
Preface

This book has been written to address a paradoxical situation surrounding the role of technology in knowledge management. At one extreme on the spectrum of views found in the literature are authors who see technology as a key to knowledge management. At the other end are authors who see technology as a peripheral issue compared to social and organisational ones.

This book adopts a dialectical perspective that sees knowledge management as a socio-technological phenomenon. Accordingly, it takes, as its starting point, a view that technology does have some role to play in knowledge management, but does not imply that it is the single most or least important aspect of it. Rather, the goal is to provide much needed empirical evidence regarding the “true” potential and limitations of technology for managing knowledge in organisations.

Many authors suggest that technology is attractive to organisations because the rapid pace of technological advance always promises something new and “leading edge” to be exploited. This book identifies and presents a number of novel and traditional technologies and situations in which these technologies can help to improve processes of creation, sharing, retention and discovery of knowledge, and thus performance.

The book is organised as a structured compilation of articles founded on the most recent research and experience in the field of knowledge management. It brings together diverse information and communication technologies and systems currently seen in knowledge management

research and practice in a logical sequence incorporating the most important and representative examples into an integrated framework.

Part I of the book provides justification for knowledge management and sets the scene for the rest of the book. It begins with Chapter 1 that describes the rise of knowledge management and presents an underlying theoretical framework for the book. In Chapter 2, this framework is used to categorise ICT into technologies that support storing, finding, sharing and generating knowledge.

The four chapters in Part II examine a variety of “codification” orientated systems and technologies that support knowledge storing and finding. The first two articles are concerned with knowledge repositories. In Chapter 3 the focus is on the benefits of web based memory and unstructured knowledge records for societies, while Chapter 4 examines the effectiveness of structured data stores in enhancing organisational decision-making. The next two articles examine processes of finding and representing knowledge for human interpretation. Chapter 5 discusses the use of knowledge mapping as an effective tool for finding needed knowledge, while Chapter 6 addresses the question of discovering hidden association patterns embedded in codified data.

Part III of the book is devoted to “personalisation” orientated systems and technologies. The first two chapters examine the role of technology in stimulating new knowledge development. Chapter 7 focuses on innovative technology that supports creative idea generation, while Chapter 8 compares the effectiveness of guidance and feedback mentoring systems in learning. The next two articles are devoted to knowledge sharing support. In Chapter 9 the emphasis is on major facilitating/inhibiting factors that influence user acceptance of knowledge sharing technology in an organisation. The last Chapter 10 examines the virtual reality models as visualisation tools for social network analysis.

While the previous three parts of the book address mainly individual systems and technologies, Part IV is devoted to integrated solutions. The next three chapters illustrate examples of complete knowledge management solutions based solely on technology. Chapter 11 evaluates a virtual knowledge/learning space from the student users’ perspective; Chapter 12 highlights the characteristics and value of a simulation game

approach to knowledge management research; and Chapter 13 describes a portal designed to support a global community of practice. In contrast, Chapter 14 examines people's perceptions of the importance and their satisfaction with technology in comparison with social aspects of the total knowledge management system.

The final, Part V of the book addresses major issues and challenges facing knowledge management. Chapter 15 deals with a practical method for implementing knowledge management in organisations. The last Chapter 16, as is appropriate, looks at the future of knowledge management. In this chapter the focus is on the emerging trends involving the use of intelligent systems and the merging of knowledge management with e-commerce.

This book represents a small but important step in helping individuals and organisations to get an objective picture of the role of technology in knowledge management based on formal and sound empirical research. More importantly, the book shows that the impact of various systems and technologies is highly contingent upon the context in which the knowledge is generated, transferred and used. This may help managers to choose more suitable technological solutions to enhance and exploit their organisational knowledge.