to Draw from:

- Grant proposal
- Ethics application
- Invitation for GAR applications
- Invitation to complete the survey

Epistemic justice

What is considered scholarship?

Ecologies of knowledge production

- What is epistemic justice to you? How does it relate to what counts as scholarship?

  - Paulo Freire 😊 YES! And bell hooks, education as the practice of freedom.
  - Being able to *express* knowledge in a way that aligns with all of your identities.
  - Being able to *access* knowledge across your life cycle as a human, in ways that are appropriate and meaningful to you. (Sometimes I use the phrase "information privilege" with students to talk about their privileged position as students at a relatively well-funded university in the Global North; much of this privilege disappears the moment they stop paying tuition!) (see Char Booth, 2014: https://infomational.com/2014/12/01/on-information-privilege/)
  - Validation of the reality of positionality, that scholarship is strengthened by a researcher's ability to bring the entirety of their experience to their work, including within and beyond academic spaces.
  - ". . . if we can see that others might be better able to speak to the truth of our shared experience than we are, then we are in a better position to start doing the difficult work of learning what is true, even if this means coming to terms with the privilege-induced vision we use to filter experience through." (Frank, "Mitigating against Epistemic Injustice in Education Research," 369)
  - This relates to what counts as scholarship as a belief in epistemic justice would necessitate a broadening of expectations for scholars and research processes, with implications for supervisors, committees, and repository supports

- I am particularly interested in stories as vessels that hold, shape, and move knowledges. As such, I am interested in what stories are told, from whose perspective, who decides, and who benefits from them. Thinking with Eurocentrism, where a very particular articulation and valuation of the expression of knowledge—rational, linear, disembodied, "objective," argumentative (to prove something), commensurable (only that which can be measured, e.g., what about knowledge that resides in the body, knowledge that is ethereal yet no less real, what about all the knowings that we do not, and sometimes cannot, give language to).

- These dominant stories require (or pressurize) one to make themselves or story themselves into legibility (recognizability through repetition). Through time, as Rosi Braidotti animates, with the capitalist proliferation of choice, we are in a space where there is so much of the same with the most minor of changes, narrowing the variety of fertile and growing ecosystems. Same with knowledge, as more folks (through various means) have gotten access to legitimized knowledges, the articulations have been ever narrowing. Thinking with language and linguistics research, we know that when we articulate ourselves differently, our horizon of possibilities differ depending on the language we speak—from grammatical structure (e.g., verb-based languages linked to cultures that better notice the animacy of all life in relation to the objectification of noun-based languages; having numerous words for snow or rain or emotions turns people's attention to the complexities in ways that having fewer words does not allow for, etc.)

- If we are to truly re-imagine otherworlds beyond the status quo inherited and perpetuated oppressions and violences, we need to expand the knowledges that are put to work to help us reach for and materialize those worlds.

- À la Spivak, these knowledges and voices exist, it's a question of surfacing them in particular ways. This is also akin to Foucault.

- Having a voice that is heard and valued regardless of language, mode of communication, or platform. Knowledge creation through a diversity of voices.

- My interest in how this relates to scholarship is (1) with regard to how scholarship is evaluated based on place of origin (non-Western publications are not always judged fairly and journals with lower rankings that publish quality papers are sometimes overlooked or ignored), (2) how the perception of the global body of scholarship is misrepresented by database indexing practices (not all journals are indexed in the "go-to" databases, and thus not all knowledge is represented when researchers conduct what they perceive as systematic global searches), (3) how format and platform can lead to knowledge not being included or considered (students, for example, are still being asked to only include peer reviewed articles in their papers regardless of the paper topic—not all knowledge relevant to all topics is primarily found in peer reviewed articles—practical

teaching knowledge is one example, Indigenous knowledge is another, and there are many more).

- How have we been bringing epistemic justice into our processes of working together as well as into landscapes of knowledge ecologies?

  - Encouraging reflection and open exchange within the assemblage
  - Allowing for flexibility and response in the momentum of the process
  - I was just reminded of adrienne maree brown's (2015) call for us (in her instance she works in facilitation and movement work) to "move at the speed of trust." Natalie Loveless reminded me of this in her keynote at the PhiloSOPHIA Feminist Making/Doing conference going on right now (March 14–17). Because we are/have been taking our time, we have cultivated a space (I feel) of trust where we each ask questions and contribute from our standpoints (Harding . . .) of lived experience (personal and professional), theoretical tethers, and onto-epistemological positions. As the shaping of the survey demonstrates, we try to hold all our variances without flattening into a cohesive/uniform "us."
  - There is a respect for divergent voices in the assemblage; our varied experiences contribute to our collective gaining access to areas of scholarship that as individuals we would not have discovered on our own.

- What nourishes you/sustains you in your participation in this research?

  - This research encourages me that respectful critical dialogue is possible and present on campus, even when/particularly because it challenges status quo definitions and dynamics. As a new academic professional, it presents a hopeful and possible future of cultural shifts that could benefit both particular research modalities and the exchange or interaction of knowledges present in all disciplines at the university.
  - The dialogue and continued learning. I find our conversations immensely engaging. The passion for the work invigorates me and sparks real hope that change (however minor) is possible.
  - I find the passion each assemblage member brings to the collective to be a great source of motivation for me, which, in turn, nourishes me especially in a time when non-academic (personal) life events sometimes take away from the energy required to maintain the academic curiosity, which drew me to academia in the first place. I find my participation in this research energizing and nourishing for this reason.

- How have we been expanding the landscape of scholarship and knowledge ecologies in our processes for you?

- I started out mostly thinking about form/format of research outputs, now I'm thinking more about theory, methodology . . . all the other parts in terms of knowledge production!
- Similar to my reflection on the last question, I am encouraged that the range of individuals present in this assemblage indicates that the desire and curiosity about expansion is multi-directional. A critical lens is not only present in emerging scholarship, but in thoughtful approaches to leadership that allow for potential shifts in procedure and conventional definitions of expertise.
- The whole idea of the knowledge ecologies itself has been such a fertile and new space for the way I am thinking about this work.
- How entangled they are with the capitalist modes of production that overdetermine what gets published and what counts as knowledge.
- Furthermore, I am loving learning about the world of libraries and cultural resources. I never took the time to consider the complexities and importance of that world and really feel that scholars ought to have a more fulsome sense of and relationship with libraries (which writing that down feels almost silly)
- My expectations of what type of scholarly output I might encounter and thus also what ought to count as scholarship have been expanded. This, in turn, has led to more productive research consultations with students working with "non-traditional" methodologies and has primed me to notice things I would not have otherwise (most recently, a paper on relational literature reviews).

Author Biographies

Bart Lenart

bartlomiej.lenart@ucalgary.ca

While Bart's research interests are varied, they orbit around philosophical musings, which generally gravitate toward questions of value and identity. Bart's strictly philosophical writing focuses on the human relationship with and valuing of natural environments, as well as metaphysical questions around free will, agency, and personal identity. These ponderings, however, carry over to his other research interests; he is fascinated by how professional identities, as is the case with academics and researchers, are shaped by the manner in which research is valued and conducted. The Expanding Knowledge Landscapes project has been particularly enlightening as researcher identities and values have been at the core of the research process.

Mairi McDermott

mairi.mcdermott@ucalgary.ca

As a motherscholar, Mairi's current passion-and-work is bending towards m/otherworlds. In her research, teaching, and mothering, she considers what kinds of teaching, learning, social, cultural, and political relations can move us beyond the existing habits and assumptions embedded in colonial ways of knowing, being, and relating in schools and society. Throughout her research, her desire is with drawing out voices, experiences, and identities that have historically been marginalized to mobilize the full spectrum of ideas in knowledge production. Presently, her research centres mothering as an analytic aperture to enliven and re-imagine broader historical and present socio-political injustices. Concepts shaping the contours of her work include: difficult knowledge; affect and emotions in teaching and learning; story and epistemology; critical pedagogies; voice and identity; lived curriculum.

Sefat Rimpu

sefat.rimpu@ucalgary.ca

Sefat Rimpu is pursuing her graduate program at Werklund School of Education. Her research interests are centrally focused on critical literacy and equity, diversity and inclusion (EDI). Her classroom teaching experience brought her understanding of addressing learners' agency of voice and individual interpretation and deconstruction the meaning of the texts honoring learners' divergent perspectives, what Sefat refers to as *epistemic diversity* and *epistemic justice* in teaching and learning. Her aspiration in research has led her to actively engage in various projects at the University of Calgary, centered around enhancing students' engagement, sense of belonging, and well-being. Her research objective is centered on de-*hierarchicalization of power in* curriculum and learning that allows learners to be critically aware of their *identity*.

Abigail Williams

abigail.williams@ucalgary.ca

Currently in the third year of a PhD program in Educational Research at the University of Calgary, Abigail specializes in Language and Literacy. As an educator, her general research interests include multiculturalism, second language pedagogy, and critical literacies as she explores and upholds diverse ways of knowing. Her doctoral research focuses on how racialized women, who are also mothers, experience differential responses to intentional forms of nomadism across diverse spheres including geographical, linguistic, cultural, ideological, and/or professional. She anticipates that their responses can be shown to enable and enhance complex critical literacies learning, knowledge, skills, and

capabilities. Revealing insights about the intricacies and challenges of decision making has been a motivator for her to join this project.

Kathryn Ruddock

kathryn.ruddock@ucalgary.ca

Laura Reid

laura.reid1@ucalgary.ca

Current University of Calgary liaison librarian, Laura works with students in the School of Creative and Performing Arts, the Department of Art & Art History, and the Department of History, bringing a lens of knowledge equity and critical librarianship to this work. Reid completed her Master of Information studies at University of Toronto, doing practicum work on digital educational programming with Masckawcis Cultural College and with the Toronto International Film Festival Film Reference Library, completing the arrangement, description, and rehousing process for the collection of Toronto filmmaker Ingrid Veninger. In Spring 2023 Laura started work as student researcher to extend the inventory process of Council of Prairie and Pacific Libraries' North/Nord Indigenous Historical Publications Working Group and has since joined the group, currently finalizing the resulting dataset for dissemination. Laura holds bachelor and master degrees in violin performance and has an established professional career as a musician and curator which she maintains in additional to her library work, with recent projects including the collaborative duo "Who Cares?" with flautist Jiajia Li, experimental quartet More Than Nothing, and serving as concertmaster for Calgary Bach Society and Luminous Voices Ensemble.

References

Adema, Janneke. "The Poethics of Openness." In *The Poethics of Scholarship*, edited by Post Office Press, 16–25. Coventry, UK: Post Office Press and Rope Press, 2018. https://hcommons.org/deposits/item/hc:19815/.

Adsit-Morris, Chessa. *Restorying Environmental Education: Figurations, Fictions, and Feral Subjectivities*. Cham: Palgrave Macmillan, 2017.

Ahmed, Sara. *The Cultural Politics of Emotion*. New York: Routledge, 2004.

Ahmed, Sara. *Queer Phenomenology: Orientations, Objects, Others*. Durham, NC: Duke University Press, 2006.

Alcoff, Linda Martín. "Epistemology and Politics." *Radical Philosophy Review* 16, no. 3 (2013): 817–20.

Bartha, Miriam, and Bruce Burgett. "Why Public Scholarship Matters for Graduate Education." *Pedagogy* 15, no. 1 (2015): 31–43. https://doi.org/10.1215/15314200-2799148.

Bartlett, Alison. "Breastfeeding as Headwork: Corporeal Feminism and Meanings for Breastfeeding." *Women's Studies International Forum* 25, no. 3 (2002): 373–82. https://doi.org/10.1016/S0277-5395(02)00260-1.

Barton, Matthew D. "Dissertations: Past, Present, and Future." PhD diss., University of South Florida, 2005. https://digitalcommons.usf.edu/etd/2777.

Campbell, Sue. *Interpreting the Personal: Expression and the Formation of Feelings*. Ithaca, NY: Cornell University Press, 1997.

Campbell, Sue. *Relational Remembering: Rethinking the Memory Wars*. Lanham, MD: Rowman & Littlefield, 2003.

Causevic, Az, Kavita Philip, Maari Zwick-Maitreyi, Persephone Hooper Lewis, Siko Bouterse, and Anasuya Sengupta. "Centering Knowledge from the Margins: Our Embodied Practices of Epistemic Resistance and Revolution." *International Feminist Journal of Politics* 22, no. 1 (2020): 6–25. https://doi.org/10.1080/14616742.2019.1701515.

Civic Laboratory for Environmental Action Research (CLEAR). "CLEAR Lab Book Version 3: Part Two: Protocols, 2c. Lab Meetings." Last modified September 3, 2021. https://civiclaboratory.nl/clear-lab-book/.

Clark, Andy, and David Chalmers. "The Extended Mind." *Analysis* 58, no. 1 (1998): 7–19.

Declaration on Research Assessment (DORA). "San Francisco Declaration on Research Assessment." December 16, 2012. https://sfdora.org/read/.

Dennett, Daniel C. "Making Things to Think With." In *Kinds of Minds: Toward an Understanding of Consciousness*, 135–47. New York: Basic Books, 1996.

Frank, Jeff. "Mitigating against Epistemic Injustice in Educational Research." *Educational Researcher* 42, no. 7 (2013): 363–70. https://doi.org/10.3102/0013189X12457812.

Fricker, Miranda. *Epistemic Injustice: Power and the Ethics of Knowing*. Oxford: Oxford University Press, 2007.

Fung, Dilly. "Strength-Based Scholarship and Good Education: The Scholarship Circle." *Innovations in Education and Teaching International* 54, no. 2 (2017): 101–10. https://doi.org/10.1080/14703297.2016.1257951.

Gesturing Towards Decolonial Futures. "Shared Responsibilities." Accessed April 29, 2024. https://decolonialfutures.net/shared-responsibilities/.

Gill, Rosalind. "Breaking the Silence: The Hidden Injuries of the Neoliberal University." In *Secrecy and Silence in the Research Process: Feminist Reflections*, edited by Roísín Ryan-Flood and Rosalind Gill, 228–44. London: Routledge, 2009.

Kimmerer, Robin Wall. *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teaching of Plants*. Minneapolis: Milkweed Editions, 2013.

Ladhani, Sheliza, Stephanie Tyler, and Mairi McDermott. "Preserving Fugacious Stories through Metho-pedagogical Gatherings to Carry Forth Otherworlds." *Journal of Electronic Publishing* 28, no. 1 (2025).

Lenart, Bartlomiej A. "Shadow People: Relational Personhood, Extended Diachronic Personal Identity, and Our Moral Obligations toward Fragile Persons." PhD thesis, University of Alberta, 2014. https://doi.org/10.7939/R3GT5FQ05.

McDermott, Mairi. "Changing the Stories We Live By: Reflections on Epistemic Responsibility and Solidarity as Praxis." In *Radically Dreaming: Illuminating Freirean Praxis in Turbulent Times*, edited by Tricia M. Kress, Robert Lake, and Elizabeth Stein, 255–64. Lewes, DE: DIO Press, 2022.

McDermott, Mairi. "Mapping Contours of Gender and Knowledge Production: Towards Scholarly Writing as Gifts of Knowledge." In *Women in Scholarly Publishing: A Gender Perspective*, edited by Anna Kristina Hultgren and Pejman Habibie, 189–202. New York: Routledge, 2023.

McDermott, Mairi. *Mapping the Terrains of Student Voice Pedagogies: An Autoethnography*. New York: Peter Lang, 2020.

McDermott, Mairi. "Mo(ve)ments of Affect: Towards an Embodied Pedagogy for Anti-racism Education." In *Politics of Anti-racism Education: In Search of Strategies for Transformative Learning*, edited by George J. Sefa Dei and Mairi McDermott, 211–26. Dordrecht, Netherlands: Springer, 2014.

McDermott, Mairi. "Teaching Citation Politics through Literature Review Topographies: Towards Cultivating Relational Writing Practices." *Feminist Pedagogy* 4, no. 4 (2024). https://digitalcommons.calpoly.edu/feministpedagogy/vol4/iss4/6.

Medina, José. *The Epistemology of Resistance: Gender and Racial Oppression, Epistemic Injustice, and Resistant Imaginations.* New York: Oxford University Press, 2013.

Metcalfe, Stan, and Ronnie Ramlogan. "Innovation Systems and the Competitive Process in Developing Economies." *Quarterly Review of Economics and Finance* 48, no. 2 (2008): 433–46. https://doi.org/10.1016/j.qref.2006.12.021.

Miller, G. Tyler, Jr. *Living in the Environment: Concepts, Problems, and Alternatives.* Belmont, CA: Wadsworth, 1974.

Papaioannou, Theo. "Human Gene Patents and the Question of Liberal Morality." *Genomics, Society and Policy* 4 (2008): Article 64. https://doi.org/10.1186/1746-5354-4-3-64.

Papaioannou, Theo, David Wield, and Joanna Chataway. "Knowledge Ecologies and Ecosystems? An Empirically Grounded Reflection on Recent Developments in Innovation Systems Theory." *Environment and Planning C: Government and Policy* 27, no. 2 (2009): 319–39. https://doi.org/10.1068/c0832.

Paper Boat Collective. "Introduction: Archipelegos, a Voyage in Writing." In *Crumpled Paper Boat: Experiments in Ethnographic Writing*, edited by Anand Pandian and Stuart McLean, 11–28. Durham, NC: Duke University Press, 2017.

Puig de la Bellacasa, María. " 'Nothing Comes Without Its World': Thinking with Care." *Sociological Review* 60, no. 2 (2012): 197–216. https://doi.org/10.1111/j.1467-954X.2012.02070.x.

Richardson, Laurel. "Writing: A Method of Inquiry." In *Handbook of Qualitative Research*, 2nd ed., edited by Norman K. Denzin and Yvonna S. Lincoln, 923–48. Thousand Oaks, CA: Sage, 2000.

Rogers, Katina L. *Putting the Humanities PhD to Work: Thriving in and beyond the Classroom.* Durham, NC: Duke University Press, 2020.

Ryle, Gilbert. *The Concept of Mind.* Chicago: University of Chicago Press. 1949.

Shearer, Kathleen, Leslie Chan, Iryna Kuchma, and Pierre Mounier. *Fostering Bibliodiversity in Scholarly Communications: A Call for Action.* April 15, 2020. https://doi.org/10.5281/ZENODO.3752923.

Simard, Suzanne. *Finding the Mother Tree: Discovering the Wisdom of the Forest.* New York: Penguin Random House, 2021.

Sutton, John. "Exograms and Interdisciplinarity: History, the Extended Mind, and the Civilizing Process." In *The Extended Mind*, edited by Richard Menary, 189–225. Cambridge, MA: MIT Press, 2010.

University of Calgary. "About ii' taa'poh'to'p." Office of Indigenous Engagement. Accessed April 30, 2024. https://www.ucalgary.ca/indigenous/about-ii-taapohtop/explore-strategy.

University of Calgary. "Non-traditional Thesis." Faculty of Graduate Studies. Accessed April 30, 2024. https://grad.ucalgary.ca/current-students/thesis-based-students/thesis/non-traditional-thesis.

Wartenberg, Thomas E. "Situated Social Power." In *Rethinking Power, edited by Thomas E. Wartenberg,* 79–101. Albany: State University of New York Press, 1992.

Wilson, Elizabeth A. *Gut Feminism.* Durham, NC: Duke University Press, 2015.

Wilson, Robert A. *Boundaries of the Mind: The Individual in the Fragile Sciences: Cognition.* Cambridge: Cambridge University Press, 2004.

Wilson, Robert A. "Collective Memory, Group Minds, and the Extended Mind Thesis." *Cognitive Processing* 6, no. 4 (2005): 227–36.

Wilson, Shawn. *Research Is Ceremony: Indigenous Research Methods.* Black Point, Nova Scotia: Fernwood Press, 2008.