INTRODUCTION

Many of the knowledge management systems, such as the ones described in this entry, were originally computer information systems to which were added knowledge expertise that complemented the information and data communicated. As use of the Internet expanded and intranets within companies were developed, many new knowledge expertise exchange systems were established. As seen in the following discussions, many knowledge systems are therefore mixed, that is, integrated with traditional information and decision support systems, as at the consulting firm, while many, such as Xerox’s, focus specifically on expertise knowledge storage and transfer and so can be designated focused knowledge management systems. Expert knowledge-based systems generally are pure knowledge systems (Mockler, 1992; Mockler & Dologite, 1992).

BACKGROUND

Narrowly defined, knowledge refers to practical skills or expertise gained from actual experience. In practice, however, knowledge management generally refers to the process of identifying and generating, systematically gathering, organizing and providing access to, and putting to use anything and everything that might be useful to know when performing some specified business activity. The knowledge management process is designed to increase profitability and competitive advantage in the marketplace.

As seen in the Key Terms section at the end of this article, since the knowledge management process involves keeping informed about and getting to know anything useful to doing a business task, the process can encompass data, information, and knowledge. Further, the knowledge management process can involve employing any useful and
practical means of communication and storage, manual or electronic. Useful manual means might include: service manuals; professional publications; personal correspondence and conversations; special studies and reports; client correspondence and summaries; competitor role-playing; sales force feedback; current news; supplier feedback; and the like. Useful computer-based electronic technologies might include: e-mail; hierarchical, network, and relational databases and data warehouses; group decision support systems; Lotus Notes; intranets and Internet Web sites; browsers and search engines; expert and knowledge-based systems; and the like.

Because of the wide range of concepts and activities involved, the term knowledge management can more easily be understood by examples. Figure 1 outlines the knowledge management system (KMS) at a large consulting firm (Engoron, 1998).

The strategic focus is the individual consultant who needs access to data, information, and knowledge in order to do his/her job. Since consulting is its business, the system is strategic. The system provides this access in large part electronically.

At the top of Figure 1 is a large computer database of information about clients, covering past assignments, consultants who worked on the assigned projects, outcomes, organized data on the company involved, and contacts who can provide further information. On the right, there is a system incorporating expert knowledge-based systems that scans news media and library resources daily and daily directs relevant intelligence material to different consultants. On the left is a database of consultants’ expertise or knowledge including that acquired from experience during past assignments. This includes written summaries of what was learned from the assignments, videos in which consultants describe the highlights of their experiences or general knowledge, and contingent best practices guidelines in different areas (such as strategic alliances, all marketing and production areas, human resources management, and the like). At the bottom, there is available a bank of online training programs, which a consultant can make use of (privately) to sharpen skills needed to improve job performance.

On any given day that a consultant receives a new assignment, he/she could immediately review current relevant information in the media (intelligence) about the client and project area, gather information quickly about the client and past assignments involving the client, review the related knowledge expertise of other consultants, and brush up on needed skills. At the same time, the consultant would make use of any relevant personal knowledge sources. The system is a good

Figure 1. Knowledge management system at a major consulting firm