Chapter XVI
Selecting the Right Knowledge Management Tools:
Software Trends and Key Evaluation Criteria

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ABSTRACT

In this chapter, we update earlier research on the state of the art Knowledge Management (KM) tools and present key evaluation criteria that can be used by organizations to select the applications that best meet their specific KM needs. We briefly describe tools currently available in the software industry to support different aspects of knowledge management and offer a framework for understanding how these tools are clustered based on the functionality they support.
BACKGROUND: KNOWLEDGE MANAGEMENT (KM) TOOLS REQUIREMENTS

Information systems have continued to evolve and change their role to better respond to the needs of organizations. Until recently, organizations have used information technology to support information management (Ruiz-Mercader, Merono-Cerdan, & Sabater-Sanchez, 2006), (Schultze & Leidner, 2002). Therefore, organizational systems have been information-bound and information-centric. Today, we have a better understanding that for information to be effectively used by individuals, information systems need to be more people-centric and support specific individual needs. KM places people at the center. The key difference between information and knowledge management is the role played by the individual actors (Davenport, Jarvenpaa, & Beers, 1996); (Adamides & Karacapilidis, 2006); (Frank & Gardoni, 2005). While information management focuses on the information infrastructure (Janev & Vranes, 2005); (Ruiz-Mercader et al., 2006); knowledge management focuses on people and their role in the organization.

Within the above premises, knowledge management tools will focus on facilitating individual learning, use and contextualization of organizational knowledge embedded in people and documents (Alavi & Leidner, 2001). This leads to at least four key functional requirements for KM tools: 1) facilitate information contextualization; 2) intelligently transfer information; 3) facilitate social interactions and networking; 4) present a customized human-computer interface that meets user needs. We have discussed these functional requirements in earlier research (Balmisse, Meingan D., & Passerini, 2007).

KM TOOLS CLASSIFICATION

KM applications need to be designed to sustain knowledge management implementations within organizations. This includes the process of managing existing knowledge and supporting the creation of new knowledge. This process is embedded and thrives on information that is transferred from individuals to groups with a continuous transformation of information into knowledge through contextualization and knowledge-discovery. Figure 1 presents roles and actors linked to knowledge management tools in enterprises, and highlights their functions.

KM tools support the management of existing knowledge and new knowledge creation by individuals and groups by focusing on:

Management of explicit knowledge [EKM] with a specific focus on the compilation, organization, replenishment, and use of the knowledge base. Compilation and capture of knowledge include facilitating the creation and publication of information in shared areas. Organization requires structuring information based on specific taxonomies and ontology that facilitate document mapping. Replenishment and use (and re-use) can be supported by providing users with tools to add comments on how the information was used and contribute to future uses.

Knowledge discovery [KD] through the uncovering of unexploited information stored in large databases. This include text analysis and mining; knowledge extraction and automatic classification and visualization of patterns; and use of semantic mapping to link documents.

Expertise management [EM] tools to link people and facilitate knowledge exchanges within the enterprise. These tools go well beyond smoothing the progress of finding the right resources (as in employees’ directories) because