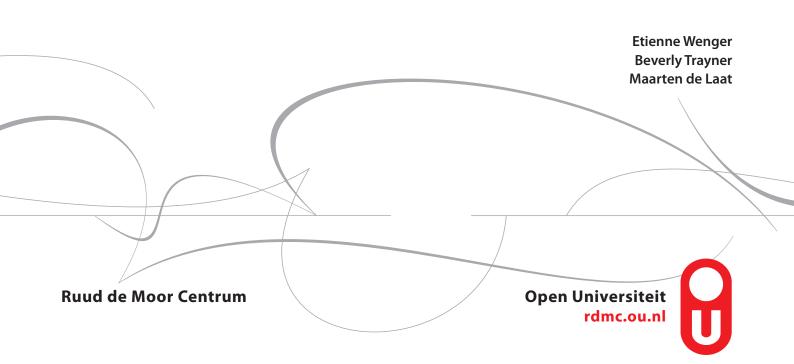
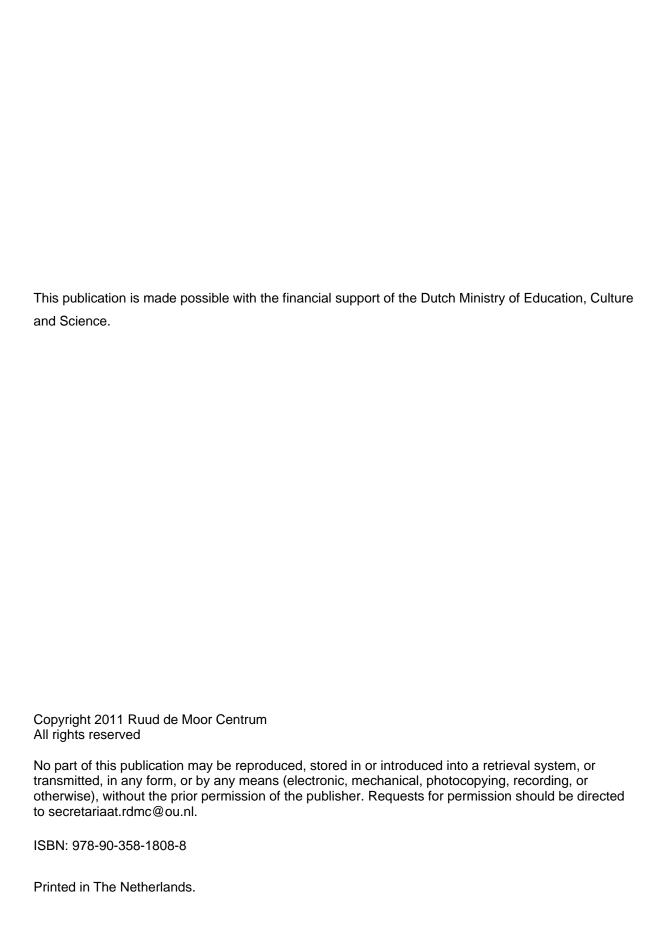
Promoting and assessing value creation in communities and networks: a conceptual framework





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Foreword

The Open Universiteit Nederland (OUNL) partners with teacher education institutes and school organizations for the development and provision of teacher professional development. Most of the expertise in teacher professional development takes place at the Ruud de Moor Centre (RdMC). This centre carries out practice-based research in teacher professional development and evaluates teacher-learning activities. In close collaboration with teachers and schools of primary, secondary and vocational education it also develops, disseminates and innovates (digital) instruments and toolkits for facilitating teacher professional development. The centre works closely with teacher education institutes and support organizations and departments within the OUNL focusing on informal learning in the workplace and providing scientific knowledge, instruments and services. As well as offering its products online, the centre publishes research findings in their series called 'Ruud de Moor Centrum-rapporten'. Examples of publications in this series are dissertations, inaugural addresses, research papers, position papers, white papers, review papers, and practice-oriented papers for teachers and related practitioners. This series targets readers interested in teacher professional development who come from education, policy and research.

This particular publication is about value creation in communities and networks. It is a foundation paper presenting a framework for promoting and assessing value creation in communities and networks and aims to be sufficiently rigorous for researchers, useful for practitioners and informative for stakeholders. To this end it includes a theoretical framework and toolkit for helping professionals to tell stories on the value that networks and communities create when they are used for learning and to articulate how these activities result in desired outcomes that improve teaching practice. I hope that professionals of other contexts will also find it helpful.

J.J.M. (Jos) Kusters Msm Director Ruud de Moor Centrum

1 Introduction

This document presents a conceptual foundation for promoting and assessing value creation in communities and networks. By value creation we mean the value of the learning enabled by community involvement and networking. Therefore we focus on the value that networks or communities create when they are used for social learning activities such as sharing information, tips and documents, learning from each other's experience, helping each other with challenges, creating knowledge together, keeping up with the field, stimulating change, and offering new types of professional development opportunities.

A useful framework should make it possible to assess value creation in a way that links specific activities to desired outcomes. Such linkage not only affords causal attribution for outcomes to the activities of communities and networks; it also gives some guidance about how to promote the creation of value proactively. To this end, our framework includes both a set of relevant indicators for data collection and a process for integrating these indicators into a meaningful account of value creation. This requires a specific genre of stories, which we call value-creation stories. We include a toolkit with templates for telling and collecting such stories.

Useful for researchers, participants, and organizations

The purpose of this conceptual framework is to provide a foundation that is useful across a range of endeavors, including research and practice. The framework has to be both rigorous and flexible. It has to be rigorous enough to support the work of researchers: grounded in theory to ensure relevance and data-oriented to provide scientific validity and reliability. At the same time the process of assessment is meant to be useful for participants in communities and networks as well as for organizational stakeholders. The framework should consist of categories that have enough intuitive appeal to make an assessment of value creation relevant across constituencies, including members, internal leaders and sponsors of these communities and networks. Community and network members need to recognize their own experience of participation in the results and the process of evaluation if they are to use it for reflection and guidance. Internal stakeholders include people who take leadership in cultivating communities and networks: the assessment should give them the information they need to make decisions about how to support the development of communities and networks and to maximize value creation. The results should be useful and trustworthy for people and organizations that provide "sponsorship" to communities and networks, that is, to those who give them institutional legitimacy, ensure that they have the resources they need, negotiate strategic alignment, and provide an organizational ear when the outcome requires action on the part of an organization. These stakeholders need to make decisions about investment and institutionalization, which need to be based on reliable and informative data.

Combine different sources and types of data

Communities and networks can generate all sorts of quantitative and qualitative data about their activities. It is therefore important for our framework to support the inclusion and triangulation of multiple sources and types of data. For instance, some data can be collected easily such as meeting attendance records, website logs, and download records for documents. Some data may already exist, such as various performance indicators for an organization. Some more subtle indicators require substantial evaluation to be useful, such as the level of trust or the quality of relationships. Finally, it is important to be able to attribute observable outcomes to community and network activities so that one can establish enough causal links to go beyond mere correlations between distinct data streams.

The idea of this framework is to provide the foundation for an evaluation process that can integrate heterogeneous sources and types of data to create a compelling picture of how communities and networks create value for their members, for hosting organizations, and for sponsors.

Structure of this document

We start by discussing our view of the distinction and relation between communities and networks. While we find the distinction useful in terms of learning potential, we don't view them as separate structures. Rather we view communities and networks as integral aspects of the social fabric of learning. This will establish why we think that our framework is relevant to both.

We then argue that value creation always needs to be explored in the context of narratives, both personal and collective, about what a community or network is doing and what counts as value for whom. The expected value cannot always be defined in advance in the form of predictable or measurable outcomes. Rather, we argue that an important form of learning takes place as members and other stakeholders create, negotiate, and sometimes reconsider and change the narrative of value creation.

To account for the various ways in which communities and networks create value, we distinguish five cycles of value creation. These cycles define a spectrum of value creation, from the day-to-day life of the community or network all the way to outcomes beyond its confines. Each of these cycles produces a distinct data stream with specific indicators that can be monitored.

Finally, we introduce the narrative genre of value-creation stories. These stories use personal and collective experience to make sense of data. They provide a simple way to integrate data across all five cycles into an account of value creation.

The last section of the document is a toolkit for collecting value-creation stories with templates to guide the telling and collection of these stories.

2 Communities and networks

We will use the term "community" as a shortcut for community of practice, which we define as a learning partnership among people who find it useful to learn from and with 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.

We use the term network as a shortcut for social network. The term refers to a set of connections among people, whether or not these connections are mediated by technological networks. They use their connections and relationships as a resource in order to quickly solve problems, share knowledge, and make further connections.

We see communities and networks as two aspects of the social fabric of learning rather than separate structures.

2.1 Descriptions and distinctions

Communities and networks are often thought of as two different types of social structure. From this perspective, one would need to ask the question: given a group, is it a community or is it a network? And when does a network transform into a community and vice versa?

We prefer to think of community and network as two aspects of social structures in which learning takes place.

- The network aspect refers to the set of relationships, personal interactions, and connections
 among participants who have personal reasons to connect. It is viewed as a set of nodes and links
 with affordances for learning, such as information flows, helpful linkages, joint problem solving,
 and knowledge creation.
- The community aspect refers to the development of a shared identity around a topic or set of challenges. It represents a collective intention – however tacit and distributed – to steward a domain of knowledge and to sustain learning about it.

There are groups where one aspect so clearly dominates that they can be considered "pure" communities or "pure" networks. A personal network, for instance, is rarely a community as people in the network are not likely to have much in common except for being connected to the same person in various ways based on their mutual interests. Through a personal network multiple networks are connected. The members of these networks may not even be aware of each other's existence even though they are potentially connected from a network perspective. Conversely the donors to a cause may feel a strong allegiance and identity with the cause they share. They know about each other because they know that there is money flowing toward the cause beyond their own donations. They may feel a sense of community with these others who share their concern. Yet they do not necessarily

form a network (except potentially), as there may not be any interactions or direct connections among them.

For most groups, however, the two aspects are combined in various ways. A community usually involves a network of relationships. And many networks exist because participants are all committed to some kind of joint enterprise or domain, even if not expressed in collective terms.

From this perspective, the questions one would ask are: given a group, how are the two aspects intertwined and integrated, how do they contribute to the cohesion and functioning of the group, and which one tends to dominate for which participants? What learning opportunities do they each offer and what value do they produce?

2.2 Two aspects of the social fabric of learning

From the perspective of enabling learning, community and network represent two aspects of the social fabric that have different effects on learning potential. From a learning perspective, they provide different value, carry different risks, and pose different challenges. It is useful to clarify these here by focusing on pure community and network processes, with the caveat that these processes rarely exist in such "pure" form.

Learning and community

The formation of a community creates a social space in which participants can discover and further a learning partnership related to a common domain. This partnership can be formal or informal and its intention can be explicit or tacit. The key characteristic is the blending of individual and collective learning in the development of a shared practice.

The learning value of community derives from the ability to develop a collective intention to advance learning in a domain. This shared commitment to a domain and to the group of people who care about it is a learning resource. It tends to make information flows relevant. Over time, a joint history of learning also becomes a resource among the participants in the form of a shared practice – a shared repertoire of cases, techniques, tools, stories, concepts, and perspectives.

The danger of community is that it can become hostage to its history, its established ways of doing things, and the attendant identification with the group. When that happens, communities can become closed and inward-focused; boundaries stiff and impermeable; and past successes a blinder to new possibilities.

The challenge of community is that it requires sustained identification and engagement. Negotiating and renegotiating a reason to learn together, helping each other, following up on ideas, developing

shared resources, sustaining a social space for learning – all this requires time and commitment. Not everyone has to have the same level of commitment, but there has to be enough for the community to feel alive as an entity.

Learning and network

The connections in a network can function as learning ties providing access to information flows and exchanges. This access can be intentional or serendipitous. It can be direct – involving a personal connection, or indirect – involving a series of connections. Participation in a network does not require a sustained learning partnership or a commitment to a shared domain. In this sense, learning in a network does not have to have an explicit collective dimension.

The learning value of network derives from access to a rich web of information sources offering multiple perspectives and dialogues, responses to queries, and help from others – whether this access is initiated by the learner or by others. On the one hand, because of personal connections, networking helps target access to learning resources – whether one sends an email query to a friend or decides to follow someone's twitter feed. On the other hand, because information flows can be picked up, interpreted, and propagated in unexpected ways, they traverse networks with a high level of spontaneity and unpredictability. This potential for spontaneous connections and serendipity – and the resulting potential for collective exploration without collective intention or design – is a key aspect of the value of networks for learning.

The danger of network is noise and diffusion. Connectivity as a learning resource has its price. Expanding connectivity increases the chance of useful access, but it also increases the level of "noise." And while networking does not require a commitment to a communal domain, it does require maintenance of connections and the ability to distinguish between significance and noise. At the collective level, the strength of networks in enabling serendipity and emergent behaviors has a flipside: the absence of collective intention and identity makes it more difficult to steward a domain systematically. When connections remain largely local important insights can remain hidden because there is no intention to recognize and negotiate their importance through the mobilization of a committed group.

The challenge of network is that it requires a strong sense of direction on the part of individuals. Learning takes place as participants leverage the availability and spread of information to pursue enterprises they care about and develop their ability to do so. The value of networks as learning resources depends on an individual to act as responsible nodes and evaluate the relevance of information flows for themselves and for the broader network.

2.3 Community and network as development processes

From a developmental perspective, the coexistence of these two aspects suggests two types of cultivation work for those who endeavor to foster learning.

The work of community is to develop the learning partnership that creates an identity around a common agenda or area for learning. It is to specify why people are there, what they can learn from each other, and what they can achieve by learning together. It is to develop a collective sense of trust and commitment.

The work of network is to optimize the connectivity among people. It is to increase the extent and density of the network by strengthening existing connections, enabling new connections and getting a speedy response. It is to increase the network's potential to give rise to unexpected connections.

Let us illustrate this with an example. A person in charge of a web-based conversation was complaining that many queries went without a good response. Network and community suggest two different approaches, both of which are valid:

- Community approach: Sharpen the understanding of what are the common issues or domain,
 what value people get from participating, and what they are trying to achieve. This will increase
 the likelihood that people will pose relevant inquiries, be able to provide relevant responses, and
 feel committed to participating in learning.
- Network approach: Target specific expertise within the network or recruit a lot of new members
 from various perspectives whatever their level of commitment. This will increase the likelihood that
 someone is willing or able to respond to a given inquiry.

2.4 Complementarity of community and network structures

Community and network are distinct as processes of social structuring, but they are not opposite. Increasing one aspect does not decrease the other. On the contrary, they often develop together. Being more interconnected often increases the sense of community, and a desire to learn about a shared concern often motivates people to seek connections. But the two do not imply each other either. More specifically, their respective effects on learning are distinct and in fact, their strengths and weaknesses regarding learning are complementary. As a result, they can correct for each other.

- When a network lacks self-awareness to achieve a desired level of collective intentionality, participants need to build a shared identity through community-building processes. They need to see the network as an entity with a collective potential and others as learning partners. They need to see their participation as a contribution to a broader learning endeavor that will benefit them. An experience of community is likely to give rise to care and intentional engagement in exchanges.
- When a community has become closed and inward looking, when its collective identity has become so tight that it is an obstacle to outsiders and new learning, network-building processes

can shake things up. New connections can redraw boundaries and bring in fresh perspectives. They also contribute an element of randomness because each new connection brings with it a network of other connections that can affect the community and what it does together.

Social learning is enhanced by a dynamic interplay of both community and network processes. Such interplay combines focus and fluidity as it braids individual and collective learning. The work of fostering learning needs to take advantage of this complementarity.

3 Framing narratives

As human experiences that evolve over time, communities and networks have stories – how they started, what has happened since, what participants are trying to achieve. It is in the context of these narratives that one can appreciate what learning is taking place (or not) and what value is created (or not). Framing value creation through narratives emphasizes the importance of audience and perspective.

Audiences: value to whom

The primary recipients of value in a community or a network are the participants themselves, both individually and collectively. If they do not get value, they will not participate and the community/network will fall apart.

But there are often other stakeholders whose perspectives on value creation are relevant to consider. These include the organizations in which members operate, sponsors who have invested energy in enabling it, or the people who receive a service, such as clients, patients, or students.

Perspectives: short- and long-term value

It is also important to recognize that the value of communities and networks has both short-term and long-term aspects. Indeed, the learning that takes place in a community/network is often applied later in other locations of engagement, such as in a project team in which a member participates.

Communities and networks themselves also gain value over time as learning resources. For instance, there can be short-term value in solving problems that members have in their practice, but over time the approaches and solutions to these challenges become a cumulative resource for members facing new challenges, both individually and collectively.

3.1 Personal and collective narratives

The narratives that frame the contributions of communities and network to learning are complex. They involve multiple voices and perspectives. They include both personal and collective narratives. The personal narratives refer to the experience of participants. The collective narratives relate to the social networks and communities in which people participate.

In networks the personal narrative is often called a *personal network* (or an ego network) and the collective narrative is often called a *social network* (or a complete network). People can be very good at building and maintaining a web of social contacts based on personal needs and interests, and use them for learning and problem solving when needed. However, a personal network is not a separate structure, but an integral part of social networks in which the person participates.

In other words it is largely through their personal networks that people participate in broader social networks. Social networks are the aggregation of personal networks. The stories of personal and social networks are two narratives about a single, integrated process.

Communities also involve both personal and collective narratives. Communities develop a collective identity that becomes part of the identities of members. Stories of individual participation become part of the stories of communities. But the two are not conflated: they constitute each other, but they are not necessarily congruent. People belong to multiple communities and this multimembership creates a unique identity for any one individual. Belonging to multiple communities gives rise to personal experiences of learning that are unique, even in the context of a given community.

In a network individual participants are unlikely to have a very clear awareness of the collective narrative. A network on the whole does not necessarily have to "learn" even if network members use its contacts for learning. The collective narrative of a network comes about through external perspectives of "what's happening". That is why network visualization techniques can be very useful in revealing the structure of the network, indicating what the connections are about and stimulating the construction of a collective narrative.

In a community participants are more likely to know (or claim to know) the collective narrative because creating a collective narrative around a practice is part of the formation of the community. This narrative may still be contested. In fact, because of a joint commitment and expectation that the collective narrative is endorsed by participants, this narrative is likely to be more contentious. That is why sessions in which community members negotiate what their community is about and where it should be going can be so useful.

We locate the assessment and promotion of value creation through social learning in this interplay between personal and collective narratives.

3.2 Narratives as accounts and as aspirations

To assess and promote value creation through social learning it is necessary to consider two functions of personal and collective narratives.

On the one hand, narratives are accounts of what has happened and is happening in the everyday life of a community or network. These "ground" narratives include the formative events that have shaped the development of a community or network, the activities that members engage in, the interactions and experiences they have, and the roles people play.

On the other hand, narratives also represent aspirations for a network or community – what a person is trying to achieve when networking, what defines success for a community. Whether explicit or not,

such aspirational narratives describe communities/networks in terms of the value they are expected to produce. We call these expectations "aspirational narratives" because they constitute a story about what networking or communities should be, which evolves over time.

As illustrated in Figure 3.1, the tension between these two narratives creates a space for learning and for deciding what is worth learning. We locate the assessment and promotion of value creation through social learning in the space between the everyday and aspirational narratives. The next section refines the definition of this space by describing five cycles of value creation that connect everyday and aspirational narratives.

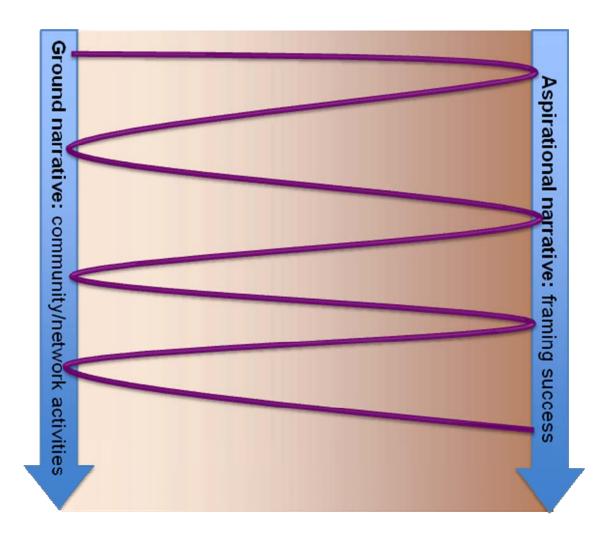


FIGURE 3.1 Productive tension between aspirations and everyday narratives.

4 Cycles of value creation in networks and communities

In order to appreciate the richness of the value created by communities and networks, it is useful to think about it in terms of different cycles as briefly defined below.¹

4.1 Definitions

Cycle 1. Immediate value: Activities and interactions

The most basic cycle of value creation considers networking/community activities and interactions as having value in and of themselves.

- For communities, this includes activities such as helping a member with a difficult case during a
 meeting, a useful conversation online, a good tip provided by a colleague, a story about
 something that went wrong, a visit to another location, or conducting a small research project.
- For networking, this cycle includes meeting someone, getting an address, connecting, asking a
 question of the network, passing a piece of information along, or giving input.

Activities and interactions can produce value in and of themselves. They can be fun and inspiring. One can get an answer to a question, a solution to a problem, or help with a challenge. Collective reflection can trigger out of the box thinking and open new perspectives. Participants can cooperate on seeking innovative approaches. Just hearing someone else's story can open one's imagination or reveal a new perspective. And being with others who understand one's challenge can be a relief.

Cycle 2. Potential value: Knowledge capital

Not all the value produced by a community or a network is immediately realized. Activities and interactions can produce "knowledge capital" whose value lies in its potential to be realized later. Note that this potential can be useful even if it is never realized. For instance, one can learn from the story of a participant's experience what to do or not to do in case of an accident. Even if such an accident never happens again, it is useful and reassuring to have that knowledge just in case.

¹ The first four cycles in this framework are an adaptation of the four-level model of Donald Kirkpatrick (1976, 1994), which has become a standard in the training and program evaluation literature. In Kirkpatrick's work, these four levels are called Reaction, Learning, Behaviors, and Results. Even though these terms do not apply very well to community/network evaluation, the categories can be adapted to address issues of value creation in communities and networks. This is what we have done here (see also Wenger et al., 2002). The fifth cycle is an addition we have made specifically for the work of communities and networks.

This knowledge capital can take different forms:

- Personal assets (human capital). This can take the form of a useful skill, a key piece of
 information, or a new perspective. It can also consist of new ideas to address a class of problems.
 The ability to keep up with a rapidly changing field is also important. But the personal value of
 participation in a community or network can also be inspiration, caring, confidence, and status.
 Some people report that participation in a community of practice has reawakened their sense of
 calling and professional identity.
- Relationships and connections (social capital). When one considers knowledge as a collective good distributed across a community or network, then social relations and connections are a form of knowledge capital. The ability to ask questions because one knows who to ask and who to trust can be as valuable as personal information or commitment. One's reputation is another social achievement that can become a knowledge resource. Communities and networks can build shared understanding and develop a common language; social resources can facilitate further learning and communication. All this can lead to potential opportunities for collaboration and the ability to promote a cause. And one should not underestimate the value of a sense of companionship in the face of demanding tasks and learning challenges.
- Resources (tangible capital). Participating in a community or network gives one privileged
 access to certain resources. This includes specific pieces of information, documents, tools and
 procedures, but also increasingly networked information sources, tag clouds, mind maps, links
 and references, search capabilities, visualization tools, and other socio-informational structures
 that facilitate access to information.
- Collective intangible assets (reputational capital). Such assets include the reputation of the
 community or network, the status of a profession, or the recognition of the strategic relevance of
 the domain. Many people value their community of practice, for instance, for the collective voice or
 recognition that it provides them in their organization. All these assets increase the potential for
 collective action.
- Transformed ability to learn (learning capital): The act of participating in a facilitated network or
 a community as a valuable way of learning can be enlightening for people for whom formal
 teaching or training methods have always been seen as the only way to learn. When members
 have experienced significant learning in networks or communities they can transfer this
 experience to other contexts.

Cycle 3. Applied value: Changes in practice

Knowledge capital is a potential value, which may or may not be put into use. Leveraging capital requires adapting and applying it to a specific situation. For instance, reusing a lesson plan or a piece of code, exploiting synergy between business units, changing a procedure, implementing an idea, trying a suggestion, enlisting members of one's network for a cause, or leveraging a collective voice to make a case for an organizational decision. Adapting and applying knowledge capital in different contexts can lead to changes or innovations in actions, practice, tools, approaches, or organizational

systems. Looking at applied value means identifying the ways practice has changed in the process of leveraging knowledge capital.

Cycle 4. Realized value: Performance improvement

New practices or tools are not enough, even when applied. One would expect the application of new ideas to practice or the use of resources from the community/network to result in improvements in performance, but this is not guaranteed. It is therefore important not to simply assume that improved performance is the case when people change their practice, but to reflect on what effects the application of knowledge capital is having on the achievement of what matters to stakeholders, including members who apply a new practice.

Cycle 5. Reframing value: Redefining success

The last cycle of value creation is achieved when social learning causes a reconsideration of the learning imperatives and the criteria by which success is defined. This includes reframing strategies, goals, as well as values. It can also include proposing new metrics for performance that reflect the new definition of success. This redefinition of success can happen at individual, collective, and organizational levels. Moving from individual redefinitions of success to collective and institutional ones is likely to run into inertia and hierarchical tensions, and would require renegotiation with the powers-that-be who have the legitimacy to define success at these levels. It may also mean transforming or leaving behind the existing structure and using this new definition of success to create a new framework.

Complex relations among cycles

While there are causal relationships between the various cycles, it is important not to assume a hierarchy of levels or a simple causal chain. First, learning is not a linear process with distinct phases of production and application of knowledge. When practitioners themselves produce and use knowledge, learning is a dynamic process in which producing and applying knowledge are tightly intertwined and often indistinguishable. Second, it is not the case that one cycle necessarily leads on to the other, or that a community or network is only successful if it reaches the final cycle. Different aspects are likely to be important to different stakeholders. Facilitators may be more interested in successful activities or the production of outputs (cycles 1 and 2). Members might care about solutions to challenges in their practice (cycle 3) and definition of success (cycle 5). Managers might be most interested in performance (cycle 4). Still these five cycles taken together provide a dynamic framework of aspects of value creation to consider. They will serve as the foundation for the process of assessment and measurement that we propose.

4.2 Reflecting on value creation: key questions

Each cycle of value creation suggests a series of questions to investigate as a way to reflect on the value that communities and networking produce.

1 Immediate value: What happened and what was my experience of it?

What were significant events? What happened?

- How much participation was there?
- What was the quality of the mutual engagement?
- Was it fun, inspiring, convivial?
- How relevant to me was the activity/interaction?
- With whom did I interact or make connections?
- Which connections are most influential on my own development?

2 Potential value: What has all this activity produced?

How has my participation changed me?

- Have I acquired new skills or knowledge?
- Has my understanding of the domain or my perspective changed?
- Do I feel more inspired by the work I do?
- Have I gained confidence in my ability to engage in practice?

How has my participation changed my social relationships?

- What access to new people have I gained?
- Do I know them well enough to know what they can contribute to my learning?
- Do I trust them enough to turn to them for help?
- Do I feel less isolated?
- Am I gaining a reputation from my participation?

What access to resources has my participation given me?

- Do I have new tools, methods, or processes?
- Do I have access to documents or sources of information I would not have otherwise?

What position has the community acquired?

- Has the community changed the recognition of our expertise?
- Have we acquired a new voice through our collective learning?

How has my participation transformed my view of learning?

- Do I see opportunities for learning that I did not see before?
- Do I now see opportunities for convening a community of practice or network in the service of learning that I did not see before?
- 3 Applied value: What difference has it made to my practice/life/context?
- Where have I used the products of the community/network?
- Where did I apply a skill I acquired?
- When did I leverage a community/network connection in the accomplishment of a task?
- Was I able to enlist others in pursuing a cause I care about?
- When and how did I use a document or tool that the community produced or made accessible?
- How was an idea or suggestion implemented? At what level -- individual, team/unit, organization?
- 4 Realized value: What difference has it made to my ability to achieve what matters to me or other stakeholders?
- What aspects of my performance has my participation in community/network affected?
- Did I save time or achieve something new?
- Am I more successful generally? How?
- What effect did the implementation of an idea have?
- Did any of this affect some metrics that are used to evaluate performance?
- What has my organization been able to achieve because of my participation in community/network?
- 5 Reframing value: Has it changed my or other stakeholders' understanding and definition of what matters?
- Has the process of social learning led to a reflection on what matters?
- Has this changed someone's understanding of what matters?
- Does this suggest new criteria and new metrics to include in evaluation?
- How has this new understanding affected those who have the power to define criteria of success?
- Has this new understanding translated into institutional changes?
- Has a new framework or system evolved or been created as a result of this new understanding?

5 Measures of value creation for each cycle

For each of the five cycles one can define and monitor indicators of value creation and collect the relevant data. The following tables provide examples of indicators for each cycle along with the types of data that can be collected to monitor each indicator.

Cycle 1. Immediate value: indicators of activity/interactions

Indicators for this cycle refer to community and networking activities in and of themselves. Many activities and interactions can be observed and some data are readily available on technology used by participants.

Cycle 1. Activities/interactions indicators	
Typical indicators	Some potential sources of data
Level of participation	Attendance at meetings
	Number and characteristics of active participants
	■ People who subscribe to a site
	Logs and website statistics
	Participant lists on teleconference systems
Level of activity	Frequency of meetings
	Number of queries
	 Quantity and timeliness of responses
Level of engagement	■ Intensity of discussions
	Challenges of assumptions
	Length of threads
Quality of interactions	Bringing experience of practice into the learning
	space (e.g., "I have a problem with this design," or
	"we did this in such a case")
	Debates on important issues
	Feedback on quality of responses to queries
Value of participation	■ Feedback form
	People coming back to community or reengaging
	with the network
	Evidence of fun, such as laughter

Cycle 1. Activities/interactions indicators		
Typical indicators	Some potential sources of data	
Networking	Number of people on one's contact list	
	New connections made	
Value of connections	■ Self-reports	
	Frequency of interactions	
Collaboration	Joint projects	
	■ Co-authorship	
Reflection	Meta-conversations about community/network	

Cycle 2. Potential value: indicators of knowledge capital

Indicators for this cycle reflect the various types of knowledge capital produced by social learning: human, social, structural, reputational, and learning.

Skills acquired - Self-report and interviews - Tests and surveys - Community reflections Information received - Self-reports - Threads read Change in perspective - Self-reports - Retention rates of members Confidence - Self-reports - Initiatives started and/or risks taken by members Types and intensity of social relationships - Social network analysis (SNA) Techniques, such as SNA, can help visualize social networks in terms of specific connections – friends, people one turns to for help, blogs one follows, etc. These visualizations provide a good basis for talking about the value community/networking has for participants in particular situations. It is mostly in these conversations and reflections about the meaning of links and structures that visualization techniques are useful (rather than measures in and of themselves). Structural shape of networks - Certain metrics can be applied to network graphs and there is software to produce different views of a network (for instance, by removing certain influential people or certain types of links) This can reveal distinct clusters within a broader network	Cycle 2. Knowledge capital indicators		
Tests and surveys Community reflections Self-reports Threads read Change in perspective Self-reports Retention rates of members Confidence Self-reports Initiatives started and/or risks taken by members Types and intensity of social relationships Social network analysis (SNA) Techniques, such as SNA, can help visualize social networks in terms of specific connections – friends, people one turns to for help, blogs one follows, etc. These visualizations provide a good basis for talking about the value community/networking has for participants in particular situations. It is mostly in these conversations and reflections about the meaning of links and structures that visualization techniques are useful (rather than measures in and of themselves). Structural shape of networks Certain metrics can be applied to network graphs and there is software to produce different views of a network (for instance, by removing certain influential people or certain types of links)	Typical indicators	Some potential sources of data	
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(rather than measures in and of themselves). Structural shape of networks Certain metrics can be applied to network graphs and there is software to produce different views of a network (for instance, by removing certain influential people or certain types of links)		conversations and reflections about the meaning of links	
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there is software to produce different views of a network (for instance, by removing certain influential people or certain types of links)		(rather than measures in and of themselves).	
network (for instance, by removing certain influential people or certain types of links)	Structural shape of networks	Certain metrics can be applied to network graphs and	
people or certain types of links)		there is software to produce different views of a	
		network (for instance, by removing certain influential	
This can reveal distinct clusters within a broader network		people or certain types of links)	
		This can reveal distinct clusters within a broader network	
or the existence of people who act as connectors or		or the existence of people who act as connectors or	
bottlenecks between clusters.		bottlenecks between clusters.	

Cycle 2 (cont). Knowledge capital indicators	
Typical indicators	Some potential sources of data

Level of trust	Bringing up difficult problems and failures from practice
	Number of referrals or recommendations
Production of tools and documents to	Quantity and types of output
inform practice	Coverage of relevant topics
Quality of output	Evaluation of products
	■ Frequency of downloads
Documentation	Summaries of events and discussions
	■ FAQ
	■ Archives
Reputation of the community	■ Feedback from stakeholders
	■ Links to community site
New views of learning	■ Self-reports
	 Interest in learning and leadership activities

Cycle 3. Applied value: indicators of changes in practice

Things to assess for this cycle include the use of knowledge, tools, and social relationships. This is the level that requires the most probing because it is information that is not readily available. It may take some prodding to help participants' reflect on how they put social learning to use.

Cycle 3. Change indicators		
Typical indicators	Some potential sources of data	
Implementation of advice/solutions/insights	Self-reportsFollow-up	
	For instance, it is a good discipline to follow up how a member has adapted or used the advice from a community or network. This way the collective learning continues through application in practice.	
Innovation in practice	 New ways of doing things New perspectives New concepts and language 	
Use of tools and documents to inform practice	 Self-report such as feedback on documents and tools from people who have used them Indicators of value in application 	
Reuse of products	 Self-report of reuse Estimation of reuse as a proportion of the frequency of downloads 	
Use of social connections	 Collaborative arrangements Leveraging connections in the accomplishments of tasks 	
Innovation in systems	New processesNew policies	
Transferring learning practices	Using communities, networks or other peer-to-peer processes and tools for learning in other contexts	

Cycle 4. Realized value: indicators of performance improvement

Aspects of performance that can be affected by social learning are often the objects of established metrics, which are already monitored. The point is to find metrics of performance that are related to the potential contributions of communities and networks. The history of the data provides a baseline to compare effects following community/network activities.

Cycle 4. Performance improvement indicators		
Typical indicators	Some potential sources of data	
Personal performance	Speed and accuracy	
	Customer feedback	
	Student achievements	
Organizational performance	Client satisfaction	
	Business metrics	
	Scorecard results	
	Project assessments	
	These metrics will differ a lot depending on the nature of the	
	relevant organizations.	
	■ For commercial enterprises, this might include market share,	
	profitability, productivity, optimized use of assets, etc.	
	 For governmental agencies, it might include levels of service (e.g., speed and quality) or citizen satisfaction 	
	 For educational organizations, it is likely to include student achievements and satisfaction 	
	For non-profit organizations, it might include improvement to	
	the quality of life, less poverty, better health, etc.	
Organizational reputation	Ability to attract projects related to domain	
	Client feedback	
Knowledge products as	Clients interested in knowledge itself	
performance	Direct delivery of knowledge products to clients	

Cycle 5. Reframing value: indicators for assessing the redefinition of success

Indicators for this cycle reflect changes in what counts as success both for participants and for their environment.

Cycle 5. Reframing indicators	
Typical indicators	Some potential sources of data
Community aspirations	New learning agenda
	New discourse about value
	■ New vision
Assessment	New metrics
	 New assessment processes
Relationships with stakeholders	Different conversations with stakeholders
	Involvement of new stakeholders
	New sets of expectations
Institutional changes	New strategic directions that reflect the new understanding
New frameworks	New social, institutional, legal or political systems (emerging or created)

Proxies

Data can be collected for each cycle and provide useful information; however, most indicators taken by themselves only act as *proxies* for value creation to the extent that observations in one cycle can warrant safe assumptions about another. For instance, high community participation can be such a proxy. Consider the case of a community that commends broad and intense participation by busy professionals under high performance expectations. Without knowing more about it, one can safely assume that members find value in it and that it has relevance to what they are trying to achieve. Similarly, a high level of activity in networks is usually a sign that something valuable is happening. For instance, if a tweet is "retweeted" a large number of times, one can assume that it has been assessed as valuable by many people. In terms of knowledge products, if a document is downloaded very frequently, one can assume that it has value for lots of people.

Assumptions can also go the other way. For instance, an improvement on test scores by students on a type of problem (cycle 4) could be attributed to a community of teachers if this community had worked on the teaching of this problem type recently (cycle 1).

In all these cases, certainty would require further investigation, but such thorough assessment takes time and effort, and it is often more practical to rely on proxies than to seek absolute certainty.

6 Value-creation stories

Proxies are useful if they simplify the assessment process and if the assumptions they are based on are reasonable. But the indirect relationships between learning and outcomes often make it difficult to claim causal attributions. For instance, if one observes an improvement in performance, such as higher sales or better student scores, there are usually multiple factors that contribute to such improvements. The market may have improved anyway or the student population may have changed. So it may be misleading to attribute performance improvement or redefinition of success back to community or networking activities unless one can tell how these activities ultimately contributed to observed improvements.

To paint a more reliable picture of how a community or network is creating value, it is necessary to follow value creation across cycles. For instance, it would be good news to hear that a community meeting or a network interaction has generated a very exciting and inspiring discussion of a problem recurring in practice, but one would want to know what specific ideas came out of the discussion. Then it would be useful to find out who has tried to apply these ideas in their own context and with what effects on performance – or if current measures of good performance cannot account for such effects, what new definitions of success are suggested. Such a cross-cutting account is what we call a "value-creation story."

6.1 Value-creation stories: a special genre of stories

A value-creation story is a special genre of story. Like many other genres, it follows a specific format. Think of the format of a typical thriller: it has a crime, an investigation, false trails, and finally a solution. Similarly a romance has a typical format: the two meet, dislike each other at first, then fall in love, get separated, get reunited, and finally live happily ever after. The standard format of a value-creation story is illustrated in Figure 6.1, represented by the horizontal arrows. Typically, such a story is woven through each of the cycles of value creation. It starts with a community or network activity-such as a community meeting, a project, or the propagation of an inquiry through network links – and how productive it was (cycle 1). The story then highlights a resource, such as a response to an inquiry, an idea, a piece of advice, a document, a procedure, a model, or a relationship which came out of the activity (cycle 2). It then explains how this resource was applied in the practice of the storyteller and with what effects (cycle 3). The effect on practice can then be linked to an outcome, such as a measure of performance in the organization or for a person (cycle 4). Finally, there is always the possibility that current measures of performance are found inadequate to fully account for the new development so that in some cases; a story might even involve a reflection on the definition of success and new considerations to frame the expectations of value creation (cycle 5).

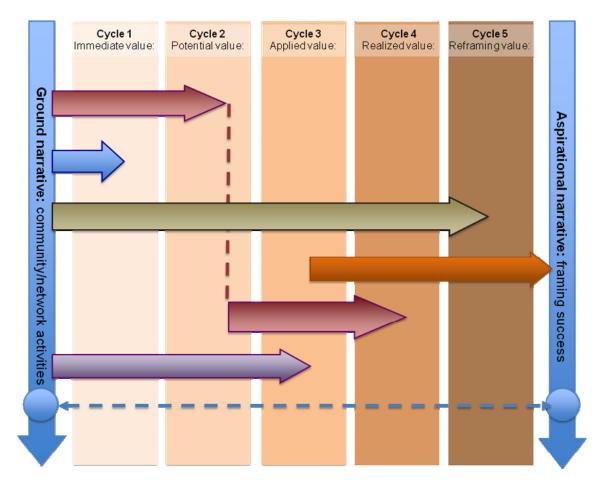


FIGURE 6.1 Value-creation stories

Note that a value-creation story does not necessarily have to cover all cycles. It can use proxies at either end. For instance, a story could start with a document without a full account of how community or networking activities produced it; or it could end with an application to practice without exploring further outcomes. The reason for cropping a story with a proxy can be that it is too difficult to know the full story; or that the story is not finished. For instance, someone may be really happy to have made some significant contacts through a community or network, but the potential of these contacts has not been leveraged yet. The rest of the story is there in imagination. In both cases, the cropped story hints at a full story. This is expressed by the variety of arrows of different length and dotted lines in the figure. The final dotted line suggests that reconsidering the definition of success can happen directly from an activity.

Telling the story of value creation

Usually those who can tell the story are the people involved in networking and communities. They are the ones who have both done the learning and taken it into practice. In other words they are both the carriers and the witnesses of the process of value creation across cycles. But they may not have thought through that process and need some framing to articulate the connections among the cycles of value creation. The following guiding questions provide a simple frame to construct the stories:

1.	What meaningful activities did you participate in?	
2.	What specific insights did you gain? What access to useful information or material?	
3.	How did this influence your practice? What did it enable that would not have happened otherwise?	
4a	What difference did it make to your performance? How did this contribute to your personal/professional development?	
4b	How did this contribute to the goal of the organization? Qualitatively? Quantitatively?	
5.	Has this changed your or some other stakeholder's understanding of what matters?	

These guiding questions can be used for an interview or for prodding storytelling. Additional questions from section 4.2 can be added to probe for more detail regarding a cycle. A version of this template for use in data collection, including instructions and a filled sample, are included in the toolkit in section 8.

7 Building a picture of value creation

Cycle-specific indicators as proposed in Section 5 and value-creation stories introduced in Section 6 are two complementary types of data, which can be combined to build a robust picture of value creation by communities and networks.

7.1 Leveraging the complementarity of indicators and stories

The idea is to leverage the complementarity between stories and indicators. As stories traverse the cycles, they are likely to refer to elements that are also monitored as indicators at each cycle, such as exciting conversations, oft-downloaded documents, interesting new practices, or relevant measures of performance. In the process, stories substantiate indicators, give them life, and make them more meaningful by connecting them into more extensive processes of value creation.

Conversely, when used as a proxy, the significance of a good indicator is that is a short-hand for a set of imagined value-creation stories. For instance, if a document has been downloaded a large number of times from a community website, one can assume that there exist a number of value-creation stories running through that document. Similarly if a tweet has been retweeted repeatedly through a network, one can assume that many people have found value in the information that it conveys. Or if an inquiry has led to a substantial discussion on a listsery, one can assume that the topic has hit on something important to many people who can make use of the resulting insights in their own contexts. One increases the robustness of the picture by making such implied stories more explicit.

The assessment process develops an account of value creation by going back and forth between indicators and stories. They point to each other. On the one hand, cycle-specific indicators can suggest areas ripe for further story collection. An indicator that has become salient calls for stories to explain why. For instance, a document with high ratings and number of downloads is a good focus for seeking actual stories of people who have used the document or who have contributed to its creation, and what difference it has made. The same goes for an indicator of high strategic importance. A current need to save money, to enhance safety, or to improve certain results calls for stories that affect these measures. On the other hand, the telling of stories often suggests indicators to pay attention to. If someone has found an activity or case study particularly useful in practice, the story suggests a need to monitor activities or case studies of this type, including collecting other stories either corroborating or contradicting the first one.

7.2 Cumulative evidence

Many indicators without stories reflect too many assumptions. Many stories without indicators fail to cross-reference and reveal key cycle-specific elements of potential broader value creation. It is the combination of data for each cycle with cross-cycle stories that yields an integrated picture of the

value created by a community or network. By itself one indicator is merely suggestive and one story is anecdotal, but the cumulative effect of a set of indicators with a collection of related corroborating stories starts to provide robust evidence.

Immediate value → *Productive activities*

Stories about exciting activities and their effects provide useful indications about what members find good value for their time. This information can help community and network leaders in their efforts to foster social learning. In addition, stories that follow activities beyond the context of the community or network can also reveal the usefulness of activities whose immediate value was not apparent at the time.

Potential value → Robust resources

The significance of a document in multiple contexts supports the claim that the information it contains is likely relevant, useful, and valid more generally. Similarly, the applications of an insight or an idea in a number of different circumstances confirm its significance and its transformative potential.

Applied value → Promising practices

Documenting the wide adoption of a change in practice with stories that link it to results comes close to establishing it as a "best practice" or "common knowledge," even if some communities are often somewhat suspicious of such absolute terms. At the very least the accumulation of evidence suggests that it is a "promising practice".

Realized value → Return on investment

Combining stories that affect a performance outcome can demonstrate a "return on investment" for resources invested in communities or networks (including time). In many cases value-creation stories can even contribute directly to quantitative measurements. For instance, if a number of stories claim that significant time has been saved by the reuse of a document or quick access to relevant information, one can ask for estimates of that time and calculate the monetary value of the number of hours or days saved. Combining a set of stories with monetary value can yield a quantitative return on a community or network.

It is important to be conservative with such claims of community or network effects on performance. They inevitably contain a subjective element of evaluation of causal effects by storytellers. In most cases, one also has to take into account the multiplicity of factors beyond community or network activities that can affect observed outcomes. It may be necessary to reduce the claims of attribution to communities or networks accordingly. Conservative estimates are more convincing than inflated numbers. Still with proper caution, a collection of stories directed at a performance outcome can be quite convincing.

Reframing value → New framework

If many stories question the relevance or validity of a measure of performance or suggest a new definition of success, a good case can be made that the system in which such measures or definition operates needs to consider its strategic framework. Or it may lead to transforming existing systems or setting new systems.

7.3 Value-creation matrix: combining stories and indicators

In summary, accumulating evidence of the value created by a community or network can be represented as a matrix of indicators and stories. The squares represent indicators at each cycle. The colored lines represent stories that weave among the elements of each cycle. Dotted lines represent use of proxies and assumptions. The red backward arrow represents a reconsideration of an outcome indicator due to the reflection from stories.

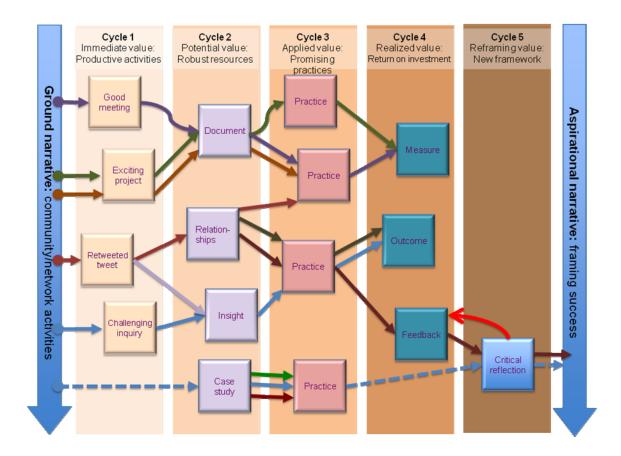


FIGURE 7.1 Value-creation matrix

As the assessment develops and new stories and indicators are added, the matrix grows in size and complexity: it includes new elements and they are more interconnected to produce a more robust picture of value creation.

Because the two lead to each other, one may start the assessment process with either indicators or stories. Monitoring indicators and collecting related value-creation stories systematically yields an increasingly robust picture of the contributions of a community or network as a whole. Obviously this process of finding corroborating evidence could go on and on – discovering salient indicators, which point to stories that need to be collected, which in turn point to elements that are promising for use as indicators, which suggest new stories. Deciding when enough indicators and stories have been combined is a matter of judgment: how much is enough depends on the circumstances – the interest of members in reflecting on their social learning, the demands of an organization to account for the use of resources, the expectations of specific sponsors and stakeholders, or the time and budget available for assessment. Communities and networks usually have only modest investments of resources so the amount of effort focused on assessment needs to remain proportional to the resources invested. But the construction of a value-creation matrix can provide both inspiration to members and confidence to external stakeholders.

Toolkit: Telling stories about the value of communities and networks ∞

This toolkit offers two templates for telling stories about the value of participating in a community or network. These templates were originally designed for teachers in a learning network, but they can be used as templates for any profession belonging to a community or a network.

I. Overall value of participation

II. Specific instances of value creation

The first template is meant to capture your overall experience of participation in a community or network and what you gained from it.

The second template is meant to capture very specific instances in which something that happened in your community or network helped you in some way. The idea is to provide concrete anecdotes of what you mentioned in the first template. You can use this template as many times as you want if you have more than one story to share.

For each template, this toolkit includes:

- A set of instructions
- A filled-out example for a teacher
- An empty template you can use yourself to tell your value creation story

8.1 The overall value narrative

Use this template first for describing your overall experience of participation. You might feel that you are connected to more than one particular community or network. Please feel free to use a different template for each particular network and give them a name.

The template is in the form of a table that shows the various ways in which you can talk about the value of your community or network:

Columns: aspects of your professional life

The columns refer to areas of your professional life where a community/network is useful

- The first column is about you personally. How does the community/network affect your experience as a professional, your skills, your feelings, your inspiration, and your professional identity?
- The second column is about your relationship with your colleagues. Did
 your general level of interaction change? Have you made new
 friends/colleagues? Do you have a better sense of who knows what and
 who could help you with what? Do you think that the level of trust and
 mutual commitment has changed?
- 3. The third column is about your professional practice. Do you do things differently in your work? Do you deal with your clients/students/colleagues differently?
- 4. The fourth column is about your relationship with your organization or profession more generally. Have you gained a new voice? Do you feel that you can influence what happens in your field in a new way? Again if you were not expecting this or if it did not happen just skip this column.

Note: This is merely a guide for telling your story. You do not have to fill every cell, only the ones where you have something to say. For instance, if you did not have any expectation that your community/network would change your relationship with your colleagues, just skip cell two of row one.

Rows: how your story unfolded

The rows describe the stages of your experience of participation:

- The first row is about your reasons for participating. Why did you decide to participate? What were you hoping to achieve? What were your motivations and expectations?
- The second row is about what happened in the community/network. What were significant events, moments of participation, and experiences?
- 3. The third row is about what you gained from participating. How did this make a difference to you? How did it affect your context?

Personal value narrative: filled-out example for a teacher

Name: Network of music teachers	How participation is changing me as a teacher (e.g., skills, attitude, identity, self-confidence, feelings, etc.)	How participation is affecting my social connections (e.g., number, quality, frequency, emotions, etc.)	How participation is helping my teaching practice (e.g., ideas, insights, lesson material, procedures, etc.)	How participation is changing my ability to influence my world as a teacher (voice, contribution, status, recognition, etc.)
Reasons for participation (e.g., challenges, aspirations, professional development goals, meeting people, etc.)	My reason for participating in this network is to be inspired by other teachers. This helps me a lot. Talking with each other about how to experiment with new things in your class is a real eye-opener. I have learned more about teaching music, we shared know how, which is useful for me.	This network helps me meeting new people interested in music education. I feel less lonely when it comes to talking about music education. In my school there is only a little group of colleagues interested in this.	I have gained some new insights and ideas. Also we have been developing some lesson plans together.	Together we have some influence on how we would like to teach music education in our schools. I have a very positive conversation with our head master about our network the other day.
Activities, outputs, events, networking (e.g., lesson material, discussion, visits, etc.)	Participation is fun and I feel more involved when it comes to music education. In the beginning I felt insecure and a little dumb, but now I feel I can say and share what I like, which is important to me.	I know whom to turn to for help and information when I have a question. There is a lot of trust in our network, they feel like friends to me.	Some outputs are the production of new lesson materials and fun music activities I can do with the pupils in my class.	Talking about our shared experience when we have tried new musical approaches in our own classrooms. Presenting new ideas to my colleagues.
Value to me (e.g., being a better teacher, handling difficult students, improving my students learning, Improving school performance, etc.)	Direct value for me is to be better prepared, because I have talked about it in our network. I worry less and have less headaches when it comes to experimentation with music education.	It feels good to know what others are doing and how they feel about this. This helps me to reflect in my own work.	I feel that the pupils in my class are more engaged.	Seeing ideas come to life. Receiving recognition from my colleagues in the school about innovative ideas around music education.
Note: 1 Indicator	thot	-	-	

Note: +/- Indicates that you can provide positive / negative experiences

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Personal value narrative: empty template (for any professional)

Name:	How participation is changing me as a professional (e.g., skills, attitude, identity, self-confidence, feelings, etc.)	How participation is affecting my social connections (e.g., number, quality, frequency, emotions, etc.)	How participation is helping my professional practice (e.g., ideas, insights, material, procedures, etc.)	How participation is changing my ability to influence my world as a professional (voice, contribution, status, recognition, etc.)
Reasons for participation (e.g., challenges, aspirations, professional development goals, meeting people, etc.)				
Activities, outputs, events, networking (e.g., lesson material, discussion, visits, etc.) +/-				
Value to me (e.g., being a better professional, handling difficult situations, improving organizational performance, etc.) +/-				

Note: +/- Indicates that you can provide positive / negative experiences

8.2 Specific value-creation stories

Use this template for telling specific examples of how your participation has created value.

Specific value-creation stories

A typical value-creation story has a sequence of four main steps, and sometimes five: (1) the activity you participated in, (2) what you gained out of it, (3) how you applied it, and (4) what the outcome was.

Sometimes, there is a step (5). This is when an event or innovation changes the way that you define what matters, what consists success, and therefore what "value creation" is. For instance, if you are a teacher, a successful activity may redefine what grades should be about. This type of fundamental reconsideration does not happen very often, but if it does happened to you because of your participation in a network or community, do include it in your story, because these moments tend to be quite significant in our lives

Use of the template: five steps

Use this template for concrete examples of value creation. For instance, if in the first template you said that your network helped you become a better music teacher, then this second template can be used to provide some concrete examples of how the network did that. As an example you might want to describe how someone shared a good idea for an activity which you used in your classroom and which ended up making your lessons more engaging:

- . In the first row you would describe the moment at a meeting or in a conversation when someone shared that idea. Where were you? What happened?
- In the second row you would describe the idea itself. What was it about? Why did you find it potentially useful?
- In the third row, describe how you used that idea in your own teaching.
 How did you apply it and to what purpose? Did you need to adapt it?
 What happened in the classroom?
- 4. In the fourth row, describe what the outcome was (a) for your own success and/or (b) for the success of your school or district. Did it improve the student's understanding? Were they able to become engaged with a new concept? Did they do better on their test? Was their grades affected? Were the metrics of your schools improved?
- Use row 5 if the event made you reconsider what counts as success.

You can use this storytelling guide for as many specific value-creation stories as you want to share.

Value-creation story: filled-out example for a teacher

Name	The math network
Typical cycles	Your story:
Activity: Describe a meaningful activity you participated in and your experience of it (e.g., a conversation, a working session, a project, etc.)	I was attending a teacher's meeting and everyone there was quite engaged in the conversation. Someone was describing his difficulties getting kids to understand the idea underlying the Pythagorean theorem and its applications. A teacher from Utrecht told us about an activity she has been using. I thought it sounded really good. I and some other teachers became quite excited and asked a lot question. We spent the rest of the meeting on it.
 Output: Describe a specific resource this activity produced for you (e.g., an idea or a document) and why you thought it might be useful. 	The idea of the activity is to get the kids to work in small groups, doing puzzles with pieces of cardboard of different sizes of triangles. It is quite subtle because to get the idea of the theorem, they have to really fit all the pieces together and explain why it works. We actually tried the idea together as if we were students. She even gave us some templates so we could prepare the pieces of cardboard ourselves.
3. Application: Tell how you used this resource in your practice and what it enabled that would not have happened otherwise.	When I got home that evening, I started to prepare my own pieces of cardboard. I was really excited. Two weeks later, I used the activity with my third-grade class. It took a little while for them to get the idea. I had to adapt it a little bit because of the age of the students and I used a few pieces less. The class had really never been so attentive. The kids seemed quite happy when they left that day.
 4. Outcome: a. Personal: Explain how it affected your success (e.g., being a better teacher, job satisfaction, student's grade) b. Organizational: Has your participation contributed to the success of your organization (e.g., metrics they use) 	Two months later, when the kids took the national exam, I was in for a surprise. All but one got a perfect score on the chapter on triangles and the Pythagorean theorem. That had never happened to me. The headmaster called me in her office and told me that my kids had done so well, the school had received a letter from the testing service to ask whether there could have been some cheating. After we checked everything, I received some special mention in the national teacher registry.
 New definition of success: Sometimes, such a story changes your understanding of what success is. If it happened this time, then include this here. 	What I realized after that is that what mattered most for my kids was not just their ability to do the activities on the curriculum, but also to be involved with concepts practically so they have a deeper understanding of the ideas underlying the theorems they are learning.

Value-creation story: empty template for any professional

Note that the story does not need to start at 1, or go all the way to 5.

Name	
Typical cycles	Your story:
 Activity: Describe a meaningful activity you participated in and your experience of it (e.g., a conversation, a working session, a project, etc.) 	
 Output: Describe a specific resource this activity produced for you (e.g., an idea or a document) and why you thought it might be useful. 	
3. Application: Tell how you used this resource in your practice and what it enabled that would not have happened otherwise.	
4. Outcome: a. Personal: Explain how it affected your success (e.g., being a better professional, job satisfaction,)	
b. Organizational: Has your participation contributed to the success of your organization (e.g., metrics they use)	
5. New definition of success: Sometimes, such a story changes your understanding of what success is. If it happened this time, then include this here.	

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