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Facilitating the development of school-based learning networks

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Facilitating the development of school-based learning networks

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Abstract

Purpose
This article contributes to the knowledge base on leading and facilitating the growth of school improvement networks by describing the activities and challenges faced by network leaders.

Design/methodology/approach
19 Co-leaders from 12 networks were interviewed using a semi-structured schedule about the growth of their network, key leadership processes, 'tipping points', structural design and knowledge flow and transfer. Annual review documents were also analysed.

Findings (mandatory)
Five leadership activities focused on facilitating networks were identified. These were: i. 'courting' potential partners and developing proposals for networked activity; ii. working for partner alignment and buy-in into network goals and plans; iii. creating structured opportunities for teachers to work together; iv. Embedding networked activity through formalisation and harvesting the knowledge generated by practitioners and v. refocusing network efforts. These activities present tensions around negotiating purpose, securing ownership of network activity, time, trust and the balance between quick wins and long term activities.

Originality/value (mandatory).
Internationally, networks are emerging as an increasingly common organisational form as well as a method for professional development, school improvement and to better serve pupil need. This article adds to the limited research on network leadership and addresses increased calls for the intentional development of these organisational structures.

Keywords: Research paper. UK schools, network leadership, school improvement networks, facilitation, network growth

Introduction

It has been argued that complex social problems such as crime, health or poverty can only be solved by organisations working in collaboration (Parker and Gallagher, 2007). In line with such thinking, the network is becoming an increasingly common organisational form (Skidmore, 2004). Similarly in education, networked working is emerging as one of the more significant developments in how schools are called upon to function (Carmichael et al., 2006). This development has international resonance with research documenting school-to-school networks emerging from America (Lieberman and Grolnick, 1996, Wohlstetter et al., 2003), Europe (Veugelers and O'Hair, 2005) and the UK (Jackson, 2006).

Yet, while leadership ranks among the most researched and debated topics in the organisational sciences (George, 2000), it can be argued that network leadership remains under theorised. Although the literature reflects considerable diversity of opinion on approaches to different network types and models (Kerr et al., 2003), there is a paucity of material on best practice in network development and maintenance (Veugelers and O'Hair, 2005). Hadfield (2007) argues that because there are few empirical accounts of the impacts of school networks in the UK, and even fewer which draw out the roles of leaders in achieving this impact, it is too early in the development of school networks in the UK to discuss what effective 'network' leadership looks like. Further research is needed.

This paper contributes to the need for an analysis of network leadership. In particular, it considers the issue in relation to a key question for both policy makers and practitioners advocating the development of a network to meet their needs – what leadership practices are involved in 'growing a network.' This article seeks to contribute to the knowledge base on leading network development by describing the activities and challenges faced by network leaders within the National College of School Leadership's Networked Learning Communities Programme, an initiative based in England. The paper concludes by outlining some implications for leaders engaged in supporting the work of networks.

Background

In the United Kingdom (UK), the growth of networked working is part of a system-wide change requiring schools to interact with a range of outside agencies, draw funding from multiple streams and work with information, advice and policy from different sources (Carmichael et al., 2006). The image of the 'stand alone' school seen in isolation from its neighbouring schools is being replaced (O'Brien et al., 2006) by a landscape of networked schools and agencies working together in structured and systematic ways in clusters, collegiates, collaboratives and partnerships (Hannon, 2005).

The mutual activities of networks arise out of necessity - to solve a problem or issue of mutual concern that is too large for any one organisation to handle on its own (Wohlstetter et al., 2003). This conceptualisation appears to underpin much networked activity. Networked working to pool resources, expertise and effort underpins the development of the UK's Primary National Strategy Learning Networks, Extended Schools and the commitment to collaboration in place of competition informing the

implementation of the *Every Child Matters* agenda (Jopling and Spender, 2006). O'Brien (2006) argues that in a number of areas of educational work, multi-agency approaches are being adopted including Behaviour and Education Support Teams, the overarching Behaviour Improvement Programme, Education Action Zones and Extended Schools. These approaches bring together professional practitioners from a range of agencies including health, social services, voluntary and community sector bodies, the police and local Youth Offending Teams.

Networks are also seen as a means to promote learning and knowledge creation. Some networks have been established to promote the dissemination of good practice, enhance the professional development of teachers, support capacity building in schools and assist in the process of re-structuring and re-culturing educational organisational systems (OECD, 2000). School improvement networks bring practitioners together from different organisations to learn by sharing practice, collaborative planning and critique of each other's ideas (O'Hair and Veugelers, 2005). Practitioners in networked schools work together to carry out collaborative enquiry (Jackson, 2006, Day and Hadfield, 2005, Bartlett and Burton, 2006), cross school visitation and shared professional development opportunities (O'Hair and Veugelers, 2005). Other networks have a role in critiquing government policy and working together to influence it (Veugelers and Zijlstra, 2005). The network described by Day and Hadfield (2005) can be understood a kind of external capacity that individual schools can draw from for their own improvement.

Configured around activities of this kind, the network has been presented as a means to retain teacher-driven professional development and autonomy in the wake of the United Kingdom's standards driven change agenda, imposed initiatives, increased workload, work intensification and teacher surveillance (Day and Hadfield, 2005). Indeed, the establishment of such bottom-up school improvement initiatives focused on developing local, context-specific practices is presented as a way to break through the glass ceiling of improvement arising from the UK's top-down initiatives (Jackson, 2006). In other words, attainment target setting, auditing for standards, competition between schools and close performance monitoring can only go so far in raising attainment and collaborative school-to-school networks represent the vehicle for the next phase of school improvement (O'Brien et al., 2006).

While much discussion stresses systematically established networks (Fox et al., 2007), Fielding et. al., (2005) argue that networked relationships must be entered into and sustained on a voluntary basis as a source of inspiration, productivity or solidarity. As such, networks rely less on formal or hierarchical leadership than the capacity to mobilise individuals into productive collaborations (Hadfield, 2007). The challenge then in this emerging landscape of school networks is how to intentionally lead the development of a network in a way that harnesses the power of voluntary teacher-driven peer learning.

Working the net - facilitative network leadership
The foundation of voluntary participation and connection across organisations that underpins a network requires leadership and facilitation (Church et al., 2003, Kerr et al., 2003, Lieberman and Grolnick, 1996). This is leadership working through decentralised

structures, operating in a facilitative manner drawing on collective processes rather than positional authority or hierarchical status (Jackson 2006). This facilitative, collaborative style of leadership and its particular relationship to the nature of networks demands unpacking.

A review of the networks referred to by Veuglers and O'Hair (2005), on the American scene by Wohlstetter et al., (2003) and Lieberman and Grolnick (1996) or in the UK's networked learning communities (Jackson, 2006) demonstrate that while networks may emerge out of informal contacts and relationships, organisational partnerships require a formal structure of some kind. These networks often incorporate formal leadership and governance structures that set strategic direction, channel resources and provide space for the network so that the work can meet the needs of the schools involved (Allen and Hensley, 2005). These formal leadership structures assume responsibility for facilitating network development and maintenance.

Writings on networked ways of working stress non-hierarchical and fluid rather than rigid or highly structured ways of functioning (O'Brien et al., 2006). For school leaders assuming network leadership roles, this marks a shift in the conceptual and practical emphasis of the task – less one of formal accountability, hierarchical working, isolation and formal learning than moral responsibility, egalitarian practices, connectivity and informal learning (Anderson et al., 2005). These shifts mark a need for a different skill set - perhaps one operating within the interface of the two terms 'facilitation' and 'leadership'.

Also, partnerships between schools require a strong sense of shared purpose that serves to draw autonomous participants into joint activity (Church et al., 2003, Hadfield, 2007). In line with this, Lieberman and Grolnick (1996) outline a number of network facilitation tasks including articulating and protecting the values of participants, securing commitment by negotiating around intellectual, ideological and practical differences, organizing encounters between parties, facilitating information flow and ensuring the network is resourced. Kerr et al., (2003) expand on this conception emphasising the need to know the network participants and connecting with other actors and resources in the field, exploiting opportunities and working with participants' strengths and assets to build network capacity. Fielding et al., (2005) emphasise the brokerage role in networks including catalysing activity, creating a sense of audience and community for practice sharing.

This way of working is indeed a shift in how things get done. Anderson et. al., (2005) notes that rather than delegating tasks with pre-defined outcomes and linear accountability structures, network leaders must foster collaboration between members of staff within and beyond their own schools using methods in which voluntarism and moral responsibility count for more than formal authority. Network leadership needs a light touch. Heavy formal control can drain initiative and strangle the dynamism of a network and too light a structure can place undue pressure on the trust between participants, which keeps the network together (Kerr et al., 2003). After all, as Church et al., (2003) argues, the core business of a network is process - relationship-building, facilitating, enthusing

and enabling. Sensitive facilitation attends to the emergent needs of the group and its emotional needs, creating connections to the wider network and focus on core tasks. This makes network leadership a 'long game.' Time is needed to establish trust between participants.

Hadfield (2007) captures much of the complexity of the leadership task by likening the role to that involved in leading a social movement. Connecting with Lieberman's (1999) assertion that networks form out of a moral purpose which not only cements trust and relationships but intend to lift daily teaching practice into something that has a sense of higher aims for both teachers and pupils alike, Hadfield (2007) argues that the leadership challenge is to pull people together around such an agenda to achieve concrete improvements. The task includes building a collective identity across groups and individuals paying particular attention to legitimising network activity within a broad range of alternative school improvement activities. Participants may have strong differences around what constitutes 'improvement' demanding attention to managing differences of opinion and building consensus. Thus, Church et al., (2003) suggests that leadership involves building an understanding of the participants – their values, epistemological perspectives, or underlying frameworks. However, she argues that this task is much more fundamental than simply facilitating 'good' communication. After all, participants with pronounced value differences may find that increased communication may only serve to highlight their divisions putting trust under real strain.

The leadership task must also be located within the political context of school competition and outside-in reform. Certainly, within networks much must be done to build trust between network participants (Church et al., 2003). Within the competitive climate of UK education such work is necessary but challenging. Hadfield (2007) suggests that leaders may need to adopt a resistant leadership posture to both local and national education systems. One aspect of resistance may be the avoidance of capture by interests external to the network. As O'Brien et al., (2006) argues, networks are in danger of becoming exclusively associated with the implementation of centrally initiated reform. In other words, the network becomes another means by which teachers are seen as conduits or technicians rather than as activist professionals whose responsibilities encompass a wider, more profound educative change agenda and whose purposes are moral and not simply instrumental.

Thus, network leadership is a multi-facetted and complex activity. It could be argued however, that there are aspects of network leadership that will connect with the head teachers' existing skill repertoire. After all by its nature, leading a school involves much boundary work between different parties, facilitating shared vision and building of community. However, network leaders must undergo a shift in orientation from leading their individual institution where they have formal power to leading a collaborative network of individuals where they rely on facilitation skills. It is unsurprising then, that as Anderson et. al., (2005) stress, leaders can have difficulties getting to grips with such a role. It is suggested that such work constitutes a challenging shift in skill set for school leaders and yet the literature base for this assertion is still emerging. Given that

leadership is an important part of network development, the field would benefit from more research into the activities and experience of those in this role.

The study

We now turn to an examination of leadership in a school-to-school network program. In 2002, England's National College of School Leadership (NCSL) launched the Networked Learning Group (NLG) to fund the establishment of, support and research Networked Learning Communities (NLC). The programme proposed that NLC's support the development of schools as networked learning communities that were focused on building capacity for continuous improvement through the creation of local, context-specific practices and solutions (Jackson and Leo, 2003). In the terms of this programme, a NLC is a cluster of schools working in interdependent partnerships that may also involve at least one Higher Education Institution, Local Education Authority and/or Community Group partner. While the number of networks in the programme fluctuated over time, at its peak in 2004 there were 137 school networks involved (varying in size from 6 to 40 schools), including approximately 1,500 schools, 25,000 staff and 500,000 pupils (Hadfield, 2007). Thus, of the 25,500 maintained and independent schools in England in 2004 (National Statistics/Department for Education and Skills, 2004), 5.9% were in a NLC.

One of the requirements of becoming a NLC was the establishment of a steering group typically made up of head teachers and other representatives from across the network. In addition, the programme required each network to be led by a pair, or more, of 'co-leaders' rather than a single person. Anderson et al., (2005) writing about NLCs argue that the partnership of co-leadership provided the support necessary to meet the complexity of the task and fostered network resilience by preventing reliance on any one person. In addition, co-leadership symbolised and modelled the belief that networks require distributed leadership to grow and continue over time. The majority of co-leaders were head teachers and functioned as the leaders of the networks and initially represented the point of connection between the schools' existing leadership structures and new network structures (Hadfield, 2007). Co-leaders and their steering groups were the forum for the overall strategic development of the network. The data collection for this project focused on the co-leaders themselves.

When the NLC programme was first established, the literature on school improvement networks, their development and facilitation was relatively limited. As the practices, parameters and protocols of network leaders were not well-established when the first cohort of networks were launched, the NLG conducted research into the work of network leaders in order to better inform their work. Aspects of this work have been reported elsewhere. Kubiak (2009) has explored the role and challenges of network consultants employed by the NLG. Most notably, Hadfield (2007) drew on the annual review data to examine network leadership as akin to leading a social movement.

Data collection and analysis

In order to understand leadership activities focused on nurturing network growth, a number of well established networks needed to be identified. All networks in the NLC

programme took part in a first year review which included drawing a network-o-gramme (graphical representations of the groups, individual agents and connections constituting an NLC). The research team's ongoing work with networks suggested that networks that had built up a number of network groups with teachers with middle leadership roles could be considered well established. A number of networks with such characteristics were identified.

Potential participants were further narrowed down by identifying a spread of networks from the North, South and Midlands of England. Of the network leaders approached, 19 Co-leaders from 12 networks eventually agreed to take part and were interviewed between December 2003 and March, 2004 using a semi-structured schedule. In the interviews, each participant was asked to draw out the structure of their network, working from first partnerships (including non-NLC networks) to its current state. As the interviewee drew out the growth of their network, they described key processes around leadership, structural design and knowledge flow and transfer. They were also asked to identify "tipping points" in their network's development reflecting a significant change of some kind. A critical incident analysis frame was used to explore these tipping points. In addition to the interview data, each network's year one review document was also examined.

Many of the co-leaders interviewed had some experience of initiating the network and nurturing its development over time. The data therefore comes from those committed to the purpose of their network and more broadly, networked approaches to school improvement. In addition, the co-leaders' description of the growth of their network was often intertwined with an account of their own learning journey through which they grew into their role. However, these interviews on their own are not sufficient to draw conclusions about whether a network was succeeding or not. That would require a broader spectrum of informants and triangulated sources of evidence on activities and impact of school performance.

A literature review on networks commissioned by NCSL (Kerr et al., 2003) was crystallised into ten broad characteristics of networks. These characteristics served as a framework to organise the data into comparable case studies. These were:

- External Facilitation
- Purpose
- Relationships
- Governance (internal facilitation and leadership)
- Activities
- Decision making and centralisation/decentralisation
- Quality and extent of participation
- Network groups
- Knowledge generation
- Evaluation

Data from the interviews and reviews were reduced and fitted to the case study grids. Themes were then developed inductively across the case studies. Preliminary results were developed into a paper and "workshopped" with co-leaders at a NLG event to not only maintain a close interface between programme learning and practitioner learning but also to develop a sense of the validity of the findings themselves.

Results

The study set out to understand the way in which leadership facilitated the growth and development of networks. Clearly delineated growth phases were not easy to identify. Interviewees described networks as somewhat boundless and organically growing entities often connected to, or sprouting out of, pre-existing partnerships, networks, clusters and inter-school collaborations. This could make it difficult to talk of a precise point of network "birth" or even maturity as the shape of partnerships and spread of partners would shift and change.

Certainly, some networks were called into being by the NLC initiative but even some of these structures had existed informally as, for example, a head teachers' discussion group or other form of collaboration. For the networks which had existed in some form before the initiative was launched, becoming an NLC could mark a sea change – a reconfiguration of previous networked forms such as an Education Action Zones or a Local Education Authority cluster towards an increased focus on learning for a number of teachers within the networks. Indeed, this reshaping of partnerships established a tension in the national programme itself between the perception that it was a top down initiative created by the National College of School Leadership and a bottom up one arising out of existing partnerships between schools.

In facilitating network development, many leaders spoke of *"organic … natural evolution … slow and steady growth … no big jumps."* Growth stories were not linear but cyclical - networks revisited the same issues and tasks throughout their lives. Groups within the network may fulfil their function and dissolve. New problems emerge that demand a different network group or approach. New network members needed to be brought into the network. Network leaders sought ways to keep their groups energised and focused. Indeed, the notion of growth with its associated meanings of an increase in size and complexity appeared to be an inadequate description of the life of a network.

It has been argued that leadership demands different approaches from leaders depending on the needs and challenges of the situation (see for example, Hersey and Blanchard, 1988). Network leaders often did possess a sense of the needs of their network and what they needed to do to respond appropriately. For example, building relationships with new partners in the early days before a new partnership is real within a climate of wariness and reserve was very different to facilitating participation in a network with six months of activity with more relaxed and open participants. Similarly, in the early days of networks, facilitators talked about the priority given to focusing network activity and drawing new members into the net. As the network began to take form, facilitators worked to win buy-in and commitment from the Head teachers of the schools across the partnership and provide opportunities for teachers to work together. Over time the focus was on moving further cohorts of teachers into networked learning activities while embedding collaborative practices. Thus, a picture emerged in which specific leadership activities may be emphasised at particular points in the network's life cycle but may also be required throughout its time. For example, attending to commitment is a task that may be developed throughout a network's life.

Analysis of the data identified the following five broad categories of leadership activity:

- **Courting**: Approaching potential partners and developing proposals for new networked activity.
- **Aligning:** Winning leadership buy-in though individual or group negotiation. Preparing plans for the network. Working to align partners around a particular goal or vision.
- **Connecting**: Creating structured opportunities for teachers to work together.
- **Embedding and harvesting**: Institutionalising the network through its formal links within and between schools and systematically sharing knowledge with other schools.
- **Refocusing**: New issues emerge that need attention. The network may need reenergising or cohering. The need for new partners may be identified.

The rest of this section will describe these activities in more depth. What is important to stress is that these activities do not necessarily apply to a particular phase of the network but may be occurring at different times in the network's development.

In their discussions of **courting activities**, network leaders described themselves inviting potential members to become part of the network. The interviews suggested that potential partners were often already part of an existing informal or semi-formal network of relationships located in local authority meetings or informal head teacher groups, for example. Many NLCs were not the first networked form for many participants and leaders would draw on their existing partnerships.

The key tasks for leaders included working to draw resources and people in around an initiative, shared need or philosophy and attempting to secure some commitment. A focus of the early meetings may be to put together a proposal for NLC funding and work out the details later. The commitment of some members may be in principle only as *"it isn't real yet"*. Some potential partners, even those in an existing network, may opt out creating a source of tensions around inclusiveness and coherence later in the network's life:

> *"I went back to the Heads. I said this is crazy, we can't just have six secondary schools when there are eleven secondary schools. It would have been really divisive. I've got to make it cohere. I've got to."*

With some partnerships in place, **alignment** activities focused on developing norms, protocols and roles to underpin the schools' work together. NLCs often emerged out of existing networks and the foci of these partnerships can not be ignored. While alignment may involve re-orienting activity to include a particular learning focus, the work of existing partnerships may be drawn in as well to bring coherence between the individual school's involvement and the network. These previous partnerships lend advantages (e.g. trust and relationships among potential members) or a hinder (*"we'll just do as we have always done"*).

Alignment-focused leadership involves considerable discussion, negotiation, conflict management and consensus building:

> *"I suppose I often find beneath the simplest structures there's been a lot of negotiation, a lot of thinking that has gone on to actually make that simple. It's basically formal and informal negotiation and discussions, various group meetings with the LEA, with the co-leaders, with the LIG [Leadership Incentive Grant] collaborative to get agreement to say, well, where does the Network Learning Community go? Surely it goes here, so we've had to write that within action plans and had to get those agreements."*

Discussions with the leaders and steering group included building an understanding of the issues and needs of individual schools and within that, continuing to negotiate a shared purpose and a focus for the network:

> *"I mean we started with what are the issues that are common to the schools, where problems lie. And boys' language was one for example, so the boys' writing and literacy was obvious - looking at data on all the schools. So, the steering group agreed all of us would like those things to be better in our schools."*

> *"We had some heavy debate about what was valid and not, and what kids were entitled to and not, and what was workable financially and timetable wise."*

These visioning and aligning activities had to be carefully balanced. Some facilitators found that if they didn't take all potential partners with them as the vision was generated, participation could drop off.

When engaged in alignment activity, the steering group's work could be charged with emotion – stress, excitement or anxiety – as they thrashed issues out and made plans. Network leaders reflected that they needed to balance talking issues through with making concrete actions or participants would become bogged down or dissatisfied. At the same time, these are practical discussions concerned with matters such as timetabling or allocating resources for network use. Even at this point, some head teachers would hold off on full commitment until they could see the tangible possibilities of the network:

> *"It took a few meetings, I have to admit, it took several meetings before we really sort of got our heads round it. I know it sounds a bit pathetic, but it's quite hard to think what it is and what you can do with it."*

While the network as a whole needed to configure around shared foci, leadership also needed to focus on connecting teachers across the network in order to work together towards the network's purpose. **Connecting activities** involved building a second tier of networked activity by creating opportunities for teachers to work together around professionally meaningful activity:

*"We have now got agreement that on a Tuesday afternoon your lead
learners will come out and meet. We have got the action plans drawn up.
We have got projects in each school going forward."*

Opportunities for teachers to work together could involve 'quick win' activities to
generate momentum and a sense that "this is different" from other initiatives. The
network may start with low risk, low challenge activities to build trust in groups.
Running a launch conference to establish or affirm network focus was one such quick
win activity as was bringing in a guest speaker for the network.

In addition to these quick win activities, networks organised longer term activities such as
enquiry groups or other forums for regular contact or joint action - 'creativity forums',
'cross-school enquiry teams,' "action for learning groups" were all groups meeting
around an issue of mutual concern. Existing groups (for example, Masters in Education
students or Best Practice Research Scholarships holders) were drawn into networked
activity to quickly build momentum.

Creating connections was challenging work. Finding participants for network groups
required a balance of "pushing" and inviting a group of self-selected enthusiasts to
emerge. A critical mass of enthusiasts was described as important to the success of the
second tier. In addition, the momentum established with the quick win activities needed
to be maintained. For example, while a launch conference may be a powerful way to
establish an understanding of what a NLC could achieve and the issues it is to deal with,
lack of follow-up such as regular enquiry groups may undermine its potential as a
network building activity.

The balancing act here was to allow "chalk face" teachers to lead. While the
steering group may establish the broad purpose of the group, the teachers – the
participants themselves - determined the "what" and "how" of the work itself. For
example, when the steering group resourced an enquiry group, the teachers were
given the freedom to choose the approach or topic of enquiry. This presented a
tension in itself. Co-leaders described this process as "*messy*", "*chaotic*" or
"*ambiguous*." The teachers involved may find the ambiguity inherent in the
freedom and flexibility of their emergent group anxiety-provoking. Teachers may
look to leadership for direction:

*"And so the messy bit was them then saying, 'well what are we here for',
'what are we doing here', 'why aren't they telling us what to do?' Well
we didn't want to tell them what to do, that wasn't the idea. So they had
to knock that out, they had to find out at what point they all were at and
then they identified if they needed some training in order to bring
themselves to a level playing field."*

While leaders may remain at arms length from these groups to allow them the freedom to
take things in their own direction, the status and importance of the network must be
emphasised. Head teachers may remain visibly involved through steering group
membership or modelling learning behaviours by participating in one of the group

activities (for example, go on the first learning walk). Even so, maintaining an arms length leadership role may be difficult for some head teachers who were used to driving activities. They found "letting go" uncomfortable. Feelings of discomfort or fear of losing control were ameliorated through regular feedback from the enquiry groups, teacher-facilitators who keep the focus on teaching and learning and the involvement of external consultants who provided validation for the work.

As described above, leaders acknowledged the organic and evolving nature of teachers' network groups by referring to *"standing back and allowing teachers to lead"*. However, they also described themselves folding formal structure around what emerged from network activity. This was apparent in both the process of networked learning (**embedding** teachers' network activity) and the products of the activity (**harvesting** the knowledge generated). In some networks, such activities were in already in progress while in others, they were planned for the future.

Embedding activities seemed to respond to the sense that the network was becoming an established part of the schools' functioning. Certainly, the second tier of teachers could shift and move in the network but the groups they were involved in remained in place. New cohorts of teachers became involved and moved into network groups. Some network members who had been central for some time moved to the periphery. Some network leaders would take an increasingly strategic role as the second tier of leadership became well-established enough to attend to operational issues. Some head teachers faded into the background for a time allowing activity to roll forward under its own momentum.

To respond to these developments, embedding activities involved wrapping formal structure around the emergent network practices. This could involve officially recognising expanding and emerging teacher roles by awarding management points for the work, providing the status of a formal role, budgetary control or training. Such emerging roles could become formalised throughout the network. For example in one network group, the unique role of a 'teacher-facilitator' evolved to include classroom observation, meeting facilitation and liaison with the university representatives. The network steering group recognised the importance of this model and replicated it when they established new network groups.

Other embedding activities included institutionalisation functions. Some teacher-leaders of network groups became entitled to represent the network to external bodies or at events. Some were required to develop 2-3 year plans or formal communication protocols such as reporting procedures to ensure accountability and connection with the strategic intents of the network:

> *So they'll be reporting back what they're working on — their initiatives, what they're driving forward — back to the secondary heads for their blessing. (Co-leader)*

Such methods gave the emergent functions of the network some permanence and profile. At the same time, they reflected the fact that some of the leaders, head teachers or

otherwise, found it difficult to stay on top of network activity and needed to place others in formal positions to ensure the continued functioning of the network. Some networks appointed a dedicated person to facilitate aspects of network activity.

Similarly, one of the NLC premises was that networks were to generate knowledge through staff development activities such as enquiry groups and share new practices across the schools. To this end, the knowledge generated from schools needed to be **harvested**. Teachers developing innovative approaches to teaching understood that their release time or funding was to learn on behalf of their colleagues. In turn, many wanted a home for their work. Indeed, in some NLCs, teachers engaging in enquiry without any formal means to share their practices across the network became demotivated and disillusioned or felt their role as lead learner had been invalidated. Without formal dissemination mechanisms, the distribution of new practices may be limited to *"enthusiastic chats in the staff room."*

Some networks organised conferences or workshops to disseminate network research. Some head teachers actively harvested from the NLC, drawing good practice down from the teacher groups down into their schools requesting that their staff take it up through workshops, classroom observations and coaching. Some schools with exemplary practices were identified and their approach shared with others in the network.

No networks stood still and as they evolved effort needed to be put into their **refocusing.** Partners may leave and new ones arrive. Funding may dry up as initiatives end. New issues may arise that require, or could be met with, a networked response. Similarly, the network may need a new focus to maintain momentum and energy:

> *Now the interesting thing will be where we go next year. Because what I would like to do is to do AFL2* [Assessment for Learning] *if you like, which will have some people let go so we've got some continuity, but maybe a new theme, maybe we'll stick with motivation but different people really. But I mean that hasn't been discussed yet, the 'where next' really.*

Leaders may respond by seeking fresh perspectives to re-energise or to provide the capacity needed to develop the network further. Network leaders may need to court new partners to help them address new issues, replace those who have left or re-focus to achieve a sense of cohesion again. The network leadership team may expand to reflect the increasing diversity of their membership. In a sense, these demands can be seen to precede another wave of courting and aligning activities, as networks reshape or refocus to address another issue.

Discussion
This paper set out to understand the way in which network leaders facilitated the growth of networks. The data suggests that a more nuanced understanding of growth is needed. Participant descriptions of network development were in terms akin to the growth of an organic or living being. Organisational metaphors such as this are useful tools for leaders in that they enable them to see, understand and manage organisations in distinctive ways (Morgan, 1997). While the sense of the network as an organism does point towards

important aspects of the leader's role in terms of nurturing network development to maturity or openness to emergent activities, the metaphor of *growth* may be a partial description of how networks develop and could be problematic if it is held too rigidly.

The partiality of the growth metaphor is related to the way in which network development does not appear to involve a linear progression of increasing participant numbers or a movement towards maturity in which the network becomes fully decentralised or self maintaining. This sense of non-linear development may simply reflect the way in which networked associations extend beyond the prompting of any single collaborative initiative (see Fox et. al. 2007 for a similar example) or that such phases are difficult to spot in any multilayered or long life organisational form. More fundamentally though, the data suggests that Hadfield's (2007) assertion that networks *pulse* is also a useful metaphor. This image conveys the way in which schools and individuals move in and out of activity, from active involvement to something more peripheral, sometimes committed, sometimes less so. Similarly, it includes that way in which aspects of the network evolve. Informal groups formalise and others disband. Network groups reshape or reorient their purpose.

Network leaders need to heed the 'heartbeat' of the pulsing network in order to attend to its maintenance needs. Similarly, the metaphor of the pulsing rather than growing network also draws attention to the way in which leadership activities are not necessarily associated with any particular phase of a network's life. To take the example given above of shifting involvements, leadership must continually work to build commitment while at the same time, remaining sensitive to the changing circumstances and needs of participants, including the sleeping partners referred to by O'Brien et. al., (2006). In other words, one builds commitment while facilitating others to let go or fall dormant. So, as part of attending to the network's pulse, leaders must know the network's territory – develop a broad understanding of the range of participants, the resources they have available, the needs, challenges and the history in order to have insight into the issues of each participating school (Kerr et al., 2003). This is ongoing work, not a task confined to any particular stage.

The data also suggests that leadership is a tension-filled process. Here, the word tension is used in the sense proposed by Barab et al., (2002) when they refer to dualities consisting of overlapping yet conflicting activities and needs that drive the dynamics of a system. As such, tensions are things that are balanced not minimised. Indeed, there is some similarity between Barab et al.,'s (2002) argument and Engestrom's (1999) proposition that internal contradictions are the motive force of change and evolution in an activity system. Barab et al., (2002) argue that the value of identifying and discussing tensions is that they can characterise important focal points around which system activity emerges and have used them as a method to characterizing and illuminating the struggles in establishing learning communities.

The formation of network purpose is one such area of tension. Certainly, time must be taken to negotiate a mutually meaningful purpose in order to secure collaborative effort from network partners and make progress. Such shared purposes must present a

compelling reason to convince teachers to sacrifice their time (Lieberman and Grolnick, 1996). Thus, potential partners will weigh up the value of network involvement in terms of its potential to return on investment. Marshalling a return on effort is even more important considering that the process of forging a collaborative endeavour can be conflictual, emotionally demanding and time intensive. Collaboration is hard work and must be worthy of the effort. It is unsurprising then that in the current study, the need to develop shared purpose sits in tension with the reluctance to commit expressed by some school leaders. This reluctance may arise either out of wariness in the UK's culture of school competition (see Ball, 2001) or simply holding out until the initiative proves its worth. The issue here is that the self interest of the individual school must be able to coexist with mutual gain.

This situation presents network leaders with two challenges. The first is a paradox in that it demands that network leaders strive to involve school leaders who intentionally remain at the periphery awaiting results from an endeavour that will only succeed if a critical mass of participants commit. After all, the vitality, dynamism and capacity for creative action depends on the quality of participation in the network (Church et al., 2003). That said, ongoing tensions around purpose represent an important point of interest for network leaders – the need for continued attention to the relevance and resonance of collective purpose, ensuring it is open to change to reflect the changing needs and concerns of schools. As Hadfield (2007) argues, network leaders have to be careful not to become too distanced from the aspirations of their followers, either by being too extreme or not sufficiently strident in their demands.

The second challenge relates to the relationship between purpose and activity. Networks were drawn into the NLC programme around broad moral purposes such as a concern for improved educational achievement, or enhanced curriculum and teaching and learning (Hadfield 2007). Even so, network steering groups thrashed about for some time as they figured out how to take things forward. Lofty moral purposes may be broadly shared but the activities aligned with such purposes must present a concrete vitality that compels involvement (Lieberman and Gronick 1996). The way in which networks often rested upon informal structures such as head teacher groups or existing activities may facilitate a constructive alignment between network purpose and means. Indeed, adopting a strategy that foregrounds activities that schools already find compelling enables the emergence of network purposes that resonate with the member schools.

Challenges around establishing network purposes and commitment appear to be mirrored in the tensions associated with building a second tier of teacher involvement – a task requiring a teacher-owned agenda to emerge within the broad purposes of the network. In much writing on collaboration, there is a balance between the need to contrive opportunities for practitioners to work together but leaving the means and focus open to teacher ownership (Toole and Louis, 2001). In the present study, teachers were brought together into enquiry groups but leaders allowed them to take the lead and formulate their own way forward. Professional discretion for decision-making and self initiated change languish when collaboration is administratively regulated, compulsory, highly structured, or focused on pre-determined outcomes (Hargreaves, 2003).

Wenger (1998) in his account of supporting communities of practice, a concept with some affinities with networked learning communities and teacher enquiry groups captured the crux of the issue in when he asked *"how can the design be kept minimal and still ensure continuity and coherence"* (p. 245). An over-engineered structure with predetermined foci may quash the passion and commitment arising out of work with which participants identify. Similarly, under-designed networked learning activity may be too laissez-faire for the disciplined innovation that drives school improvement or to connect to the network's purpose. Existing within this space are the discomforts of the network and school leaders who need to remain involved but at arms length. In addition, teachers may find the invitation to take ownership without the provision of pre-determined direction an uncomfortable space of uncertainty and chaos, a finding mirrored in Kerr et al.,'s (2003) review. This demands leaders that can recognise and work with participant emotions, provide emotional support and organise training to ensure teachers feel skilled to meet the challenge offered them.

These two tensions all point to a third tension. This tension is related to the way in which networks demand time which is a resource teachers and headteachers alike generally lack. Participants discussed the amount of time it took to talk things through and establish their networks. In addition to the establishment of the formal network structure (the steering group, for example) time is needed to form relationships and build trust. After all, relationships and trust between people are the connective tissue in networks and take time to develop (Church et al., 2003). Moreover leaders in these networks were operating in a collaborative fashion rather than one relying on hierarchical chains of command. An important commodity for this conception of leadership is trust (Skidmore, 2004).

Trust is a product of iterated relationships - if individuals interact with each other repeatedly over time, they develop a stake in a reputation for honesty and reliability (Fukuyama, 1995). Only by bringing people together repeatedly over time can groups move from relationships of more casual contact typifying the looser term 'networking' to the more strategic nature of networked activity. In the face of participants' uncertainty in the early days before concrete activities have taken off, trust may be elusive. Thus networks need time to grow and establish a shared purpose. They also demand shared activity in order to establish trust.

The final tension relates to balance of short term and long term activities. As discussed already, there is a need for the network to prove its worth to participants while taking time for it to do so. Time spent on internal business and management is draining (Church et al., 2003) and some rapid progress may be needed to demonstrate the value of the network. Establishing 'quick wins' to grab attention, signal the arrival of a new initiative and bring people together around a compelling yet low risk activity may be an effective development strategy. Quick wins such as a conference do not demand much in the way of participant time or a high level of trust.

However, such activities are not the long term strategies needed to bring about change within schools or to establish meaningful trust between members. So, networks appeared to balance 'quick win' activities with 'slow burning activities,' such as teacher enquiry, which are worked at over longer periods. Such activities take time to build up momentum and provide value. Thus, it can be seen that drawing existing school activities into the network (for example, existing teacher enquiry groups) may be a particularly effective strategy in building network momentum. Moreover, drawing in such existing activities, especially those arising out of other initiatives schools are involved in may be important for providing coherence. However, slow burn activities that draw on existing school activities without additional networking value present the risk that the network is seen as additional infrastructure and administrative burden without any added value.

Conclusion

This paper has argued that networked ways of working are increasingly intertwined with educational life. This development presents the challenge of how to facilitate the growth of networks in a way that respects the collective and voluntary nature of this organisational form. This paper proposes that while the development of networks can be understood partly in terms of a growth metaphor, the pulsing nature of networks is a metaphor that illuminates the need for continual maintenance. In addition, the paper has outlined five network leadership activities – courting, aligning, connecting, embedding and harvesting and refocusing – arguing that these processes present leaders with recurring tensions. Grasping the nature of and attending to such tensions are important in themselves as they present recurring dynamics of network development.

What is not clear from the findings is whether the leadership skills required of network leaders are of a distinct kind to that needed for the leadership of the individual school. Certainly, processes such as building shared vision or brokering across boundaries will resonate with the work of school leaders. However, it is clear that network leaders are placed in a very different organisational form – one that evolves in a more fluid and adaptable manner. They are expected to function in a position without the usual resources of positional power or formal hierarchy. Further research is needed to investigate both the nature of the leadership challenge when faced with the task of network development and the particular facilitation skills required.

<div align="center">References</div>

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