

Communities of Practice as Facilitators of Knowledge Exchange

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INTRODUCTION

For knowledge to create value in an organization, whether tacit or explicit, it must have the ability to be shared among employees. This intentional (or in some instances unintentional) flow of knowledge can become the driver for organizational learning. When examining knowledge sharing, it is important to consider the context in which the knowledge is developed, as the community in which the individual is learning can affect any knowledge that is created. Organizational learning is impacted by individuals, groups, and the organization as a whole, and how these three levels are linked by social processes (Crossan, Lane & White, 1999). However, it is very difficult to create the right social environment to produce optimum knowledge sharing and learning. Sharing knowledge is an ‘unnatural act’, and therefore firms must strive to create the right environment and means to assist employees in overcoming knowledge flow barriers (Ruppel & Harrington, 2001).

Previous research has identified communities of practice as a hub for sharing knowledge within an organization (Brown & Duguid, 1991; Ellis, 1998; Hildreth & Kimble, 1999). The ability of a community of practice to create a friendly environment for individuals with similar interests and problems to discuss a common subject matter encourages the transfer and creation of new knowledge. Practitioners with similar work experiences tend to be drawn to communities, and from this a common purpose to share knowledge and experience arises (Wenger, 1998). Blackler (1995) argues that the creation and deployment of knowledge is inseparable from activity, and different contexts manifest in the form of knowledge boundaries. A community of practice can help individuals remove this boundary through the creation of a common context that links different experiential knowledge in an environment suited for knowledge exchange.

BACKGROUND

Communities of practice bring value to individuals and organizations by allowing for the acquisition of knowledge that supports practice within a role or responsibility. Brown and Duguid (1998) distinguish between two types of knowledge: (1) “know-what” or topical knowledge, and (2) “know-how” or knowledge derived from experience and action. They define “know-how” as the ability for an individual to take his or her “know-what” knowledge and put it into practice.

Other perspectives focus on the knowledgeability of action (Orlikowski & Yates, 1994). Here the verb *knowing* is stressed, rather than the noun *knowledge*. The emphasis on the interactive requirement for individual learning rather than the passive receipt of knowledge is a perspective that fits well with communities of practice. The use of the verb participation, a requirement for membership within a community of practice, also suggests that knowledge is created and shared from participation in experience and active membership within a community. An individual’s ability to know is inseparable from practice and context.

Communities of practice follow the logic that knowledge cannot be separated by practice, as what is learned is highly dependent on the context where the learning takes place (Hayes & Walsham, 2001). The concept of *legitimate peripheral participation* (LPP) is derived from this notion, as it postulates that members who are allowed the opportunity to fully participate in community activities begin to behave as community members, or as practitioners. It is through this membership that knowledge can be shared with the rest of the community. Learning within a community is situated, as it occurs through people interacting in context. The learner’s situated perspective, including physical and social context, become an important aspect in their learning and interaction with the community (Lave & Wenger, 1991).

In some cases, a familiar context or environment becomes a crucial factor in a practitioner's ability to deal with unfamiliar, unstructured problems (Tyre & von Hippel, 1997). These members must have access to the periphery of the practice, which allows for either observation or participation in the practice that eventually contributes to their decision to join the community. The term periphery is not used in the geographical sense, but as the degree of involvement an individual may have with the community. Their participation must eventually become legitimized (though not in the formal sense), in order to empower the participants to participate in learning and personal development.

Knowledge is situated within these communities through the situated learning curriculum that is unique to each community of practice. Newcomers can access this curriculum to gain the common knowledge resident in the community as a first step towards full participation. However, learning is an improvised practice, and eventually the participant must go beyond this notion of structure and curriculum to acquire knowledge. Therefore, participation in any community where knowledge exists can be defined as the act of learning (Lave & Wenger, 1991).

Communities of practice are able to assist an individual with this knowledge conversion as long as the participants are situated within the same community. The transfer of knowledge across communities becomes more challenging due to the "sticky" nature of knowledge. As knowledge is situated within a particular context, the removal from this context may distort its value or meaning. Various means of overcoming this obstacle have been proposed. Boland and Tenaski (1995) propose the use of communication forums that span multiple communities, while both Star (1989) and Carlile (2002) support the use of boundary objects.

Facilitating Knowledge Sharing

Lesser and Storck (2001) examined communities of practice by identifying their influence on a firm's social capital. Social capital, or "the sum of actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit" (p. 833), emphasizes the value of a cohesive group in

organizational learning. This value can clearly be seen through examining the three dimensions of social capital: the structural dimension, the relational dimension, and the cognitive dimension. The following considers each dimension and the related factors that encourage knowledge flow and learning.

The *structural dimension* refers to the ease of which individuals can make connections with other similar practitioners. It identifies the processes, resources, and tools the community creates in order to augment and encourage social interactions. These may be in the form of physical resources, such as systems, or intangible resources such as face-to-face meetings and communities of practice.

Communities of practice can bring many structural benefits to an organization's knowledge sharing initiatives. They promote the use of IT tools in knowledge sharing, which can stimulate the use of this infrastructure and create a well-networked organization by use of the provided resources. Distributed cognitive theory addresses how learning in such a collaborative environment takes place. It defines a person's *horizon of observation* as the portion of the workspace that a participant can observe or monitor. Technologies designed for communities and knowledge sharing expand a member's horizon of observation, allowing for the identification of different knowledge sources that can contribute to the learning within the community. These technologies typically incorporate tools such as recorder tools, forums, local memory storage, and other knowledge collection aids in order to increase the spread of knowledge (Eales, 2003).

The community can act as a boundary-spanning object for geographical barriers through its distributed social nature and its ability to successfully use global IT resources. By allowing communities to work or partner with other company functions, they can become the facilitator for knowledge transfer, and encourage these functions to develop new knowledge. This situates them in the role of the educator in organizational learning. When implementing a knowledge strategy, the leadership within an organization can employ communities of practice to communicate the vision of a knowledge organization, set knowledge-related priorities and funding levels, facilitate communication that crosses business unit boundaries, encourage employee participation, and ensure alignment of company-wide systems and policies (Wenger, McDermott & Snyder, 2002).

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