Researching Beyond Boundaries: Researching e-Learning and e-Teaching in Higher Education – A Choreography

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Abstract

Researching e-learning and e-teaching in higher education brings with it new contexts to explore as physical and digital spaces/places multiply and participant identities become distributed across time and space/place. Significantly, ‘researching’ and following people, materials, technologies, and spaces become ever more complex in digital academe. This paper explores the methodological research choices made as part of a PhD study titled: “Researching e-Learning and e-Teaching in Higher Education: Choreographies of Identity and Spatiality” that challenged ‘traditional’ humanist research boundaries by advocating ‘radical’ poststructuralist analytical sensibilities to advance analysis of e-learning and e-teaching as sociomaterial and affective practices that emerge through human-material-spatial choreographies (arrangements). To research e-learning and e-teaching more richly in their emergent material, spatial and social complexities, we need to move beyond traditional humanist boundaries of what we look at, and therefore shift how we look at, and consequently how we write about e-learning and e-teaching. The paper makes a case for drawing on poststructuralist transdisciplinary approaches using the material semiotics of Actor-Network Theory (ANT) and Non-Representational Theory (NRT) to facilitate generative conceptualisations to accent the spatial, material and affective dimensions of e-learning and e-teaching. By researching beyond disciplinary boundaries, we can enrich our understanding of e-learning and e-teaching to embrace the more than human to inform research, pedagogy, educational design, and educational philosophy. By dissolving human/material boundaries and verbal/visual boundaries, productive and evocative possibilities emerge to facilitate different ways of ‘performing’ e-learning and e-teaching. To ‘perform’ the ontological research positioning, the research metaphor of “choreography” is invoked to enact a performative (emergent) relational worldview which underpins the transdisciplinary approaches chosen, where everything and everyone emerges in relation to the other. The choreography metaphor also works to inspire and re-enchant research writing beyond ‘traditional’ academic genres.

Key Words: e-Learning, e-Teaching, Actor-Network Theory (ANT), Material Semiotics, Non-Representational Theory (NRT), Spatiality, Space, Place, Identity, Post-Structural Methodology

Prelude

Researching e-learning and e-teaching in higher education brings with it new contexts and complexities to explore. These contexts mediated by various technologies traverse diverse locales from universities, workplaces, homes, to community settings (Edwards, Biesta & Thorpe, 2009). Across these variable and multiple physical and digital spaces/places, participant identities become distributed across time and space. In these emergent e-pedagogical contexts, who we are, what we do, and who we become, as students and academics, need to be explored and understood based on actual practices (Ellis & Goodyear 2010). We see multiple boundaries and borders shift with the proliferation of ‘the digital academy’ abutted by “lifelong and lifewide” (Edwards, 2009) and ‘flexible’ learning discourses. As the boundaries of the e-academy shift and change the boundaries of our homes and work, e-learning and e-teaching contexts become multiple and more complex. How then might we attend to researching e-learning and e-teaching to encompass people, technologies, and spatialities in their complexities? We need to find ways to research the diversity
and multiplicity that come with e-learning and e-teaching to deal with their dynamic and infinite complexities.

This paper discusses the sensibilities/methodologies used to address the complex, rich and multiple actors by tracing the everyday e-learning and e-teaching practices of participants involved in a PhD study titled “e-Learning and e-Teaching in Higher Education: Choreographies of Identity and Spatiality”. The study explored how identities are (per)/(trans)formed and (re)shaped; how learning and teaching spaces, digital and physical, are experienced and used; and how higher educational practices are (re)configured and (re)negotiated in digital academe.

The study involved ethnographies (digital and physical) across four fully online postgraduate subjects at an Australian university. The data collection methods included interviews, participant observation, photographic data, and reflections over a period of 6-10 months. The study involved 24 participants, 19 online postgraduates students, and 5 teaching staff (2 females and 3 males) with a range of ages and teaching experiences.

The focus of this paper is not on the outcomes of the study but rather on the affordances and challenges of the ‘radical’ methodologies chosen that move beyond ‘traditional’ humanist explorations of e-learning and e-teaching. By exploring “methodological frontiers” and “crossing boundaries” (Brownlee & Irwin, 2011; Goodyear, 2011; Markauskaite, 2011) in the methodological choices and challenges of educational research design (Markauskaite, Freebody & Irwin, 2011), the transdisciplinary approaches of material semiotics of Actor-Network-Theory (ANT) from Science and Technology Studies (STS) and Non-Representational Theory (NRT) form human geography were selected. By working across the discipline boundaries of Geography, Education, and Philosophy, “… different epistemic practices – working with different forms of knowledge and ways of knowing” (“epistemic fluency”) (Goodyear & Markauskaite 2009) were combined. The methods used addressed the physical and digital (im)mobilities (Büscher & Urry, 2009) to capture stillness, movement and the liminal across the multi-sited ethnographic (Marcus, 1998) locales. This facilitated observing how people, ideas, and technologies ‘travelled’ across and beyond the digital academy through corporeal, physical, imaginative, virtual, to communicative movements (Büscher & Urry 2009, pp. 101-102).

The analytical sensibilities/methodologies chosen challenged the taken-for-granted humanist assumptions that “depend on comfortable analytic perspectives” (Woolgar, 2004, p. 347) of privileging the human to advance analysis of e-learning and e-teaching as sociomaterial practices that emerge through complex human–material–spatial choreographies (arrangements). To attend to researching e-learning and e-teaching in their complexities, we need to move beyond traditional humanist boundaries of what we look at, and therefore we need to shift our focus and gaze of how we look at, and consequently, how we write about e-learning and e-teaching. The approaches selected are underpinned by a relational performative ontology – where we shape the world as it shapes us, that is, realities are performed and emerge in materialising practices. Everything emerges in practices of social, material and spatial arrangements – a ‘hybridity’ that entangles the social–material–spatial and dissolves their boundaries.

In drawing on the relational material semiotic sensibility of actor-network theory (Fenwick & Edwards, 2010; Fenwick, Edwards & Sawchuk, 2011; Latour, 2005; Law, 2004), human-centred accounts are challenged. By combining related poststructuralist theories of emergence based on rhizomatics (Deleuze & Guattari, 1988) and baroque sensibilities, the minutiae and complexity of practices can be highlighted (MacLure, 2006), and through non-representational theory, the affective is surfaced as a domain beyond purely emotional cognitive states (Thrift, 2008). This surfaces sociomaterial performances beyond simplified humanist renditions of the spatial, cognitive, material, technological, educational, psychological, emotional, affective, and so on.

The aim of this paper is to reflect on researching e-learning and e-teaching in complementing these various practice-oriented sensibilities and to discuss the issues involved in analysing and writing (performing) various PhD data types to resonate with the selected methodologies. These issues unfold in the paper across three sections using the metaphor of choreography through...
‘warming up’ moves that illustrate theoretical and methodological conceptualisations through segments of data choreographies to explore firstly, ways of looking; secondly, ways of embodying; and thirdly, ways of writing. Finally, the paper culminates in a ‘stretching’ finale section to summarise the contribution of the research approaches of ANT and NRT and their theoretical, methodological and practical implications.

Warming up 1 – Ways of looking: Shifting What We Look at and How We Look at

Here, the value in reconceptualising humanist boundaries towards a sociomaterial Actor-Network Theory (ANT) embrace is explored. Accounts of e-learning and e-teaching carry with them assumptions about human-technology relationships and boundaries. These relationships can be categorised in three ways: firstly, as technological deterministic, where technology determines and configures human action. Secondly, as socially deterministic, where humans configure technologies to suit their purposes and goals; both these views provide a strong cut regarding the boundaries of technologies (materials) and humans in that everything is ‘purified’ within humanist and material boundaries. What these approaches tend to miss is the third possibility of a hybrid sociomaterial emergence between humans and technologies, where both co-shape (choreograph) the other. Here, there are no clear boundaries between humans, materials, technologies, and spaces. Hybrid entities emerge through actions and processes in practices — as choreographies (arrangements) of people, materials, and spatialities. Everything and everyone emerges unpredictably, in a process of becoming rhizomatically (Deleuze & Gauttari, 1988).

In the sociomaterial approach of ANT, the materialities and spatialities of e-learning and e-teaching are rendered visible beyond privileged humanistic accounts. Various actors surface to highlight the doings and politics of things (Fenwick, 2010). An ANT analytic explores the minute negotiations of various actors (human and material). Through Actor-Network Theory (rather its sensibility) (Latour, 2005; Law 2004; Law & Hassard, 1999; Fenwick, 2010; Fenwick, Edwards, & Sawchuk, 2011), both the social and technological are intertwined and co-shape the other. For example, in one of the practices used by one of the participants, the type of technology used influences her thinking and doing. Sky hand-writes everything out first before submitting anything to an online forum or emailing her lecturer in the e-subject, pointing out her rationale by saying:

… my learning happens, and I don’t know if it’s just because of the way that I learned, but it goes head-to-hand and then hand-to-computer, and I’m learning now with trying to write my thesis, I have to learn how to do it on the computer because it takes way too long, but I still type it out, print off my drafts and then make all my corrections by hand and add sections by hand and then maybe improvise a little bit on the computer, but a lot of my major thinking is through my hand.

Here, we see how technology (a vital actor) and Sky co-shape (choreograph) ways of thinking, writing and doing. By shifting the categories (Lakoff, 1987), boundaries, and boundedness (Jones, 2009; Lakoff, 1987; Newman, 2006) of the social, technological, and spatial, we can conceptualise emergence of worlds through more textured and complicated choreographies. Agency here is distributed across humans and non-humans, and is no longer a domain of people only. In ANT, categories are emergent rather than inherent; there are no essentialising characteristics. Sociomaterially, e-learning and e-teaching are performed with greater complexity where materialities (too) often invisible or missed are brought to view in renditions that are more than human (Barad, 2003, 2007; Hayles, 1999; Whatmore, 2006).

ANT’s sociomaterial approach is valuable in that “it challenges the centering of human processes in learning (often conceived as consciousness, intention, meaning, intersubjectivity and social relations) derived from perspectives associated with phenomenology and social constructivism, and foregrounds the material” (Fenwick, 2010: 104). This supports Sørenson’s (2009, p.2) stance to “place the human not above materials (as the creator or user) but among materials”. My aim, like Fenwick’s and Sørenson’s, was to study the materialities, identities, and spatialities of e-learning and e-teaching to consider the vitality of objects (Knorr-Cetina, 1997; Pels, Hetherington & Vandenberghe, 2002; Turkle, 2007, 2008a, 2008b) and their “vibrant materiality” (Bennett, 2010).
Humans are set up “in opposition to things” (Dolwick 2009: 35) to act “on’ things” (Dolwick 2009, p. 35, original emphasis), but rather to act “with, through, or in response” to things (Dolwick, 2009, p. 35). ANT extends to materials their “ontological dignity” (Latour & Venn, 2002); in the centred-human status quo, this is risky but generative.

ANT is situated in a performative world idiom (as distinct from representational idiom of a world out there) where the world emerges in relation with/to everything, nothing exists independently of their relations. This relational perspective sees space/place by poststructural geographers (Massey, 2005; Murdoch, 2006) as dynamic and emergent, moving space/place beyond static boundary limitations. By exploring e-learning and e-teaching through new spatial conceptualisations, we can enrich understandings of e-pedagogies as borders are (re)negotiated and (trans)formed (Massey, 2005, p. 179). Matter (re)configures spaces/places so that they are constantly (re)made, (re)choreographed, and (re)assembled (Sheller & Urry, 2006). In a relational worldview, spaces/places are emergent and not predetermined or preformed. They come into being through practices. Massey’s (2005) and Murdoch’s (2006) view of space as hybrid and emergent and dynamic proves productive, so that spaces/places become generative sites of emergence in their “openness, and heterogeneity, and liveliness” (Massey, 2005, p. 19). How to deal with the physical/digital spaces becomes the issue, as online teaching and learning spaces (digital and physical) challenge the traditional notions of habituated everyday bounded environments of the academy.

For example, returning to Sky, who is a vibrant, energetic, Canadian international exchange student excited about engaging in Australian culture, lives in a tiny apartment in the central part of an Australian city on exchange. In living in a tiny apartment in a new country, she seeks out other expansive spaces in the city library to do her e-learning. Her “little desk” (Figure 1) as she says, in her tiny room, cannot compete with the outward seeking she requires of an expansive city library (Figure 2) full of people. Here various spatialities and materialities (digital and physical) and ways of doing learning intersect and co-emerge. In the public library, her learning is done individually, as she later attempts to find other university people (in the flesh) with whom she can engage and discuss the e-subject content. For Sky, as an exchange student, newly arrived to the city, knowing few people, she, like many of the other international students, needs the connection with others – in the flesh. Sky’s freedom to relocate wherever she chooses is facilitated by her laptop and so she can have movable learning locales. Clearly, physical and digital spaces co-exist and facilitate various movements. We see the co-configurations of technologies and various spatialities and Sky’s learning preferences and needs. We witness the vitality and ‘the politics of things’ in the laptop on the move and spaces/places that confine and expand and the way (e-)learning happens.

“Hi Reem,  
As promised, here is the photo of my “little desk”.  
Hope this helps.  
Sky”

Figure 1. Sky’s Apartment Desk

1 The topic of space/place distinctions is a thesis in itself and beyond the scope of this paper and has been addressed elsewhere (e.g. Al-Mahmood, 2006; Al-Mahmood et al., 2006; Burbules, 2004; Crang & Thrift (2000); Gruenewald, 2003; Hubbard, Kitchin & Valentine, 2004; Kitchin, 1998; Malpas, 1999; Massey, 2005).
We need to analyse hybrid possibilities in the intersections of the physical and digital/online (Leander & McKim, p. 2003). Kitchin (1998, p. 403) aptly highlights that “cyberspaces do not replace geographic spaces, nor do they destroy space and time. Rather, cyberspaces coexist with geographic spaces providing a new layer of virtual sites superimposed over geographic spaces. … spatial transformations are affecting social relations while simultaneously social transformations are affecting spatial relations”. Consequently ‘cyberspace’ or online space can be seen as different kinds of spaces as “internally multiple” (Bingham, 1996 cited in Massey, 2005, p. 91).

Massey invites us to consider these relations in these emergent “spatial configurations” (Massey, 2005, p. 91). We have new notions of (t)hereness and (im)possibilities in the (im)mobilities entailed through all sorts of materialities that can produce ‘isolated connectivity’/ ‘connected isolation’; ‘absent presence’/ ‘present absence’ (Al-Mahmood, 2008b; Enriquez, 2009), ‘travelling-in-dwelling’/ ‘dwelling-in-travelling’ (Clifford, 1997; Lury, 1997: 83, also cited in Gibson 2007: 5) and so on. What this adds is simultaneity (Virilio, 1997) and multiplicity, so that spaces/places expand and multiply. It is too simplistic to take on either/or perspectives of the digital/virtual/physical – for stasis and kinesis are complicated and demand new metaphors to attend to their complex and emergent (spatial) possibilities. We need to move beyond static views of space to more dynamic accounts (Al-Mahmood, 2006; Al-Mahmood, 2011 forthcoming).

Likewise, in a relational world, identities are no longer essentialised. Rather, we can talk of extending the boundaries of our selves, of our skin (Haraway, 2006), and of fragmenting ourselves digitally. The self is mobile and distributed across cyberspace. From a relational perspective, identities are always in a process of becoming. For “identities/entities, the relations ‘between’ them, and the spatiality which is part of them, are all co-constitutive” (Massey, 2005, p.10). This lends itself to the postmodern notion of identity as shifting and emergent – the “postmodern, flexible self” (Bayne, 2005, p. 29). ‘Selving’ means that “… the self is regarded as a process, something that is done, not as something that simply is” (Jensen, 2001, p. 72). Identities here are emergent and hybrid becomings.

To illustrate this, I return to Sky to show how identities and spatialities and the technologies emerge differently. Sky’s subject holds an interesting tension for her between the LMS public forum and the one-to-one emails with her lecturer. She shifts between student and researcher roles, depending on the online interactions with her lecturers and their mode (e-mail or public forum), and the degrees of risk she perceives in the different online media environments. How she engages becomes more censored and controlled, as she highlights.

… I’m going to reveal something here. Before I answered any of Bernie’s [lecturer] questions I would write it all out first … by hand, and then I would type it, because there was, for me, more of a pressure to say the right thing… perhaps because everybody else could see it … So the identity that I portrayed in that class was perhaps a little bit more censored than the identity I might have presented to Barrie [lecturer], because with Barrie it
was just Barrie, and if he didn’t like it, it was just him and me … and I had not as much to lose, not as much to risk perhaps.

For Sky, the one-to-one interactions via individual email with her lecturer was less risky and less censored than her identity portrayed when submitting responses to questions on a public subject forum.

… I guess my identity in the role that I played in Barrie’s [class] was very much the teacher/student relationship. I was the student, whereas the role that I played in Bernie’s was more of the researcher. So there we were in a classroom of researchers as opposed to in a tutoring session with a teacher.

She explains her experience of e-learning as hinging on the relationship with the online lecturer. She emphasises differences in her experience between two online subjects that involved individualised email interaction with the lecturer rather than a public forum response to questions, saying:

… so the relationship in the first one. I felt like a small student and a big teacher …. there was a chance … I looked up to what he [lecturer] was saying … I also felt like he was giving me knowledge, it was much more personal and it was much more … I could take the risks in there, but the down side of that was I … there wasn’t that equal chance, equal opportunity to experience other people in the same boat. It was just I knew about what I was doing, and he knew what I was doing, and I didn’t know about anybody else, any other students, so very much that tutoring image I keep coming back to – that of the one big teacher and the one little student.

In the public forum, where the interactions were public responses to questions and discussion amongst the lecturer and students, Sky’s sense of greater equality between the lecturer and student was apparent.

… now we go over to Bernie’s, it was a totally different relationship. I’m going to stay with that idea. More of an equal, so if I think about the size of the student it was more like a slightly bigger teacher, but comparable to the others, and perhaps in the middle of the others, although I would say the others were all in a line, not intermingling, but all like you knew they were there, he did a great job of trying to connect them, but it was very linear in the fact that there wasn’t the interaction between us except for the fact that one at a time we explained what we did. Ducks in a line I guess.

Sky explains how the different online subject interactions of individual private emails with her lecturer versus the public responses and interactions on the subject LMS forum, visible to all students and lecturer, intertwined with her national identity and her output mode.

… the role perhaps was different and I thought the level of expertness … was not taken away in the student/teacher role. It’s not that I wasn’t an expert then, but I felt more of meeting with the teacher in that role and being guided like how you would with a supervisor … versus in Bernie’s class it was more of …. and the reason perhaps I wrote it all out was because I wanted to sound more expert and make sure that I knew my topic since …. there were very few that were Canadian … not that I represented all of our education but, you know what I mean ... I felt the need to make sure what I was saying was valid.

Whilst not wanting to be too enamoured by the decentring of humans, because after all, learning and teaching revolve around humans, I needed to find a way to maintain the focus on the affective dimensions as ANT elides this in its material semiotic symmetrical treatment of humans and materials. The complementary sensibility of Non-Representational Theory (NRT) (Thrift, 2008) that addresses the affective as distributed and not residing in purely psychological realms was invoked.
NRT, which resonates sufficiently with ANT, is a transdisciplinary approach that arose from human geography. It is underpinned by the process-oriented philosophies of ANT and Deleuzean rhizomatics, but unlike ANT, NRT privileges human imagination, which ANT elides. Affectivity in NRT extends beyond purely human subjectivities to embrace energies and sensations that are “discharged through objects and spaces” (Navaro-Yashin, 2009). Through these two complementary approaches, the “affectively charged places of learning” (Leander, Phillips & Taylor, 2010, p. 336, original emphasis) can be explored.

Further, NRT like ANT invokes the metaphor of performance to enact the world as performed. I too invoked the metaphor of researcher as choreographer to enact my understandings and performance (writing) of the research to display how I performed the research and it performed me. I briefly expand upon this metaphor and return further on to discuss how it propelled the imag(in)ing, conceptualising and evolving of the PhD performance.

Warming up 2 – Ways of Embodying: On Moving Research(er) Metaphors

By drawing on the process-focused philosophies that underpin ANT and NRT in rhizomatic emergence, I used the performance metaphor of choreography to enact a performative ontological positioning where research may be understood as a process of choreographing, with researcher as choreographer (Janesick, 2003, p. 47). Choreography shows the enactment of wor(l)ds through emergent performances. Performance “… provides a way of understanding meaning as not residing in something but as generated through processes, and which does not therefore assume a realm of representation and a realm of the real” (Thrift, 2000, p. 225). This highlights “reality as ‘done’ rather than ‘observed.’” (Gad & Jensen, 2010, p. 71, original emphasis). I used enactment and performance to mean enacting realities – enacting knowledge of the world.

On another level, I used the term choreography as “ontological choreography” (Cussins, 1996, p. 604) “as the dominant ontological/political metaphor … to invoke materiality, structural constraint, performativity, discipline, co-dependence of setting and performers, and movement”. I aimed to show that e-learning and e-teaching practices are choreographed by participants (human and otherwise) and (re)performed through the PhD writing.

With this in mind and wanting to write/perform a PhD text that enacted the performative ontology that I had come to embody, I moved beyond traditional ways of writing to attend to complexity, materiality and hybridity. As a researcher, I came to understand what Janesick (2003, p. 63) so poignantly highlights:

> The role of the qualitative researcher, like that of the dancer or the choreographer, demands a presence, an attention to detail, and a powerful use of the researcher’s own mind and body in analysis and interpretation of data.

A way into the PhD writing then became possible, inspired along the way by realisations and ‘eloquent moments’ – beyond words. Writing with words only would silence the vibrant materialities that were demanding ‘a voice’ and equal status in the thesis performance.

Pausing – Epiphanies and Eloquent Moments

Like Cole and Knowles’ (2011, p.120) “epiphal” encounters with images in art galleries that ‘moved’ their understandings of social science research, I was moved by an encounter with a digital art image (Figure 3).

My understanding of ANT and NRT was transformed beyond ‘just words’. I was profoundly ‘moved’ to ‘see’/visualise what I was seeking to “handle” and combine.
This encounter with this image unfolded the PhD thesis choreography writing and imag(in)ing. I realised how one can come to be *touched and moved* by something so powerfully. Like Cole and Knowles (2011), I had wanted to engage in research that “moves” and “engages” both conceptually in (re)presentations of the data, whilst highlighting *my hand* and thoughts reflexively in the synthesis. I echo what Cole and Knowles (2011, p. 130) suggest:

*Readers of research need to be moved to feel and think, and to be inspired in some way. It is our responsibility as researchers to provoke that kind of encounter. Research that is accessible, evocative, embodied, empathic, and provocative more fully portrays the complexities of the human condition ...*

My aim also became to choreograph the thesis performance with the potential to “re-enchant research” (Cole & Knowles 2011, p.130). This was by no means an easy task. The tensions and issues of attempting to do this and use writing approaches to enact a performative ontology are discussed next.

**Warming up 3 – Ways of Writing: Performing Data Choreographies**

In embracing a relational sensibility, there were challenges of *(re)presenting/performing* the data fragments. As a researcher (choreographer), I was emboldened by Hart and Dadds (2001) amongst many others such as Lather (2007), Lather and Smithies (1997), MacLure (2003), Stronach (2010), and Stronach and MacLure (1997) to break from traditional expositions towards experimenting with data synthesis and structures. To work with traditional linear analytical academic texts, often the “tortured” writing (Goodyear, 2011) of traditional academe, was always going to be problematic as I would silence and translate various actors into ‘reduced’ verbal texts. Like Mol and Mesman (1996) who wanted to “… unravel and understand how the methods we’re caught up in, make us observe and write” (Mol & Mesman, 1996, p. 419), I too wanted to attend to this concern.

How to analyse the amount and range of data types, given that I had used multi-sited (digital and physical) ethnographic methods of the virtual and physical, was overwhelmingly complicated. I had amassed interview transcripts, photographs, reflective accounts, online subject site CMC (computer mediated communication), and my research(er) journals. ANT and NRT are not particularly forthcoming about how to do this except in the dictum of “follow the doers” or the actions (Latour, 1987, 2005). Evolving a way to choreograph *(perform)* and analyse the data creatively was a challenge. In a material semiotic way, one starts from uncertainty (Latour, 2005) with no predefined categories. In keeping with ANT’s tenets, I focussed on *what* and *how* questions – *what/how* learning and teaching practices came about; *what/how* identities came about in
practice; and what/how spatialities were (per)formed, rather than on the why – whilst also attending to the affective (Thrift, 2008). I used qualitative methods of content analysis and semiotic methods (Law, 2004). Analysis consisted of an open-ended process, as ANT has no way of determining a starting point. I kept alive the question of how associations between identity, spatiality, materiality, learning and teaching were made and transformed. In the analysis, I performed and modified “data stories” (Lather, 1991a, 1991b) towards a style of data performances. In needing to give presence and voice to the various entities/actors in their hybridities, I attempted to have them ‘speak’ – sometimes loudly, softly, silently – visually or verbally – intertextually. Effective ANT texts according to Latour (2005) require good descriptions and shouldn’t be layered with explanations. Visual verbal and visual-verbal displays in dealing with the minutiae to give voice to vibrant materiality were choreographed (arranged).

Issues of how to do visual analysis and how to entangle the visual text with/against the verbal text were paramount in aiming to capture rich glimpses into the everyday sociomaterial practices using vignettes (Al-Mahmood, 2006, 2008a, 2008b, 2011; Thrift, 2006) to highlight e-learning and e-teaching, identity, and spatiality choreographies. Within the limits and boundaries of the page, this endeavour was already configured, whilst attempting ways to nuance something of the elusive and non-representational beyond mere printed text – to move beyond what had already been attempted in standard visuals in texts. Inspiration from intertextual displays and visual methods by Banks (2001) and Moss (1999, 2008a, 2008b) were garnered. The materials and spaces too wanted to speak, to shake up and to be seen.

In the visual analysis, seminal and insightful texts on visual literacy and reading images in the works of Kress and Van Leeuwen (2006) on Reading Visual Images and Perkins’s (1994) The Intelligent Eye were drawn upon. These texts raise underlying issues for a newcomer to the field of visual research of how to do visual embedding and (de)construction, and how to entangle visual and verbal texts in any research process and (re)presentation. In this media intense digital age, there is need for accounts of how to work through/with/against images in research publications, both print and digital, on a level that transgresses traditional illustrations and uses.

The postlogographic in the work of Gough (2004a, 2004b, 2006, 2008); Gough and Sellers (2004); Sellers (2005, 2008) provided insightful possibilities. Gough and Sellers (2004: 11, original emphasis) explain that the “Postlogographic; for us, concerns ideocomplexities – gatherings of manifold ways for performing-stories, with ‘and’ beyond ‘logos’. I used the postlogographic in the data performances to move beyond the purely verbal (Sellers & Gough, 2010). In support of the postlogographic, and the ongoing tension and debate over text versus image, Homer (1998, p. 7) refers to Stafford’s argument “that we need to disestablish the view of cognition as dominantly aggressively linguistic. It is narcissistic ... to overemphasize the agency of logos [the word] and annihilate rival imaginaries” (Stafford, 1996 cited in Homer, 1998, p. 7). Visuals provoke ambiguities and multiple interpretations, are resistant to single readings and classifications (Pink, 2007a, 2007b), and enact “thinking differently” (Sellers & Gough, 2010, p. 590).

While the ethical issues involved in using images in this study may not be on the scale of those in Burke (2001) or Leith (2004), or those suggested by Temple and McVittie (2005), nonetheless there are always ethical issues with any image-based research. What happens when a place is imaged and potentially identifiable? What are the ethics of translating a verbal expression into a visual or postlogographic format? What of the mult,textual and intertextual elements? What of image size, colour, angle, (fore/back)ground? Who owns image copyright? What of morphing/tweaking images? For example, what do the images in this paper do/say? What are their politics? What of their intertextuality, and how could they be done differently? What do they elide and miss?

It is never possible to provide neutral objective interpretations (Pink, 2007a). Pink (2007a) demands reflexivity to be included as part of any visual analysis as indeed for any text. As Bach (2001: online) eloquently asks: “Whose gaze (de)constructs the image/sign?” In the analysis of any text, there is need to consider “text/context and reflexivity” (Lynn & Lea, 2005, p. 215), which are more often than not “glossed over”. In “reading” the visual (consciously or and unconsciously), we
inevitably “include selection, omission and frame; signification and evaluation; arrangement; differentiation and connection; focus; and context” (Schirato & Webb, 2004). There are, to some extent, more complicated questions to ask of visual texts because of their greater openness and ambiguity compared to the verbal. This ambiguity does facilitate multiple meanings, and consequently assembling and crafting images in research risks ambivalences, ruptures and critique. “There is no single way – much less one ‘right’ way of staging a text” (Richardson, 2003, p. 521). As researchers, this compels us to consider the ethics and politics of image-based texts carefully.

There are always infinite possibilities for arranging data, and various arrangements that could more appropriately enact a performative ontology-epistemology. Exploring ways to deal with the hybridity of e-learning and e-teaching practices, and to hold the tensions of writing simultaneously human and non-human accounts – to embrace “the more than human” (Lorimer, 2005; Whatmore, 2006) was significant. This was always going to be risky and provocative, but as Woolgar (2004, p. 347) suggests we need “to provoke, highlight and challenge our taken-for-granted assumptions, and to unsettle and disturb our inclination to depend on safe formulae and on comfortable analytic perspectives”. The data arrangements (data performances) were based on a multitude of data sources – participant interviews, reflections, online discussions, online class observations and photographs and images, which were combined with reflexive textual moves to highlight my fabrications (Derrida, 1981; MacLure, 2003; Stronach, 2002, 2009; Stronach & Piper, 2004).

The term data performance was used to highlight the dynamic notion of “discovery and invention” (Thrift, 2006, p.144). In the choreographed performances, I was not reporting on a world out there, but rather performing/enacting knowledge about e-learning and e-teaching through textual (verbal and visual), affective, embodied, and cognitive processes. The data was arranged across four data performance chapters of Boundaries, Moorings, Thresholds, and Mobilities, where each metaphor advanced an understanding of e-learning and e-teaching as practices that emerged through complex human-material arrangements (choreographies). Knowledge moves were shown in reflexive and textually performative ways.

Accordingly, materiality was brought forth through various arrangements of visual and verbal texts. Where verbals could not go, I let images go; and where images could not go, I let text go – I moved beyond either/or to both/and – towards new textual forms, where word and image move with/against/between the other. The desire was to produce “texts that are vital” (Richardson 2003: 501), baroque-like (MacLure, 2006); multietextual and multivocal; rhizomatic (Gough, 2004a, 2004b; Latour, 1996; Law, 2002; Lather & Smithies, 1997; Sellers, 2005, 2008; Sellers & Gough, 2010; Stronach, 2002, 2010, chapter 7; Stronach & MacLure, 1997). These texts moved “beyond univocal authority” (Brearley, 2002; McWilliam, Dooley, McArdle & Tan, 2009) towards texts that entangle, improvise, evoke, provoke, and come to be – in-relation (Flannery, 2009).

In the rhizomatic writing styles, I took risks in verbal and visual textual embraces, for textualising data and inquiry are never “innocent practices” (Richardson, 2003), we are always political. There is always an ethical responsibility in writing, for telling stories enacts worlds into being, and “as ‘readers’ we are also ‘writers’, selecting, editing and framing all that we see” (Schirato & Webb, 2004: 33). Barthes (1968/1977) and Foucault (1977: 113-138) remind us of “death of the author” and “what is an author?” respectively. “Texts cannot be subdued into ‘one-way reading”’ (Derrida, 1981, p. 225, cited in MacLure, 2003, p.127). Texts do not represent an ‘out there world’, rather, the reader and author are entangled together, performed together. There is no mastery, no ‘truth’. One cannot “look at the text without touching it” (Derrida, 1981, pp. 63-64, cited in MacLure, 2003, p.128). Each reader brings their frames to read a reading. Ultimately, all texts are a work in progress.

In envisioning the thesis choreography, multietextual provocations to entice by “seduction rather than argument” (MacLure, 2006, p. 738) were used. Rhizomatic writing (Gough & Price 2004, p.30, p. 8 of the downloaded PDF) was drawn upon as “rhizomatic inquiry destabilises arborescent conceptions … as hierarchically articulated branches of knowledge rooted in firm foundations …”. Abandoning arborescent thinking means becoming nomadic, allowing thoughts to wander beyond
familiar territories and to produce new texts/territories”. Inspiration was also gained from ANT texts such as Law’s (2007a, 2007b), Latour (1996), and Lather and Smithies (1997). The rhizomatic fabrications (MacLure, 2003, p. 127) highlight that the texts that we produce are always assemblages or choreographies, always fabrications, “weaving something new yet assembled out of fragments and recollections of other fabrications such as the interview ‘data’ and field notes … and so on” (MacLure, 2003, p. 127). MacLure invites writing texts that resist one-way readings through multilayered texts, vignettes, poems, reflections – erasing the stability of the text. The data performances “fabricated” nuances and multiplicities of everyday e-learning and e-teaching participant practices (Law, 2000).

The texts produced used postlogographic notions (e.g. Figure 4), as well “rhizomatic” writing (Grosz (1995, p.126, original emphasis), enacting the ontological performative (emergent) positioning, whilst working with/against arborescent requirements of a PhD. My desire was that these might bring vibrant matters to speak and to life, albeit within the confines of the page and the struggles to work with/against structure, arborescence, coherence, and the tensions of rhizomatic inclinations.

The aim of this paper is to advocate that choreographing and researching beyond boundaries might produce heightened intensities, surprises, ambivalences, and humbler renditions beyond verbal univocal authoritative voicing. Grosz (1995, p.126) eloquently reminds us of the textual rhizomatic precariousness of our writings in that:

... texts ... at their best scatter thoughts and images into different linkages or new alignments .... Ideally, they produce altered intensities, peculiar sites of indifference, new connections with other objects, and thus generate affective and conceptual transformations that problematize, challenge, and move beyond intellectual and pragmatic frameworks.

In moving beyond traditional linear arborescent writing structures towards more evocative, baroque, sensuous, multitextual, postlogographic, artful, and rhizomatic renditions (e.g. Figure 4), I aimed to show how “various objects and mundane technologies sensuously extend human capacities into and across the world” (Büscher, Urry & Witchger, 2011, p. 6).

By dissolving traditional human/material and verbal/visual boundaries, different ways to research and write about e-learning and e-teaching were provoked.
Is it that I fall in love with images and want to use them in some way to represent participants' ideas, words, encounters, silences, practices...? or as Temple and McVittie (2005, p. 229) point out:

“Often images produced are attributed with an almost mystical quality, such as power to ‘fascinate’ or ‘to cast a spell over’ those involved [Lanham, 1998: 48]”... Besides, “I have never found a concept that was grasped in a word” [Derrida, 2005, p. 83]...

Figure 4. Choreographing Research(er) Actors ...

“... No one knows ahead of time the effects one is capable of... you do not know beforehand what a body or mind can do, in a given encounter, or given arrangement, a given combination.” (Deleuze, 1968, p. 195)

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“... I am waiting for them to stop talking about the 'Other', to stop even describing how important it is to be able to speak about difference. It is not just important what we speak about, but how and why we speak. Often this speech about the 'Other' is also a mask an oppressive talk hiding gaps, absence, that space where our words would be if we were speaking, if there were silence, if we were there. This 'we' is that 'us' in the margins, that 'we'; who inhabit the marginal space that is not a site of domination but a place of resistance. Enter that space. Often this speech is about the 'other': annihilates, erases: 'no need to hear your voice when I can talk about you better than you can speak about yourself. 'No need to hear your voice. Only tell me about your pain. I want to know your story. And then I will tell it back to you in such a way that it has become mine, my own. Re-writing you, I write myself anew. I am still author, authority. I am still the colonizer, the speaking subject, and you are now at the center of my talk.' Stop. We greet you as liberators. This 'we' is that 'us' in the margins, that 'we' who inhabit marginal space that is not a site of domination but a place of resistance. Enter that space. This is an intervention. I am writing to you. I am speaking from a place in the margins where I am different, where I see things differently. I am talking about what I see.”

(hooks, 2000, p. 208, original emphasis)

“... Her fingers have been tapping me for a long while now. Periodically, she stops to embrace the curve of the mouse. We’ve helped her write this work. She’s been typing, cutting and pasting, visualising – engrossed in her baroque attempts. She’s immersed in images, materialities, spatialities – gazing at the screen, her fingers tap dance me. But what if a reader were blind, attempting a Borgesian touch? What of her visual world then? She continues to type: “The computer expands the mind outward as though it were responding to the body’s instinct to find itself by reaching out beyond its own limbic limits.”

(Cooper, 2005, p. 1708)

 Finale – Stretching: Ways of Researching Beyond Boundaries

Why might it be useful to draw on transdisciplinary approaches and transgress traditional boundaries? I am heartened and encouraged in that Goodyear (2011) echoes the valuable insights and contribution that ANT and NRT can potentially make to “educational research futures”, saying: “... ANT encourages us to open our minds to possible redistribution of work amongst humans, digital and physical actants. Educational researchers will need methods and perspectives that allow them to deal with the complexities of understanding learning in such networks” (Goodyear,
Fenwick (2010) and Fenwick and Richards (2011) further highlight the value of sociomaterial approaches in educational research methodologies. Further, Goodyear (2011) predicts a move away in educational research from golden standard large scale studies and hypothesised studies towards smaller scale design studies to inform rich design patterns (Goodyear, 2005) of interpreting and producing effective learning environments (Goodyear, 2011, p. 260). This requires considering “… ecologies of interweaving physical, digital and human resources” (Goodyear, 2011, p. 258) to move beyond their traditional boundaries. We need to move beyond the boundaries of online/offline, digital/physical, human/material, visual/verbal to encourage hybrid ways to analyse and interpret e-learning and e-teaching practices in their complexities. Ultimately, online and offline practices are mutually imbricated, so we need approaches and methods to deal with this.

We need to hold on to complexity and use approaches that add to the world, rather than reduce from the world. As Markauskaite (2011, p. 247) asks, how does one make abstractions without reducing the complexities of rich data? The implications of this paper then are that we need to embrace the more than human in our theories and methodologies to consider the materialities and spatialities of the world in their complexities and richness. From a practical perspective, this means that we need to use methods that trace and highlight the various (im)mobilities of people and materials across various spatialities. This might then facilitate accounts of the world that highlight the ‘invisible masses’ that are elided in purely humanist research renditions. “Our theories tell us stories about the objects of our lives. As we begin to live with objects that challenge the boundaries between the born and created and between humans and everything else, we will need to tell ourselves different stories” (Turkle 2007: 326). Embracing the sociomaterial and affective dimensions in our research accounts then, demands different ways of performing and writing about the world beyond traditional research accounts.

I have suggested approaches that deal with writing about the fleeting, the sensory, the affective, and the atmosphere of places and spaces, which require multiple ‘artful’ expositions and imaged displays. I propose that we might favour movement, rhizomatics, ambivalences, and tensions over linear, structured and authoritative conclusions to open up spaces for sensescapes (Büscher & Urry, 2009) and imagination that challenge purely humanist accounts. I am advocating ways to consider “archaeological glimpses and complexities” of the digital academy (Büscher & Urry, 2009). We need to explore ways to keep the world open and ambivalent through immersive and novel approaches that “engender” “new research entities” (Büscher & Urry, 2009). For future e-research(ers), I would suggest in line with (Markauskaite, 2011: 249) that we need to “understand how the ‘e’ works, to be able to co-develop research affordances” that change research practices that explore the physical with the digital.

My desire has been to rethink research on e-learning and e-teaching as “… a transdisciplinary research field in a deep ontological and epistemological sense” and “how it could be combined with disciplinary ways of knowing and what kind of knowledge these combinations could produce” (Markauskaite, 2011, p. 246). There is indeed value and risk in working on the edges of methodological frontiers using multidisciplinary approaches to show complex sociomaterial realities. This sharpens what and how we might view the world in its ‘thinginess’ to articulate “incitefully” (Senior, 2006) embracing vibrant and lively materialities and radical (re)presentations. Singular closures or simple prescriptions about how to do e-learning and e-teaching research don’t sit well with a poststructuralist stance, so I do not want to provide definitive ‘prescriptions’ or ‘endings’ but rather I’m suggesting ‘stretching’ the boundaries of how we do e-learning and e-teaching research. As we become entwined and extend ourselves with/into/against the hubris of e-teaching and e-learning, we come to (re)configure ourselves, our tools, and our ways of researching and writing. We engage in “fabricating new concepts” (Deleuze & Guattari, 1994, p.2) of “sensing the new” (Stronach, 2010, p.173) – requiring a new ethics of being in/with the world – in a more than human way – where bodies matter, spaces matter, everything matters. We might then come to see e-learning and e-teaching as improvised and emergent choreographies of many different practices – diverse processes that accomplish diverse outcomes. This has been but a research choreography of the more than human and of the more than verbal in dissolving and transgressing multiple boundaries. The extent to which this ‘moves’ academia beyond its traditional
humanist and verbal boundaries and practices is in (y)our hands and in those who risk and dare to improvise and choreograph differently – beyond so many (research) boundaries. Let us move to research beyond boundaries.

References


