

*Performance Improvement and
Assessment of Collaboration:
Starting points for networks and
communities of practice*

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1.0 Introduction

Twenty years have passed since signatory nations agreed to Agenda 21, a global plan of action toward sustainable development. It has become clear that no one individual, organization or sector can solve the challenges presented in Agenda 21, which have been reiterated and expanded upon in the plans and targets put forward under the many related conventions, conferences and summits since 1992. Collaboration and knowledge sharing have emerged as critical skills needed by practitioners and organizations to share knowledge and work together toward common goals in the world's collective journey to sustainable development.

The International Institute for Sustainable Development's (IISD) Global Connectivity program has worked for over a decade on research and capacity building for performance assessment and improvement of collaboration. At the heart of collaborative undertakings are people and institutions choosing to work together for a greater good. Ideas are generated. Projects are proposed. Activities are implemented. Learnings are documented and shared and spark new ideas, beginning the cycle over again. However, these processes do not occur flawlessly. Projects may miss deadlines, cause frustrations and undercut key elements that motivate collaborators (Willard, n.d.). And so we have taken on the challenge of studying performance improvement and assessment of collaboration in order to help partnerships partner, alliances ally, and networks work. The following paper provides our preliminary reflections on performance improvement and assessment of groups of individuals working together in networks and communities of practice (CoPs).

2.0 *Untangling Terminology and Typology*

First, we need simplicity and clarity in recognizing the entity or process that is being assessed. This task is made difficult because there are so many different terms used to describe types of collaborative efforts, such as alliances, knowledge networks, learning networks, partnerships, communities of interest, CoPs and so forth. We have learned through our research and consulting activities that discussions of fine distinctions between these terms are of limited value in determining how to improve performance and how to help organizers and participants account for the time and resources invested in the collaboration (see Figure 1). These widely ranging collaborative modalities, in the end, have many basic characteristics in common and only a few key distinctions. Managers and evaluators should not get lost in the tangle of terminology and instead focus on key attributes that are critical to designing for and assessing performance.

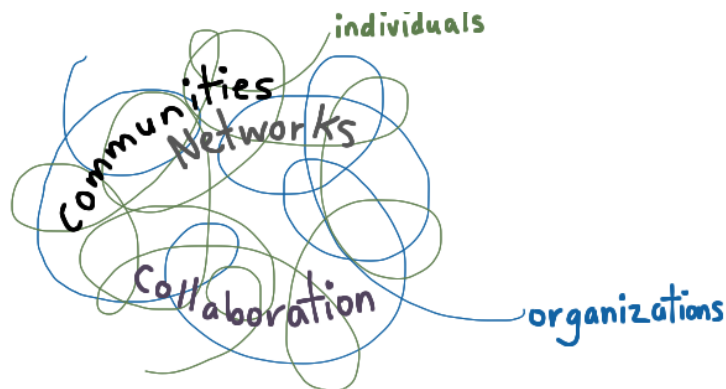


FIGURE 1. MANAGERS AND EVALUATORS SHOULD NOT GET LOST IN THE TANGLE OF TERMINOLOGY, FOCUSING INSTEAD ON KEY ATTRIBUTES CRITICAL TO DESIGNING FOR AND ASSESSING PERFORMANCE.

Our first observation is that the term “social networks” is emerging as an all-encompassing term, understood as the nodes of individuals and organizations and the related systems that tie them together, such as shared values and ideas, social contracts, trade and many other aspects of human relationships (Creech, 2010). Social networks embrace both personal and professional relationships. As an umbrella term, “social networks” covers many forms of social organization, including social communities on the Web, networking applications (e.g., Twitter, Facebook), interest groups, policy and knowledge networks, and CoPs (Serrat, 2010).

Within this social complexity, we focus our interest on those forms of social organization that are knowledge based, learning focused and purpose driven. In that context, we suggest that there are three major types of collaboration, as set forth below.

1. Collaborative, horizontal decision-making processes, which are coming to be understood as “networked governance”

The key distinction here is the redistribution and sharing of the power and responsibilities of centralized agencies to a broader spectrum of institutions and individuals, in order to enable the steering of complex, multisectoral challenges (Huppé, Creech & Knobloch, 2012). From the point of performance improvement, the central issues for review include determining:

- » The complexity of the governance challenge
- » The social capital developed among the stakeholders necessary for engagement and mutual trust
- » The effectiveness of the governance, decision making and co-management processes put in place

2. Collaborations of institutions for research and implementation, best understood as “partnerships” or “alliances” and termed “inter-organizational relationships” by Universalialia (Universalialia & IISD, n.d.)

What distinguishes inter-organizational relationships (IORs) from collaboration among groups of individuals is that IORs are primarily driven by shared organizational objectives among the participating institutions. IORs are characterized by “the formality of the relationships (level of endorsement [by] senior management of the institutions involved), resource flows [and] shared institutional risks and liabilities,” as stated by Heather Creech and Michelle Laurie in a report prepared for the Asian Development Bank (2011). An institutionalized partnership between organizations may eventually evolve into a new legal entity (Creech, Vetter, Matus & Seymour, 2008; Skat Foundation [2004], as cited by Cummings & van Zee, 2005, p. 19). The unique points of assessment include determining:

- » The external value or change that the IOR seeks to achieve as a collective effort
- » The relevance of the collective effort, not only to external stakeholders, but to the mandates of each of the institutions involved in the IOR
- » Whether the work to be carried out is better accomplished as a collective or not
- » Whether risks and liabilities are shared among the member institutions, in addition to the sharing of benefits

3. Collaborations of individuals seeking knowledge and support for purposeful individual or collective action (CoPs, knowledge networks, campaigns and so forth)

These networks of individuals come together for professional or purposeful reasons. In many cases, particularly in those CoPs and networks focused on improvement of professional knowledge and skills, the driver is self-interest on the part of the participant, and possibly his/her employer seeking to strengthen institutional capacity through professional development of staff. In other cases, the driver for the network is the mutual interest of participants to solve a problem through research and knowledge exchange, and possibly joint action as well. Performance improvement of these collaborations focuses on determining:

- Whether there is sufficient social capital for participants to exchange information, learn from each other and work together
- Whether individual participants believe and can demonstrate that their knowledge and skills have benefitted from the time invested
- Whether there has been progress in advancing solutions toward a shared challenge

Once these three distinctions are made, one can then address more clearly the activities, value creation and outcomes of the collaboration, and whether these are consistent with good practice in other similar entities. It almost goes without saying, of course, that individuals within decision-making processes and inter-organizational mechanisms do the work. Central to each of these modalities, therefore, is the need to understand how to build social capital among the various actors in the collaboration and how to measure whether social capital has been built and is sufficient for the collaboration to advance its work.

Although we have a considerable body of work and consulting practice now on IORs¹ and have prepared the ground for understanding and assessing “networked governance” (Huppé & Creech, 2012; Huppé, Creech & Knoblach, 2012), we have not focused as much on the collaboration of individuals and on this central challenge of building social capital. Furthermore, we have observed in recent years that a shift is taking place in the sustainable development community, with less attention being given to establishing IORs and more attention being given to fostering networks of individual experts and practitioners. There may be several drivers for this shift:

- Increased access to online tools for collaboration among individuals: It has simply become easier to connect, and so people do. With the increasing power and pervasiveness of social media and related tools, individuals are building their own expert networks to find ways to share knowledge and work together on common challenges.
- The complexity of IORs: Securing agreement among institutions to work together has proven to be time consuming, often with less than satisfactory outcomes, given the level of effort involved (Creech, Vetter, Matus & Seymour, 2008).
- A more mature understanding in the field of collaboration that an IOR is not always needed to support knowledge sharing, capacity development and joint action on the ground. The development of an IOR may be driven more by the need to mobilize formal resources and the need for a collective institutional mandate to scale up actions for wider spread outcomes and impact. But the more immediate needs for knowledge exchange and joint learning can be served through individual connections across institutions, without the need for institution-to-institution frameworks.

Thus, in this paper we set out to present a brief overview of the domain of collaboration among individuals, with our first attempt to identify a few initial parameters for understanding performance assessment and improvement of these processes. Purposeful individual collaborations can be assessed with somewhat different criteria than what might be used with networked governance processes or inter-organizational collaborations (see Figure 2).



FIGURE 2. PURPOSEFUL INDIVIDUAL COLLABORATIONS CAN BE ASSESSED WITH SOMEWHAT DIFFERENT CRITERIA THAN WHAT MIGHT BE USED WITH OTHER PROCESSES.

¹ See www.iisd.org/networks.

3.0 A Useful Starting Point: Communities of Practice

Communities of Practice (CoPs) have been described as one of the most influential concepts to have emerged within the social sciences during recent years (du Plessis [2008] as cited in Iaquinto, Ison & Faggian, 2011; Hughes et al. [2007, p. 1] as cited in Murillo, 2011a). A CoP has been defined as a group of people who share a concern, set of problems, or passion about a topic and who deepen their knowledge and expertise in this area by interacting with each other on an ongoing basis (Wenger, McDermott & Snyder, 2002). CoPs have evolved over the years to be nearly indistinguishable from other forms of collaboration among individuals. Still, given CoPs' prominence in the literature and the nearly ubiquitous use of the term in practice, their evolution into the landscape of collaboration will be explored in more detail in this section.

Those interested in social learning processes often seek to understand what distinguishes a CoP from other types of groups or networks. Wenger, Trayner and de Laat (2011, p. 9) further define a community of practice as

...[a] learning partnership among people who find it useful to learn from each other about a particular domain. They use each other's experience of practice as a learning resource. And they join forces in making sense of and addressing challenges they face individually or collectively. As such they are easily differentiated from formal work groups and project teams in which participation is typically mandatory and subject to an organization's hierarchical structures.

CoPs are basically a type of collaboration among individuals. Although an organizational mandate may drive the creation, thematic focus and expected concrete results of a CoP, and an organization may provide the time and financial resources needed to support the self-commitment of members (Swiss Agency for Development and Cooperation, 2007), CoPs remain fundamentally a voluntary relationship among individuals. CoPs may consist chiefly of participants who come together in co-located groups in an intra-organizational setting; however, the composition of CoPs has been expanding to include participants from and exchanges between organizations. It may be noted that although a CoP can be fostered by or emerge from a formal IOR, its essential components may differ from its originating IOR. The relationship between an IOR and an emergent CoP as a subset of individuals learning from each other, under the umbrella of the institutional relationship, is still underexplored in the literature and in practice.

Over the past two decades, as CoPs have become increasingly linked across geographical and organizational boundaries, they have become indistinguishable from other types of networked groups, sharing most of the characteristics of other types of networks among individuals as identified in the Appendix, such as knowledge management networks, knowledge platforms, open source development communities, networks of experts, friend/family or professional networks (Facebook, LinkedIn) and so forth. The concept of networks for learning, or "knowledge networks," emerged from the field of international development (Cummings & van Zee, 2005). They have been defined as networks that "facilitate information exchange toward practice-related goals" (Serrat, 2010, p. 7). The concept of CoPs, on the other hand, finds its origins in business and emerged in the early 1990s, but shares the same characteristics of facilitating knowledge sharing and joint learning toward improving practice.

Both CoPs and knowledge networks are founded on principles of social learning and aim to improve a certain practice; both share the importance of participation and boundaries, peripheries, linkages and interaction (Cummings & van Zee, 2005). As such, it is not surprising that there are many examples in the literature in which CoPs are treated as being essentially the same as knowledge networks or networks focused on learning (e.g., Kimble, Hildreth & Wright, 2001; Loumbeva, Salokhe, Kolshus & Lamoureux, 2009; White, 2010a; White, 2010b).

This interplay can be seen within the United Nations Development Programme's (UNDP) activities, where reference to CoPs and knowledge networks is used interchangeably in practical application. For example, as a preamble to introducing several thematic groups on its website, UNDP's regional centre in Colombo clearly explains that their "Knowledge Networks or Communities of Practice are people networks in which members are connected through a common professional discipline or interest." UNDP's *Knowledge Management Toolkit for the Crisis Prevention and Recovery Practice Area* explains that "establishing and maintaining a CoP is similar to creating and facilitating a knowledge network" and that both share the same best practices or "points to be aware of" (UNDP, 2007, pp. 44, 45-46).²

CoPs have been formally developed within and between organizations in the public, private and non-governmental sectors since the 1990s. In the early 2000s, intentionally nurtured CoPs were prevalent in the public sector, although still relatively incipient (Snyder & Briggs, 2003; Snyder & Wenger, 2003). The World Bank and the UNDP began adopting the CoP approach in the late 1990s; today CoPs may be found in all types of international development organizations—whether multilaterals, not-for-profits, governmental or non-governmental.³ Within this sector, CoPs are used to share and compare how specific development challenges are being addressed in order to increase their positive impacts on the ground (Cummings & Ferguson, 2008; World Bank, 2003; Young, 2007). Thus, along with their public sector counterparts, these organizations are employing CoPs to achieve collaborative advantage and accomplish goals that could not be achieved independently (Serrat, 2010).

CoPs vary in their degree of openness, from being open to anyone who wishes to participate, to being restricted in various ways (e.g., open only to invited participants or to individuals working within a certain organization or on a particular project). Furthermore, members of CoPs can be "co-located" (meet principally in face-to-face settings), or they can interact principally at a distance (using network technologies such as telephone, videoconference and the Internet). These variations in the design and function of CoPs reflect differences in the needs of individuals and groups, as well as in the options created by advances in network technologies.

The term "CoP" has been widely adopted, and adapted, to meet a range of individual knowledge and learning needs. What may limit its use, however, as a more generic term to describe collaborative relationships among individuals is that it does not communicate a sense of common or collective action as one potential outcome (and therefore a potential point of assessment) of learning and working together. Furthermore, as collaboration increasingly operates at a distance and in a distributed manner, a multiplicity of terms has been proposed to describe networked forms of collaboration, including:

- Constellations of practices (Wenger, 1998)
- Networks of Practice, or NoPs (Brown and Duguid, 2000)
- Distributed CoPs (Wenger, McDermott & Snyder, 2002)
- Electronic Networks of Practice, or ENoPs (Agterberg, Huysman & van den Hooff, 2008; Wasko & Teigland [2004] as cited in Murillo, 2011b)
- Collectivities of practice (Lindkvist [2005] as cited in Murillo, 2011b)

² See also the UNDP Asia-Pacific Regional Centre's website on Networks and CoPs: hdru.aprc.undp.org/resource_centre/networks_and_communities.php.

³ Leading examples include bilateral agencies such as Helvetas, the Swiss Agency for Development and Cooperation, and the United States Agency for International Development (USAID); multilateral organizations such as the Asian Development Bank, the Consultative Group on International Agricultural Research, the UNDP and the World Bank; and non-governmental and not-for-profit organizations like BOND for International Development, CARE, Impact Alliance, the Overseas Development Institute and the WWF.

A more generic term is warranted, in order to bypass the ongoing debates on terminology and typology and shift the discussion toward developing criteria for performance assessment and improvement. We might suggest, in parallel to inter-organizational relationships (IORs), the term “inter-individual collaborative relationships” (ICRs). We might also argue, given the growing use of the tool “social network analysis” to describe and assess the connectedness within a collaborative arrangement, that the term “network” be used as the encompassing term for all knowledge-based, learning-focused and action-oriented groups of individuals. For the balance of this paper, we choose to use the term “network” as the more generic term.

4.0 *What Is to Be Achieved, and Therefore Assessed, for Performance Improvement?*

The following section suggests four points requiring more in-depth consideration and exploration in strengthening performance assessment and improvement of networks. In all points, the factor of time figures prominently. In and of itself, the issues of time and the life cycle of networks warrant more attention from evaluation professionals and network practitioners seeking to improve the performance of their networks (Cabaj, 2011; Creech & Ramji, 2004). For now, though, we identify the following points as a start in laying out a more detailed research agenda for future work by IISD and others:

1. Focus and extensiveness of the network
2. Evolution of the structure of the network over time
3. Social capital within the network
4. Activities and outcomes of the network, and the shared value created by the network

At the end of this section, we also share some thoughts on tools for use in an assessment of a network.

4.1 Focus and Extensiveness

A starting point for an exploration of performance improvement relates to the focus and extensiveness of these relationships (Dawes, Cresswell & Pardo, 2009). Focus deals with purpose and can be narrow or broad. For example, a problem-specific working group has a narrow focus that uses networking to help meet a specific need. This (sometimes short-term and usually time-bound) set of relationships should have the advantage of clarity, as the group pursues a certain goal with an end point. On the other hand, Creech and Laurie (Asian Development Bank, 2011) report there are networks with a broader focus that aim to create systematic capacity to share knowledge and information whenever it is needed within a domain of action or area of expertise. The review of purpose, but also the evolution of purpose over time is an important consideration in performance assessment.

Extensiveness deals with scope or reach both within and across institutions, sectors and jurisdictions. Is the group of individuals within one organization, or does the network include participation from various organizations, institutions and localities? The evaluation of a CoP that exists within and serves the interests of a single organization will likely explore the benefits to participating employees and to a business process. The evaluator will need to consider whether and how the CoP has served to improve the organization as a whole. This will differ from the evaluation of a network of individuals who come from a variety of backgrounds and organizations to work toward a shared purpose beyond the benefit of any one organization. Although in the latter type of network each of the participants may benefit, there will also be the expectation of a contribution toward a shared vision, goals and objectives.

4.2 Understanding of Structure and the Evolution of That Structure over Time

Purpose and extensiveness criteria influence the emergence and evolution of the structure of the network. Within an organization, the network may be bounded by institutional parameters, including the need to pursue institutional objectives and the need to protect confidential information. In more extensive networks, the structure will be looser and more complex, with elements of self-organization and self-management. Whether fully self-organized (such as, for example, a professional group on LinkedIn) or not, some structure will emerge: Who has assumed some leadership? Where is the energy to drive discussions? Who maintains functionality in the background, such as directories of shared documents, lists of members and so forth?

Within collaborative approaches, it is not uncommon to find smaller, focused, more purposeful groups embedded in a broader, extensive network (Murillo, 2011a). There could be a node or a high density section of the network formed by those who engage with each other regularly and thus develop much stronger ties than those prevalent in the rest of the network (see Figure 3).

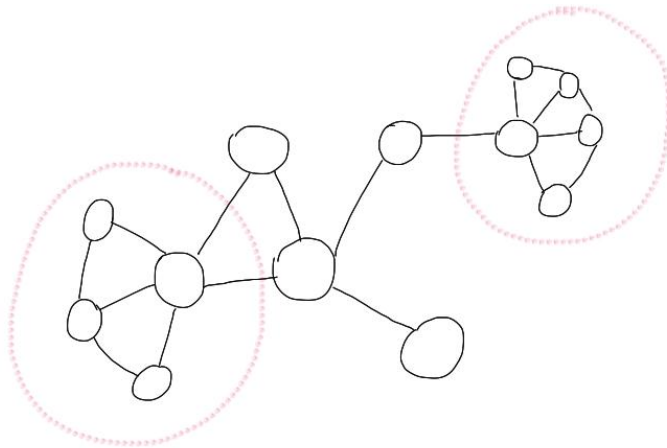


FIGURE 3. SOCIAL NETWORK ANALYSIS IS BEGINNING TO PROVIDE USEFUL INSIGHTS INTO NETWORK STRUCTURE, IN PARTICULAR REVEALING NETWORK EXTENSIVENESS AND EMERGING CLUSTERS WHERE NETWORK PURPOSE MAY BE MORE INTENSELY ADDRESSED, OR PERHAPS SHIFTING ENERGY AWAY TOWARD NEW OBJECTIVES.

4.3 Social Capital

We consider social capital to be the fabric of trust, shared values and understanding that allows diverse participants to work together toward collective outcomes and common goals (Huppé, Creech & Knoblach, 2012). The successful outcome of networking endeavours is predicated, we suggest, on the nature and extent of social capital within the network. However, the existence and development of that social capital may, in fact, rest in the existence of other personal, social networks and ties within and beyond the group—as other researchers have noted, broader social networks that provide access to resources and support play a strategic role in building social capital (Franke, 2005). This poses a challenge to network evaluators, with respect to setting boundaries for the assessment of network performance: How far can an evaluator explore the reach of individual social networks as a necessary consideration in determining the depth of social capital in a collaborative process? Should some thought be given to mapping and understanding individual personal networks to understand where knowledge is brought into the network? Are the key structural pieces the “connectors”—individuals within one network whose personal connections increase the flow of information and knowledge into, and out of, the network? Who are these people in a given network, what is their role (both explicit and implicit) and are they performing their role to the benefit of the network as a whole?

Is a “connector” different from a “bridger”? “Bridgers” may be those who bring together individuals of differing knowledge levels and capacities within the network—“bridging” the gap, for example, between participants from different sectors, between science and local knowledge holders, and so forth. Effective bridging likewise builds trust and understanding, essential to the development of social capital. But again, who are these “bridgers” within a network, is “bridging” a formal or an informal activity, and are these members performing their roles in the ways expected by other network members?

4.4 Activities, Outcomes and the Concept of Value Creation

In the evaluation of development projects, the emphasis tends to lie, ultimately, on outcomes and impact: did the group working on the development intervention make a difference? In assessing collaboration, however, the evaluator needs to explore, as well, the benefit back to the individuals working together. It may be important to trace the outcomes and the impact of each individual in his/her own subsequent work as an equally significant and desirable outcome of the network. This suggests that attention needs to be paid to those activities of the group that contribute to strengthening individual members' access to information, personal knowledge and long-term helpful relationships, and whether these activities contribute to personal gains that, in turn, serve development objectives. Further, the outcomes will vary for different people; the evaluator will need to consider how to determine and give weight and value to what each member gains from the network experience.

We would expand upon this by suggesting that performance assessment needs to consider more broadly the concept of value creation, and how the value created by the network is to be measured not only by what the individual participants say but by what external parties and other stakeholders say about value created. We would suggest that assessment take into consideration Wenger's distinctions between "applied value" and "realized value" (Wenger, Trayner & de Laat, 2011):

- **Applied value:** The extent to which the information, knowledge and learning is applied. The lines of inquiry might include:
 - Did participation give the individual network member new ideas about how he/she does his/her work, how to collaborate, and how to find new people to connect with?
 - Has the individual network member remained in contact with others (how frequently and to what end?) either through network mechanisms (online platform, listserv, Twitter feed, etc.) or independently (through phone, email)?

- **Realized value:** The difference made beyond the individual members of the network, for the individual members' organization(s) and for the challenges that the network came together to address. Can a determination be made of the longer-term, more extensive outcomes and impacts of the collaboration? The lines of inquiry for assessing "realized value" might include:
 - What have those on the boundaries of the network gained from observing the interactions of more engaged members? Within any network, one can assume a "1-9-90" rule: 1 per cent fully engaged, 9 per cent contributing once in a while, and 90 per cent "lurking" or listening in/following the flow of information and debate (Neilson, 2006).⁴ "Realized" value may exist in those members on the boundaries of the collaboration.
 - What changes can be determined in the knowledge and actions of those with whom network members are working, as an outcome of the work that the network set out to do?
 - What changes have taken place in organizational capacity, within the organizations that members are part of or work with on a regular basis?

⁴ Wenger, McDermott and Snyder (2002) have identified somewhat higher levels of participation in CoPs, although these might be primarily for those CoPs where participants are co-located inside a single organization. They suggest 10 to 15 per cent participation of the core group, while active members represent 15 to 20 per cent. The remaining 75 per cent are periphery members.

5.0 Tools for Assessing Networks

We share here a few thoughts on tools that hold some promise for the assessment of networks, noting first that the process for assessing networks will be dictated by the driver for the assessment and the resources available to conduct the assessment. Who or what is being evaluated and for what purpose? Is an external reviewer being commissioned, or is the process to be a self-assessment, managed by network members? Is the assessment intended to focus on process improvement, or is its main purpose to account for time and funds invested in the network and to determine the return on investment? Is the request for the assessment coming from the investors (donors, funders, employers) or the network managers (if any) or the network members?

1. In reviewing focus and extensiveness, consider using Cognitive Edge and the Cynefin Framework (Snowden & Boone, 2007)

The Cynefin Framework presents four contexts (simple, complicated, complex and chaotic) that can be helpful in exploring solutions to challenges that emerge in those contexts. One of its strengths lies in the incorporation of complexity theory and adaptive systems into the problem identification and resolution process.

As networks come together to address complex problems, an understanding of complexity theory in decision making and organizational behaviours may influence collaboration strategies. The evaluator will be interested in determining whether the strategy for collaboration has best served the complex issues the network seeks to address; in particular, it considers the role of leadership in laying out strategy.

2. In reviewing network structure, consider using Social Network Analysis

Social network analysis (SNA) is a diagnostic tool for collecting, visualizing and analyzing relevant data with respect to patterns of relationships among individuals involved in a given network (Ryan & Creech, 2008).

SNA continues to be a highly specialized field, requiring the commissioning of external expertise and specific software applications. The process of conducting the analysis can be labour intensive and resulting costs can be well beyond the reach of most networks, which often function on limited budgets and with in-kind support and volunteer participation by members (Ryan & Creech, 2008). While SNA may help to reveal patterns and understand the structure of a network and how that structure is evolving, its insights may still be limited with respect to how structure can be strengthened and processes improved within a network.

3. In determining social capital, consult *Collaboration* (Hansen, 2009)

Hansen's book is written for the business manager seeking to create or improve collaboration in an organization. Four traps for collaboration (including overestimating the value of collaboration and underestimating the cost, as well as misdiagnosing the problem and implementing the wrong solution) are presented, along with barriers (both personal and organizational) that must be overcome.

Hansen's work makes many important observations on the nature of collaboration that are helpful in setting evaluation criteria and performance indicators. These include:

- Undisciplined collaboration (outward ties) versus disciplined (internal ties)
- Importance of diversity of connections
- The importance of strong ties for knowledge transfer
- The existence of bridges (people with range) to create diverse connections and knowledge exchange between them

4. In selecting key performance areas for assessment of activities and outcomes, consider the work done by the Asian Development Bank's (ADB) Knowledge Management Centre

ADB has invested considerable time in understanding networks, mining their own experience with CoPs in order to identify key performance areas for monitoring and assessment. They have tested a set of performance areas with their own internal review of CoPs at the ADB. The eight performance areas include (Serrat, 2011a; Serrat, 2011b):

- Domain (the area of shared inquiry)
- Membership (openness and diversity)
- Norms and rules (members' roles and responsibilities; contributions and benefits)
- Structure and process (organizers/facilitators' roles and planning)
- Flow of energy (related to social capital: the sense of community and shared ownership among members)
- Results (a shared commitment to productive interactions and tangible benefits from interaction)
- Resources (time, incentives for participation)
- Values (also related to social capital: value given to the input of others, demonstrated through quality of interaction and handling of diverse views)

5. In assessing activities, the Digital Habitats Spidergram (Wenger, White & Smith, 2009) may also provide some insight

In the book *Digital Habitats: Stewarding Technology for Communities*, Wenger and his co-authors identify nine general patterns of activities that characterize a community's orientations, from meetings and open-ended conversations, through to projects and "serving a context" (Wenger, White & Smith, 2009, p. 96). A wide selection of tools for supporting a CoP in these various contexts is provided.

In assessing the various activities of the network, to understand the value of those activities to members, the Digital Habitats Community Spidergram may be of some use in determining where a network is now, where it wants to go, and what tools it could be using, or using more effectively.

6. Qualitative research into determining value will rely on stories or narratives from network members and others; oral history tools may be helpful

Oral history is the systematic collection of verbal testimony from people about an event, a community, an era or other context of which they have personal experience.

Knowledge management literature often suggests the importance of capturing stories or narratives as part of the knowledge sharing and learning process. Narratives or stories from network members can help to connect the activities, outcomes, values and business results to make them visible. This type of qualitative data is often challenging for the evaluator to assess fairly. Professional oral historians have well-established principles and processes for the capturing and validation of oral testimony.

In the next stage of IISD's work, we will be exploring how these various tools can be adapted for network assessment and performance improvement, with particular attention paid to how one can determine "aggregated" value creation—how the activities of one group of collaborators influence directly or indirectly the activities of another, aggregating the benefits achieved beyond the immediate scope of each network.

6.0 *Final Thoughts*

Collaboration and knowledge sharing are increasingly viewed as essential to achieving the international development agenda. Collaboration among individuals provides venues for sharing perspectives and building effective practices that can help find solutions to complex sustainable development challenges. Rather than focusing on arbitrary distinctions between learning networks, knowledge networks, CoPs and so forth, we argue it is important to step back and reflect. When assessing a collaboration of individuals, what is the purpose of them coming together, the mechanics of interaction and the desired outcomes from coming together? Are the desired outcomes benefiting the individuals, or achieving a common purpose or a greater good beyond the collaborators? These questions are relevant for all types of collaboration between groups of individuals. We believe these questions need more attention.

This paper illustrates that different forms of collaboration often overlap and this has made design and assessment confusing. However, rather than get tangled in the terminology, we suggest the first point to address is whether the collaboration is:

- a multistakeholder, multisectoral, networked governance process,
- a relationship among a group of organizations or
- a collaboration of individuals.

After this distinction is made and it is determined that the entity being assessed is a collaboration of individuals, one should explore the focus and extensiveness, emergent structure, social capital, activities, desired outcomes and value creation of the collaboration.

Collaboration between groups of individuals is a necessary means for leveraging learning and innovation and, as such, plays a key role in solving the world's pressing problems, including sustainable development challenges. We hope this paper is a starting point for practitioners and evaluators with respect to how to manage, strengthen and improve the value of these collaborations.

Appendix: Types of Networking Groups between Individuals

Table adapted from Creech (2005); Creech, Paas and Oana (2008); Creech and Willard, 2001; and Kerno [2008], as cited in Lusk and Harris (2010).

	PURPOSE	WHO?	HELD TOGETHER BY?	HOW LONG?
Social/ friend/ professional network	To share information	Friends and business acquaintances	Mutual needs	As long as reason to connect exists
Knowledge platforms, Information networks and portals	Provide access to information	Self-selecting	Information access, common interests	As long as maintained by members
Open source development communities	Development and testing of new ideas	Anyone interested in contributing, with an expectation of active participation	An inner circle who function as the keepers of the original code or idea that is being tested and adapted by the community, and who have final approval over adoption	As long as desire to collaborate persists
Networks of experts	Either advisory or focused on research and problem solving	Individuals with expertise in particular area Membership by invitation only	The experts themselves, possibly with an institutional base that manages financing, common interests	As long as financing or other incentives are available to support the group
Communities of Practice	To develop members' capabilities; to build and steward a domain of knowledge between members and also with the broader community; learning together is central	Members select themselves May be bounded within a single organization or independent of any organization	Passion, shared learning agenda, shared practice (way of doing things), mutual benefit, commitment and identification to the domain and the community Involvement waxes and wanes with level of participants' interest	As long as there is interest in maintaining the community either within the group, or with the organization fostering or mandating the group
Knowledge networks	To develop members' capabilities; to build and exchange knowledge between members and also with the broader community	Same as CoPs	Passion, common vision, shared interests, mutual benefit, commitment and identification with the groups expertise Involvement waxes and wanes with level of participants' interest	Same as CoPs

	PURPOSE	WHO?	HELD TOGETHER BY?	HOW LONG?
Internal knowledge networks, learning networks or thematic networks	To develop members' capabilities; to build and exchange knowledge between members and also with the broader community	Members who select themselves Bounded within a single organization	Passion, common vision, shared interests, mutual benefit, commitment and identification with the groups expertise Involvement waxes and wanes with level of participants' interest	Same as CoPs
Formal work group	To deliver a product or service	Everyone who reports to the group's manager/ leader	Job requirements and common goals	Until the next reorganization
Project team	To accomplish a specific task	Employees assigned by senior management/ leadership	The project's milestones and goals	Until the project has been completed

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