

Preface

As commercial organisations face up to modern commercial pressures and react with measures such as downsizing and outsourcing, they have come to realise that they lose a lot of knowledge as people leave the organisation and take their knowledge with them. Further pressure is being placed on organisations by the increased internationalisation of business, resulting in collaboration and cooperation becoming more distributed and international. This means knowledge has to be increasingly shared across time and distance.

The loss of knowledge and the need to share knowledge across different locations has led to an increased awareness of its importance as a vital resource, and organisations are taking steps to manage it. Knowledge Management (KM) is an approach that claims to deal with this; however, a lot of Knowledge Management deals with structured knowledge and emphasises a “capture, codify, store” approach. This is a major weakness of the current approach to KM, as a large part of it appears to equate more with Information Management. It is only very recently that there has been recognition and exploration of the importance of more subtle types of knowledge that need to be shared. Sharing such knowledge in a distributed environment has received even less attention, and there is a need for new ways of thinking about how knowledge is shared in distributed groups.

This recognition of the importance of the more subtle kinds of knowledge has caused even more debate. Many terms have been coined to describe the different types of knowledge — structured/unstructured, formal/informal, know what/know how and, the one which that appears to be most popular, Nonaka’s (1991) explicit/tacit. They all, however, have the same approach and view different types of knowledge as opposites. An exception appears to be Leonard and Sensiper (1998) who prefer to view knowledge as a continuum, but even in this case the extremes (explicit at one end and tacit at the other) function as opposites.

These “less-structured” types of knowledge cannot easily be articulated and therefore cannot be as easily captured, codified, and stored. This poses further challenges as to how they should be shared. Currently, the main approach to this problem in KM appears to be to try to “convert” the less-structured knowledge into a form from which it can be captured, codified, and stored.

This approach would appear to be flawed in that it continues to fall into the same traps as existing KM approaches. Therefore, the approach described in this book moves away from regarding knowledge as made up of opposites, preferring to regard knowledge as a soft/hard duality where all knowledge is both soft and hard. It is simply the proportions that differ. This means that “converting” knowledge is an approach that cannot work, and another approach must be sought.

Lave and Wenger’s (1991) Communities of Practice (CoPs) are identified as providing an environment that supports the sharing of the softer kinds of knowledge. Since Lave and Wenger introduced the term in 1991, CoPs have received a lot of attention and are currently the subject of much research and interest in both academia and commercial organisations. Initially a theory of learning, they are now firmly established as an organisational form in the commercial environment. They cannot be created or managed, as they are driven by an internal motivation and common purpose. Organisations that recognise their importance, look for them (as they are often unofficial and outside the formal structure of the company) and try to support, facilitate, and coach them as they evolve.

To date, CoPs have generally been co-located and studies of CoPs have taken place in co-located environments, but the pressures of globalisation are leading to an increasing need to share knowledge in a physically distributed environment. It is therefore important to explore how CoPs might function in such an environment and that is the subject of this book.

The book is organised in two parts:

The first sets the context for the book. It is an exploration of KM to date that explains the weaknesses of current KM approaches and introduces the notion of the soft/hard knowledge duality. The softer side of knowledge is examined from the point of view of three different approaches to knowledge at work:

- Common Ground (Clark, 1996);
- The theory of Distributed Cognition (Hutchins, 1995), and Boundary Objects (Star, 1989); and

- Communities of Practice (CoPs), which are identified as groups in which soft knowledge is created, sustained, and nurtured.

The second part is an in-depth study of the interactions and work of a distributed international CoP that has members in the UK, the US, and Japan. It covers electronic communication, face-to-face meetings, the problems experienced by the community, and how the members solve those problems. The method used to investigate the interactions of this CoP proved to be very useful for CoP work, and it is therefore described in some detail in the Appendices.

This book is presented in eight chapters to:

- discuss in detail the context of the subject;
- present the study of the CoP; and
- discuss the issues arising from the study and the implications for KM researchers and practitioners.

In Chapter I, we note that the pressures of downsizing, outsourcing, and globalisation have all contributed to the importance of knowledge and its recognition as an organisational resource. We also observe that, as a resource, knowledge needs to be managed. Knowledge Management is introduced as a field that is claimed to address this issue.

In Chapter II, we explore KM in greater detail. The notion of knowledge as a resource is taken further with a review of KM approaches that, up until recently, have tended to concentrate on the historical aspect, that is, sharing knowledge in a temporally distributed environment. We examine KM views of knowledge and see that there is a shift to recognising the importance of less structured knowledge that is difficult to abstract and capture. In this chapter, we make the distinction between “soft” and “hard” knowledge and argue that KM has gone through phases, managing hard knowledge by codifying and storing in order to share it, but that the present emphasis is on the sharing of soft knowledge. We raise the question as to what would be involved in sharing soft knowledge in a physically distributed environment.

Chapter III continues from Chapter II and further explores soft knowledge from three different perspectives, Common Ground (Clark, 1996), Distributed Cognition (Hutchins, 1995) including boundary objects (Star, 1989), and CoPs (Lave & Wenger, 1991). CoPs are identified as groups where soft knowledge is created, sustained, and nurtured. Different views of CoPs are taken and synthesised into a single view. We explore Wenger’s (1998) recent work on CoPs to bring the notion of CoPs up-to-date. We note, however,

that CoPs are regarded as an essentially co-located phenomenon, and therefore the problem facing the sharing of soft knowledge is how to facilitate their functioning in a distributed international environment.

In Chapter IV, we explore virtual teams and communities in order to highlight the issues that would face a CoP that has to operate in a distributed environment.

The study of the CoP itself is divided into two stages. The first is presented in Chapter V. We are introduced to the members of the community and spend a few days in the life of the community, covering interactions within the UK group, communication with the US side of the CoP, meetings, and media. We explore some initial insights from the first stage of the study and describe them in terms of the CoP characteristics and issues that are outlined in Chapter III. This helps us prepare for our participation in Stage Two.

In Stage Two of the Case Study, we travel with the UK members of the CoP to America and participate in one of their regular visits. This is covered in Chapter VI and covers their meetings, social events, collaboration, and planning. We also look at the issues and insights that arise from our time spent with the CoP in America.

In the case study, we have a detailed and interesting insight into the interactions and working of a distributed international CoP, but this is only one CoP. In Chapter VII, we talk to members of two other distributed international CoPs to see if what we have learned is true in other CoPs. The CoPs in this case are different from the main CoP in that the practice of the communities was extra to their normal work.

In Chapter VIII, we pull all the insights together in order to look at the lessons we have learned from the Case Study and to provide some answers to the questions and issues that were posed in Chapters III and IV. Key issues that are drawn out are the importance of both shared artefacts and the development of a strong relationship between the CoP members, often created in a face-to-face setting.

The method used for studying the CoP was an adaptation of the Contextual Design method (Beyer & Holtzblatt, 1998). It is a work analysis and redesign method, broadly ethnographic in approach, and it proved very useful for obtaining a detailed insight into the inner workings of a CoP. As it proved so useful in this area, a description and evaluation of the method is included in the appendices.

I hope that through the exploration of the CoP in the case study the issues that arise and the lessons that we learn will be of use to both academics and practitioners working in the field of CoPs. It raises the questions as to how CoPs and associated social issues should be managed, and demonstrates

that it is essentially a human activity at the level of practice. The understanding that arises from the case studies should help practitioners be aware of problems and issues that are involved in supporting CoPs (especially those in a distributed environment). More importantly, it demonstrates that practitioners need to change their views of the organisation during the planning and implementation of KM projects. For example, practitioners need to explore where the social relationships are and how they can be supported rather than looking at the organisation in terms of where the information is and how it flows. Instead of simply looking for information flow and storage (the “hard” approach of capture/codify/store), it is essential to also consider and explore the social networks in the organisation (the “soft” side of the duality).

REFERENCES

- Beyer, H. & Holtzblatt, K. (1998). *Contextual design*. San Francisco, CA: Morgan Kaufmann.
- Clark, H. (1996). *Using language*. Cambridge, UK: Cambridge University Press.
- Hutchins, E. (1995). *Cognition in the wild*. Cambridge, MA: MIT Press.
- Lave, J. & Wenger, E. (1991) *Situated learning. Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.
- Leonard, D. & Sensiper, S. (1998). The role of tacit knowledge in group innovation. *California Management Review*, 40(3): 12-132.
- Nonaka, I. (1991). The knowledge creating company. *Harvard Business Review*, (November/December): 96-104.
- Star, S. L. (1989). The structure of ill-structured solutions: Boundary objects and heterogeneous distributed problem solving. *Distributed Artificial Intelligence*, 2: 37-54.
- Wenger, E. (1998). *Communities of practice. Learning, meaning and identity*. Cambridge, UK: Cambridge University Press.