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# **Knowledge Management: Harnessing Mental Capital for the Future**

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In our great-grandfather's day, lessons were often taught by those who had hands-on experience and teaching was very often "see, learn, do". The successive generations would add their practical lessons and improve the process or procedure. These lessons were often written down in "How to" documents (explicit knowledge). However, this never captured true expertise, and subsequent lessons learned or experience (tacit knowledge) were even harder to capture and therefore never added. Because learning is a continual process, documenting knowledge is only a "snapshot in time".

In today's environment, we are more separated while at the same time connected by the computer. While computers enable us to stay in touch with our operations virtually from any location, they also separate us from the experts that really know what's going on. If you could sit and talk to your great-grandfather, eventually you would hear some gold nuggets that came from experience, yet were never written down. In industry, we know that the generation of the "baby boomers" is approaching retirement, and we will lose these experiences if we do not know how to capture them. In the government, and in the military, we need to harness the experience of our senior leaders.

Fundamentally, this is called knowledge management (KM). KM systematically brings together people, organizations and processes, enabled by technology to facilitate the exchange of operationally relevant information and expertise. It is a process whereby information is discovered, selected, organized, distilled, shared, developed and used in a social context to improve organizational effectiveness.

Knowledge management in conjunction with information management (IM), should provide an organizational framework to accumulate, create and disseminate actionable knowledge. That means take in the information, provide business rules for filtering and formulating it, put it in an understandable context, evaluate it through another set of business filters and then present knowledge to the organizational leadership to make or enhance a decision. Even while still in its infancy, the term KM already exists, is accepted, and currently used by many military institutions including those of several allies.

Knowledge is a commodity however, that must be managed effectively. Therefore, organizations must ensure they have a trained knowledge crew whose primary duties are to assist in this management. They should be involved in gathering and editing knowledge, paving the way for establishing effective knowledge sharing networks, and managing knowledge technology infrastructures. The knowledge crew should be made up of technicians as well as operators. They should identify and correct knowledge sharing seams and gaps, provide access to KM networks and technologies, establish procedures for knowledge retention, and implement metrics to measure the value of initiatives.

The goal of sharing knowledge is broader than situational awareness. It takes on a more holistic awareness and suggests knowing cultures, religions, economics, and building business filters through which to view knowledge. It is about answering the question: "So what"? Put in context, situational awareness can become knowledge, but must be filtered to suggest possible implications as it enables

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decisions. We need to discover, capture and refine information to allow our leadership to make faster and better informed decisions.

KM is not IM in that IM is the collection, storage and control of information, but not the use of the information. KM enables acting on information and therefore uses the IM processes and adds synthesis, analysis, and presentation of information in a usable fashion for decision makers. For example it takes data, such as a map to add information like tomorrows weather forecast plotted on the map and then puts them into a usable context, “ tomorrow, based on the weather in the following areas we will only be able to use the following weapons systems.”

KM is also not just about technology. In this day and age, we expect too much from technology and continually look for the Nintendo that can also fix dinner. Several products in industry have been renamed KM tools, because KM is the current buzz word. This is not to say that these technologies do not enable decisions, but they fall short of making them and should. We should always depend on the human dimension to actually make decisions and we owe it to the decision maker to provide the best synthesized and analyzed information. This is also the goal of KM.

However, this is not an all inclusive list, KM reflects capturing data, cataloging expertise, realigning processes and changing cultures.

- **Capturing Data.** Lessons learned and after action reviews (explicit knowledge) are only useful if they are applied. Otherwise, they become lessons observed and mistakes repeated. In most cases, operators want to know if a situation occurred before, who did what, and if it worked or not. The problem is that there are no automatic means to search multiple libraries of Lessons Learned for specific data pertinent to a mission. This problem is part technology and part data organization. Content search capabilities enable search, but the data must be organized or metatagged to allow a comprehensive search. The search must be accompanied by processes and procedures that operators follow assisted by the knowledge crew.
- **Cataloging Expertise.** Since expertise is often tacit knowledge and not always captured by a job title. We need to be able to identify and catalog past experiences and special levels of expertise. Therefore, white pages or yellow pages need to be established that list the experience level of each individual in an organization. The pages need to be searchable to identify subject expert expertise. This specificity in tagging data to subjects will allow us to identify more available subject matter experts and capture their tacit knowledge.
- **Realigning Processes.** We need to create, capture, apply, and re-use knowledge to make better decisions faster. To achieve more optimum decisions, decision makers must have an understanding of what organizations know, what they do not know, and what they are doing about it. Even though there are pockets of expertise called subject matter experts and their expertise can be cataloged, there is collective wisdom in any organization as to what has been done, what has worked, or not and why. This collective wisdom or knowledge also needs to be captured and made available for future use.
- **Changing Cultures.** All the best intentions of identifying, assessing and analyzing information can be thwarted in the absence of a culture that supports, empowers, and rewards information sharing. Even though we have clear guidance and implications from Presidential directives that we need to evolve from a need to know to a need to share environment, there is still hesitation. If we believe that knowledge is power why do we hesitate to share that power? Clear rewards for sharing have not been established, and

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empowerment has not been enacted, so we still preach the new culture, but do not practice it.

Many search capabilities for knowledge can be enabled by technology. However, processes must be established to identify, capture and leverage this knowledge. Knowledge crews must be formed to ensure knowledge is made available in a usable form and it gets presented to the right people. The organizational culture must (finally) be taken into consideration as to which decisions are critical for their purposes and the knowledge management structure designed to that end. This idea is the basis for the people, organization, process, and technology model, but the first step in an emerging concept such as knowledge management should be, "How much do I need?"

So where do we start the KM process? Within Department of Defense (DoD), there are documents that already capture the goals of KM. Many of these are included in the *Net-Centric Operational Environment Joint Integrating Concept*. This document clearly articulates the following:

Leaders retain their decision making responsibility. Nevertheless, collaboration can facilitate better planning and execution by enabling diverse mission partners to share mission objectives in ways which help synchronize the operation and task-organize it for optimal efficiency.

At North American Aerospace Defense Command (NORAD) and U.S. Northern Command (USNORTHCOM) our former J6, Vice Admiral Nancy Brown, (now the Joint Staff J6), started us on the path to effective KM. We are still maturing the required concepts, but our leadership understands the need and our current J6 Rear Admiral Card is keeping us on the right path. We are preparing to conduct surveys of the leadership and the staff to identify those areas of KM that might have the best short-term pay-off, while identifying mid and long term requirements. We have matured our information sharing environment consisting of people, processes, and collaborative tools and are off to a running start. Our information exchange broker concept leverages KM crew capabilities. We are moving forward with initiatives that should identify the low hanging fruit, yet keep us on track to develop a comprehensive KM program. We understand the additional technological capabilities that we need in the short term and are putting procedures and processes in place that will enable our command to manage our critical knowledge resources.

### **About the Authors**

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