



Chapter 27

Supporting Organizational Knowledge Management with Agents

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Organizations are looking at ways to manage their information resources. Both the capture and the use of data created by the organization have come under scrutiny. Part of the concern comes from their desire to enhance the business process and part comes from the explosion of data available to any organization. In this context, the role of committees is being examined both as consumers and producers of information. The present work is focused on making the vast amount of unstructured text more useful to committees. An agent environment has been designed and implemented.

INTRODUCTION

Knowledge is rapidly becoming a key organizational resource and determinant of organizational performance and competitiveness. Consequently, knowledge management is a process that organizations employ to improve performance. Knowledge management, however, is best described as a concept that explains how information is transformed into actionable knowledge and made available to users. Knowledge management enables businesses to avoid repeating past mistakes, to assure the reuse of best practices, and draw on the collective wisdom of its employees past and present. Knowledge management thus relies on gathering,

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organizing, refining, and disseminating information and knowledge. Knowledge is often embedded in an organization in the form of experiences or memory.

Recent developments in information processing technologies have enhanced our abilities in building knowledge management systems. Knowledge is organized through searching, filtering, cataloging, and linking of information collected from a variety of sources and media. Information is refined in multiple ways and disseminated to recipients as reports, analyses, etc. While many vendors sell products meeting one or more features ascribed above, the lack of ability to apply many of these and other related technologies to complex knowledge such as that contained in prior decisions (including the decision making process) and other forms of organizational knowledge is a problem. In this paper we present a model for organizational knowledge management and discuss through the example of committee memory the integration of different technologies. We also present the design and development of the knowledge management system.

Organizational Memory

Organizational memory has been described to refer to corporate knowledge that is representing prior experiences and are saved and shared by users. It may be used to support decision making in multiple task and multiple user environments. The concept encompasses technical, functional, and social aspects of the work, the worker, and the workplace (Durstewitz, 1994). Organizational memory includes stored records (e.g., corporate manuals, databases, filing systems, etc.) (Ackerman, 1996) and tacit knowledge (e.g., experience, intuition, beliefs) (Nonaka and Takeuchi, 1995a, 1995b). Walsh and Ungson (1991) refer to organizational memory as stored information from an organization's history that can be brought to bear on present decisions. By their definition, organizational memory provides information that reduces transaction costs, contributes to effective and efficient decision-making, and is a basis for power within organizations. Researchers and practitioners recognize organizational memory as an important factor in the success of an organization's operations and its responsiveness to the changes and challenges of its environment (e.g., Stein, 1995; Chen et. al., 1994; Huber, 1991, Angus, Patel and Harty, 1998).

Information technologies (IT) contribute to the possibility of automated organizational knowledge management systems in two ways, either by making recorded knowledge retrievable or by making individuals with knowledge accessible (Ackerman, 1996). An organization's knowledge, explicitly dispersed through a variety of retention facilities (e.g., network servers, distributed databases, Intranets, etc.) can make the knowledge more accessible to its members. Stein and Zwass (1995) suggest that an extensive record of processes ("through what sequence of events?"), rationale ("why?"), context ("under what circumstances?"),

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