Assembling the actors: exploring the challenges of 'system leadership' in education through Actor-Network Theory

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Abstract

This paper presents insights into the leadership implications of recent shifts in a range of policy contexts towards notions of collaboration and partnership. The paper draws on empirical research into the formation and operation of government instituted networks in the context of education in Victoria, Australia. From 2001, School Networks and Local Learning and Employment Networks (LLEN) were implemented by the state government to support young people in their transition through school and into employment in a context of a risk society (Beck 1992), a context where pathways into sustainable employment for young people, and others, had become more erratic. For comparative purposes, the paper also draws on published research into the implementation of joined-up approaches, including Primary Strategy Learning Networks (PSLN), in England (Moore

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and Rutherford 2012). Using concepts from Actor Network Theory (ANT), the paper argues for the value of considering the full range of actors — both human and non-human, real and unreal — involved in networking initiatives and proposes some thoughts on the implications of such a sociology of associations for both leadership and governance.

Keywords

Partnership, networks, collaboration, leadership, governance, Actor Network Theory

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Introduction

In the Victorian state government elections of 1999, Australian Labor was favoured by an electorate that was ready to put aside — at least for the time being —neoliberal policies of economic rationalism. The policies of the preceding Liberal government had influenced the education landscape across the state in ways that were perceived by some to be profoundly damaging to a sense of community and connectedness (Shacklock 1998). A trend towards disenchantment with neoliberal tenets had previously become apparent on the other side of the globe where the impact of the Education Reform Act of 1988 in England had seen similar consequential damage (Glatter 2003). In Victoria, Australian Labor was influenced by developments in the European context that suggested collaborative approaches were not only desirable, but necessary, in the twenty-first century education policy arena; these approaches would promote both school improvement and social equity. They would also foster innovation in educational service provision (Chapman and Hadfield 2010; OECD 2003).

In the latter decades of the twentieth century in education and other policy arenas, there was increasing acceptance that effective policy demanded cooperative efforts involving both State and market. In the face of 'wicked problems' (Rittel and Webber 1973), policy required connectedness, a concerted effort by all those with the capacity to act; it involved dependency on others to imagine new policy options and convert them into action (Balloch and Taylor 2001; OECD 2004). By the turn of the twenty-first century, so-called 'joined-up' government and Third Way politics was positioned at 'the heart of the new intelligent welfare state' and seen as key to achievement of the social inclusion agenda (Riddell and Tett 2001, 2). Such a perspective changed relations between government and the community, placing focus on community capacity-building and the collaborative pursuit of 'what works' rather than adherence to a centrally dictated programmatic approach. By consequence, it also

aligned policy with the intellectual concerns of Actor Network Theory: 'precarious relations, the making of the bits and pieces of those relations, a logic of translations, a concern with materials of different kinds, with how it is that everything hangs together, if it does' (Law 2009, 145).

This shift from an ethos of competition to one of collaboration in Victoria was articulated in two key policy documents. Early in 2000, the Victorian government implemented reviews that would change the educational terrain in the state: a review of post compulsory education and training pathways (Kirby 2000) and a review of the future directions of the state's public schools (Connors 2000). Both Reviews resulted in the implementation of networking initiatives in the Victorian context, initiatives that have sustained to the present time. The empirical research from Australia that I weave through this paper was generated through ethnographic research funded through an Australian Research Council Linkage Project awarded to Deakin University Faculty of Education in partnership with the Geelong Region Local Learning and Employment Network (LLEN), one of thirty-one LLEN that cover all areas of Victoria (Kamp 2013b, 2009).

What does it take to be a network 'leader' working to create system change within, while reaching beyond, traditionally hierarchical systems of education? Who — and what — is 'leading', from where, within connective endeavours? What might we consider differently if the full range of actors are brought into focus as they create, advance, or frustrate the collective task? In exploring these questions, the paper commences with a necessarily limited overview of the rationale for networks, their implementation and current status. The next section provides a brief introduction to the concepts that are taken up in the current analysis, before moving to consider examples of imposed networks in the state of Victoria, Australia,

and in England. Having presented an ANTian view of these networks, the paper closes with

some reflections on the leadership implications of this analysis.

'Net-work' with mediators and intermediaries

> *Thus, the list of verbs to describe what actants[2] do has to be expanded beyond the one extreme of 'provide background' and the other extreme of 'determine' to include 'allow, afford, encourage, permit, suggest, influence, block, render possible, forbid and so on. (Latour [2005]2007, 72)*

Actor-Network Theory (ANT) is the name of an 'array of practices' (Fenwick and Edwards

2010, x) that engage with the idea of exploring – rather than either assuming or ignoring – the

full range of actors that are present in social practice. In common with other sociomaterial

approaches,[3] ANT is focused on knowledge as enactment (Fenwick, Edwards, and Sawchuk

2011). These approaches consider *performance* rather than *category* in identifying the source

of action. Methodologically, this means tracking actants – defined as the full range of

potential actors in net-work – as they create, advance or frustrate some collective task (Latour

1991). As an alternative branch of social theory ANT's strength is that, in the process of

making clear how very heterogeneous actants – furniture, human beings, policy texts,

buildings, electoral cycles, a visit by Ofsted, electronic devices, memories, medical

diagnoses, architecture, plants, intentions and so forth – are assembled, the potential for

them to be assembled anew, with new effect, is also made clear (Latour [2005]2007). Over

recent years, a growing body of work has engaged with this 'array' to engage with social

policy concerns including, for example, policy mobility (Clarke et al. 2015), governance and

accountability (Woolgar and Neyland 2013), public transportation (Ureta 2015), housing

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[2] In this use, actant refers to the entity prior to its identification as a fully performing part of the network (Latour 1999a).

[3] Other sociomaterial approaches would include complexity theories, spatial and temporality, and cultural historical activity theory (Fenwick, Edwards, and Sawchuk 2011).

(Cowan, Morgan, and Mcdermont 2009), education (Gulson, Clarke, and Bendix Petersen 2015), and health (Singleton 2005).

As a key principle for ANT, the 'full range of actors' includes both human and non-human actors: a generalized 'symmetry' prevails that dispenses with the kinds of categorical distinctions that are usually taken to be foundational (Law 2004). Funding, accountability regimes, field officers, old-or-new-cities, professional judgements, school bells, employment contracts, students (willing and unwilling, each with their own range of allies), space, PISA rankings, branding, monsters under the bed, templates, castles in the air, funding opportunities, policy documents, time, the All Blacks and England Rugby, local elections, you, me, and so on. In reading the work of commentators who work with an ANTian sensitivity you will often encounter a list such as you have just encountered: a roster of beings, a multitude of 'things'. This is not a literary indulgence but, rather, a constant reminder to the full range of actors that are acting in our endeavours (Harman 2009).

ANT as an approach is focused on rendering visible this diverse range of actors and exploring their actions as either *intermediaries* or *mediators*. According to Latour, an entity that is an intermediary 'transports meaning or force without transformation' (Latour [2005]2007, 39-40): whatever is its input will also be its output. Intermediaries are rare; very few objects exert no influence whatsoever by their presence in a given network. Intermediaries can project an appearance of solidity, notwithstanding the complexity of what assembles them (Latour [2005]2007, 39). This appearance of solidity can act to choke innovation: black boxes are 'low maintenance' and, in this, appeal as being something we can 'rely on' (Harman 2009, 37).

There are, however, endless mediators that 'transform, translate, distort, and modify the meaning of the elements they are supposed to carry' (Latour [2005]2007, 39). A

mediator is always complex, no matter how simple it may look. The distinction between intermediaries and mediators is important because, to paraphrase Latour ([2005]2007, 105), if a social factor such as a policy agenda around collaboration – itself an effect of previous network – is transported through intermediaries, then everything important is *in the policy*, not in the intermediaries. Clearly this is not the case given policies around networking, partnership and collaboration play out with immense variation as was the case with School Networks and LLEN in Victoria (Kamp 2009), and with the implementation of networks of various kinds in England (Chapman and Hadfield 2010).

However, the concept of mediation can, and must, be further differentiated to consider the different ways that non-humans can 'make' us act. Latour (1993, 178-90) outlines four meanings of mediation. First, mediation can relate to *interference* whereby each agent interferes with, or translates, the original goal of the other. The second meaning of mediation is *composition*. Here, mediation highlights how the composite goal becomes the common achievement of each of the agents. The third meaning of mediation considers a process of *black boxing*. The argument here is that the more something succeeds, the less it can be understood as attention need focus only on inputs and outputs rather than the complexity that inheres between input and output. The fourth, and most important, meaning of mediation is *delegation*: the way both meaning and expression are delegated to non-human objects. Latour offers the oft-cited example of speed bump: in reducing the speed of cars the speed bump replaces the police officer, changing the *form* of expression of the law. However, delegation also changes the *matter* of expression of the law, fostering a selfish imperative (don't damage the car) over a moral imperative (protect other road users). Delegation illuminates how a 'prime mover' can be absent, yet present: 'in delegation … an action, long past, of an actor, long disappeared, is still active here, today, on me' (Latour 1993, 189, original emphasis).

In this discussion of mediation, ANT expands 'classical' notions of agency, most notably via its argument for symmetry. Durkheim, for example, argued that non-human actors – 'things' – have no agency: 'it is clear that the impulsion which determines social transformations can come from neither the material nor the immaterial, for neither possesses a motivating power' (Durkheim 1966, 113). Thus, while sociology has always recognized a multiplicity of actors, ANT moves further to allow the possibility that things, objects, customs – indeed non-human of many kinds – may be the 'origin of social activity' (Latour [2005]2007, 72).

My intent in the balance of this paper is to take up the idea of intermediaries and mediators to revisit both my own earlier work on the networking policy agenda in Australia, and published research by Moore and Rutherford (2012) and Chapman and Hadfield (2010) in the context of England. The cases from England were selected to enable some degree of resonance with the Victorian case: 1) government-mandated, 2) based in education policy settings and, 3) the subject of recent empirical research. My aim is to explore what additional understandings and insights can be gleaned by focusing attention on both human, and non-human, actors in considering what is, somewhat diversely, referred to as 'system leadership'. Latour's theorem is that all entities have consequences (Harman 2009); if an actor is defined by its assemblages, and if assemblages are constantly shifting, then what consequences does this have for policy, for partners, and for leaders and administrators? Hence, an emphasis on net-work (verb) as well as network (noun).

Net-work in Victoria

At the turn of the twenty-first century, schools in Victoria, Australia were increasingly under pressure given the progressive expansion of the curriculum to meet the needs of more diverse groups of young people who were remaining in education for longer periods of time. Policies

of devolution had damaged a prior sense of the common good and this was argued to place the education system at risk through forcing schools to prioritise efficiency and competition over meeting the diverse needs of students (Connors 2000). As Lowndes and Skelcher argue, 'network style relationships often associated with partnership working – resting on trust and mutuality – are threatened, or undermined, by the imperative to compete [to ensure survival]' (Lowndes and Skelcher 1998, 326).

As part of the policy response of the incoming Labor government, unfunded School Networks were implemented from 2000. Recently, this commitment to School Networks has been restated in the face of concern about Victoria's relative position in the Programme for International Student Assessment (PISA) and the National Assessment Program – Literacy and Numeracy (NAPLAN). A new 'wave' of partnership work was sought that would see schools 'provided with advice and guidance on how to create, maintain and expand partnerships'. It would be 'critical' to highlight examples of effective partnerships that existed in schools and how 'similar arrangements [could] be pursued'; government would 'demonstrate this commitment through investment in partnerships where practicable' (Department of Education and Early Childhood Development 2012, 25).

Moving forward to 2016, networks of schools remain a component of the education landscape in Victoria, with responsibility for networks being held by school principals. This work is supported by government through the provision of a suite of resources to assist principals in 'identifying which types of networks may best support the requirements of individual schools and network partners, as well as support network activity and governance arrangements'[4]. The resources imply that collaboration involves being advised on how to

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[4] See http://www.education.vic.gov.au/school/principals/management/Pages/networks.aspx

'partner' and getting on with either mimicking what has worked elsewhere or devising a do-it-yourself partnership on the basis of templates provided by government.

Concurrent with the initial implementation of School Networks, a Ministerial Review of post compulsory education and training pathways had also been completed. That Review (Kirby 2000) suggested that transition beyond school for young Victorians had become 'more complex and unpredictable' (Kirby 2000, 7). The recommendations in the Kirby Report also included networks that would not only include representatives of the School Networks but also bridging beyond them to include other education and training providers, industry and community agencies. Established as Incorporated Associations, these Local Learning and Employment Networks (LLEN) would build on bottom-up seeds of collaboration that the Review team had witnessed to develop local, co-operative approaches to planning. LLEN were initially funded for a three-year period, with each LLEN receiving AUD400,000 per annum subsequent to which they were expected be self-sustaining.

While LLEN were initially funded as a three-year initiative, consecutive positive reviews and evaluations (KPMG 2008; The Allen Consulting Group 2012; Victorian Learning and Employment Skills Commission 2002, 2003, 2005) have resulted in on-going investment, albeit at decreasing financial levels. However, from 2010 with the introduction by the Australian federal government of School Business Community Partnership Brokers program (jointly funded by the Australian and Victorian Governments under the National Partnership on Youth Attainment and Transitions) and the decision, in Victoria, to deliver that programme through LLEN until 2014, the LLEN network remained intact. In 2014, funding for a further four years was confirmed. Initially implemented with a focus on the fifteen to nineteen age group, LLEN now focus on the needs of young people aged ten to nineteen.

These reiterations of 'partnership' for, and beyond, schools illustrate the bipartisan appeal of the joined-up agenda in the context of Victoria, Australia. However, that approach is not unique and in seeking to explore broader commonalities and differences, I now consider published research concerning collaboration in the United Kingdom.

Net-work in England

In their research published in 2011, Moore and Rutherford consider the effectiveness of Primary Strategy Learning Networks (PSLN) (Department for Education and Skills 2004). PSLN were initiated in England in 2005 as an imposed and highly-prescriptive model of collaboration for groups of five to eight primary schools focused on raising standards in literacy and numeracy. PSLN were initially allocated funding (GBP 17,000 per network) with an aim of 1,500 networks being established (Department for Education and Skills 2004), a target that was exceeded (Jackson and Temperley 2006). As well as funding, PSLN Planning Documents included ideas and tools focused on network establishment, rather than operation or leadership (Department for Education and Skills 2005b). Moore and Rutherford present qualitative research conducted over the first year of the PSLN network initiative and suggest that resolution of the tensions of networking requires 'an explicit plan for success' (2012, 77).

Chapman and Hadfield (2010) have also considered the formation and operation of networks in England. Their study focused on local government officials — advisors, policy makers, managers — who work in relationship with central government and local communities to lead and administer a 'partnership culture' in the United Kingdom (Glendinning, Powell, and Rummery 2002). Funded by the Department for Education and Skills; it involved nineteen local authorities over a two-year period. 'Paradoxes and dilemmas' are, according to the authors, a reflection of the tension within top-down

mandates for bottom-up innovation; they are also reflective of a context that becomes 'crowded' with local initiatives and an increasing range of stakeholders and organizations at the local level (Chapman and Hadfield 2010, 222). Chapman and Hadfield looked at three network types: school improvement, continuing professional development, and Every Child Matters as well as including networks that had no specific focus but which might be engaged in other partnership strategies such as the 14—19 Strategy (Department for Education and Skills 2005a) or the Primary Strategy Learning Initiatives. In this, they suggest that networking and partnership is no longer conceptualized as a mechanism for change within the UK education system but, rather, as the end point: a 'truly networked education system' (2010, 223). In this increasingly devolved context the role of Local Authorities will be diminished, if not eventually extinguished, while the role of system leaders of various kinds has increased (Close 2016).

If, as the foregoing arguments suggests, networking and partnership is a complex process, marked by tensions and paradoxes, what might an explicit plan for success — one that factors in all the actors, both human and non-human, real and unreal — look like? To consider this, I now take up the four meanings of mediation.

Bringing mediators to life

In the presented research, all four meanings of mediation — interference, composition, black boxing and delegation — can be traced and thereby brought more clearly into view and the extent of their influence considered. Government devolves responsibility for networking to the local level but, in the very process of establishing formal accountability and providing guidelines for networking, *interferes* with what local-level networking priorities may well be. In my research in Victoria, the Executive Officer of the LLEN fully recognized that funding

acted on net-work. Operational funding for LLEN covers overheads and salaries however, in the early years, there was a limited pool of discretionary funding which each LLEN used differently. Community awareness of this pool of funding proved an attractor for some community stakeholders as a mechanism for them to further their individual strategic agenda. As such, funding — generally conceived of as a vital resource for sustaining network initiatives (Moore and Rutherford 2012) — risked the opposite effect, changing the imperative of becoming a LLEN member, a situation also suggested in the English context (Higham and Yeomans 2010). For the LLEN in Victoria, faced over the years with the constant potential of an end to government support, this tracing of the ways funding acted on net-work highlighted the possibility of such an end being positive. By removing all forms of funding, government would create a space for the network to grapple with a more innovative paradigm. The subtraction of government from the LLEN, taking its technologies of governance away with it, would free the LLEN from the very particular actors that made others act in very particular, counter-policy-direction, ways.

Mediation as *composition* is apparent; indeed it is my position, having conducted the Australian research, that mediation understood as composition is necessary if the intention is some form of 'truly-networked' education system as was suggested in England (Chapman and Hadfield 2010). In Victoria, the idea that the composite goal of the net-work becomes a common achievement of all actors was an overt commitment; from the earliest stages of its function the LLEN Executive Officer articulated the need for one strategic plan for education in the region that all LLEN members would deliver. Yet, the challenge of achieving this form of mediation is evident:

> They said, 'Are you going to write all that down?' and I said, 'Well, why wouldn't I?' And they said, 'Because this organization did it.' And I said, 'Yes, I am going to claim it as an outcome [...] because it is part of the delivery on the LLEN agenda.'

> *Now this is our most active Working Party that somehow thought I was taking liberties on the things I was saying. But where else does it fit but here? This is what we've said we were going to do. You are all the people who sit here. Of course I am going to claim these outcomes (*laughs*). You know, it kind of pulled me up a little bit to think, 'Oh goodness, they've forgotten again [...] that they are the LLEN.*
> (Executive Officer, 2004)

Foregrounding composition demands carefully tracing how mediating actors, both human and non-human, make us act. While being far from an ANTian account, Moore and Rutherford's examination of PSLN, provide evidence. In highlighting the requirements of successful networks including structure, time, and money as non-human actors, they also illustrate that the ways these non-human actors make us act needs to be traced, rather than assumed. One respondent, in speaking of the kinds of templates that have been imposed in both England, and Victoria, notes (cited in Moore and Rutherford 2012, 73): '*That's why I'm talking about [jumping through] 'hoops' with the initial structure ... its one size fits all, this is the template folks!'* However, for a second respondent, the imposed model had added to the network in productive ways: '*It's given us the opportunity to look quite closely at something that was one of our [school] concerns.'* The LLEN research indicated similar tensions: the benefits of a good governance model that offered a framework for them to 'govern' was both helpful and, at times, hopelessly oppressive. Thus, structure is neither necessarily good nor bad; non-human actors such as a governance assemblage can mobilize a composite goal or they can thwart it (MacBeath 2008). Rather, what is in the assemblage — including non-human actors such as templates and governance models — must be what the assemblage requires at a given point in time, to enable it to act in productive ways, if the benefits of collaboration are to be maximized, a point that echoes Urry (2003). In tracing this process, ANT does not seek to make any judgement on the goodness, or otherwise, of a given assemblage: 'sturdy theoretical commitments have to be made and a strong polemical stance has to be taken so as to forbid the analyst to dictate actors what they should do' (Latour 1996, 9).

Mediating as a form of *black boxing* or invisible action can also be identified in both English and Victorian contexts. ANTian accounts focus on opening black boxes to explore net-work. Elsewhere, it has been my argument that one of the failures of the joined-up policy agenda has been a discourse of partnership that envisages collaboration as a kind of join-the-dots exercise whereby existing, stable entities – entities comprised only of human beings – are, or are more strongly, linked in ways that enables a network to form and things of various kinds to be assembled in new ways that allow new opportunities and enhanced outcomes (Kamp 2013b). Individual black boxes do not need to be opened; what is actually going on is rendered invisible by its increasingly efficient operation. The action of objects (human and non-human) is only rendered visible when they break down and it is at this time that new assemblages are demanded, when black boxes need to be opened and explored in detail to see what connects to what, why, and with what consequence.

In considering what might be a better metaphor than joining-the-dots, I have previously taken up Deleuze and Guattari's (1987) concept of the map, the kind of map that is not bought ready-made, that does not dictate the available routes, but, rather, is experimented into being (Kamp 2012). In this, the effort is to move away from possibilities framed by points of reference that already answer to a dominant reality. This move away is central to an ANTian perspective: learning to 'respect shifting ontologies' (Latour [2005]2007, 119) allows the assemblage of what is currently a dominant reality to be brought back into consideration and made available for re-assemblage. In the case of LLEN the dominant reality included 'the education system' with nodes including existing sites of education and training, employers and social service providers. However, if we adopt a rhizomatic perspective, different possibilities appear:

we should no longer think in terms of lines going from one fixed point to another, but,

on the contrary, must think of points as lying at the intersection of many entangled lines, capable of drawing out 'other' spaces. (Rajchman 2000, 100)

For the LLEN – one of thirty-one LLEN and identified as being the location of 'future thinking' (Kamp 2013b) – this drawing out of 'other' spaces was achieved through the adoption of an action learning orientation. For instance, discretionary funding that was available was used to fund action research projects rather than purchasing capital items or fostering a high profile, both of which would, in effect, position the LLEN office as 'the' network, as an obligatory passage point (Callon 1986).

Delegation is, for Latour, the most important meaning of mediation and refers to a process whereby the introduction of an actor changes both expression and meaning of a goal. In this use, mediation sheds light on those actors who are not present, yet are fully active. I have written previously on mechanisms of delegation in the formation and operation of the LLEN (Kamp 2013a, 2009); most notably when particular forms of accountability— which commonly become more intense when government is 'steering' from a distance (McCarthy, Miller, and Skidmore 2004) — interfered with the first order business of the network, risking its goal of working for young people to a goal becoming a goal of meeting the performance agreement targets that were largely set by government, funding payments being conditional on those targets being achieved. In England the profusion of system leadership roles could also be beneficially considered through this meaning of mediation. Evidence suggests the presence of these roles within the educational landscape can be analysed as a mechanism by which a prime mover – the State – interferes in the field (Bourdieu 1998) to prioritize a corporatized ethos over a welfare-oriented ethos in the habitus of system leaders (Courtney 2016). This corporatism in leadership is communicated to school leaders through a range of non-human actors (see Gunter 2012) in the process shaping both the meaning and expression of 'collaboration.'

Considering system leadership

> *Networking has always been an important business practice. New, however, seems to be the broadness of the phenomenon [...] the explicit acknowledgement of the importance of networking [...] the intensity [...] [and] the formalization and the institutionalization of this practice. (Wittel 2001, 56)*

> *The real novelty in philosophy no longer belongs to the tired old limerick of shifting fluxions and becomings, but to utterly concrete and utterly disconnected entities that cry aloud for mediators to bridge them. (Harman 2009, 105)*

'Disconnected entities that cry aloud for mediators to bridge them'; for me this quote from Harman is particularly pertinent to the question of system leadership. My reading of Latour's catalogue of works and the Australian and English research that I have revisited in this paper, suggests many generative possibilities for gaining an enhanced understanding of how the joined-up policy agenda in education plays out, and the implications of it for leadership. In their consideration of partnership approaches in 14-19 Strategy in England, Higham and Yeomans (Higham and Yeomans 2010, 379) conclude that policy is 'strongly mediated by local contextual factors, institutional values and interests, personal missions and careers, pragmatic opportunism, ad-hocery and happenstance'. In seeking more subtle understandings of why a reform acts as it does, 'we need to ask the rather different question of 'why' or 'how' the measure has its effect. We need a method which seeks to understand what the programme actually does to change behaviours' (Pawson 2006, 11). ANT has a contribution to make as such a method. For example, while research may suggest system leadership is now being widely distributed in schools (Hargreaves 2010), the contradictions of disbursement within hierarchical school structures has been argued (Hatcher 2005). One of the strengths of looking towards ANTian perspectives in considering the joined-up policy agenda and its leadership is the symmetry they afford to both humans and non-humans and the purchase this provides in moving beyond simple concerns of *human* agency and *human*

habits or easy assumptions that because something is there, it is making something happen: 'an actor that makes no difference is not a real actor' (Harman 2009, 106) — whether human or not. This is not to suggest that it is possible to render visible all actors, a point that Law (2004, 144) addresses with the notion of 'method assemblage'. Method assemblage is a process of crafting and enacting boundaries between presence, manifest absence and Otherness. In ANT ¬ no less than in any other knowledge practice – the making present of something is always achieved by rendering absent something else. Method assemblage makes explicit a given 'gathering', being overt as to the particular consequences of one gathering over another.

In *Pandora's Hope* (1999b, 80-92), Latour introduces the case study of Frederic Joliot. Joliot's story is not of consequence for me here; my only concern is that he becomes a common presence moving forward in Latour's work. 'Joliot' is taken up by Graham Harman (2009) in his overview of Latour's oeuvre: Joliot is

> *A nickname for actors in general since all actors must do what Joliot did. Objects connect things that need not have been connected, and sometimes they fail to do so … work must be done to make a connection between them' (Harman 2009, 116).*

Actors are only linked when some other actor makes them link, some 'Joliot'. In the policies mobilizing the government-mandated networks discussed in this paper, Joliot has been a human being. Someone who took leadership, either by choice or by positional responsibility. In Australian School Networks, it is officially the principal, but it may actually be some other actor, perhaps a template or a policy. In PSLN, Joliot may have a Local Authority officer who worked with other actors: absent staff (either because of mobility or lack of engagement), diaries, competing priorities, loss of autonomy, expertise, lack of expertise, hierarchical structures, bureaucracy (Moore and Rutherford 2012, 75). In the case study LLEN, it was the Executive Officer and, over time, the norms that grew from an enduring

and hard-won commitment to experimentation and collaborative leadership. ANT highlights that it is through alliance that things are made real: without allies, an entity is *not* an actor, no matter who says that it is (Harman 2009). The more allies a policy has, the more it becomes real; a template or Memorandum of Understanding that does not connect may as well not exist at all. Conversely, anything can be an actor and a human actor who is strongly connected is a leader; this fluidity in leadership is evident in the tension between assemblages formed around incentivised government initiatives and those that gather in contextually-response ways (Pont and Hopkins 2008)

As those familiar with an object-oriented philosophy such as Actor Network Theory will appreciate, there are tensions between Latour's philosophy, and the philosophy of Deleuze and Guattari. Those tensions cannot be rehearsed in this paper. Notwithstanding those tensions, I feel pressed to take up the concept of the Body-without-Organs (BwO) to consider the work of leaders in forging connection in contested times. As Deleuze and Guattari (1987) articulate, the BwO is fundamentally about experimentation it is 'accomplished the moment you undertake it, unaccomplished as long as you don't (Deleuze and Guattari 1987, 49). There are two phases to the BwO, each included in the other and each using the same procedures. The first is for the fabrication of the BwO, the second is to produce intensities without which the body will be empty. The agents of this labour are human and non-human: policy agenda, templates and tools, governance and accountability regimes, multi-level leaders, fears, funding, failure. Failure can occur at the point of formation and in the process of operation; it is the same failure: you think you have made a BwO but nothing passes (Deleuze and Guattari 1987, 152).

This insight suggests that sustainability for networks, partnerships and collaborations lies in a continual process of renewal and revival, a constant 'bridging'; net-work rather than

network. Engestrom's concept of 'knotworking' (Engeström, Engeström, and Vähäaho 1999, 346-7) is illustrative of this constancy: a process of 'tying, untying and retying' threads of activity that previously were unrelated. During this process, 'the locus of initiative changes from moment to moment' and the analysis of this must focus on 'the unstable knot itself'. In a philosophy of isolated instants, of the kind that Latour articulates, the links between one instant and another must be produced through the labour of actants, and this labour must be traced. In a context where change is constant, sustainability resides in process rather than inscription in material form (Callon 1991).

Concluding thoughts

> *In order to spread far […] an actant needs faithful allies who accept what they are told, identify itself with its cause, carry out all the functions that are defined for them, and come to its aid without hesitation when they are summoned. The search for these ideal allies occupies the space and time of those who wish to be stronger than others*. (Latour 1988, 199)

The networks discussed in this paper are representative of an 'imposed model' (Moore and Rutherford 2012), articulated by policy and managed by way of particular forms of accountability that I have argued are more paradigmatically aligned with the pre-network contexts that they replaced (Kamp 2013a). This paper has given some indication that policy does matter; at times policy is the non-human Joliot that first brings things into connection. However, in demonstrating the role of mediators the paper also highlights that not *everything* is in the policy; there is no way to evaluate policy other than through its action and that action occurs through a process of association (Harman 2009). Many kinds of entities can, and do, participate in the assemblage of networks, some human, some non-human. Internationally, there is now a body of work that reports on various versions of the joined-up policy agenda yet, beyond the emergent work within material semiotics noted at the beginning of this paper, this body of work tends to privilege the human actor. In the research that underpins this

paper the role of human actors was clearly evident but equally evident was the role of non-human allies and adversaries.

In the introduction to this paper I posed a number of questions: What does it take to be a network 'leader' working to create system change within, and yet beyond, traditionally hierarchical systems of education? Who, and what, is 'leading', from where, within connective endeavours? What are the implications of the full range of actors being brought into focus as they create, advance, or frustrate the collective task? The engagement with diverse actors at play in the network society's 'space of flows' (Castells and Ince 2003) contributes to a portrayal of the fluid spaces (Fenwick 2011) of localized net-work as well as the structural, technological and intrapersonal actants which might be involved in commencing, enabling or foreclosing 'flow'.

Networking as a practice reinvents leadership as a practice on a number of dimensions. First, leadership is understood to emerge in contextually-relevant ways. Second, leadership moves beyond a dualism of leader/follower. Third, leadership is not solely the domain of human actors, be they individuals or working as collectives. ANT suggests two alternatives for conceptualizing these dynamics of leadership: first, rather than a collective of separate elements – ideas, reputations, timetables, uniforms, people, classrooms and staffrooms, job titles, examination results and so on – leadership involves 'active hybrids composed of networks of associations'; second, that people should understand these hybrids by way of a 'flat' analytical basis—in other words, not give priority to a principal, or other nominated human 'leader' (Grint 2004).

Net-work leadership, by humans and non-humans, is emergent, frames the message, validates certain actions while silencing others, looks to link with this rather than that, and amplifies particular kinds of ideas in ways that will allow some actants to connect and

become fully-functioning while others will not. A failure to connect may be by choice because an alliance will facilitate unproductive flows; it may also be by inability to establish any point of resonance at all. In framing 'joined-up' policies, at times when research suggests that such policies have the potential to overcome the existing, and imminent, failures of education systems, it behoves both government and local level actors to thoroughly canvas the available allies, both human and non-human, to consider their benevolent, or other, potential and, perhaps, to forge alliances with them. As Latour notes, this search takes time, but is essential for those who need to diagram those connections through which the policy agenda can become 'stronger'; at the very least as strong as the institutional structures that are insufficient to the task of responding to 'wicked' social problems It is my position that Actor Network Theory has a contribution to make in foregrounding – in making manifest – the non-human actors who, in concert with human actors, work with, for, and against desired collaborative policy agendas.

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