6 types of KNOWLEDGE MANAGEMENT (KM) SOFTWARE TOOLS:

1. Intranet-Based Systems

Intranets are private networks.

Intranet is an environment that may facilitate the sharing of dynamical and linked information. The communication in it is usually passive because the user has to pull the information. This "pull style" is an alternative to the information overload generated by e-mails. Intranets, in their actual configuration, emphasize internal information, and are constructing important links among organizations and their employees.

Intranet is an appropriate tool to systematize and add the explicit knowledge that is dispersed through departments. Intranet hypertext structure helps this process because the navigation through links can create a new organization of concepts.

Microsoft Internet Information Server is an example of software that can be used for intranet applications.

2. Electronic Document Management (EDM)

Electronic Document Management (EDM) systems are repositories of important corporate documents. EDM systems are presented as explicit knowledge stores. In some organizations, document management can be the initial step to further KM.

EDM systems contribute to the organization of the vast amount of documents generated by office activities. EDM systems provide a more efficient retrieval, better security and version control of documents. EDM systems have many features, like cataloging and indexing, that were inherited from the traditional information retrieval systems, which are studied in the field of Library Science.

Content Management tools is another name for EDM systems. Content Management tools manage contents, no matter the media documents are available in: fax, e-mails, HTML forms, computer reports, paper, video, audio or spreadsheets.

Excalibur RetrievalWare and File Net are examples of EDM systems.

3. Groupware

Groupware is described as the type of software that is designed to help teams that are geographically dispersed and need to work together. CSCW (Computer Supported Cooperative Work) is the new branch of Computer Science dedicated to the study of groupware technologies.
Groupware systems have a “push style” where information is sent to the user. Groupware is a mix of synchronous (like chat), asynchronous (like e-mail) and community-focused tools (like e-groups). Informal communication predominates in a groupware environment. People feel free to exchange opinions and collaborate.

Discussion groups and chats are common groupware applications that make possible the gradual articulation of tacit knowledge. In some cases, we can even expect that socialization occurs, as people work together on the same projects.

Microsoft Exchange and Lotus Notes belong to this KM software category.

4. Knowledge Map Systems

The software in this category were specifically designed for Knowledge Management. Knowledge maps work like yellow-pages that contain a "who knows what" list. A knowledge map does not store knowledge. The map just points to people who own it, creating opportunities for knowledge exchange.

A standard knowledge map is fed with the profile of competencies of the members of an organization. The knowledge map provides an expert locator feature that helps users to find the experts best suited to work on a specific problem or project. A knowledge map categorizes an organization’s expertise into searchable catalogs. Using a knowledge map, it is easier to identify people in terms of who they know, what they know and how proficient they are at a given task.

Lotus Discovery Server and Trivium Gingo are examples of such systems.

Gingo allows the construction of knowledge trees that represent the organization’s human resources potential and give a dynamic vision of available competences. A knowledge tree is a visual representation of a knowledge map and can be a quite useful tool to measure the human capital. Human resources specialists use knowledge trees to match existing competences with strategic targets and to identify what kinds of know-how, essential for growth, are currently available.

5. Innovation support tools

Innovation support tools are software that contribute to knowledge generation along the product design process. These tools intend to create a virtual environment that stimulates the multiplication of insights and are especially used in industrial R&D (Research and Development).

An innovation support tool may include different features:
• technical database where patents, articles and research projects are recorded. By using this kind of tool, an R&D professional tries to acquire existing knowledge in order to apply it to a new context (combination). For example, a new type of plastic used in the aircraft industry can be adapted or adopted for medical use. This category may include digital specialized libraries;

• graphic simulation features, which can facilitate internalization. Internalization is the process that enriches explicit knowledge, adding to it tacit knowledge, most frequently through usage and experience, but also through simulation;

• combinatory tools, which help to consider unusual possibilities in the design of innovations, supporting the creativity process.

Tech Optimizer, a package made by Invention Machine, is an example of an innovation support tool.

6. Competitive intelligence tools

Competitive intelligence (CI) aims at systematically feeding the organizational decision process with information about the organizational environment in order to make possible to learn about it and to take better decisions in consequence. CI depends heavily on the collection and analysis of qualitative information.

The CI cycle is described in five steps:

1) Planning and direction: this step is related to the identification of questions and decisions that will drive the information gathering phase.

2) Published information collection: search of a wide range of sources, from government filings to journal articles, vendor brochures and advertisements.

3) Primary source collection: this step is related to the importance of gathering information from people rather than from published sources.

4) Analysis and production: transformation of the collected data into meaningful assessment.

5) Report and inform: delivery of critical intelligence in a coherent and convincing manner to corporate decision makers.

The CI software offered on the market, has been evaluated, and it has been concluded that they offer better support to the second and fifth steps of the CI cycle. The other steps are very human-based and are only slightly benefited by technology.

On the second step, software agents perform the automatic collection of timely information from news feeds and search the Internet and corporate intranets for information from Web
sites and internal documents. On the fifth step, CI tools accelerates the dissemination of reports by sending e-mails reports according to users’ preferences.

dissemination, so it is disseminated in an adequate format to facilitate combination.

VigiPro, a software developed by CRIQ (Centre de Recherche Industrielle du Québec) and commercialized by CGI, and Knowledge Works, from Cipher Systems, are examples of this class of software.

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