

Knowledge Management: A tool for Improving Government Performance

by Brian D. Murrow and Victoria Adams

What is Knowledge Management?

Internet centers in Afghanistan, Judge Advocate General Officers sharing common legal templates, training officers and their participants sharing information before going into battle -- these best practices make up the essence of knowledge management in the Federal Government.

The tools and methodologies that connect these men and women around the globe and facilitate efficient interactions is knowledge management (KM), the process by which an organization's information or knowledge is captured, organized, stored, accessed, and used.

To meet the objectives of the President's Management Agenda, and the needs of the twenty-first Century, the Federal government's ability in effectively managing and leveraging this knowledge is critical. With the ever-shrinking Federal workforce and government regulators such as the Office of Management and Budget and Congress budget requiring increased budget justifications and program reviews, KM enables small Agency's and large Departments alike to access critical and sensitive information securely and efficiently.

To better understand KM and determine how formal KM methodologies and systems are

implemented, we divide KM into the following four areas:

- ▶ [Strategy & Leadership](#)
- ▶ [Organization & Process](#)
- ▶ [People & Culture](#)
- ▶ [Technology & Systems](#)

Knowledge is . . .

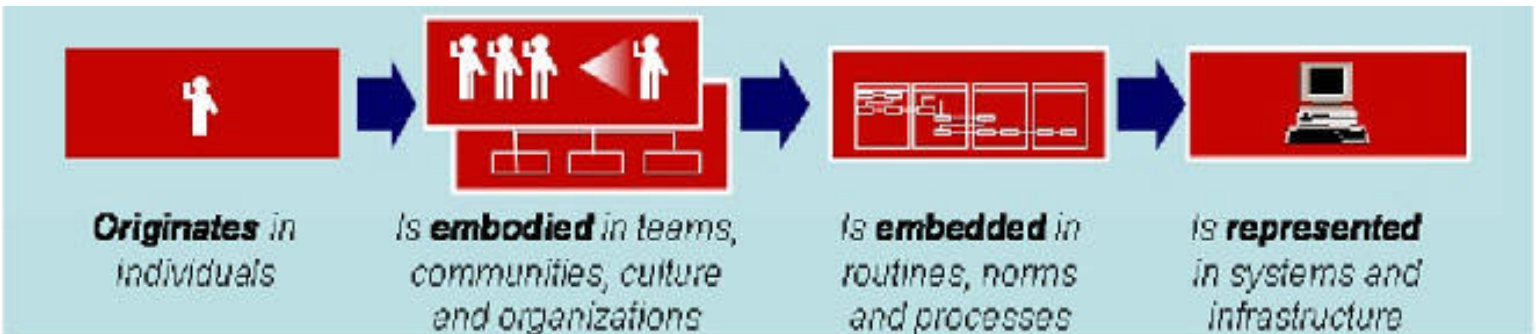
- ▶ Knowledge **originates** in individuals
- ▶ Knowledge is **embodied** in teams, communities, culture and organizations
- ▶ Knowledge is **embedded** in routines, norms and processes
- ▶ Knowledge is **represented** in systems and infrastructure

Knowledge can be . . .

- ▶ **Explicit**: Documented information that can facilitate action
- ▶ **Tacit**: Know-how and learning embedded within the minds of the people in the organization

Knowledge Management is . . .

- ▶ Key to establishing an organization as the leader within its community
- ▶ Successful knowledge organizations must continue to build its internal knowledge base and leveraging knowledge to make decisions and communicate lessons learned and mission success



- ▶ Makes work more efficient, effective and innovative
- ▶ Is a method to share knowledge stored electronically, on paper, or in people's heads

- ▶ Knowledge use

Knowledge Management is not . . .

- ▶ Technology driven – it is technology enabled
- ▶ Measured in the volume of data, but in the quality and use of the shared knowledge
- ▶ Something separate from our work – it is integrated into our work

Strategy & Leadership

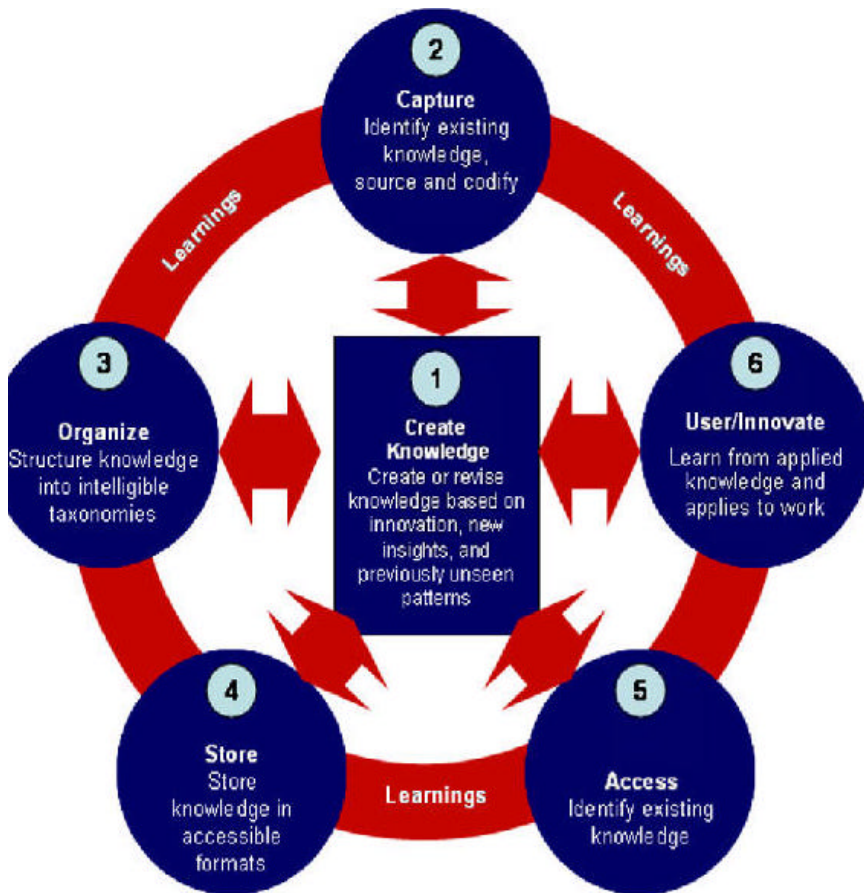
The essence of strategy and leadership, in the context of knowledge management is defined as the articulation of KM strategic goals and the linkage between this strategy and overall organization-level strategic goals and objectives. KM strategy and leadership, can be divided into the following:

Knowledge Creation and Generation

Knowledge management consists of the following six processes:

- ▶ Knowledge creation
- ▶ Knowledge capture
- ▶ Knowledge organization
- ▶ Knowledge storage
- ▶ Knowledge access

- ▶ **Formal KM Strategy Articulated:** A strategy for KM has been developed through a structured, formal process and has been clearly and unambiguously communicated to key stakeholders.
- ▶ **KM Strategy Linked to Overall Strategy:** The KM strategy has been integrated into the overall organization strategy.
- ▶ **Leadership Sponsorship and Participation:** The organization has publicly and unambiguously signaled support for KM and the KM strategy to key stakeholders.



Organization & Process

Organization and Process plays a critical role in moving an organization forward in the transformation into a knowledge organization. We have divided the elements of organization and process into four main categories:

- ▶ **Formal KM Unit and Process:** The organization has established a formal group with KM responsibilities, staff, budget, and facilities.
- ▶ **CoP Operation and Supported:** Communities of Practice are formally recognized by the organization, functioning, and has budgetary, technical, and staff support.
- ▶ **Learning Reviews Operational and Supported:** The organization has established a formal process for conducting learning reviews that is functioning and has budgetary,

technical, and staff support.

- ▶ [Story Telling Supported](#): The organization has established a process for identifying, codifying, storing, managing, and communicating narratives that describe organizational operations and outputs.

In studying best practice knowledge organizations, a standard approach to the knowledge management process emerges:

- ▶ **Knowledge creation**: Create or revise knowledge based on innovation, new insights, and previously unseen patterns
- ▶ **Knowledge capture**: Identifying and codifying existing knowledge source
- ▶ **Knowledge organization**: Structure knowledge into intelligible taxonomies
- ▶ **Knowledge storage**: Store knowledge in accessible formats
- ▶ **Knowledge access**: Identify existing knowledge
- ▶ **Knowledge use**: Learn from applied knowledge and apply to everyday work to more efficiently achieve organization's objectives

People & Culture

People and Culture are divided into three categories:

- ▶ [KM Incentives and Performance Standards](#): Best practice knowledge organizations have integrated knowledge creation, sharing, communication, seeking/using as a part of the formal description of the roles and responsibilities and gives credit for KM activities in performance standards and employee evaluations.
- ▶ [KM Change Management Program](#): The successful knowledge organizations have established a program for communicating KM initiatives and encouraging and facilitating cultural change toward a more KM sensitive organization.
- ▶ [KM Training](#): Best practice knowledge organizations have established training and education programs that enable staff to improve their KM skills and abilities.

When all organizations are considered, we have identified the following best practices:

- ▶ KM strategies are established to facilitate appropriate cultural changes
- ▶ The success of cultural changes are tracked and measured on a routine basis
- ▶ The organization is strongly aware of the need for knowledge management
- ▶ Staff is fully aware of the critical nature, relevance, and impact of KM
- ▶ Senior management supports a program whereby every organization member receives orientation training in knowledge management before starting work
- ▶ Cultural enablers and barriers are identified, reviewed (with supporting evidence), and acted on by senior management
- ▶ Senior management and HR support and measure ongoing KM training programs
- ▶ Staff or external consultants skilled in KM are utilized to educate staff on KM principles and to relate KM to day-to-day work activities and processes
- ▶ Information and knowledge silos are eliminated
- ▶ Client/customer - focused views prevail (cross-departments)
- ▶ Fragmentation is eliminated, knowledge and information separation is maintained under software control
- ▶ Knowledge flows are mapped and redesigned within the knowledge management framework addressing bottlenecks (over reliance on individuals) and dead-ends (who to contact or where to locate)
- ▶ Knowledge flows through to external stakeholders and business partners

Technology & Systems

Technology is a key enabler of knowledge management and communities of practice. But technology does not drive knowledge management. In the best practice organizations we studied, KM was led by the non-technology dimensions of KM. Nonetheless, it is technology that empowers the best practice organizations to transform into knowledge organizations. The key aspects of technology within knowledge organizations include:

- ▶ [KM Technology Architecture Developed](#): Development of a formal plan and design for KM technology implementation and operation within an organization.
 - ▶ [KM Net Portals](#): A Web application that provides an entrance point into KM databases, systems, and tools.
 - ▶ [Online Expertise Directories](#): A web-based application that enables users to access a listing of staff that identifies their knowledge, skills, and abilities.
 - ▶ [Facilitated CoPs Online](#): Web-based portal that provides access to CoP and is monitored by dedicated staff.
 - ▶ [Electronic Document Management](#): Systems that manage the process of document production, revision, and release. Typically they incorporate a central database and networking software. Usually the document database is accessible over a local area network and is used to store all documents for a specific project, division, or organisation.
 - ▶ [Groupware Collaborative Software](#): Groupware refers to programs that help people work together collectively while located remotely from each other. Groupware services can include the sharing of calendars, collective writing, e-mail handling, shared database access, electronic meetings with each person able to see and display information to others, and other activities.
 - ▶ [Data Mining](#): Data warehousing, data mining, and data visualization are three interlinked knowledge management technologies.
 - ▶ [eLearning](#): Knowledge management can significantly enhance the organization's learning program and should be integrated together.
- ▶ comparing anticipated performance measures against estimates
 - ▶ Enabling technologies are implemented across the organization, within an enterprise integrated KM architecture
 - ▶ Information Systems/KM strategy are clearly communicated, understood, and mutually dependent
 - ▶ Both codified and tacit knowledge sources are identified and mapped within the organization, a formal knowledge map (this could include external sources as well)
 - ▶ These knowledge sources are consolidated into a corporate knowledge repository within a knowledge management framework
 - ▶ Search engine technology is deployed across the knowledge base
 - ▶ Formal security controls are enforced on knowledge sources across the organization through electronic document management technology
 - ▶ Formal segmentation and ranking of knowledge and information within the various sources is implemented within the overall knowledge management framework
 - ▶ Policies and procedures are in place to ensure ongoing quality assurance through initiatives such as audits, sampling, subject matter expert validation, etc.
 - ▶ The framework establishes a knowledge network linking knowledge seekers to finders.

Functional and Technical Requirements

In determining the KM systems functional requirements, it is a best practice to engage the Community of Practice. The five steps in identifying KM technology requirements includes:

When all organizations are considered, we have identified the following best practices for this area:

- ▶ A formal integrated KM technology architecture and strategy is established and implemented for the organization
 - ▶ Objectives and success criteria are agreed to across the organization
 - ▶ Measures are in place to assess the impact of the technologies on the business,
- ▶ Step 1: Develop Strawman Functional Requirements and Use Cases. These are typically developed based on: organization experience and industry norms.
 - ▶ Step 2: Conduct Focus Groups to Review, Edit, and Verify Requirements and Use Cases. This is typically done through a review of materials with several focused groups using structure facilitation techniques to identify the final list of functional requirements

- ▶ Step 3: Review and Identify Department-level, OMB, and Other Technical Requirements
- ▶ Step 4: Develop Evaluation Criteria Based on Functional and Technical Criteria
- ▶ Step 5: Conduct Focus Groups to Rank and Weight the importance of Evaluation Criteria

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