Chapter 1.5
IT and the Social Construction of Knowledge

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INTRODUCTION

In a dynamic environment, knowledge is the only valid asset that allows organizations to adapt and change. That is why knowledge is one of the few resources on which any organization can support its sustained success. This resource, in its turn, appears as a result of a repetitive process of learning.

Learning is a social product—knowledge is social and has synergetic possibilities—therefore, its value increases when it is shared, enriched, and developed beyond the individual, proportioning coherence to the interpretations of the members of the group (Brown & Duguid, 2001; Nonaka & Takeuchi, 1995). Many researchers have pointed out that the capacity of an organization to get into the environment, interpret it, and understand it, in short, to learn it, requires dialogue and discussion among its members. Through dialogue (Isaacs, 1993), each member exhibits a perception or personal image of the world, and these perceptions will affect the other members when they are shared during interaction. Together, the discussion of individual perceptions produces a shared image of reality.

In addition, collective knowledge is a needed complement to the individual (Brown & Duguid, 1991). First of all, there are problems that require the integration of individual knowledge. Second, and not less important, collective knowledge implies that the members of an organization that share it are going to act according to the same criteria and that makes the organization predictable beyond individual contingences. For example, it is of little use for a driver to know the obligation to drive on the right if the others do not know such obligation (as anyone who has driven in countries where they drive on the left will have been able to confirm at the slightest distraction). It is collective knowledge that supplies standards of conduct whose validity stems precisely from the fact that it is collective.

The idea of social construction of knowledge links it to the communities that create, use, and transform it. According to this, if learning is the result of personal experience and processes of interaction...
among individuals, this should be understood in relation to the social and cultural context in which these experiences and interactions take place, that is, in relation to communities of practice.

Over the last decades, the popularity of communities of practice has grown considerably in literature related to knowledge management as a consequence of the importance that an environment of collaboration has had in the generation of knowledge (Cox, 2005; Garavan & Carbery, 2007; Roberts, 2006). They are emerging as a complement to the existing structures and radically galvanize knowledge sharing, learning, and change. In the present-day society of knowledge, these are becoming essential.

Experience has shown over and over that what makes for a successful community of practice has to do primarily with social, cultural, and organizational issues, and secondary only with technological features (Peltonen & Lämsä, 2004). However, an increasing number of communities of practice are geographically distributed and must rely on some kind technology for keeping in touch. And even those that are colocated often need to process data, information, or knowledge. So, appreciation of this central role of technological features has emphasized technical initiatives to promote collaboration in communities of practice (Cross, Laseter, Parker, & Velasquez, 2006).

On this basis, this chapter begins with a description of the communities of practice. This is followed by a review of the role of information technology management. The challenges of managing communities of practice are subsequently discussed and brief conclusions drawn.

**BACKGROUND**

The concept of community of practice was originated in the context of a social theory of learning. Contrary to the idea that human learning occurs in isolation, a social theory of learning insists on the situated nature of human cognition and, thus, in learning as embedded in social practice (Brown, Collins, & Duguid, 1989).

Originally, the term was coined by Jean Lave and Etienne Wenger (1991) based on work in the late 80s when they investigated apprenticeship in various types of communities ranging from midwives in Mexico to butchers in U.S. supermarkets and quartermasters on U.S. Navy ships. Their idea of a community of practice is close the sociology of Tönnies, as noticed by Brown and Duguid (2001).

In particular, Wenger, McDermott, and Snyder (2002) define communities of practice as groups of individuals who share a worry, a set of problems under similar perspectives, or a common interest about a subject, and through communication among its members, share and generate a body of group knowledge. The operative of the communities is totally different. When there are not geographic barriers among its members, they can meet periodically; in other cases, when there is a long distance or the members’ agendas are full, they may opt for interchange of ideas through the Internet, video conferences, or any other resource.

They may or may not have an explicit agenda or they may not even follow the agenda closely. Equally, they may or may not go beyond the limits of an organization. Whichever way they choose, communities of practice have something in common (Wenger, 1998):

*The domain*: A community of practice is not a merely a club of friends or a network of connections between people. It has an identity defined by a shared domain of interest.

*The community*: In pursuing their interest in their domain, members engage in joint activities and discussions and help each other to share information. They build relationships that enable them to learn from each other.

*The practice*: Members of a community of practice are practitioners. They develop a shared repertoire of resources: experiences, stories, tools,