

KNOWLEDGE MANAGEMENT
in the
21ST CENTURY NAVY
(KM21)

Advanced Management Program

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“No man is an island, entire of itself; every man is a piece of the continent, a part of the main...”¹

INTRODUCTION: From 1991 to 1997, the Department of the Navy, which includes the Marine Corps, downsized 32% of its personnel (184,000). The Quadrennial Defense Review now recommends another 18,000 cuts plus 4100 from our reserve community. Our 21st Century Navy requires that we draw “upon the vitality and innovation of its people and leverage new technological opportunities...that will ensure tomorrow’s Navy can continue to meet its mission requirements and attain highest levels of operational effectiveness”.² Although not a “for-profit” enterprise, the Navy is challenged to optimize the use of its resources to ensure corporate solvency. To that end, the Secretary of the Navy instructed the Senate Armed Services Committee at his confirmation hearings this May that “people are our most important and valuable resource”, emphasizing his goal of achieving a higher quality service.... based on leadership that “encourages information flow freely up and down the organization, and that values the expertise of the total force”.³ It is imperative that today’s Navy build a digital infrastructure that ensures *speed of solutions* with *speed of information* and a culture that ensures *speed of action*. Knowledge Management (KM) is an essential element in this transformation.

BACKGROUND: KM was born in the early 1990’s out of the need in corporations to improve their competitiveness through the management of knowledge and the adaptation of learning processes.⁴ In essence, this demands the creation of a Learning Organization. KM can be defined as *the use of intellectual capital and information, and knowledge*

¹ Donne, John. *Meditation 17*, from *Devotions Upon Emergent Occasions*. *Norton Anthology of English Literature*. Fifth Edition. W.W Norton, 1962. Vol. 1., 1107.

² US Navy Vision...Presence...Power, (Planning Objectives...Programming Decisions) and US Navy Posture Statement 2000: IV: The Force of the Future.

³ Secretary of the Navy’s Statement to Senate Armed Services Committee during Confirmation Hearings, 10 May 2001

⁴ Van Heijst, Gertjan, et al “Organizing Corporate Memories”, Knowledge, Acquisition Workshop Archives, 1996 Proceedings. (<http://ksi.cpsc.ucalgary.ca/KAW/KAW96/vanheijst/HTMLDOC.html>)



sharing. Santousus defines KM as “the process through which organizations generate value from their intellectual and knowledge-based assets...with sharing among employees, departments and even other companies in an effort to devise best practices”.⁵ Through KM, organizations can reduce redundancy while increasing productivity, increase revenues and profit margins, and avoid the loss of intellectual memory through attrition and turnover.

Knowledge is shared via two avenues, *explicit* and *tacit*. Explicit knowledge is that which is stored in internal systems and organizations such as instructions, manuals, policies, best practices, historical information, and data. The Delphi Group studies estimate that only 12-20% of explicit knowledge is retrievable through search engines, while as much as 40% or more information exists in tacit form.⁶ Tacit knowledge is the knowledge that lives in the heads of our personnel. Our challenge is to learn how to recognize, generate, share and manage it.

Knowledge is tiered across organizations. Tier 1 is the *tacit* knowledge that is “self-service”. Participants with common interests engage in sharing information through bulletin boards, sending e-mails to a select group of individuals (*narrowcasting*) or setting up virtual conference rooms through a portal approach. Tier 2 revolves around informal learning in an unstructured manner, such as posting new policies or disseminating data. This process is called *broadcasting*. Tier 3 is structured formal education or learning, such as courses or training modules. Using technology to facilitate or augment these learning opportunities can be effected by either *push*, sending instructions from “top down” to all or limited personnel, or *pull*, the process by which individuals seek information through subject matter experts, supervisors, libraries and reference material, web-searches or completion of continuing education courses.

⁵ Santosus, M. & Surmacz, J. “The ABCs of Knowledge Management” CIO Magazine, 23 May 2001 (www.cio.com/forums/knowledge/edit/kmabcs_content.html)

⁶ AskMe Corporation Connects Employees with Business Problems to Experts with Solutions Using Microsoft.Net Enterprise Servers (Case Study) (www.microsoft.com/SERVERS/evaluation/casestudies/askme.asp)



Creating a Learning Organization or “Knowledge-Centric Organization” (KCO) requires a major cultural change to ingrain the competency at all levels in mission success.⁷

TODAY: In 1999, the Department of the Navy chartered a KM working group to facilitate connectivity enterprise wide and enable our forces to leverage their corporate knowledge. As the Navy deploys the Navy and Marine Corps Intranet (NMCI) and its enterprise portal, *the Port*, to globally connect over 400,000 computers, Ms. Alex Bennet, the Deputy Chief Information Officer (CIO) for Enterprise Integration for the Department of the Navy (DON), was concurrently cast in the role of Chief Knowledge Officer. In Ms. Bennet’s words, “the mission of *the Port* is to provide all DON personnel with a fully customizable, web-enabled enterprise portal allowing access to electronic information assets existing in the DON.”⁸ Ms. Bennet’s plan or “journey” for the Navy’s KCO is partitioned into seven operational areas, roughly corresponding to the seven critical factors in change theory. They are:

- 1) Building awareness, and understanding the knowledge management framework.
- 2) Preparing the organization by exploring the cultural, leadership, communication and other organizational issues influencing knowledge sharing and learning.
- 3) Building the KCO by defining strategic goals and required knowledge, metrics, and the design of key processes and supporting tools.
- 4) Sustaining the KCO by developing processes to continuously acquire and disseminate knowledge, monitoring the performance of these processes and supporting tools, and reassessing and modifying strategies and processes.
- 5) Refining knowledge brokering concepts and techniques to promote knowledge creation and sharing.

⁷ Bennet, Alex, Knowledge Superiority as a Navy Way of Life; White Paper, Undated

⁸ Ibid, p. 6.

- 6) Building and mobilizing communities of practice.
- 7) Reviewing the journey, and creating a continuing vision for the future (looking backward and forward).

The Navy has trumpeted the development of NMCI and its strategic alignment with the concept of Network Centric Warfare, utilizing KM to enhance interoperability, collaboration and synchronization. Just this week the DON CIO's office has hosted the Navy's second E-Commerce and KM Fair. The conference featured over 120 displays, including vendor booths, the Army Knowledge Online Web portal, and Air Force and Navy efforts in KM. The DON CIO has also developed a "Knowledge-Centric Organization Toolkit" on CD-ROM to educate commands on KM concepts, and has already introduced pilot programs at several commands.

FUTURE RECOMMENDATIONS: In order for the Navy to capitalize fully on knowledge superiority and become a KCO, there must be a focus on cultural change. To achieve the vision where rapid and effective actions are supported by the shared knowledge of the organization, technology must be used as an enabler of process and not be viewed as an end unto itself. The KCO is a necessary prerequisite for achieving the promise of Network Centric Warfare, whereby the tactical battlespace is seen in real time and decisions are supported by information previously unattainable in maritime operations. In short, KM must become a way of life for the Sailor and Marine of the 21st century.

As part of this sea change, the Navy needs to visualize information as an means to achieving the goal of Full Spectrum Dominance called for in Joint Vision 2020. To achieve Full Spectrum Dominance of the battle space, the warrior of the 21st century will require information superiority as a prerequisite to decision superiority. The Secretary of the Navy's DON Information Management/Information Technology (IM/IT) Strategic Plan calls for an integrated and results oriented Navy, an effective and flexible technology environment, and a knowledge-centric culture characterized by trust and

information sharing. This plan describes the required infrastructure to achieve the goals of Joint Vision 2020 in terms of speed and agility of warfare.

Inextricably linked with Decision Superiority is improved operational capability. To achieve this the Navy will also need to develop a culture that innovates new and superior processes. The methodology to innovate these processes rests on the foundation of deeper and broader information and knowledge delivered at the critical place and time. As Ms. Bennet has stated, “ the Naval Service’s ability to dominate future operations and to prevent or, if necessary, win wars decisively will depend increasingly upon its ability to innovate processes, develop and rapidly apply new knowledge, and create maximum return on available intellectual resources.”⁹

Ultimately, the Navy needs to evolve itself from a “top down” hierarchical learning organization to a “bottom up” networked learning organization to better utilize the intellectual capital of our Sailors and Marines. Knowledge must percolate upwards to influence the decisions of Naval commanders who will be asked to do more with less in a shorter timeframe. This “bottom up” information will structure and guide the Navy’s strategic planning and doctrine. The new Naval paradigm will be to think globally, leveraging our entire networked organization, allowing for regional action from battle group, to squadron, to ships, and down to the individual warrior. Shared knowledge will be a prerequisite not only for wartime but peacetime operations; not only for Naval but for Joint operations. Though the Navy of the new century will be asked to pursue operations in a limited theater, our personnel will be empowered to swiftly make innovative and appropriate strategic and tactical decisions founded on a shared global knowledge base.

⁹ Ibid, p. 9.

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