

# Chapter 1

## Introduction

### 1.1 Introduction

Each year corporations spend millions of dollars training and educating their employees. On average, these corporations spend approximately one thousand dollars per employee each year.<sup>1</sup> As businesses struggle to stay on the cutting-edge and to keep their employees educated and up-to-speed with professional trends as well as ever-changing information needs, it is easy to see why corporations are investing more time and money than ever in their efforts to support their employees' professional development.

During the Industrial Age, companies strove to control natural resources. The more resources they controlled, the greater their competitive edge in the marketplace. Senge (1993) refers to this kind of organization as resource-based. In the Information Age, companies must create, disseminate, and effectively use knowledge within their organization in order to maintain their market share. Senge describes this kind of organization as knowledge-based. Given that knowledge-based organizations will continue to be a driving force behind the economy, it is imperative that corporations support the knowledge and information needs of their workers.

In the past, professional development has been discussed within the context of traditional learning;<sup>2</sup> however, traditional learning methods have been criticized for focusing on transmission of explicit knowledge (i.e., they are removed from the context in which knowledge learned is to be practically applied) (Brown, Collins, & Duguid, 1989; Brown & Duguid, 1991; Robey, Khoo, & Powers, 2000). As a result, administrators often fail to see the tangible impact, financial or otherwise, of traditional learning methods on their business because of the difficulties inherent in applying knowledge learned in a traditional classroom setting to the work environment (Smith, 2003).

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<sup>1</sup> According to the American Society for Training & Development's (ASTD) *2005 State of the Industry Report*, approximately \$955 was spent on each employee in 2004, up from \$820 in 2003.

<sup>2</sup> See e.g., Freeman & Aspray (1999), for an examination of factors involved in educating an IT workforce.

It is fortuitous then that educators have shifted their focus from an examination of how individuals learn to the impact of the environmental context on individual learners. Current research supports the assertion that, to be truly useful to an organization, learning must take place within an organizational context (Brown & Duguid, 1991; Lave & Wenger, 1991; Wenger, 1998). Consequently, a shift from traditional, codified training methods to a system of learning founded on the establishment of effective learning environments is imperative (Granger, Morbey, Lotherington, Owston, & Wideman, 2002). To help foster the design of such a system, this book calls attention to the importance of informal learning in the training of professionals.

In contrast to traditional knowledge transfer, corporate learning should emphasize the sharing of knowledge by capturing experiences, reusing them, creating new knowledge, and recognizing and solving workplace problems in a process-oriented, collaborative manner (Collins & Margaryan, 2004). Such learning can best be supported via the cultivation of communities of practice.

### ***1.1.1 ICT Use to Support Learning***

Since the 1990s, the development of various Information and Communication Technology (ICT) applications has enabled professionals to share ideas and information quickly and effectively. These ICTs include e-mail mailing lists, wikis, electronic bulletin boards, intranets, blogs, and new forms of groupware, such as web-conferencing systems. In educational communities, such systems are classified as e-learning or virtual learning environments, whereas in corporate settings they are often referred to as knowledge management systems.

Administrators of organizations, businesses, and professional associations are increasingly examining the potential of online communication networks that empower members with the ability to share knowledge and engage in ongoing workplace learning and professional development within an organizational context (Davenport & Prusak, 1998; Gray, 2004; Plaskoff, 2003). One important step forward in the study of knowledge sharing and professional development is the aforementioned notion of employing communities of practice, which has gained significant ground in recent years (Cox, 2005; Hung, Tan, Hedberg, & Koh, 2005; Smith, 2003), particularly in the corporate world (Ruhleder, Jordan, & Elmes, 1996; Wenger, McDermott, & Snyder, 2002; Wenger & Snyder, 2000).

### ***1.1.2 Communities of Practice***

Use of the term “community of practice” (Lave & Wenger, 1991) provides us with a lens by which we can focus our understanding of informal *collaborative* learning that occurs outside formal classrooms and training environments. The concept of communities of practice was developed by Lave and Wenger, but because the

definition of the term “communities of practice” varies from scholar to scholar (Cox, 2005), it is important to establish a precise definition: Communities of practice are collaborative, informal networks that support professional practitioners in their efforts to develop shared understandings and engage in work-relevant knowledge building.

A key component in our understanding of this concept is that a community of practice develops around a certain activity/profession, such as legal practice, medical practice, collaborative efforts of information technology professionals, librarianship, or teaching and instruction. In fact, a shared professional identity is the glue that binds the members of a community together (Wenger, 1998). It is the value system that helps to attract new members to a community and is often a crucial factor in their decision to commit. In past discussions of communities of practice, considerable attention has been paid to the role of informal learning (Johnson, 2001). This is because communities of practice provide environments for fostering informal learning; yet, relatively little attention has been paid to the process of identity formation. This is true especially in the business, information, and computer science fields where communities of practice are often considered an essential component of knowledge management strategies (e.g., Wenger et al., 2002; Wenger & Snyder, 2000).

Although the term “communities of practice” embodies the seemingly romantic image of individuals sharing knowledge with others, such sharing requires complex coordination. If we consider knowledge a resource held in common by an organization, individual workers are often faced with the question of whether or not, to what extent, and under what circumstances should they use, share, and ideally, contribute to this collective resource.

My interest in the concept of communities of practice is rooted in my experience as an instructional designer in a corporate university. After watching and talking with internal clients, I came to the realization that they seemed to be learning more while working with colleagues and using work-relevant skills and knowledge in context than they were when simply sitting in training courses. I was also fortunate to informally observe a group of engineers who had formed a community of practice after taking a less-than-effective training course. At that time, I had not yet been acquainted with the concepts of organizational learning and communities of practice; however, after I returned to graduate school, this topic became one of my major research interest areas.

At present, the concept of communities of practice has attracted considerable interest. Many organizations have attempted to “create” communities of practice within their organizations’ knowledge management practice. However, there is debate about whether we can simply create a community of practice. Originally, Lave and Wenger argued that communities of practice emerged, and that they were not something that could be artificially created (Lave & Wenger, 1991; Wenger, 1998). As the concept grew in popularity, some authors began to advocate for the intentional design of communities of practice, especially in electronic environments. Soon thereafter, Wenger et al. (2002) published *Cultivating Communities of Practice*, in which he and his co-authors argued that while communities of practice

cannot be “created” per se, communities of practice could be nurtured or cultivated. In doing so, Wenger moved away from a strict view of naturally emerging communities of practice to a view somewhat more in accord with writers advocating for the artificial creation of communities of practice.

In their book, Wenger et al. identified seven actions that could be taken in order to cultivate communities of practice: (1) a community should be designed so that it can evolve naturally; (2) opportunities for the establishment of an open dialogue between inside and outside perspectives should be established; (3) a community should allow for different levels of participation; (4) room for development of both public and private community spaces should be accommodated; (5) the focus of the community should be on the value of the community; (6) a combination of familiarity and excitement should be cultivated; (7) the community should establish a regular rhythm for the community. However, it should be emphasized that this description of traits is not intended as a guide for the creation of a community of practice from scratch. A community of practice is cultivated; it is not imposed upon an existing system.

Similarly, Plaskoff (2003) has suggested a means for fostering communities of practice based on his own experience in a large pharmaceutical company. He notes three concepts that must exist for the successful cultivation of a community of practice within an organization: believing, behaving, and belonging. Believing refers to the idea that members need to believe in the intrinsic value of a community. Behaving indicates that members develop and follow norms of a community. Belonging means that members nurture a sense of belonging within a community. In a personal conversation, Plaskoff mentioned that when he recruited new members of a community of practice, he began by asking questions of the members: What makes a community? Why do you *belong* to a certain community, e.g., a church and/or neighborhood? It was his hope that these types of questions would cause members to consider the three concepts mentioned above.

Several case studies (Schwen & Hara, 2004) indicate the problematic and unsustainable nature of designing communities of practice in a vacuum. Contu and Willmott (2003) have criticized the current trend of “operationalizing” communities of practice. It would seem that one cannot simply impose the concept of communities of practice on an existing professional organization, especially via the mere imposition of online communication tools, and expect a successful community of practice to emerge. Indeed, despite the enthusiasm of some scholars (e.g., Hildreth, 2004; Hung et al., 2005; Schlager, Fusco, & Schank, 1998), online communities of practice have a marked tendency to be hit or miss.

As one could expect, there are some cases of successful online communities of practice. For example, Gray (2004) describes how an online community among the coordinators of the Alberta Community Adult Learning Councils possesses the characteristics of face-to-face communities of practice. Gray highlights peripheral learning opportunities for newcomers, identity support, and the pivotal role a moderator plays in sustaining such a community. *Tapped In* is another widely known successful example of an online community of practice. It is designed to support the professional development of K-12 teachers and has grown from 1,000 members in 1997 to 11,000 in 2001 (Gray & Tatar, 2004).

While there have not been many critical empirical studies of online communities of practice, Kling and Courtright (2004) did analyze one not-quite-successful online community of practice. They identified two primary reasons for this: it was not designed to support the actual practice of the profession, and inadequate attention was paid to the way in which participants needed to develop trust in order to fruitfully share personal practice and knowledge. Schwen and Hara (2004) have cautioned that ICTs are not necessarily advantageous when attempting to nurture communities of practice, and their reviews of the literature show that online communities of practice generally should not be artificially designed. While serious interest in the concept exists, our understanding of the factors that lead to the emergence of successful (or unsuccessful) communities of practice is insufficient. What is needed is to understand more about existing communities of practice and the roles that ICTs play in the support of these communities.

## 1.2 The Fieldwork

Perhaps the study of communities of practice can take a cue from the field of ethnography. Ethnographers have a longstanding tradition of studying occupational communities (Orr, 1990; Van Maanen & Barley, 1984). As Heath (1981) states, “the goal of ethnography is to describe the ways of living of a social group, usually one in which there is in-group recognition by the members that they indeed must live and work together to retain group identity” (p. 105). Corporate ethnography (e.g., Orr, 1990), sometimes referred to as organizational folklore (Jones, 1991), is one area in which a concept similar to communities of practice is discussed. The focus of this field is on culture in informal or “non-canonical” (Brown & Duguid, 1991) forms of organization. Jones (1988) cites the criticisms of traditionally popular quantitative research in organizational studies and asserts that ethnography is a suitable method to study symbols, myths, and stories in organizations, and to capture the richness of the interaction among members in organizations. Smart (1998) also states that:

Interpretive ethnography, with its method of “reading” a community’s discourse, or system of symbolic forms, offers a researcher a unique way of examining and producing an account of the intellectual collaboration that allows a professional organization to generate and apply specialized written knowledge. (p. 114)

In addition, “articulation work” is a useful notion, which describes “the continuous efforts required in order to bring together discontinuous elements—of organizations, of professional practices, of technologies—into working configurations” (Suchman, 1996, p. 407).

The methodology of corporate ethnographies with attention to articulation work may provide insight for studies of communities of practice. Most organizational theorists focus on the top-down nature of organizational phenomena, whereas ethnographers focus on lower-level employees (Jones, 1991). These two approaches of research should complement each other.

In the present study, my aim was to develop a cohesive understanding of shared knowledge building in communities of practice and the role of ICTs that is informed by an ethnographical perspective.

### **1.3 The Plan of this Book**

As Brown and Duguid (1991) assert, significant learning and innovation arise via informal communities of practice developed in the workplace. This book will examine how people share and construct knowledge in an organization using information technologies such as groupware, e-mail, and online forums, which foster organizational learning, and will seek to discover how ideas are generated, how critical information is disseminated, and how cooperative action arises within organizations. Specifically, it will focus on the important role communities of practice play in the creation and dissemination of pertinent knowledge primarily in two Public Defender's Offices.

In the following chapters, Chapter 2 will expand the key concepts of communities of practice, situated cognition, knowledge sharing and organizational learning, and information communication technologies that appear in the existing literature. Chapter 3 will provide an ethnographic account of a community of practice in a Public Defender's Office in Square County, consisting of excerpts from observation vignettes, interviews, and document review data as well as interpretation and discussion of the data. Chapter 4 will discuss six themes emerged from the ethnographic study presented in Chapter 3. Chapter 5 will provide another ethnographic account of communities of practice in a Public Defender's Office in Circle County. The role of ICTs in supporting public defenders' practices is examined within the communities of practice. Chapter 6 will introduce online communities of practice that are beyond organizational boundaries. Finally, Chapter 7 will discuss cross-case analyses, the summary of the study, naturalistic generalization, future research opportunities, and implications of these studies.

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