Knowledge management – not rocket science

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Abstract

Purpose - To provide a broad understanding of knowledge management and how to successfully implement knowledge management.

Design/methodology/approach - Using a wide range of technical, business and knowledge management-specific sources to explain the value and importance of knowledge management and the relative simplicity of the concept, the paper is divided into sections providing a definition of KM, how KM relates to technology, an overview of double-loop learning, six steps to successful KM (plus one), and successful KM examples.

Findings - Provides a thorough overview of KM and its building-blocks, as well as providing examples that incorporate various degrees of technology.

Originality/value - This paper provides a unique view of knowledge management success by maintaining a totally agnostic approach and focusing on principles that will provide success regardless of technology or budget.

Keywords Knowledge management, Technology led strategy

Paper type General review

ince 1987, when Peter Senge took 15 years of research carried out at the Sloan School of Management at MIT and defined learning organizations, the corporate world has been making strides to better manage its knowledge. Knowledge management is one of the fastest growing areas of corporate spending. The June 2000 issue of CIO Magazine estimates that "worldwide spending for KM services-including consulting, implementation, operations, support and training-will grow from \$776 million in 1998 to \$10 billion by 2004" (CIO Magazine, 2000).

Intellectual assets account "for more than 78 percent of the total value of the S&P 500. That percent stood at just 66 percent three years earlier ... 80 percent of the gross domestic product and private non-farm employment is the services sector, where much of the output is knowledge-based" (Darwin Magazine, 2001). Promoting the effective sharing and transfer of these intellectual assets is the centerpiece of knowledge management.

"An InformationWeek survey indicated that 94 percent of companies considered knowledge management to be strategically important to their business" (Kleindl, 2003) yet it is "reported that at least half of all KM initiatives fail; some peg the failure rate as high as 70 percent" (Rossett, 2002).

The failure rate for knowledge management projects is so high that some organizations have begun re-branding their knowledge management initiatives as "Best practices" or "Benchmarks", simply to avoid applying the "Knowledge management" moniker to a project. How can so many companies fail at something that is obviously so important to them? After all "this is not rocket science ... its good sense and managerial basics" (Harvard Business School Press, 1998).

Perhaps these companies do not have a clear understanding of what knowledge management entails, or how to go about managing the knowledge, or intellectual capital, within their organizations. Perhaps the very definition of knowledge management leads them astray.

As Bill Gates points out:

... knowledge management has become infused with almost any meaning somebody wants to associate with it ... If reporters talk to a database company, they find that knowledge management is the newest thing in databases. If reporters talk to a groupware company, they find that knowledge management means the next generation of groupware (Gates, 1999).

Knowledge management

So what is knowledge management? IBM and Lotus used this definition of knowledge management when developing their entry into the knowledge management arena: "a discipline that systematically leverages content and expertise to provide innovation, responsiveness, competency, and efficiency" (Pohs, 2001). While Microsoft prefers to state that "Knowledge management is nothing more than managing information flow; getting the right information to the people who need it so they can act on it quickly" (Gates, 1999). The American National Standards Institute proposes to define knowledge management as "the production, mediation, and use of knowledge; the management of intellectual capital" (ANSI/GKEC, 2001). Peter Drucker brings us a more concise definition: "the coordination and exploitation of organizations knowledge resources, in order to create benefit and competitive advantage" (Perseus Publishing, 2002).

Yet none of these definitions are completely accurate, nor are they completely inaccurate. The definition of knowledge management changes from company to company, even from initiative to initiative. To understand the basis of knowledge management we must agree on at least a broad definition of knowledge.

Typically, knowledge is defined as "the fact or condition of knowing something with familiarity gained through experience or association" (Merriam Webster, 1996). While this definition could be applied for individual knowledge, it lacks something when applied to knowledge management. It is impossible to manage associations or experiences.

For knowledge management the better definition comes from Professor John R. Searle:

The word "know" derives from the Latin noscere, also meaning "to know" ... The suffix "ledge," may have originally meant "process" or "action" (Senge et al., 1999).

Knowing this knowledge can be defined as "the capacity for effective action" (Senge et al., 1999). Successful knowledge management gives you access to the information you need to do your job, better than you did in the past. Knowledge management does not provide you with the answer to your problem rather it facilitates the learning of the answer.

This is an important aspect to understand. Knowledge is something everyone seeks. Every day members of an organization are faced with new problems, and opportunities for improvement. As Thomas Davenport points out:

People search for knowledge because they expect it to help them exceed in their work. Knowledge is the most sought after remedy to uncertainty (Davenport and Prusak, 2000).

Every day members of an organization use what they learn from the knowledge that is available to them to take advantage of the opportunities and solve the problems they face. Knowledge management facilitates this by bringing "order to the chaos of infoglut" with powerful organizational, search and retrieval technologies that enable employees to find and focus on business" (Darwin Magazine, 2001).

Knowledge management and technology

"The biggest misconception that IT leaders make is that knowledge management is about technology", says Shir Nir, managing partner at Knowledge Transformation Partners (KTP), a KM consultancy based in New York City. "Usually people begin a KM project by focusing on the technology needs, whether they want a database or a portal. But the key is people and process' (Kaplan, 2002). "Technology is only a small part of what's overwhelmingly a cultural endeavor" (Berkman, 2001, p. 2). Companies that are successfully doing knowledge management understand that "knowledge management is not intended to ever stand out there on its own ... Knowledge management is here to help us do what we do better. It is there to connect information and people, and people and people" (Chatzkel, 2002):

Knowledge cannot, by definition, be converted into an object and "given" from one person to another ... Information technology, while critical for enabling the spread of information, cannot capture and store knowledge. Only people can do that (Senge et al., 1999).

It is important to realize that knowledge management is less of a technical problem, and more of a cultural problem. Technology can assist a well-established knowledge management initiative, but knowledge management will not succeed based solely on technology.

Too much information technology can actually doom a knowledge management effort. Tom Rossi, director of the Innovation Lab at the Naval War College and his team "put together a KM system that integrated a collaborative software suite, a naval war games software tool and Microsoft Exchange's Conferencing Server for internet video and chat capabilities ..." (Kaplan, 2002). Yet when put to the test "... the technology bogged down. We had gadgets and tools, but . . . it became clear that we'd given them too much IT", Rossi says. "By the time we brought them up to speed on the new tools, the game was well underway and they got frustrated fast" (Kaplan, 2002).

The Army's Training and Doctrine command is learning that same lesson. The TRADOC Knowledge Network is an IBM/Lotus based knowledge management system. It combines five Domino servers running QuickPlace (for collaborative team rooms), Sametime (for chat and online meetings), Domino.Doc (for document management), Lotus Workflow (for document routing) and Discovery Server (for portal and search services). Most of Lotus' software library is being used to facilitate knowledge management.

After two years of effort, and having registered over 1,000 users, the number of active unique users typically tops out at 30. The system is overpowered and under-utilized, overly complex and cumbersome. All of the systems were delivered simultaneously and have overwhelmed the users.

Both of these efforts attempted to make the users utilize technology with little or no thought to the way the technology would affect the users. Both buried users in cool gadgets and technologies, rather than providing an easy to use system that fit how the users worked.

In the case of TRADOC and TKN (the TRADOC Knowledge Network), users were bullied into changing the way they did business, they were expected to change to fit the technology rather than having the technology fit the way they do business. As a result most users registered for accounts as required, and ignored the system after that.

In both examples no thought was given to getting the users to learn, or how the users that were willing actually went about learning.

Learning

Chris Argyris of the Harvard Business School argues:

The common assumption is that getting people to learn is largely a matter of motivation ... But effective . . . learning is not simply a function of how people feel. It is a reflection of how they think - that is, the cognitive rules or reasoning they use to design and implement their actions (Harvard Business School Press, 1998).

Every action a person undertakes is accomplished based on the prior learning of that person. It is the prior learning that allows two individuals to accomplish the same task in radically different ways.

Chris Argyris states "learning involves the detection and correction of error" (Smith, 2002a). Typical organizations deploy single loop learning. "When the error detected and corrected permits the organization to carry on its present policies or achieve its present objectives, then that error-and-correction process is single-loop learning." (Smith, 2002a). This type of learning changes nothing of the process the organization uses, and is therefore counter productive.

As an example let us look at a gasket company for the big three automotive firms. This company makes rubber gaskets and has done so for many years. However the new model gasket has excess rubber that needs to be trimmed, so they hire an employee or designate one, to trim the excess rubber before shipping. The problem is corrected, but the process and policies that made the faulty gasket are not. This is single loop learning.

A knowledge management company moves from single loop learning into what is known as double-loop learning. "Double-loop learning occurs when error is detected and corrected in ways that involve the modification of an organization's underlying norms, policies and objectives" (Smith, 2002a) (see Figure 1).

Donald Schon states that an organization is:

... an internal learning system in which the system's interactions ... must now become a matter of directed transformation of the whole system ... The business firm, representing the whole functional system, must now learn to effect the transformation and diffusion of the system as a whole" (Smith, 2002b).

Using our same gasket company as an example for double-loop learning, we find that rather than hiring a person to trim the excess rubber, they adjust the process used in making the gaskets. This change also affects the engineering of the gaskets, and the supplies used. The change slowly affects the entire company from manufacturing and engineering to marketing and supply. Eventually a new compound is formulated based on the findings; this compound saves the company money and allows them to expand into new technology. This is double-loop learning.

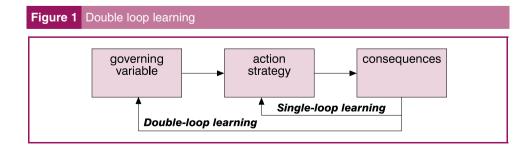
If double-loop learning is to take place, "managers and employees must also look inward. They need to reflect critically on their own behavior, identify the ways they often inadvertently contribute to the organization's problems, and change how they act. In particular they must learn how the very way they go about defining and solving problems can be the source of problems in its own right" (Harvard Business School Press, 1998).

Effective knowledge management changes the way organizations and individuals function. It changes the way individuals go about their daily tasks, and this correlates to changes in the organization's values and beliefs. In a sense it helps avoid what Sun Tzu refers to as the "high-level dumb", or "acting without full knowledge of the situation" (Michaelson, 2001). Knowledge management allows users to utilize all of the organizations collected knowledge before making a decision. By applying knowledge management processes to the problems facing their organization, leaders can see and learn more about the problem than ever before. Knowledge management can provide new insights into a problem as well; allowing it to be solved in a way never before thought of.

Six steps for successful knowledge management plus one

Kiri Nesbitt defines six steps for creating a knowledge management system. These six steps are (Nesbitt, 2002):

- 1. Define the business goals the KM system will address.
- 2. Perform a knowledge audit to identify any duplication, gaps, and overlaps in an organization's knowledge base.
- 3. Create a visual map which describes units of knowledge and the relationships between them.



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- 4. Develop a KM strategy based on the content management, integration, search mechanisms, information delivery, and collaboration.
- 5. Purchase or build appropriate tools for capturing, analyzing, categorizing and distributing knowledge.
- 6. Periodically re-asses the value of the KM system and make necessary adjustments.

Step 1

Every organization houses valuable intellectual materials in the form of assets and resources. tacit and explicit perspectives and capabilities, data information, knowledge, and maybe wisdom (Stewart, 2001).

All of these need to be managed and leveraged for the good of the organization, but not all at once.

Peter Drucker states:

... organizations ... require clear, simple, common objectives that translate into particular actions (Harvard Business School Press, 1998).

Ikujiro Nonaka believes that knowledge managers should "orient this chaos towards purposeful knowledge creation" (Harvard Business School Press, 1998). Learning from both we see that we need clear, simple, common objectives that orient towards purposeful knowledge creation.

Knowledge management systems should capture high value information that relates to a specific task or a "recognized business problem that relates to knowledge ... Attacking these problems, identifying their knowledge component, and using the business value of solving them as justification for knowledge efforts are all good ways to get around in managing knowledge" (Davenport and Prusak, 2000):

Simply putting your paper documents on-line will weaken your terminological currency, and should you later decide to put some real knowledge into this repository, no one will notice (Davenport and Prusak, 2000).

Any information that does not pertain or relate to the system's established goal becomes noise and detracts from the system.

Step 2

Much of the interest in knowledge management "arises when firms realize that they do not know where to find their own existing knowledge" (Davenport and Prusak, 2000). A knowledge audit should "inventory the way people and technology mix to make sure the right information gets to the right people in the right form at the right time" (Perseus Publishing, 2002, p. 540):

The knowledge audit should include a review of all types of knowledge held within and used by your organization ... the knowledge audit is about addressing what a company has, where it keeps it and who knows what (Harvey, 2003).

Knowledge audits will help an organization discover:

- information they currently have, but do not utilize;
- information they need but do not have;

- the gap between what information is had, and what is needed; and
- how information is delivered.

Step 3

As long as organizations are networks of people, there will be processes occurring between them. Therefore, it is obvious that the better understood and better diagnosed these processes are, the greater the chances of finding solutions to . . . problems which will be accepted and used by members of the organization (Heirs and Pehrson, 1982).

There is the task of classifying these details into what is sometimes known as a "knowledge taxonomy". This defines the structure to file and find knowledge, aiding future searching and browsing (Harvey, 2003).

A knowledge map is a visual representation of an organization's knowledge resources and the relationships and processes that connect them (Nesbitt, 2002).

The premise behind the knowledge map is that the learner is the best judge of the extent of knowledge and depth of understanding they have of each subject area. By making explicit their perception of their knowledge of a particular subject area the learner can benefit in a number of ways (Pinney, n.d.).

Knowledge maps help clarify what has been learned, and what needs to be learned, identify knowledge deficits which must be addressed and discrepancies between perception of what is thought to be known and what is actually known.

Step 4

During the last step we mapped out how and where knowledge can be found in the organization. In this step we begin thinking of how we are going to capture, store, deliver and find this knowledge once it is captured. At this stage, we begin to face the challenge of building "an organization flexible enough to exploit the idiosyncratic knowledge and unique skills of each individual employee" (Ghosal and Bartlett, 1997):

Controls should be introduced for reviewing the organization's thinking procedures and activities ... This can be done by senior management reviewing, for example, the minutes of important meetings, the job evaluation reports on key employees and the procedures followed ... (Heirs and Pehrson, 1982).

Knowledge management should be "guided by establishing appropriate formats for the presentation ... " (Heirs and Pehrson, 1982) This can be accomplished by using "Templates and GUIs for creating new knowledge units ensure the new information is added correctly" (Kaplan, 2002). Templates also ensure that "the style and format presented to the users should be consistent regardless of the information source" (Kaplan, 2002).

All knowledge captured by the system should be readily available to the users who require the information, and should provide for easy searches to help cull the information.

Step 5

This step is where most doomed knowledge management initiatives start. The TRADOC Knowledge Network for example purchased five massive servers and a complete suite of Lotus servers to handle its knowledge management initiative. Many companies run great knowledge management systems on these same applications, but by skipping the previous steps TRADOC has given its knowledge management giant clay feet.

"KM software should be designed around the way people work." (Hackett, 2000). The tools used for capturing, analyzing and distributing knowledge do not have to be very high tech at all. While technology surely facilitates all of these actions, knowledge management should not be undertaken for the sake of technology. Rather the technology should address the needs of the knowledge management system's goals:

KM tools run the gamut from standard, off-the-shelf e-mail packages to sophisticated collaboration tools designed specifically to support community building and identity. Generally tools fall into one or more of the following categories: knowledge repositories, expertise access

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tools, e-learning applications, discussion and chat technologies, synchronous interaction tools, and search and data mining tools (CIO, 2002).

Step 6

Knowledge management initiatives seek to change not only those involved, but also the entire organization's culture and beliefs:

It therefore has to be "piloted" - as any major change should be ... for the first attempts even if greeted with great enthusiasm, will almost certainly run into all kinds of unexpected problems (Drucker, 1999).

As with many physical assets, the value of knowledge can erode over time. Since knowledge can get stale fast, the content ... should be constantly updated, amended and deleted. What's more, the relevance of knowledge at any given time changes, as do the skills of employees. Therefore there is no endpoint to a KM program ... KM is a constantly evolving business practice (CIO, 2002).

As you will remember, knowledge management utilizes double loop learning. And since "Double-loop learning occurs when error is detected and corrected in ways that involve the modification of an organization's underlying norms, policies and objectives" (Smith, 2002a) the organization is continuously changing. These changes require the application of knowledge management to keep pace.

Plus one

While Kiri Nesbitt addresses six fundamental issues surrounding knowledge management he neglects the most obvious, and perhaps most important: culture. A survey conducted by the Journal of Knowledge Management found that:

Eighty percent of the respondents reported that their organization's culture either actively or passively hindered the development and introduction of Knowledge Management strategies and programmes ... [and] Over three-guarters (76%) of the respondents thought that there should be more emphasis within their organization on people when pursuing a Knowledge Management strategy (Chase, 1997).

No organization can successfully implement knowledge management without first changing the culture of the organization. John Gantz reminds us "knowledge management is less an IT solution than a business activity" (Gantz, 1998). In knowledge management "people are themselves considered as part of the organization's overall capability ... people are the crucial differentiators in business success" (Palmer, 1998).

Knowledge management requires "an environment where an individual's knowledge is valued and rewarded ... " (Santosus and Surmacz, 2001). The organization's culture must provide a "climate of continuity and trust" (Pan and Scarbrough, 1998). "Trust is essential... you must trust your employees. Employees must trust that sharing enhances employment status and does not undermine the business's need for them.

Employees must know that experimentation and well-intentioned failure are acceptable. There should be no such thing as failure; every perceived failure should be turned into a success, by allowing the organization to learn from it."

"Senior management needs to set the tone and show support. Day-to-day reinforcement must come from mid-level" (Hackett, 2000) managers. "Success depends on the willingness and ability of the entire senior executive group to address not just their

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individual function or divisional responsibilities, but also their collective responsibility for the company as a whole" (Palmer, 1998).

Remember that "Double-loop learning occurs when error is detected and corrected in ways that involve the modification of an organization's underlying norms, policies and objectives" (Smith, 2002a). For knowledge management to flourish within an organization the managers must establish a culture that allows its policies and norms to be questioned by everyone and they should be willing to change these policies and established guidelines in response to the inquiries.

Successful knowledge management examples

The Interior Communications Electricians (IC-men) on board the USS Wasp are tasked with establishing telephone communications while pier side. This is a common procedure for Navy vessels, typically involving one or more "shore lines" (cables that are used to connect the ships phone system to the bases system and ultimately the world) and several connections on the pier. Using nothing more than green notebooks that listed every shore line from its jack on the pier back to the exact card in the phone system the time to needed to connect the Wasp's 50 phone lines, fell from two hours to under 30 minutes. These notebooks were updated whenever there was a change made, after each cable was tested and after all connections were made and verified.

Previous "Dimension techs" (the shipboard PBX is known as the Dimension 2000) viewed the cable haulers as grunt workers and refused to share information with them. By providing each individual involved in the task with all the information he required to do his job, and the authority to change on the fly a grueling drawn out process was significantly shortened. This also gave the cable haulers a sense of pride in their ability to connect the shore lines in minutes rather than hours, and changed a job that required people to be assigned to it previously, into one that people were volunteering for.

The Ritz-Carlton Hotel Co. in Atlanta uses a "green book" of best practices collected from top performers in every department in the company, from corporate management to housekeeping.. The hard-copy volume is updated annually by a vice president of quality, and the expert content is chosen based on quality scoring procedures. "[Knowledge Management at Ritz-Carlton really has little to do with any kind of technology ... The system appears to work, Ritz-Carlton is a two time winner of the Malcolm Baldrige National Quality Award from the National Institute of Standards and Technology" (Berkman, 2001).

"The Ritz-Carlton's core culture is centered around a commitment not just to meet but to anticipate guest needs." (Delio, 1999). This culture starts at the top of the organization and emanates from every employee. It is each employee's responsibility to ensure that each interaction with the guest is the best that it can be. Management at Ritz-Carlton believes the most important component of the KM system is the company's employees. "Our people supply the initial information that is added to the system, as well as carry out the services detailed within the system. If our employees didn't put the information to real, concrete use, the system would be worthless" (Delio, 1999).

Call Consulting Corporation utilizes a single searchable Domino database to facilitate knowledge management for the IT department of Valeo Clutches and Transmissions. This single database is not intended to capture all of the information and skills possessed by the various members of the IT department; rather it captures only the information that is reusable. Install instructions, static IP addresses, customer numbers and even programming tips are contained in the database called simply knowledge. The database is replicated to other sites to share knowledge between and expand the knowledge of the involved IT departments.

Rather than tracking down the technician that installed a specific piece of software. Call Consulting employees are able to search the repository (database) to find the step-by-step instructions, along with any tips or notes created by the original technician. Problems only had to be troubleshot once and then documented into the system. The next time the fault was encountered technicians could save time and money by finding the answer in the repository (see Figure 2).

While these examples demonstrate a decidedly low-tech solution, they serve to illustrate the point that knowledge management is not reliant on technology. The fact that these knowledge management systems are effective with no technology, or little technology underscore the point that "...while KM is often facilitated by IT, technology by itself is not KM" (Santosus and Surmacz, 2001).

While "Technology is just an enabler." It's one hell of an enabler . . . from moveable type to html, technology has done more to knowledge management than all organizational development consultants put together" (Stewart, 2001). While knowledge management can succeed and thrive without technology it is technology that expands its horizons beyond the small office into large worldwide corporations. "Even the smartest people in the world need a mechanism to assemble, package, promote, and distribute the fruits of their thinking." (Stewart, 2001). The following examples demonstrate how the correct use of technology can spread knowledge management beyond the local area.

When PwC was formed by a merger, management's first priority was to get the two companies to act as one. PwC responded with an intranet called KnowledgeCurve where you can find repositories of best practices, consulting methodologies, new insights on taxes and audit methodologies, news services, training courses and lists of in-house experts. "Yet...there's a feeling it's underutilized. Everybody goes there sometimes, but when they're looking for expertise, most people go down the hall" (Stewart, 2001).

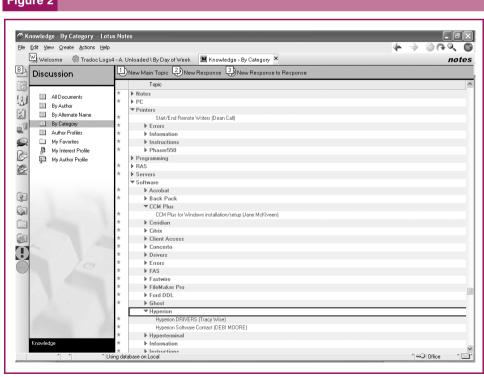


Figure 2

Effective knowledge management changes the way organizations and individuals function."

While the company-sponsored KnowledgeCurve is perceived as being underutilized it actually generates a great deal of interest. The perception is partly due to KnowledgeCurve's static nature. A renegade knowledge management initiative is flourishing at PwC because of its more interactive approach. Jon Z. Bentley and a group of creative colleagues "took it upon themselves to create a network where they could 'collaborate so as to be more innovative' ... They set up a Lotus Notes e-mail list. It has no rules, no moderator, no agenda except the messages people send." (Stewart, 2001). The list, now known as the Kraken, contains over 500 users and works so well that other Kraken-like lists are starting up in PwC.

PwC realizes its "products and services are almost exclusively based on knowledge" (Hackett, 2000). PwC fosters "a culture of personal responsibility for knowledge use and contribution and an environment for continuous learning and innovation" (Hackett, 2000). Currently bonuses, promotions, and partner admissions are linked to knowledge sharing. Employees are involved in knowledge management throughout their career.

Another high tech example is Memphis' Buckman Laboratoires. Bob Buckman has invested \$8 million in his knowledge management system; K'Netix. K'Netix allows users at Buckman Labs to share and transfer customer knowledge, competitive intelligence, process knowledge and product knowledge. "By March 1993, every employee was able to access the K'Netix enabling Buckman associates to share knowledge, setting in motion the delivery of enhanced services to customers in over 90 countries worldwide" (Pan and Scarbrough, 1998).

Energized by the success of K'Netix, Buckman created the Buckman Laboratories Learning Center (BuLab) "to empower associates to manage their personal and career development, create competitive market advantage and engage customers with our products and services" (Ellis, 1998).

Other companies such as HP and Ericsson have enjoyed similar success both with company initiated efforts, and user initiated efforts.

"Before the term 'intranet' was even coined. HP has shared document repositories, on-line reference databases, and automated software distribution and installation procedures that were available throughout the company" (Sieloff, 1999). HP standardized its computing desktop across 95 percent of its desktops and implemented groupware to support the "formation of many communities of interest and practice, providing them with a convenient context for making their collective knowledge more visible and shareable" (Sieloff, 1999). At HP, knowledge management has become "one important way of helping the traditional, and still very valued, HP culture adapt to new competitive pressures and organizational stresses" (Sieloff, 1999).

"Ericsson now has several new and very ambitious KM initiatives ..." (Hellstrom et al., 2000). Ericsson Radio has developed Image to create a structured approach for standardizing and controlling intranet operations at Ericsson. "Image is not a tool for change, but rather a way to describe and coordinate processes for the purpose of supporting change" (Hellstrom et al., 2000). Eriksson's knowledge portal is called Zopps. "Zopps provides families and employees with a 'playground' for enhancing their computer skills as well as their knowledge in the company" (Hellstrom et al., 2000). The internal Competence Exchange "focuses mainly on competence development for the EMW [Ericsson Microwave Systems] staff'' (Hellstrom et al., 2000). While Competence Exchange focuses on the EMW branch of Ericsson, a project called Knack "presents a more comprehensive and ambitious version . . . it is supposed to enable employees to quickly and easily find learning and information resources or improving their competence ... [and] to

make it easy and desirable for potential content providers to make known the availability of their resources or expertise" (Hellstrom et al., 2000).

Regardless of the company's size, the budget or the technical savvy possessed by the organization, knowledge management has become a critical element in its success. However, many companies that undertake a knowledge management initiative do so without a clear idea of what knowledge management is, or what a successful implementation entails.

Perhaps it is the vagueness of the definition of knowledge management that both allows it to flourish and dooms it to failure. Those in the know realize that knowledge management is different at every turn; it is continually changing and evolving. What constitutes a successful Km project at one company may not spark the faintest interest at another. In fact, a successful KM project today may become stiff and unwieldy or overburdened six months from now.

The key to successful knowledge management is not to get caught up in any one aspect of it. Begin with a specific goal in mind. Know where your knowledge is. Know how those with knowledge interact. Define your strategy. Purchase or build your tools. And reassess the entire project continuously. These steps will help make any knowledge management undertaking successful, but the only thing that can guarantee success is an organizational culture that rewards sharing of knowledge and builds trust among employees.

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