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Looking Back and Moving Forward: Where to Next for Networks of Learning?

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*Injustice anywhere is a threat to justice everywhere. We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects all indirectly—*Martin Luther King

In 1963 while sitting inside of a Birmingham Jail, Dr. Martin Luther King penned a powerful letter that at its core reminds us we are part of an interdependent and interconnected system and that injustice to one is injustice to all. In essence, in both our personal and professional lives we are part of an inescapable network and understanding how those networks are connected to our work and purpose is critical. In this chapter, in taking inspiration from the work of the preceding authors, we also want to reflect on some broader cross cutting ideas as well as offer some promising areas to push on in the future. We have purposefully taken a more narrative approach in this chapter to approximate the role of a discussant. The rich studies and thoughtful connections to the literature, which have proceeded this chapter have laid a tremendous intellectual platform upon which we can thoughtfully consider the work, connect to our own experience and thinking in the space, and offer some potential high leverage points.

The Foundation

Imagine three masons who are tasked with building a new cathedral. The first mason views herself as a layer of bricks, the second a maker of walls, and the third as someone who is not laying bricks nor building walls, but rather sees herself as a craftsman whose purpose is building a cathedral. How often do we become so focused on the bricks or the individuals in our work that we forget that in our own way we are a part of collective that is building a larger cathedral of learning? Although the bricks are important, the mortar in our work as illustrated in these chapters is the social glue of authentic relationship that binds us together to unleash collective energy and intelligence in service of meeting important goals. In this volume, we like to think that the authors are also building something collectively greater than their individual contributions. They are weaving together ideas, concepts, and empirical study around networks and how these networks form and fit to address pressing issues related to education conceptualized broadly.

The book points out the criticality of social ties and the importance of connecting to others in support of getting meaningful research and change done. However, despite the valiant efforts of the authors, there are many voices who still remain focused on individual capacity rather than the potential of the collective and interdependence that we argue is necessary for success. The chapters in this book illustrate the importance of moving a community of learners to become a community that learns – a subtle, but important difference.

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Learning and leading is increasingly interactive, social, and at its best creates change in the learners, leaders, and the systems in which they operate. We live in a social world and as such are deeply affected by others, sometimes in ways in which we are unaware. In fact, a growing body of research suggests that even our happiness, health, weight, and even wealth is influenced by the social networks in which we reside. Bringing these ideas to education is the real promise of this work and as we begin to come together as a network research community we are making important strides toward this potential.

The ability to work well with others, tap into networks, and draw on collective intelligence is of critical importance as we move deeper into a knowledge society in which collaboration, emotional intelligence, social skills, and connecting to an interdependent social network are increasingly necessary, and are grounded in good science as illustrated in these chapters. Newly developing concepts and findings from networks add to our knowledge and build on our own individual and collective ability to learn, lead, and leverage networks in support of organizational and individual change. At its core this is the thread that ties this book together. Ideas such as crowd-sourcing, citizen scientists, and open source co-creation of knowledge reflect the new horizon in which change is taking place and are outlined in the preceding pages, but we have much more to do. Better understanding of this fast evolving space from networks and beyond will add to our knowledge and help us build our individual and collective ability to learn, lead, and enact fundamental change across the world.

Our own research, the studies in this book, and a growing body of work from others in the space, suggests that the quantity and quality of social ties at both the individual and collective level are consequential for a host of valuable outcomes. In our opinion the ideas outlined in these chapters connect us to a broader conception of networks that bear some deeper consideration.

Networks as catalyzers of change

There is no shortage of ideas about how to bring about change in organizations and leveraging the collective intelligence in a system. Many change agents draw on a variety of formal structures, processes, and accountability levers to improve performance. However, while these more technical approaches at improving outcomes are important and have been well documented, what has been generally missing in the change equation – or at least neglected, especially in policy thinking – are relational linkages between individuals through which change moves. Refreshingly, this idea is receiving more recent attention as is documented in these chapters. As such, frameworks and approaches that foreground the relational aspect of organizational change and leadership are becoming increasingly noticed and imperative. We are engaging more in relational space with a deeper understanding of its primacy in the work of change, and this is precisely what makes the content of this volume so timely.

Social networks provide insights into how the social processes involved in change are stretched across individuals and levels within a system. This perspective entails a shift from a primary focus on the individual and the attributes of that individual to understanding the more dynamic supports and constraints of the larger social network in which that individual operates. Network studies focus on how the constellation of relationships in networks and

between organizations that may facilitate and constrain the flow of “relational resources” (attitudes, beliefs, information etc.), as well as providing insight into how individuals and groups gain access to, are influenced by, and leverage these resources. The network perspective does not supplant the importance of individual attributes, but rather offers a complementary optic and set of methods for better understanding the dynamic influence of social processes involved in change as is clear from these chapters.

Therefore, rather than trying to understand the process of change based on the attributes of an individual (gender, years of experience, training, education, beliefs, etc.), network scholars focus on the influence and outcome of an individual or organization’s ‘position’ vis-à-vis social ties with others, as well as the overall social structure of a network. In many cases, social network theorists suggest that the underlying social structure determines the type, access, and flow of resources to actors in the network leading some scholars to suggest that the old adage “*It is not what you know, but who you know*”, is more accurately, “*Who you know defines what you know*”.

As these chapters point out, to be successful in evolving contexts, we must move beyond just developing individual capacity to better understanding the potential of the collective. As we have shown in our work, organizations have the ability to learn; in doing so, they must balance multiple demands and pressures, moving beyond traditional individual ‘quick fixes’ to leveraging existing capacities and developing new approaches. Although individual skills and training are useful we have to consider a variety of types of ‘capital’ necessary for change to take place. As such we need systems that not only support the development of individual skill (*human capital*), but connecting those skills sets between individuals (*social capital*) in an intentional and strategic manner. Linking human and social capital and supporting individuals to engage their work in this manner creates innovation and opportunity in the form of *professional capital*, which has been central in our work. To be clear what we take from the chapters is not that social capital is a stand alone or even a replacement for human capital, rather we are suggesting it takes both. When we consider the chapters the social and human capital conversation becomes one more about background and foreground—not one form of capital or the other. The real strength as we can see from the volume are the points where these types of capital intersect, connect, and build upon one another.

From our vantage point, which has been reinforced by the chapters in the text, we believe we are poised for a resurgence regarding the importance of social relationships in a variety of forms and in a host of contexts. Relationships have always been important, but now after enduring so many years of technical fixes, rigid accountability, and pressure/stress individuals are ready for a change. We see that change in terms of reinvesting in the human and social capital in systems of change. The work of the 21st century is not only about facts, figures, and rote learning, it is about generating intellectual and professional capital as well as creating, developing, managing, and exchanging knowledge as it exists in multiple arenas as can be gleaned from the chapters. Knowledge generation therefore is a socio-culturally embedded process conducted through, between, among, and with people who reside in social networks and those networks are inescapably tied to the work of educators in a variety of contexts. It is the quantity *and* quality of ties that are consequential for both individual and collective outcomes as well as transformative change.

The quality of our relationships

The importance of the 'social work' of change has been repeatedly shown in leadership research studies from a variety of sectors. Interpersonal skills such as facilitating, questioning, active listening, and collaborating are often assumed to be among the capabilities of most organizational members, but that assumption is often faulty and the absence of these skills can derail efforts. Research suggests that support and training around these important competencies can support collaborative work and that the quality of our relationships is of key importance. Moreover, as we will discuss below the role of affective ties are also significant as is the growing science around mindfulness.

When we consider the quality of our relationships we often think about ideas related to trust, which is either explicitly mentioned or referred to in the previous chapters. Trust is a critical and multi-faceted construct. When we say that we 'trust' someone it often includes ideas of benevolence, care, openness, and the ability to be vulnerable with another. All interactions have a degree of risk associated with them and higher levels of trust reduce the 'transaction cost' of interacting. Trust is central because when it is present in networks, individuals are better able to share more complex knowledge and avoid the social tax that is often associated with low trust environments. High trust contexts support greater willingness for individuals to be vulnerable with one another in sharing areas of difficulty and challenge. To move forward educators in the current space, we must embrace the vulnerability it takes to be open and put the other ahead of ourselves. This idea is hinted at in the chapters, but never directly and explicitly identified, is that excellence and change is interdependent and the success or failure of one is the success or failure of all as Dr. King points out in his powerful letter.

If we want to understand what is at the core of building networks it is vulnerability and willingness to take a risk. Equity, innovation, improving practice, change, relationships all require a level of vulnerability. Allowing ourselves, and supporting the conditions for others to feel safe, is job one for change and growth. This became obvious to us as we looked across the chapters, and yet we rarely discuss this central term in the work. Wanting the best for ourselves and others who share our life or for the networks in which we work requires vulnerability and a commitment to supporting others. Absent attention to this critical element of personal and professional growth deep and lasting change may be challenging.

Therefore, merely providing time and directives to 'work together' does not necessarily result in meaningful collaboration between vertical and horizontal teams or build trust. Such sheer formal structure might unintentionally create a culture of contrived collegiality as opposed to authentic collaboration. In fact, 'forced' collaboration may create a rock and a hard place situation for an individual who is attempting to balance the strong informal social pressure not to collaborate and equally strong formal pressure to work together. 'Resistance' of someone in this sense does not reflect some clash over belief systems, but rather being caught between two powerful and opposing social forces. Creating and nurturing climates of support and intentionality will be critically important for deep level

collaboration to take place. In that spirit in this next section we offer some areas of high leverage that the preceding chapters suggest.

Moving forward – where next for networks of learning?

Having looked back over the main core theme from the chapters, we now turn our attention to looking forward and suggest five areas and future directions to consider.

Working toward conceptual clarity. Networks can appear and be sustained in a variety of settings with a multiplex cast of actors and organizations. This variety as displayed in the chapters is a strength of the work and the authors provide interesting examples in multiple contexts that present useful insights as we discuss above. At the same time, while this work offers valuable perspectives, it also highlights the next generation of work in the network space in terms of sharper conceptual understanding and language.

The strength of the variety of work in this text is both the biggest conceptual and practical hurdle that the larger field will need to overcome. The term ‘network’ needs more precision as, absent that clarity, it will be difficult for this developing space to make sense of findings from different places. The chapters in varying degrees offer definitions of ‘professional learning networks’, but those definitions are wide ranging and as such make deep generalized knowledge about networks hard to pin down. As we are in early innings of this work, the field will need to work more intentionally – and collaboratively – on understanding what the term ‘network’ means in the context of professional learning. ‘Networks’ as used within social network analysis can refer to the connections between people in one school or across many schools. Working with colleagues in one school where most people spend the majority of their professional time, albeit working with different colleagues or, most often alone, is very different from working with colleagues in different schools with diverse contexts and yet both are referred to as networks as one example. If we are to bridge the rigor to relevance gap we need more precise language and clear tools to make this work come even more to life and allow researchers, policy makers, and practitioners speak to one another.

Ensuring depth of learning as well as breadth. This book offers a diverse range of professional learning network examples from several countries. Given that collaboration in the form of peer networks is now an increasingly expected feature of professionalism internationally, this is encouraging. But networking as yet isn’t the norm in most countries. The Teaching and Learning International Study (TALIS) results highlight that almost half the secondary teachers who responded (45%) had never observed a colleague teach in their own school and fewer than a fifth (19%) had observed teachers in other schools, while under four in 10 teachers (37%) had participated in teacher networks (OECD, 2013). Some of this may be down to structural impediments such as lack of time, or even norms to support such interactions. However, this idea of ‘deprivatizing’ practice, which opens up work to serious scrutiny, whether in sharing data, observing colleagues and crafting new practices can push people into uncomfortable territory as the level of challenge increases. Reviews of the most powerful professional learning highlight that challenging thinking is a fundamental part of changing practice. Some teacher networks rarely get beyond a shallow level of talk, either because they prefer not to push themselves out of a comfortable space,

or a paucity of in-depth knowledge about how their practice is intended to make a difference to students' learning experiences, wellbeing and outcomes. The word 'learning' should not be taken lightly. Learning should lead to growth, but the status quo of existing beliefs, understandings and behavior is hard to 'interrupt'. Processes like the 'hypotheses' and interpretation and conclusions steps in the Swedish and Dutch data team intervention, the intentional aim to change knowledge and beliefs through lesson study in the Netherlands, and the way teachers in the New Zealand chapter are guided towards clarifying their thinking and identifying taken-for granted assumptions, are all intended to push participants into this new and frequently uncomfortable space. But within this space we believe there is great opportunity for further work and harkens back to our idea of putting the notion of vulnerability front and center in the change and leadership work.

We wonder to what extent teachers and leaders already have the necessary skills to facilitate the kind of professional learning networking that will produce the challenge and get to this kind of depth. External researchers, who have facilitated or observed others facilitating the kinds of networking experienced by teachers, have mainly written these chapters and although these teams may be skilled, it certainly does not imply that these skills are ubiquitous or are somehow innate to professionals. As the Dutch teacher design teams chapter demonstrates, it is development by the research team of a method to support team coaches that produces greater engagement in the second year.

Going deeper also means getting better at self-evaluation as part of the professional learning experience of networks. Some examples offer traditional qualitative and quantitative evaluations. Other examples in the book included measuring the Kirkpatrick levels of effect, or the English research learning networks' evaluations of research engagement, whether educators develop new practices informed by research and their own knowledge, and whether a networking initiative can enable participants to embed wider use of research-informed practices among colleagues across their schools. Inevitably, evaluating the impact at different levels when looking at specified interventions in a classroom or school is different from looking at how learning networks influence practice change and student learning experiences and outcomes. This becomes even more complex when teachers and leaders are based in different schools. There are a wide range of reasons educators become involved in networking and these may be different from those of interest to researchers and as such we need to better unpack the interaction of these complex skills, norms, and beliefs around networks.

Exploring how technology can enhance professional learning networks. In today's fast-changing world, people are increasingly turning to social media for real-time information and connection in their everyday lives. Approximately 2 billion people, or one third of the world's population, are using social networks to find other people and resources across geographical, cultural and economic borders. These trends are expected to grow as mobile device usage and mobile social networks gain even more traction. It is in this growing social media space that we argue that it will become increasingly important for educators, parents, and communities to need to know how to identify, discern, and harness quality opportunities and learning that technology has the potential to unleash. In essence we need to be more explicit about the "network literacy" skills that are developed in the youth of today. At the same time we also need to be mindful of the network literacy of teachers

who are also continually advancing their own knowledge and that of the profession both inside and outside of schools.

Technology will not be the sole driver of learning in the future, but rather it will be a valuable resource and part of a broad instructional repertoire and has the potential to bring in a wide variety of voices and perspectives. Given the relationship between networks and technology, it struck us that the area was unexplored in most chapters and provides a potential high leverage point. Limited references were offered in the examples to virtual learning, with exception of the virtual professional learning communities in the Austrian case and these authors' proposals for further digital networking. Learning in context is the norm, or with schools close by, other than occasions when larger networks come together for an organised networking event. This is not a limitation to the text, but rather the potential of virtual, digital, and social media space is an area that we need to explore and expand upon as well push for conceptual clarity.

Paying attention to the conditions to support relational space. Although there is work to be done on the broad notion of 'networks', at the core of this work is the notion of the primacy of relationships and viewing the world from a 'relational space perspective', highlighted particularly in the Canadian chapters on social network and community pedagogical inquiry. For far too long, as we describe above, the education endeavour with some notable exceptions has focused on the idea of human capital—the notion that training, education, and experience, are the most important bits of change and improvement in education. This has been done at the peril of a more social capital perspective in which relationships and the sets of ties between individuals are recognised as having value, even where stronger relationships between teachers are associated with greater feelings of self-efficacy as a recent OECD study points out. In our work, as is exhibited in some of chapters, the combination of both human and social capital holds great promise. So, in British Columbian chapter, the educators "feel the emotions that come with belonging". This becomes a foreground/background issue in which we foreground the social and background the human capital area.

Quite simply, change and improvement isn't easy – whether it involves networks or not. Teaching and leadership require commitment, energy, patience, empathy, creativity and adaptability in problem solving, and a willingness to keep learning. Faced with diverse challenges of working with children (and their parents or caregivers), the many demands of the job and being subjected to strong accountability measures in many countries, it can become increasingly hard for teachers and leaders to maintain resilience. International evidence from a range of different sectors on wellbeing at work and how to promote it identifies opportunities for learning and connectedness with colleagues as key elements of workplace wellbeing. Professional learning networks can offer this, but we need to understand more about the relationship between networked learning and teacher wellbeing. Work on the power of mindfulness as key in wellbeing as demonstrated through studies in neuroscience should give us pause to consider they types of networks we are crafting and supporting. So although the relationships are important, attending to way the way in which we care for one another and the degree to which we can be vulnerable and what that looks like in professional spaces reflects some of what we think is new and exciting spaces to be explored both in terms of research and practice.

Although the importance of relationships are clearly central in this text, attending to the quality of those relationships also needs to be highlighted as is evidenced in the British Columbian example. When we refer to the quality of the ties we are talking about levels of trust and the ability to be vulnerable. Vulnerability is one of the most overlooked and important relational capacities in improving the quality of relationships and we would argue is *the* leadership skill for the 21st century (maybe a bit of an overstatement, but want to plant a flag here). These high quality ties are also central to ideas about wellbeing, care, and mindfulness and we can talk about the importance of networks all day long, but unless we are able to get to the core of wellbeing and the centrality of what it means to have humanity and humility we are unlikely to get to deep change. The question becomes how do we create the conditions for wellbeing to flourish and what does this suggest for educational systems that are reflected in this text and beyond? Generating understanding that wellbeing and intentionality requires not just a Pollyanna vision of the world, but rather relentlessly supporting people to be at their best in terms of stretching, growing, and opening perspectives. Recognizing that rather than being defined by our differences, we are actually strengthened by them and in moving to this place can do so much more.

Moving towards a systems perspective – within and across. Focusing on the quantity and quality of our relationships as situated in places that privilege wellbeing and mindfulness are only as effective as the systems in which they reside. It's vital to take care when focusing on networks of individuals and groups within or between schools that their activity is well connected into and supported within the site of their major daily activities. However, for far too long we have conceptualized change and improvement from a discrete level (classroom, school, or maybe network of schools), but for deep change and wellbeing to flourish we need to focus on the system. We can see this in British Columbia's example of "systems of relationships and negotiated meanings between ourselves, our students and our contexts". The Austrian learn-designer network within a much larger system wide middle school reform, and in Germany where vertical networks are aimed at improving "potential gaps between kindergartens, primary schools, secondary schools and universities or vocational training institutions" and a deliberate terminology of "learning regions" promotes collaboration between all educational stakeholders.

The world is an interconnected and interdependent place and living into that reality catalyse us to move in new directions. When we truly understand that when the bell tolls it tolls for thee, as John Dunn noted in the 1500s, we will have made a significant step forward. Building on our strengths, connecting to a sense of purpose, embracing vulnerability, and nurturing wellbeing within and across systems hold great potential for seemingly intractable issues that many of the chapters outline. We have referred to the wellbeing of adults in professional learning networks but let's not forget why we are networking: to make a difference for children and young people. The relentless push on better results in academic assessments is leading to increased levels of anxiety in about preparing for tests and examinations, as highlighted in the PISA findings on student wellbeing. From our vantage point while many of the chapters point to an idea of a systems perspective we still have space to explore and to be more thoughtful about how the dawn of systems leadership comes about.

Conclusion

Given the ideas outlined within this text, why should we think that once an individual walks into a school or out in to a community that their social networks cease to be influential? If networks can influence something as personal as our health or happiness, future paths, and worldviews surely they can also influence how we go about our work. Change happens not only in technical plans and blueprints, but through the interaction, co-construction, and sense making of individuals. As such the interdependence of relationships across a network may ultimately moderate, influence, and even determine the direction, speed, and depth of change. Therefore, examining both the quantity and quality of social ties between and among individuals as they go about their work is important in understanding how change does or does not take place. We are social beings and current network approach provides us with both the insight and the vision we need to develop and improve real relationships that are often hidden in plain sight, but without expanding into the areas we have identified we may lose the thread and relegate this important idea to yet another approach to change that didn't deliver on its promise.