

# **Organizational Learning and Communities of Practice; A social constructivist perspective**

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## ***Abstract***

*In this paper, the relationship between organizational learning (OL) and communities of practice (COP) is addressed. A social constructivist lens is used to analyzing the potential contributions of COP's in supporting learning by organizations. A social constructivist approach sees organizational learning as an institutionalizing process. The attention is on the process through which individual or local knowledge is transformed into collective knowledge as well as the process through which this socially constructed knowledge influences, and is part of, local knowledge. In order to analyse COP's contribution to OL, we use the three phases or 'moments' described by Berger and Luckman (1966) that can be discerned during institutionalizing knowledge: 'externalizing, objectifying and internalizing'. Externalizing knowledge refers to the process through which personal knowledge is exchanged with others. Objectifying knowledge refers to the process through which knowledge becomes an objective reality. Internalizing knowledge refers to the process through which objectified knowledge is used by individuals in the course of their socialization. In relation to OL processes, learning can be analyzed as consisting of these three knowledge sharing activities: externalizing individual knowledge resulting in shared knowledge; objectifying shared knowledge resulting in organizational knowledge; internalizing organizational knowledge resulting in individual knowledge. These various processes that in combination make up OL processes, are visualized by the use of a OL cycle. The cycle provides a simplified picture of OL seen as a process of institutionalization. The cycle is subsequently used to analyze the possible contribution of COP's to support organizational learning. The paper concludes that COP's are well suited to support processes of internalization and externalization. As a result, COP's stimulate social learning processes within organizations. However, COP's do not seem to be the appropriate means to support the process of objectification. This means that COP's contribution in supporting learning at the organizational level or 'organizational learning' is much more complicated.*

## **1 Introduction**

In this paper, the relationship between organizational learning and communities of practice (COP) is addressed. A social constructivist approach is used to analyze the potential contributions of COP's to support learning by organizations. A social constructivist approach sees organizational learning as an institutionalizing process. Institutionalization is the process whereby practices become sufficiently regular and continuous as to be described as institutions (Berger and Luckman 1966). The attention is on the process through which individual or local knowledge is transformed into collective knowledge as well as the process through which this socially constructed knowledge influences, and is part of, local knowledge.

Many authors have already claimed that COP's are well suited to support learning processes (e.g. Davenport and Prusak 1998, Wenger 1998, Brown and Duguid 1991). Probably the most often cited article that relates learning with COP is the one of Brown and Duguid published in 1991 in *Organization Science*. Their argument is that CoP's are social structures that are able to blend learning, working and innovating during day to day work activities. In his book 'Communities of Practice, Learning, Meaning and Identity', Etienne Wenger (1998) provides more theoretical depth while linking the two concepts. Central in his work is a 'social theory of learning'. Learning occurs through active participation in practices of communities while at the same time identities in relation to these communities are constructed. Learning thus refers both to action and belonging by members of (multiple) CoP's. Wenger's work and the work of Brown and Duguid can be considered breakthroughs in later academic and practice oriented debates about learning, knowledge, and management.

When learning is considered a social process rather than an individual process, the link between organizational learning and communities comes easily to the forefront. As such, learning is seen as a situated activity that takes place in collectives, not in individual minds. Communities contribute to this social learning as they provide the most suitable setting for learning to take shape. As collections of individuals bound by informal relationships that share knowledge in action, learning happens voluntary and informal. In general, the argument goes that COP's stimulate social learning by providing a suitable 'non-canonical', non-hierarchical, informal and fluid surrounding, seen as a fruitful breeding ground for learning (Brown and Duguid, Wenger, Botkin).

Those who see learning as a social practice resulting in shared, situated knowledge, usually look at the concept of organizational learning as learning *within* organizations. What is typical is that they tend to downplay the role of COP's in supporting *organizational* learning defined as the learning by organizations. The difference between learning within and learning by organizations is important to make. We will argue that COPs contribution to *support organizational learning* is much more complex in comparison to their often-praised role in supporting social *learning within organizations*.

In the following, we will first briefly discuss the concept of communities in relation to business organizations. This will be followed by a theoretical discussion of organizational learning. A theoretical framework is drawn up based on the social constructivist approach. This framework will serve as an analytical model to analyze the possible contributions of CoP in supporting (or hindering) learning seen as the process of knowledge institutionalization. The attention will be focussed in particular on COP's contribution in objectifying shared knowledge. It will be argued that COP's indeed seem

to be suitable social structures to support learning within organizations. However, their contribution to learning at the organizational level is much more complex.

## **2. The concept of communities**

Sociologists and political scientists have studied communities for decades. The community subject was revived in these disciplines in the 1990s by the work of Etzioni (1993, 1995) and Putnam (1993). The community concept was studied not just from an 'objective' sociological perspective but also to provide the American society with a normative, organizational vehicle for revitalizing democracy. Advocates of this community view, known as the communitarians, protest against the decline of social trust, the loss of civic engagement, and seek to reinforce the moral, social, and political foundations of society (Etzioni, 1995).

In management studies the community concepts is explored in the fields of e-commerce, management- and employee learning, innovation, and KM. Within the latter field the so-called 'CoP' has, due to the innovative work of Lave and Wenger (1991) and Brown and Duguid (1991), received the most attention.

The term CoP was originally coined to refer to the community that acts as a living curriculum for the apprentice (Lave and Wenger 1991). Later researchers started to see these communities everywhere, even when no formal apprenticeship system existed. The notion of community was quickly adopted in the world of business predominantly because of its positive connotation. In fact it is extremely hard to find opponents to the concept. It seems that the concept of CoP is becoming the new fad in management and organizations theories and practices. Companies more and more adopt the concept, perceiving groups and teams as belonging to the hierarchical past. In fact, many practitioners use the concept to conform to the latest need for active, self-organized, collective participation by promoting bottom up, laissez faire management. In practice however, they often refer to age-old organizational structures like teams, projects and other non-self organized collectivities.

Companies also start to adopt the concept when dealing with knowledge sharing between geographically dispersed individuals. In the hope to get these 'valuable assets' connected, virtual or electronic communities are introduced. The question remain of course, whether personal interaction can be designed for.

A way to bring more conceptual insight in this 'community-jungle', is to analyze the relation between COP's and the process of which it forms its originator as well as its consequence: learning. As mentioned in the introductions, many authors within the business and management literature have already considered the two concepts as tightly connected and mutually constructive. Advocates of CoP's perceive learning as a collective process rather than a sum total of individual processes. A community is based on shared activities and a shared need for knowledge (Starr, 1992). Studies of the daily work practices of, among others, system analysts (Ciborra and Lanzara, 1994), maintenance engineers (Orr, 1996), midwives (Jordan, 1989), flight crews and ground staff (Weick and Roberts 1993), claim processors (Wenger 1998), IT consultants (Teigland and Wasko 2000) indicate that within such communities collaborative forms of working and learning coincide with each other. From this perspective it follows that learning is an unavoidable aspect of participating in community life.

In the rest of this paper, the attempt is made to conceptually unravel this relationship between organizational learning and CoP. This will be done by using a theoretical framework based on the notion of learning as the process of institutionalizing knowledge.

### **3 A social constructivist perspective on organizational learning**

Organizational learning refers to the process<sup>1</sup> through which organizations learn, either from own experience or the experience of others. Cyert and March (1963) were one of the first authors who focussed the attention on these kinds of organizational learning processes. In contrast to the literature on the Learning Organization<sup>2</sup>, advocates of this process view have shown learning more often than not results in organizational inefficiencies. For example, in their 'Behavioral theory of the firm', Cyert and March argued that organizations learn by adapting their objectives, attention and search routines to their experiences. More than a decade later, March and Olsen (1976) showed that, as a result of often-irrational organizational behaviour, learning is full of hindrances and shortcomings. Two years later the frequently quoted book of Argyris and Schön (1978) was published. Like March and Olsen, these authors also argued that actual learning processes in organizations seldom result in positively valued changes. Organizations seem to have problems in thinking and acting outside existing theories-in-use. In the following years many review articles were published analysing various publications on organizational learning (e.g. Dodgson, 1993, Fiol and Lyles 1985, Hedberg 1981, Huber 1991). Lately, the concept is often used to refer to the fundamentals of knowledge management and related concept such as knowledge sharing (e.g. Davenport and Prusak 1998, Huysman and de Wit 2002)

All these and other efforts notwithstanding, there is still a need for more scientific understanding on how to explicate actual organizational learning processes (Thatchenkery 1996). Perhaps the most important cause of this confusion is that the concept is difficult to analyse. For example, the traditional behaviourist approach to learning seems to be problematic when applied to organizational learning. The stimulus-response sequence, traditional to the behaviourist approach, is difficult to unravel as the combination of same stimulus; different response is rare in organizations (Weick 1991). Organizations are too routine-based to follow this traditional learning sequence (Leavitt and March 1988). Also, organizations do not provide the optimal (experimental) research site to unravel stimulus-response sequences. Moreover, researchers have problems *seeing* organizations and likewise seeing the learning of organizations. If organizations cannot be perceived, then it will be difficult to theorize about them, let alone about the process of organizational learning (Sandelands and Srivatsan 1993, Yanow 2000). Many researchers also have difficulty differentiating between individual and organizational learning. Argyris and Schön (1978) for example talk about organizations while in fact they are dealing with learning individuals within organizations.

It is argued that a social constructivist approach to organizational learning is able to challenge these analytical difficulties. Social constructivist's approaches to organizational learning emphasize the process through which an organization constructs knowledge or reconstructs existing knowledge. Through knowledge sharing, individual knowledge may become collective (organizational) knowledge while this accumulated knowledge will in

turn influence subsequent action. In other words: organizational learning can be looked upon as a process that occurs as a result of the actions of the organization's members, while these same actions are simultaneously influenced by collectively accepted knowledge. As a result of this duality between, on the one hand, the actions of individuals and, on the other hand, the deterministic or formative influences of existing organizational factors, organizational learning can be viewed as a process of institutionalization (Berger and Luckman 1966).

The focus is on collective knowledge (re)construction and is in line with the social constructivist contribution to the organizational learning research stream (e.g. Brown and Duguid 1991, Cook and Yanow 1993, Elkjaer 1999, Gherardi 2000, Gherardi et al 1998, Nicolini and Mezner 1995, Pentland 1995). These and other organizational learning writers are inspired by the social constructivist approach to knowledge development (Berger and Luckman 1966, Gergen 1994, Schutz 1971).

In order to understand better the social constructivist perspective on organizational learning, we need to discuss two concepts in more detail: 'organizational knowledge' and 'institutionalization'.

### **3.1 Organizational knowledge**

With organizational or collective knowledge, reference is made to knowledge as in rules, procedures, strategies, activities, technologies, conditions, paradigms, terms of reference, etc. around which organizations are constructed and through which they operate (Leavitt and March 1988). Organizational knowledge refers to knowledge which an individual uses when acting as an organizational member.

Much has been published about the concept of organizational knowledge, although there still seems to be confusion about its meaning. First, organizational knowledge may be seen as residing in formal descriptions of the organization and its activities or in the retained records of organizational activity. This type of organizational knowledge consists of formal knowledge about the organization and may be viewed as analogous to the contents of an organizational knowledge base. Examples of such formal organizational knowledge are the formal record of organizational activity held in the minutes of meetings, company reports, organizational mission statements, financial information used in management accounting systems, organizational charts, etc.

Rather than knowledge *about* the organization, organizational knowledge can also be considered as being the knowledge *of* the organization. Morgan (1986) for example discusses this viewpoint when dealing with the image of a brain. Together with Ramirez (1983), he talks of organizations as holographic systems in which organizational knowledge may be embedded in their every component. With the growing popularity of organizational learning, this idea of an 'organizational memory' has become a subject of increased interest (Moorman and Miner 1998, Sandelands and Stablein 1987, Stein 1995, Stein and Zwass 1995, Walsh and Ungson 1991). The concept is somewhat similar to the sociological conception of a collective mind, which as a construct evolved from the work of Durkheim at the end of the nineteenth century. However, whereas the collective mind refers to shared understanding and shared interpretation, organizational memory does not necessarily achieve the same end.

The operationalization of the concept is often restricted to organizational memory that allows for the acquisition, retention, maintenance, search and retrieval of information. The problem is however that this perspective on organizational knowledge leaves less structured organizational knowledge untouched. Organizational war stories, informal rules and routines, etc. cannot easily be collected, retained and retrieved. Not only is most of this knowledge tacit, but it is also frequently tainted by subjective interpretation and political bias (Orr 1996). The concept of 'organizational routines' (Levitt and March 1988, Nelson and Winter 1982) provides a possible solution to this problem of too formal an image of organizational knowledge. "The generic term 'routines' includes the forms, rules, procedures, conventions, strategies, and technologies around which organizations are constructed and through which they operate. It also includes the structures of beliefs, frameworks, paradigms, codes, cultures, and knowledge that buttress, elaborate, and contradict the formal routines. Routines are independent of the individual actors who execute them and are capable of surviving a considerable turnover in individual actors" (Levitt and March 1988, p. 320).

### **3.2 The process of institutionalizing knowledge**

Seen from a social constructivist lens, organizational learning can be perceived of as a process of institutionalization through which individual or local knowledge is transferred into collective knowledge as well as through which this social knowledge becomes collectively accepted and acted upon as organizational knowledge.

The term 'institutions' is used to describe social practices that are regularly and continuously repeated are sanctioned and maintained by social norms and have a major significance in the social structure (Abercrombie et al 1984).

Institutionalization is the process through which social practices become sufficiently regular and continuous as to be described as institutions. The concept is widely used in sociology, though often without precise specification. Different schools of sociology treat the concept of institutionalization in different ways. For example, functionalists tend to see institutions as fulfilling the needs of individuals or society (e.g. Durkheim 1978, Parsons 1960) while phenomenologists may concentrate on the way in which people create or adapt institutions rather than merely respond to them (Berger and Luckman 1966, Schutz 1971). Scott (1987) distinguishes different 'institutional schools': two dealing with the process of institutionalization and two with institutions as systems. Institutionalization can be conceived of as 'a process of instilling value'. Selznick, for example, argues that 'institutionalization is to infuse with value beyond the technical requirement of the task at hand' (Selznick, 1957, p. 17) which may lead to an unplanned and unintended nature of institutions. Institutionalization can also be conceived of as 'a process of creating reality'. Social order is founded on a shared social reality, which is created by social interaction.

Berger and Luckman (1966) describe the process of institutionalization as consisting of three phases or 'moments': 'externalization, objectification, and internalization'. These three moments refer to both aspects of institutionalization: constructing a social structure which members use to act upon. Externalizing refers to the process through which personal knowledge is exchanged with others. Objectifying refers to the process through which society becomes an objective reality. During internalizing, "the objectified social world is retrojected into consciousness in the course of socialization".

As such, the authors point to a dialectical relationship between action and structure: “the relationship between man, the producer, and the social world, his product, is and remains a dialectical one. That is, man (not, of course, in isolation but in his collectivity) and his social world interact with each other. The product acts back upon the producer” (Berger and Luckman 1966, p. 78)<sup>3</sup>.

These three moments have proven relevant when analysing organizational learning processes (Huysman 2000, Pentland 1998). Relating these processes of institutionalization with organizational learning makes it possible to analyse organizational learning as consisting of these three consecutive moments:

- *externalizing* individual knowledge in such a way that individually held knowledge becomes shared;
- *objectifying* this knowledge into organizational knowledge so that shared knowledge is eventually taken for granted;
- *internalizing* this organizational knowledge among members of the organization.

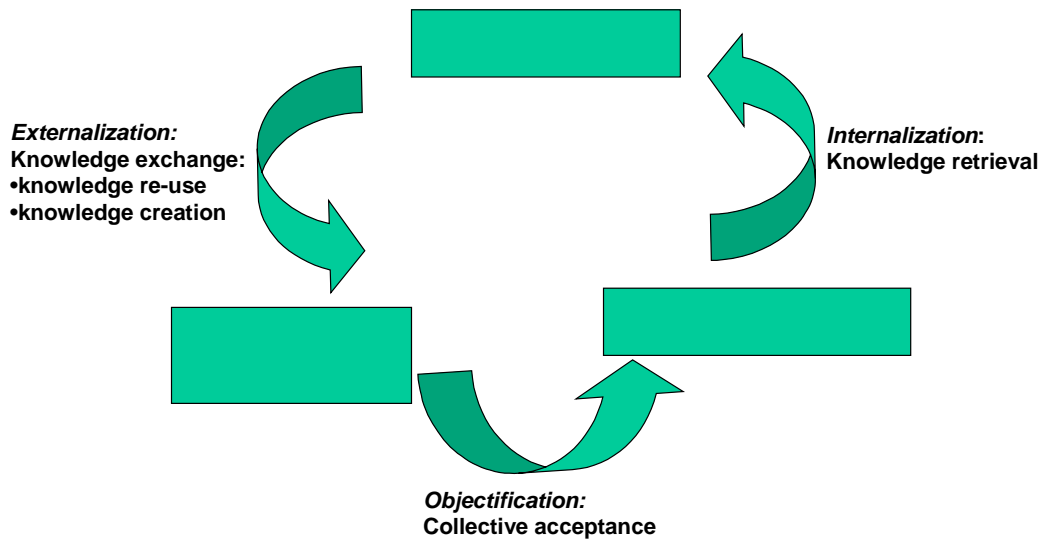
After the publication of a book by Nonaka and Takeuchi (1995) it is no longer possible to talk unequivocally about externalization and internalization processes. The fact is that Nonaka and Takeuchi refer to other processes than those mentioned by the social constructivists. For example, when Nonaka and Takeuchi use the term 'externalization', they mean the process through which knowledge is converted from tacit to explicit knowledge; and when they use the term 'internalization' they are referring to the transfer from explicit to implicit knowledge. During the internalization and externalization processes as distinguished by Berger and Luckman and other authors, this knowledge conversion might also take place, but this does not have to be the rule *per se*.

To make things even more complicated, the word 'objectify' has also been given an alternative meaning. Objectification is often looked upon as the process through which knowledge is recorded in, for example, reports and systems. Again, in Berger and Luckman's original treatment of the word this does not necessarily have to be the case. Knowledge can be collectively accepted without ever having to be recorded somewhere. Consider, for example, the culture of the organization.

Due to the possible confusion with the terminology, we have employed the following terms in relation to organizational learning:

- externalization: *exchanging knowledge (for reuse or renewal)*
- objectification: *collective acceptance of knowledge*
- internalization: *acquiring organizational knowledge.*

Figure 1 provides a theoretical model of learning as the process of institutionalization, in which the three subprocesses or moments are conceptually unravelled.



*Figure 1 Processes of Institutionalization in relation to organizational learning*

CoP's seem to be well suited to support two of the three processes that make up organizational learning: internalization and externalization. In fact, COP writers that connect the concept with learning focus on these two processes (Lave and Wenger 1991, Brown and Duguid 1991, Botkin 1999, etc.). The question whether COP's also contribute to learning at the level of the organization, depends on the role of COP's in supporting the process of objectification. In the following sections, we will discuss this relationship between COP and learning within and by organizations in more detail.

#### **4. Communities of Practice and learning within organizations.**

Through internalization, individuals acquire organizational knowledge. It is through internalization that individuals become members of the organization. In fact, internalization means the process through which one becomes an 'insider'. It makes a difference whether this knowledge is mainly of a tacit or an explicit nature. Acquiring knowledge with a high degree of explicitness is usually done through training courses, reading manuals, and using e-learning applications. Acquiring organizational knowledge with a high degree of tacitness requires different sources. Spender (1996) refers to this social knowledge which is of a tacit nature, as 'collective knowledge'. It is particular in this domain of acquiring collective knowledge that COP's are considered very appropriate social structures. A way to support the transfer of this collective knowledge

in communities is by for example by telling stories and swapping anecdotes (Sims, 2000) between old-timers and newcomers. A powerful way to support competence learning by newcomers is by letting people work together. There is a growing band of authors who argue that learning should be considered as being inextricably bound up with working (e.g. Brown and Duguid 1991, Gherardi 2000, Nicoloni and Meznar 1995, Yanow 2000). For example, Lave and Wenger (1991) introduced the concept of 'legitimate peripheral participation' as a method of learning by actively participating as opposed to learning outside the relevant task environment such as accumulating information from manuals. Participating in CoP or at least in their periphery is often seen as one of the key mechanisms through which individuals learn 'collective knowledge'. Referring to Lave and Wenger, Brown and Duguid (1991) put it as follows: 'Learners need legitimate access to the periphery of communication - to computer mail, to formal and informal meetings, to telephone conversations, etc. and, of course to war stories. They pick up invaluable know how - not just information but also manner and technique - from being on the periphery of competent practitioners going about their business' (Brown and Duguid 1991, p. 50).

Next to learning to become competent in a new organization, learning in COP's also happens for the purpose of knowledge re-use or knowledge renewal. This process of externalization supported by COP's has often been referred to by those interested in communities as means to support knowledge sharing and knowledge management<sup>4</sup>. Many organizations nowadays are experimenting with the concept of COP to enable the knowledge transfer between – often geographically dispersed – organizational members (Botkin 1999, Sole and Huysman 2001). The idea is that by building or supporting COP's, people are more inclined to share knowledge with each other, which otherwise would either be lost or duplicated. Again, it is in particular the externalization of tacit knowledge or collective knowledge (Spender 1996) for which COP's are believed to offer a suitable environment.

## **5 Communities of Practice and learning by organizations**

Although a lot is written about COP's contribution to learning, not much is known about its contribution to *organizational* learning. We believe that the concept of 'institutionalization' as discussed above, and in particular the sub-process of 'objectification' might be helpful in shedding light on this higher level of learning.

Just because knowledge is exchanged does not mean that the shared knowledge has already been collectively accepted. Shared knowledge only turns into organizational knowledge when the organization's members accept it as such. Collective acceptance as a process is, in other words, the link between individual learning and organizational learning.

This process of collective acceptance or objectification does not always takes place consciously and can be a long, drawn-out process. By collectively accepting local knowledge the collective – often gradually – starts to accept existing shared knowledge as being part of the organization. This process is not so much one of sharing knowledge but more one of sedimentation. Von Krogh et al (2000) refers to this process in the context of knowledge creation as 'globalizing local knowledge'. For example, a group of technicians might have learned a new way of fixing a machine. This new operational

knowledge remains local knowledge until it is accepted by the organization, for example as expressed in organizational stories, in manuals and in the training of newcomers. This process of objectification usually takes much longer than is the case with the two other sub-institutionalization processes discussed above (Berger and Luckman 1966, Dixon 2000, Douglas 1987). Ignoring the importance of collective acceptance can be a serious obstacle to organizational learning. In fact, most organizations tend to ignore the outcomes of local learning processes or have problems collectively accepting these outcomes (Huysman and De Wit 2002).

Due to some typical characteristics of CoP's, we believe that CoP's might hinder the process of objectification. Below we will discuss two general tendencies inherent to communities that might obstruct the objectification of local knowledge and therefore hinder learning by organizations. These are the tendency to be less visible and therefore often ignored by management and the tendency to form a power coalition. We will discuss these two negative tendencies below.

Non-learning or inflexibility in an organization is often the result of managers not paying attention to learning processes that take place in communities (Brown and Duguid 1991). During their day-to-day activities, COP's continuously create new knowledge as a solution to daily problems. They create new ways of working, give new interpretations to their situation and discuss existing practices. In other words, whereas internalization and externalization practices can be highly innovative, the problem often lies in inflexible objectifying processes, as local knowledge is often not transformed into new organizational knowledge. Ethnographic research into the daily activities of repairmen at Rank Xerox (1996), for example, illustrated that during interactions people learn in highly creative ways. During training sessions, repairmen internalized organizational practices, all of which were described in manuals. The general organizational rule they were supposed to learn was that manuals should be used when diagnosing technical disturbances and that if the problem persisted, the photoCoPying machine should be replaced with a new one. The informal practices however were quite different: repairmen were highly motivated to fix technical disturbances to avoid being perceived as incompetent. If they were unable to do this on their own, they contacted each other for help in diagnosing the problems. The problem was that this newly created situated and shared knowledge stayed part of the community; management remained ignorant of these creative learning processes. In other words, this shared knowledge did not transform into organizational knowledge.

Consider the case that this knowledge was created by a 'canonical' organizational structure, such as a project-team. It would have been more likely that management in that case would recognize the knowledge as new, valuable and worth transforming it into collectively accepted knowledge. On the other hand however, the question is if formal structures such as teams would indeed come up with this new knowledge.

More often than not, collective acceptance occurs when knowledge-sharing processes are ratified through the endorsement of dominant coalitions within an organization (March and Simon 1993). By focusing on the role of dominant coalitions, the often-ignored notion of power in the discussion on learning is addressed. Power plays a crucial role during the objectifying process. Dominant coalitions are formed by, for example,

management, a critical mass, reference groups, old-timers, or charismatic personalities. Dominant coalitions can have a negative impact on the result of learning processes. For example, management - as an important member of a dominant coalition - might be oblivious to what is actually going on within the organization. By not accepting existing knowledge as being important to the organization as a whole, management hinders the construction of organizational learning, as a result of which the learning process of the organization will eventually become out of step with the learning process of individuals within the organization (Brown and Duguid 1991).

Although CoP's are often invisible to management, they might also form a dominant coalition and consequently block further organizational learning. The next illustration provides an example of the power enjoyed by COP's as dominant coalitions that could frustrate the collective acceptance process and thus organizational learning as a whole.

A group of information system (IS) designers worked in the computer department of a large organization for a number of years. They all had a long service record within the company, where they had previously been employed as computer programmers. The company was using a number of routines that had been introduced by these employees over the years. For example, employees worked mainly on their own, there was little contact with the clients, almost every designer used his or her own particular style of IS design and there was a heavy bias towards technical details. The fact that their clients were not happy with these routines was never explicitly discussed. This complacency was reinforced because the department enjoyed a monopoly within the organization.

At the beginning of the 1990s, the demand for information systems doubled, which resulted in a drastic expansion in the number of personnel. Twenty new system designers were brought in from outside the organization; all of who had enjoyed a professional training in IS design and had often worked for a substantial length of time for software houses. These newcomers brought knowledge and skills with them that radically differed from the organization's existing in-house knowledge and skills. However, despite the fact that knowledge was exchanged, the existing collective routines and practices did not change. A critical mass consisting of 'old-timers' and management did not support the new practices. The majority of the newcomers eventually adapted to the established routines. Although they realized that clients were not happy with the methods and knowledge that were being used, they learned not to express their opinions in public and definitely not to report them to management (Huysman 2000).

Consequently, despite the potential for the organization to learn new (IS designers) routines, inflexibility was the result. The community of old-timers formed such a powerful coalition that it hindered the transformation of newly shared knowledge into organizational knowledge.

There are various ways to support the process of objectification so that knowledge becomes accepted by the organization as a whole.

Objectification might be supported by top management through their explicit acknowledgement of the importance of CoP (Huysman and De Wit 2002, Brown and Duguid 1991, 2000, Cohen and Prusak 2000). Recognizing the importance of communities and networks requires an awareness of where valuable communities are located and what holds them together (Wenger 2000). According to Wenger, this requires a new set of responsibilities that are a long way from the technical emphasis of

knowledge management. It 'requires an 'anthropological noce' (Wenger 2000, p. 19) CoP's cannot be managed nor structured, but instead calls for new – if you like 'soft – management principles such as 'hospitality' (Ciborra 1996) and 'doing no harm' (Cohen and Prusak 2000).

Of course, acknowledging and respecting CoP's alone does not guarantee objectification of shared knowledge. A possible potential for CoP's to contribute to organizational learning might lie in emphasizing the role of experts. Objectification can take place for example via the intervention of 'domain experts', people who are considered to be the *primus interparus* (P.I.) among the community members. Most communities informally select one individual or a group of people to be the P.I. of the community. This person plays an important role in objectifying the knowledge that is shared between the communities. His or her acknowledgement of the knowledge as being relevant, innovative, useful etc. to the community will stimulate other members to use it. This corresponds with the idea of reference groups and significant others, concepts that were introduced a century ago by symbolic interactionists (Shibutani 1955, Thomas 1914). It is important that managers recognize these key people and take their knowledge seriously. If not, knowledge will only remain relevant to the community itself.

Key community members also need to have a stake outside their community to support the acceptance of the value and usability of the knowledge by other organizational participants. Thus, in order for community knowledge to cross boundaries and become accepted by a larger audience, knowledge brokers are needed who are perceived as being the 'significant others' (Wenger 1998).

Next to a more natural role of senior members or experts, experts can also be used in a jury of people who peer-review the knowledge of their community members. Below, an example is given of peer reviews as a way of objectifying community knowledge.

At Xerox, photoCoPier repairmen ('reps') use a Web-based system called 'Eureka' as a new way of accelerating their learning and structuring the community knowledge on how to act as a successful repairman. The problem with creating such a system was that many, if not all, of the reps knew that most of the ideas and stories about repairing CoPier machines that were floating around were not very reliable, they were merely opinions, and sometimes even fantastic horror stories. "To transform their opinions and experiences into 'warranted beliefs', hence actionable, contributors had to submit their ideas for peer review, a process facilitated by the Web. The peers would quickly vet and refine the story, and connect it to others. In addition, the author attaches his or her name to the resulting story or tip, thus creating both intellectual and social capital, the latter because tech reps who create really great stories become local heroes and hence more central members of their community of practice." (Brown 2000, p. 17).

We are aware that highlighting the expert's role in CoP's detracts the egalitarian image of COP's. However, when organizations are perceived as political arena's more than as friendly communities of communities, issues of power, structures and hierarchies cannot be ignored. Clearly, this assumption is based on personal beliefs combined with (research) experience with communities in practice. More research is needed to analyse the ambivalent role of COP's in supporting organizational learning and in specific in supporting the collective acceptance of shared knowledge.

## Summary

In general, the relationship is often perceived as positive, obvious and inherent. A social constructivist perspective on the relationship between learning and COP provides a different view than we are used to. In this paper, we have tried to critically analyze this romantic and optimistic relationship by introducing a model that perceives learning as the process of institutionalization. Communities have different roles during this process. We agree with the 'communitarian' view that during the process of externalizing and internalizing knowledge, COP's might serve as suitable structures to support learning. This learning is however limited to social learning within organizations. It does not inform us about the learning that occurs at a higher level of abstraction: organizational learning. For this higher level learning to take place, local or situated knowledge – which is often the outcome of community learning – needs to be collectively accepted by organizational members. We have argued that this process of objectification is often hindered by COP. In other words, although COP's are well suited to support learning within organizations, they have the tendency to obstruct learning by organizations. This argument relaxes the overwhelming optimistic and romantic view on communities in their potentials to contribute to organizational learning. Clearly, empirical research is needed to analyse these and other possibilities for communities to support organizational learning. We believe that the social constructivist perspective on organizational learning as discussed in this paper, provides an interesting framework to do so.

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<sup>1</sup> It should be noted that we do not use a pure process definition since we use 'achievement verbs' instead of process verbs (Sandelands and Drazin 1989). However, according to Weick and Westly (1996), 'organizational learning' is a concept that refers both to a process as well as to an outcome of that process and thus needs to be treated as such.

<sup>2</sup> There are basically two general approaches to learning seen from an organizational perspective: organizational learning and the learning organization (Huysman 2000b). Whereas the first approach looks at learning as a process without a bias towards its – favourable – outcome, the latter approach looks at the outcome of learning: a flexible, adaptive type of organization. In order to analyze the contribution of COP's to learning, in the rest of this paper, we will stick to the first approach to learning.

<sup>3</sup> The 'moments' of Berger and Luckman correspond to a certain extent to Giddens' structuration theory (1984). Giddens is one of the most well known contemporary sociologists who proposes a dialectical relationship between action and structure. Action and structure pre-suppose each other, instead of being mutually exclusive. Giddens is more explicit than Berger and Luckman (1966) about the possible occurrence of the consequences of human action that are unknown or unintended.

<sup>4</sup> Although to our knowledge COP's and knowledge re-use and re-newel are never used in terms of a sub-process of institutionalization