Prologue

WHO WE ARE

We are a group of six researchers who come together from varied academic backgrounds within a Faculty of Education. We represent a spectrum of appointments across our faculty with three full Professors, one Associate, one Assistant and a limited-term faculty member. One of us is a professor in mathematics education, another in adult literacy education, one in continuing teacher education, one in early childhood education, and two in second language education. Our faculty is non-departmentalized in part to encourage interdisciplinary work (or so our origin myths go), and interdisciplinary work does happen occasionally here, but perhaps not as often as we might wish, and when it does, it usually occurs around our teaching assignments and among colleagues in closely related fields such as within language education or among science, math and technology cognate groups. In our case, our inaugural meeting as the 'G7' followed from a faculty administrative meeting that we all attended almost two years ago. At the time we six expressed interest in working with colleagues with differing backgrounds as research partners. Our meetings began as simply a way of getting to know each other's scholarship and interests, and then it turned towards a common purpose to investigate new approaches to our research. Here we found it useful to view our common research tensions and compare our methodological approaches.

WHAT BRINGS US TOGETHER

We conferred about what we felt was missing in our ethnographic and grounded fieldwork traditions and discussed how we could create a better or more complete account of the emotive, nuanced, material

and technological aspects of our research and teaching contexts. Over the course of our meetings, we realised that we all held a common focus around empirical research and that we had all situated our research in schools and/or communities with which we held ongoing relationships that were personally and professionally important to us. We also realised that we collectively held a belief that our role as researchers was to learn *with* these settings and people, and to create new practices, artefacts, concepts and theories that we could bring to the work of teaching and learning. We also realised, however, that the new relationships this work set in motion were not always expected, especially as our interactions in these sites evolved. We sometimes sat uneasily in these sites, and we all had reservations about leaving them after our 'projects' were completed. We felt affinities to the sites and to our ongoing responsibilities to people and were also unsure that the new practices we attempted to create and explore in these settings would or could continue. We wondered why this was so: do new concepts demand more or different resources (including time, space, people, learning objects) from those the participants had on hand? Do other material conditions of our research sites, in terms of the architecture or the interior design and discourses of those sites, have something to do with the seeming fragility of new practices? Was the work we were doing leading anywhere, or were our observations or 'findings' just singular events that reflected our own commitments and interests and that could never be repeated elsewhere, let alone scaled up? These questions intersect with the increased expectations placed on researchers in our institution and elsewhere to be ever innovative, to spread new ideas and practices often without a deep understanding of the social-cultural-material practices in which the 'new' is taken up. As researchers strive to create 'impact' at every turn, what is lost along the way?

We then started to examine the relationships between our theoretical and methodological approaches. We all used aspects of sociocultural theory to describe and understand the social, cultural and discursive aspects of our research sites. We agreed that this focus,

while deepening our critical perspectives and allowing an interrogation of relationships, marginalisation and inequity, sometimes made it difficult or impossible in our research to account for other events and/or things that were outside this paradigm. We observed that lived research experience sometimes deviated dramatically from planned research experience (and often, reported research experience). For example, we fretted over occurrences such as equipment failure and technological glitches, or when learners or their teachers walked away from or digressed from the planned activities we were studying. All these unanticipated events seemed important somehow, but it was difficult to know how to account for these. We did not know what to do with unexpected or discrepant data (if we even noticed or documented the unexpected). Sociocultural theories gave us ways to talk about social, cultural and political aspects of schooling, but we knew they did not easily allow us to think about how bodies, feelings, and particular material phenomena were shaping the events we observed and were a part of.

We shared with one another video clips highlighting these experiences and agreed that many powerful moments were difficult to fully include in our language-driven writeups and so were often ignored in favour of elements that were easier to identify and document within our existing linguistic-centred theoretical frameworks. Rather than working around aspects of the natural, built or technological environments in our research sites, or conceiving of them as a backdrop, we wanted to embrace them and move beyond a human-centric 'gaze' that did not fully convey the human/technology or human/other connections equally or were perhaps even more consequential within these teaching and learning moments. In part we also felt restricted by a post-positivist ethos in our research that has lingered in our scholarly communities where learning is identified, coded and discussed in language-based transcripts to convey the learners' 'concepts', 'ideas', 'intentions', 'thoughts' or 'representations'. This approach seemed to skim over so much of what was going on in our settings. How could we report and celebrate meaning making that is beyond human in these human-

other-material moments so as to honour the process and excitement and invention (or frustration) within encounters and also continue to make our research sufficiently robust and acceptable within the scholarly community? How could we better capture this complexity, and perhaps more important, how could it be accounted for theoretically?

Some of us had employed actor–network theory (ANT) (Latour, 2005) to theorise how students, their learning tools and the settings in which they learned had links one to another, but we were also aware of the tensions in these theories in ascribing agency to objects, and indeed how objects are defined. ANT recognised things, but their relationships with other things seemed a little static to us. 'Theories of the material' or 'posthumanism' were emerging in feminist theory as well as in science studies and philosophy, and we were all attracted to them. Nathalie had read and published more widely about these theories of new materiality, and she recommended texts we could read. We found other texts that aligned with our various fields, and we read, discussed and struggled to articulate how new materialist theories were helpful to us in understanding phenomena in our varied research settings (see Figure P.1). We return in the Conclusion to the productive tensions in this early work together.

We tried to honour slow scholarship (Berg & Seeber, 2016) by taking the time in our meetings to cultivate deep thought in our writing and discussion and to develop fuller understandings of how these theoretical perspectives might align with our research and teaching experiences. Our scholarship was also joyous and spontaneous. For example, one time we all abandoned our scheduled afternoon activities, hopped in Suzanne's car, and headed off to the University of British Columbia when we heard that Tim Ingold was speaking there later that day. We found that meeting together in our personal rather than professional spaces led to better understanding each other and made potential boundaries permeable. Feminism is a force that also drew us together. We are all women concerned with sexism and misogyny, racism and inequality; we are all mothers of

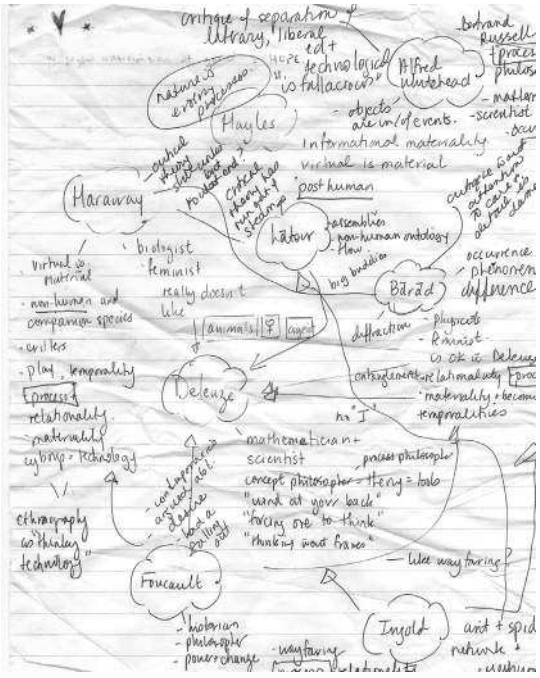

FIGURE P.1 Suzanne's 'messy map', made during one of our early G7 conversations

children of various ages, and our gendered rhythms as mothers and daughters and our experiences as women in the academy created a shared spirit and strong connections. Hearing personal stories, being present in each other's spaces and sharing meals contributed to our collective sense of belonging and a deeper understanding of our scholarship.

For well over a year we intentionally refrained from applying for grants, submitting conference proposals or writing papers together, preferring instead to let the work of slow scholarship unfold in a deep sense of valuing of our exchanges. Things percolated. With this approach we were able to bring our different, individual research projects together to review and discuss. Sometimes we analysed one another's data or offered alternate reads of the meanings we created in our research settings. Initially these discussions were exploratory and

social but later evolved to a joint goal of sharing our journeys with others and seeing our work as a collective endeavour. This book brings together chapters that emerged in these conversations and collaborations.

OUR PROCESS

We each began by drafting one chapter based on our research site experiences. Later we conducted a major group edit with each of us commenting on the draft of the others by making changes and margin notes where applicable. Kelleen then combined each member's comments and edits into one master document that we reviewed as a group. We immersed ourselves in this latter process by viewing it collectively during an overnight retreat at Margaret's cabin outside the city. During our process of re-reading and re-writing, we challenged each other in important ways that helped to advance our thinking. The process of living and writing together (we are at Margaret's kitchen table in Figure P.2) for a short time away from the noise and distraction of our usual lives helped deepen our conversations and solidified some of our thinking about being post-human in our research and teaching contexts.

During this time, we also searched for a common way to unify our use of pronouns in the book. Here we realised that we had several levels of 'we' as we referred alternatively to each other and at times the 'we' of our colleagues in our research sites. To rectify this, we chose to refer to ourselves as Cher, Diane, Kelleen, Margaret, Nathalie and Suzanne when referring to ourselves within our research projects. When we referred to our research group, we use 'G7'. We had originally adopted this name because there were six of us and one person whom we hoped would join but was unable to do so – we kept the name, though, as a reminder to keep ourselves open to possibility, but there is also a very real way in which the six of us have assembled into a seventh. In different contexts the 'G' has come to stand for different words, a placeholder for multiplicities. All the same, for the purposes of this book the quick reference to G7 has helped distinguish our

(a)

(b)

FIGURE P.2 G7 overnight retreat

research group from the other research colleagues we are associated with in different contexts.

We begin our chapters with brief descriptions of preoccupations and important issues in our diverse fields of scholarship and examine how new-material analyses have helped us to see relationships and phenomena we may not have seen before and, perhaps, to contribute new concepts and ideas to our various fields. Each chapter of the book describes specific theoretical aspects of our work that moves towards the material and aligns with our experience in field research.

We organised the chapters of the book by charting our 'lines of flight' (Deleuze & Guattari, 1987/2005) according to rhythms and repetitions across chapters. Inspired by Braidotti's (2011a) words that feminist and other theories take shape in the place and space between dualistic thinking, we have adopted here Braidotti's cartographic aesthetic of a 'living map' or 'figuration' to provide a brief transformative account of ourselves. These lines of flight or what Braidotti (2011a) might refer to as 'in-between states of social (im)mobility' (p. 10) help chart the nomadic pathways that brought us to this work. In addition to these lines of flight we have also provided figurations between chapters to provide insight into our ways of configuring the flow of our work. We felt sharing this history in our process was important to outline our thoughts on how the chapters congeal and their potential layering, as well as the new layers that each chapter contributes in our collective conversation.

OUR LINES OF FLIGHT

This book documents our lines of flight both individually and collectively, and how our attention to the material contributed to unexpected shifts in our trajectories as researchers, educators and scholars. The term *lines of flight* comes from Deleuze and Guattari (1987/2005) and is articulated in relation to the concept of multiplicities, structures with no static essence but rather characterised by forces, dimensions and magnitudes that are continually unfolding in

a rhizomatic fashion as they assemble with other multiplicities, creating an ever-evolving world. They observe:

> Multiplicities are defined by the outside: by the abstract line, the line of flight according to which they change in nature and connect with other multiplicities. The plane of consistency (grid) is the outside of all multiplicities. The line of flight marks: the reality of a finite number of dimensions that the multiplicity effectively fills; the impossibility of a supplementary dimension, unless the multiplicity is transformed by the line of flight; the possibility and necessity of flattening all of the multiplicities on a single plane of consistency or exteriority, regardless of their number of dimensions.
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> *(pp. 9–10)*

Reading Deleuze was a struggle for some of us and we joked at times that we were 'Deleuzing our minds'.[1] Suzanne suggested that she best understood Deleuze's ideas when she tried not to read them too carefully but instead allowed herself to surf the images. 'Kind of like looking at something out of corner of your eye to see the contours.' Our experience resonates with that of Kuby and Rucker (2016), who evoke the materiality of scholarship and its effect: 'we learned not to focus as much on the meaning of Deleuze and Guattari's writing as on what it did and produced in/with/between us' (p. 27).

We have come to understand lines of flight as trajectories that trace paths through potential worlds. Documenting lines of flight makes movement from one place to another visible; movement that is not linear or even intentional but involving a gathering of force that allows one to go to a new place and enables transitions that transcend the actual and ascend to the virtual. The virtual is a new ontological space that is, in a sense, both real and ideal. For example, in Chapter 5, the number 100 combines the real, as in the sound of 'one hundred' that the five-year-old children have heard before (and keep repeating

[1] Thank you to Dr. Valia Spiliotopoulos for this witty phrase.

over and over) with the potential of making 100 on the iPad. This accomplishment is potential in the sense that the children know little about what they have to actually do – in terms of tapping and pinching – in order to make this large and alluring quantity, but also know that if they keep tapping, they will eventually get to 100. The gesturing of the children's hands, in which all ten fingers are held up and then placed on the screen, becomes a new line of flight in which the potentiality of 100 becomes actualised.

Our personal trajectories or flight paths as we worked with new materialities theories have been interesting to members of G7. We hope these trajectories (described below) help readers understand better why and how we came to be doing the work we do. Kelleen and Diane's lines of flight are described both individually and collectively, as Chapter 2 (the language chapter) is based on their shared experiences.

Kelleen

In doing research in classrooms with young English language learners over a few years, I started to think about the importance of space and things in classrooms after I had a skating accident and broke my kneecap. Because of the injury I had to sit on chairs, find space for my crutches, and could not move around the room or slide onto the floor to listen or talk to the children easily. Because of this I started to think about space and about how children across the room might look as if they were having an interesting conversation that I couldn't hear, but the effort required to get up, pick up my crutches and find another chair to sit on so as to hear seemed too much. Then I started to think about how the children in their desks were restricted from movement too, and how they worked around those restrictions, by lending and borrowing 'stuff'. So new materialism opened a way for me to think about how my researcher body and my temporary disability were implicated in how I did my research and what I noticed about how the children with whom I worked used space and movement as well.