

**Knowledge
management
important training
priority**

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Editor's note: In follow-up to the discussions of Knowledge Management featured in the Volume 36 No. 2 Summer 2011 edition of the Army Communicator, proponents from the U.S. Army Training and Doctrine Command offer their perspective on the subject.

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Army knowledge management is especially critical in empowering senior decision-makers in both the operating and generating forces.

Knowledge Management is the art of creating, organizing, applying and transferring knowledge to facilitate

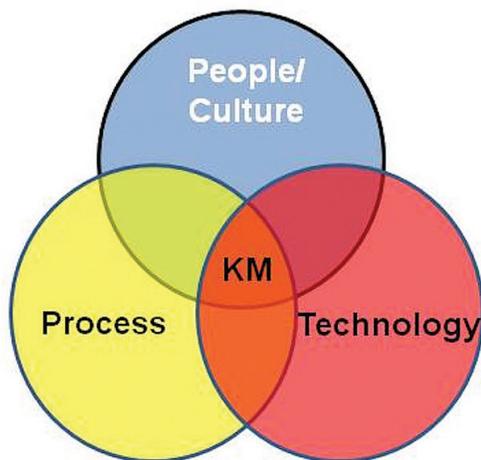
situational understanding and decision-making. Relevant, actionable knowledge is essential for effective operations in an operations environment. It is also required for effective development and delivery of doctrine, training and education, and ensuring the availability of required capabilities now and in the future.

The value of KM relates directly to the effectiveness with which managed knowledge enables the members of an organization to deal with today's situations and effectively envision and create their future. KM is about the journey of information as it moves from inception to user. KM has

informally been in use in many major corporations and entities for decades. From its most basic form which may be as simple as on the job discussions to more formalized training and mentoring programs, KM has long enabled the dissemination of explicit and tacit knowledge along with intellectual capital in many forms across many venues.

KM became widely popular in the early 1990's after its introduction in many successful companies around the world as a means to improve business processes and enhance business outcomes.

The KM transformation process began overseas when companies including Honda



People/Culture Dimension

Principle 1 - Train and educate KM leaders, managers, and champions.

Principle 2 - Reward knowledge sharing and make knowledge management career rewarding.

Principle 3 - Establish a doctrine of collaboration.

Principle 4 - Use every interaction whether face-to-face or virtual as an opportunity to acquire and share knowledge.

Principle 5 - Prevent knowledge loss.

Process Dimension

Principle 6 - Protect and secure information and knowledge assets.

Principle 7 - Embed knowledge assets (links, podcasts, videos, documents, simulations, wikis...) in standard business processes and provide access to those who need to know.

Principle 8 - Use legal and standard business rules and processes across the enterprise.

Technology Dimension

Principle 9 - Use standardized collaborative tool sets.

Principle 10 - Use Open Architectures to permit access and searching across boundaries.

Principle 11 - Use a robust search capability to access contextual knowledge and store content for discovery

Principle 12 - Use portals that permit single sign-on and authentication across the global enterprise including partner

Illustration 1: People/Culture, Process and Technology

and Canon realized the value of knowledge and sharing it across its workforce. "Managers at these companies recognize that creating new knowledge is not simply a matter of mechanistically processing objective information. Rather, it depends on tapping the tacit and often highly subjective insights, intuitions and ideals of employees," according to Ikujiro Nonaka, a professor of business from the University of California Berkeley who studied KM.

Knowledge Management in Action

A decade ago, the Army realized that to maintain its war fighting edge it needed to quickly disseminate information and lessons learned across its vast array of operating and generating forces. In the mid-90s Army KM policies were developed by the Army G3 Battle Command Directorate and the Army CIO/G6 in the form of AKO Memoranda. These provided broad guidance and created the beginnings of an institutional framework to deliver just-in-time training as well as the beginnings of Army knowledge networks in the form of Battle Command Knowledge System. To institutionalize a broader Army KM effort, the Army published the Army Knowledge Management Principles in July 1998 to provide a framework for war fighters and the institutional Army to "help preserve tacit and explicit knowledge and accelerate learning as units and personnel rotate in and out of theaters or organizations."

Army leaders realized that "without consistent strategy and policy, units and commands will generate islands of information and knowledge inaccessible to others." This would be disastrous from an enterprise perspective according to the Army KM Principles. The reason being "in multi-disciplinary, multi-organizational, and joint military environments, those who innovate, learn, rapidly adapt, and act decisively will prevail against adversaries," according to the Army KM Principles.

The Army KM principles provide authoritative guidance to Army commands and organizations developing or engaging in knowledge management efforts (See Illustration 1 on the preceding page). The principles are grouped into three categories; people, processes and technology.

Early KM in the Army and TRADOC's Initial KM Efforts

The foundation for KM in TRADOC began in 2005 with the Office of the Secretary of Defense Training Transformation initiative that set goals for providing more comprehensive Joint training and education to individuals and units. The KM effort

for individuals was called the Joint Knowledge Development and Distribution Capability and the unit program was called the Joint National Training Capability. At the same time, TRADOC began realigning its functional centers and schools into centers of excellence. Integral to these CoE's were two critical staff elements called KM cells and Lessons Learned Integration Cells linked to the Army Center for Lessons Learned. The Commanding General of TRADOC believed that each of these CoEs had to become more effective in collecting, analyzing, and distributing the knowledge gained by the operating force and feeding that knowledge back into the training base to enhance the training experience of the warfighter.

In 2007, CG TRADOC directed a six-month independent study of Information and Knowledge Management practices within TRADOC, which resulted in forming the TRADOC Chief Knowledge Office and developing the TRADOC KM Strategic Plan. This plan posited that "TRADOC Knowledge Management facilitates situational understanding and decision making through the art of creating, organizing, applying, and transferring knowledge," according to the TRADOC KM Strategic Plan.

TRADOC adopted the twelve Army KM principles with minor modifications. This allowed for an enterprise approach for all of the TRADOC's KM activities. First Army KM was given the mission of "establishing a culture that creates, organizes, applies and transfers knowledge to all Army Forces," according to the TRADOC KM Strategic Plan. With a vision of the future being "A knowledge-enabled force - one learns, everyone knows," according to the TRADOC KM Strategic Plan. TRADOC could then codify KM as a key capability in performing its mission and to support the TRADOC CG priorities.

KM became a key enabler supporting TRADOC's lines of operation across DOTMLPF domains, (Doctrine, Organization, Training, Material, Leadership and Education, Personnel and Facilities.) "KM conceptual framework guides development of collaborative knowledge creating and sharing communities, e.g. Warfighter Forums," TRADOC KM Strategic Plan.

Based upon the mission and vision of GEN Martin E. Dempsey, TRADOC commanding general, the TRADOC chief knowledge officer, in collaboration with the TRADOC Center of Excellence, nested the TRADOC KM Strategic Plan and Implementing tasks within the TRADOC Campaign Plan for 2009, and subsequent TCPs. The strategic plan focuses on Soldier Learning,

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enhancing TRADOC wide processes, and supporting TRADOC Staff and Mission Command CoE.

TRADOC's Ongoing KM Efforts

With KM supporting the broad functions across the DOTMLPF the MSOs and CoEs created a series of major TRADOC KM initiatives to support the TCP. While KM is a key enabler across all TRADOC Themes, there are three Themes where KM will have the most significant impact as a key enabler. These are Army Training Strategy, Institutional Adaptation, and the Army Learning Concept 2015.

Foremost, the paradigm shift for Soldier learning outlined in TRADOC PAM 525-8-2, The Army Learning Concept 2015 (ALC) was in the KM "sweet spot." Linked to the Army Training Strategy, the ALC proposes a "continuous adaptive learning model, a framework comprised of elements that together create a learner-centric, career-long continuum of learning that is continuously accessible and provides learning at the point of need in the learner's career," according to ALC 2015 TRADOC PAM 525-8-2.

KM within the ALC "converts classroom experiences into engaging problem-solving events to facilitate development of critical thinking skills and improved decision making," according to TRADOC KM Strategic Plan. "Essential to achieving the vision of the continuous adaptive learning model is developing the supporting learning infrastructure that includes building knowledge management enabling capabilities, systems, and networks; workforce skills; facilitator training courses; resourcing models; digitized learning resources; policies and processes; and administrative tools," ALC 2015- TRADOC PAM 525-8-2.

"TRADOC KM provides the foundation of a learner centric, lifelong learning support system through its production capabilities, content management and personal web portals," according to the KM Strategic Plan.

Furthermore production capabilities allow it to "rapidly develop and update relevant, engaging digital learning content incorporating intelligent tutoring, gaming, video, and evidence-based learning methods." according to the KM Strategic Plan. Key to this is its ability to manage the content from the production and its subsequent delivery through the portal to various digital learning mechanisms, apps, performance support aids, social networks and emerging technologies.

Knowledge Management Challenges

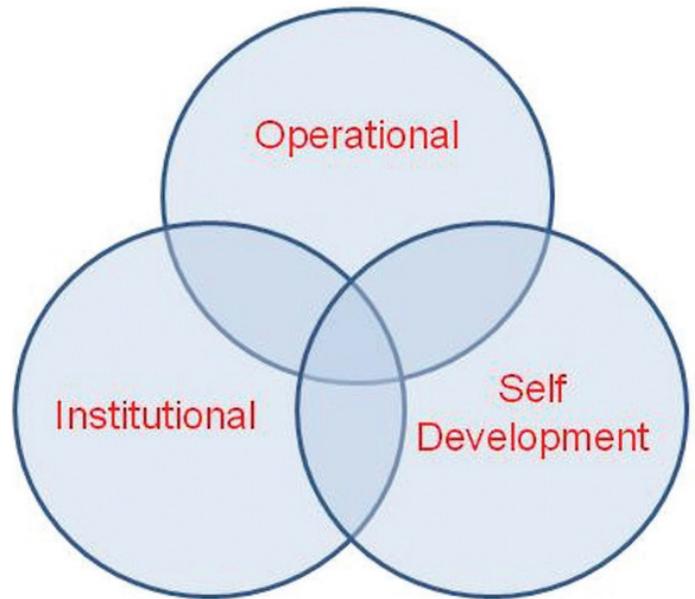


Illustration 2: Operational, Institutional and Self Development

Introducing a transformational idea and delivering on its promise of efficiency, economy and opportunity does not come without its challenges. While there are many, those that create the greatest test of the organizations willingness to transform are discussed below.

Challenge Number 1 – Change Management

Knowledge Management within TRADOC faces a wide array of challenges from all levels of operation. The most encompassing hurdle is change management and aligning the KM functions within the Major Subordinate Organizations. Overcoming change or internal resistance to altering a person's work, behavior and focus is not easily done. As part of its plan to overcome this TRADOC found that the "Critical elements to ensure successful, long-term change include vision, value proposition (benefits), strategy, resources and an action plan" according to the TRADOC KM Strategy. In order to meet these needs the Knowledge Management Strategic Plan was formulated using the CG's vision and Lines of effort as major drivers.

The TRADOC KM Strategic Plan clearly outlines KM's roles and responsibilities, focus and initiatives as well as identifying key stakeholders throughout the organization. When this document is combined with KM business plan it will allow "TRADOC's CKO office and the CKOs and KM groups at the MSOs and CoEs will need to create awareness and build advocacy for those initiatives throughout TRADOC," according to the TRADOC KM Strategy. Furthermore, "These individuals and

groups must leverage the support of the TRADOC CKO, DCG, CG, and other key stakeholders to provide visible, and required, support for KM in order to change behavior and support new ways of working across TRADOC," according to the TRADOC KM Strategy.

Challenge Number 2 – Content Management

Another challenge for TRADOC KM is managing the content as well as the technology used to interface with the target audience. Within TRADOC there is a wide diversity of content. There is information coming from current operations, training operations and other alternative venues. There is a vital need to ensure that a consistent and structured approach is taken to facilitate the transfer of knowledge and the location where it is held. Content management is addressed through the use of data managers. "These data managers will help in the full implementation of the Army Data Transformation Plan, with an eventual goal of establishing a net-centric data environment where the right info can be delivered to the right person at the right time," according to the TRADOC KM Strategy. Technology provides the medium through which TRADOC KM communicates and manages content. "Technology, when introduced at the right time to the right people, can be a very powerful medium for improved learning, increased collaboration and productivity, and improved organizational performance," according to the TRADOC KM Strategy. They key is identifying the right technology to support collaboration and knowledge sharing throughout the organization and maintaining interoperability.

In 2007 TRADOC conducted the War fighter Survey, as part of the Knowledge and Information Management in the Generating Force Study, and found approximately 2 percent of shared knowledge is made accessible to the broader Soldier community. Three other key facts were also ascertained: 90 percent of repositories support some level of search, yet 48 percent of Soldiers rated an effective search function as the primary knowledge-sharing constraint; Twice as many Soldiers contribute Observations, Insights, Lessons (OIL) (51%) as Soldiers who search for OIL (28%); and 47 percent of Soldiers would like to search more but do not have enough time (26%) or feel the process is very difficult (21%).

Challenge Number 3 – Using KM to Train

These numbers provide an insight into another

challenge that TRADOC KM faces. That challenge is "creating a process to provide consistent and systematic KM training and education will ensure that it reaches the majority of stakeholders while also enabling TRADOC's KM office to maximize economies of scale," according to the TRADOC KM Strategy.

TRADOC also found itself competing to ensure that it could develop equitable staffing and resourcing of KM across TRADOC MSOs and CoEs as well as identifying gaps to meet requirements and mission needs. Key to this was its ability to communicate and use its KM governance structure. "TRADOC's KM governance structure will be the key enabler for identifying appropriate messages and related audiences for communication regarding the KM initiatives throughout their design and implementation, as well as sustaining the KM program," according to the TRADOC KM Strategy.

Challenge Number 4 – KM Governance

There are three levels of governance within TRADOC. First there is the CKO which provides insight and integration into the TCP as well as ALC, and ATC. There is also the TRADOC Knowledge Management Council which is comprised of the Knowledge Management Officers from the KM Cells within TRADOC. Currently TRADOC has approximately 14 KM Cells spread out across its various commands. These include Army Accessions Command, Initial Military Training, Combined Arms Center, Army Capabilities Integration Center, Sustainment, Army Medical Department CoE, Fires CoE, Maneuver CoE, Maneuver Support CoE, Aviation CoE, Intelligence CoE, Signal CoE, Army Training Support Center and Army War College. TRADOC KM governance utilizes a diverse set of capabilities to maintain constant input and refinement from the bottom up. Not only does it utilize the TKMC but holds KM forums to discuss various issues and ensure unity of message across its diverse commands.

Challenge Number 5 – Sharing Best KM Practices that support Organizational Adaptation

Perhaps the best explanation of KM and its use comes from Gen. Martin E. Dempsey, TRADOC commanding general, in his remarks to the 5th annual Army Operational Knowledge Management Conference in October 2010.

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“Knowledge management is a tool that will enable us to more effectively deal with uncertainty and the rapid pace of change. It will enable us to successfully decentralize by providing the means to aggregate information and intelligence from that empowered edge. Knowledge management will also enable us to prevail in the competitive learning environment and ultimately adapt more quickly than our adversaries. Why? Because it brings together processes and people enabled by

technology speed and accessibility to create the context for exchanging individual and collective information and experience.”

KM has also proved instrumental in the development and use of Warfighter Forums. There are 15 active forums dedicated to various cohorts across the Army. Each forum acts as a focal point for information dissemination as well as a collaborative meeting space where issues pertinent to each cohort can be discussed. Information right from the front lines can be passed along to those about to deploy. The rapid integration of



SKN & Sustain WfF within Training & Leader Development Not Just Training KM...Using KM to Train

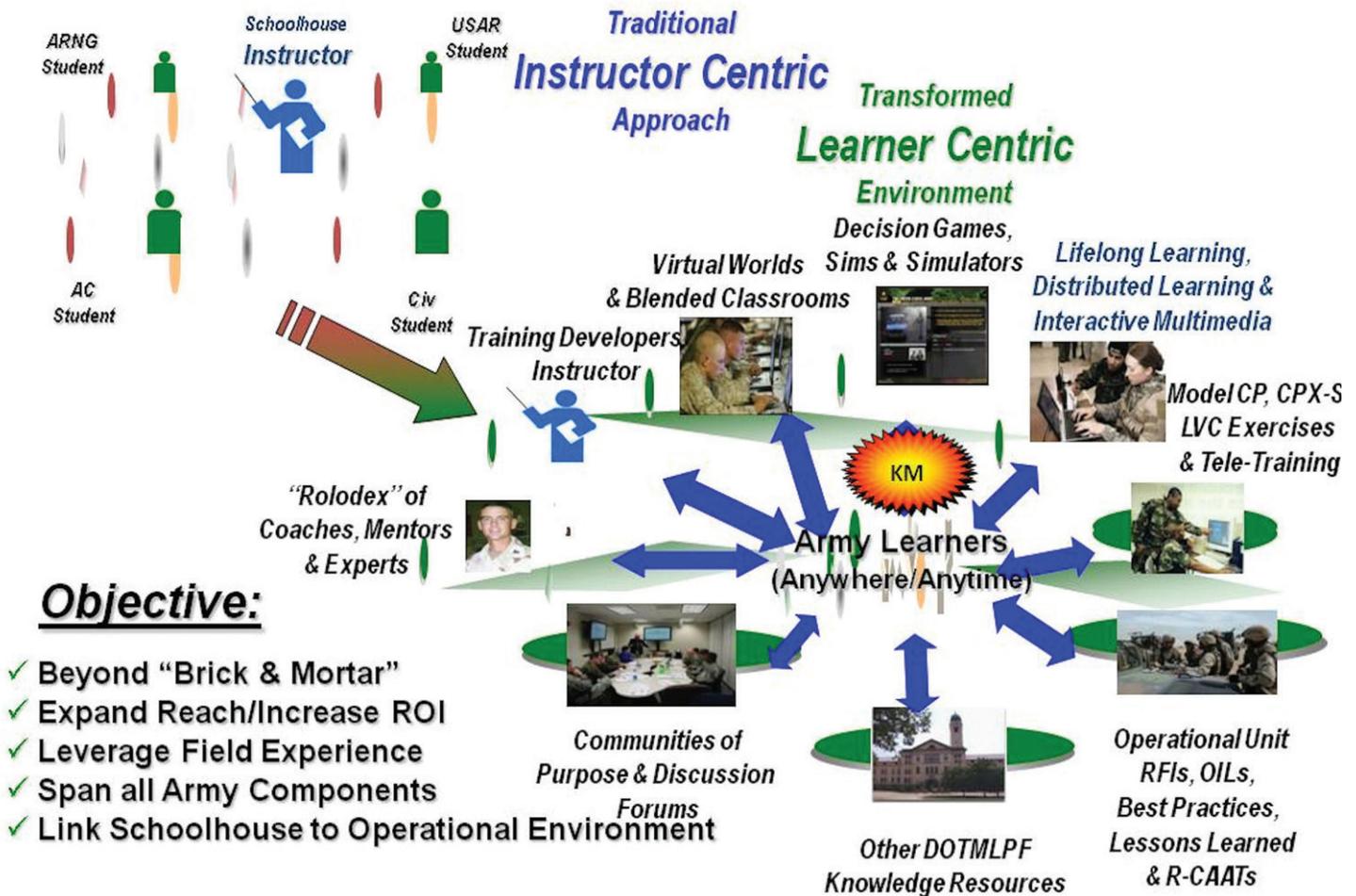


Illustration 3: Not Just Training KM....Using KM to Train

knowledge dissemination can occur in as little as a few keystrokes. GEN Ann E. Dunwoody, commanding general of U.S. Army Material Command, encouraged the use of forums as a method to adapt Army culture and institutions.

“Warfighter forums offer excellent opportunities for communication, collaboration, and coordination of the Army’s support to our warfighters. I encourage maximum participation as we work together to sustain, prepare, reset and transform our products and processes. Each member of the Army team can take an active role in the effort to adapt our culture and institutions as we rebalance our Army.”

This is why KM practitioners are imbedded at every level with an emphasis on training and leader development. TRADOC KM seeks to develop, implement and institutionalize a sustained Army knowledge management leadership education program which addresses all levels of professional development across the total Army.

In addition TRADOC KM is working to change the traditional Instructor Centric approach to a Transformed Learner Centric Environment. It is not simply a matter of training KM but rather using KM to train. With new emergent technologies and a generational change KM is able to connect the right information to right user more rapidly.

Since KM is integrated into the ALC 2015 it plays an essential role in the methods in which the Army trains its Soldiers. Whether it is using lessons learned combined with simulations to create virtual, training environments or creating

distributed learning and interactive multimedia packages KM works to bring knowledge to those who can benefit from it the most.

Conclusion and Way Ahead

TRADOC has leveraged the Army KM Principles to develop a strategy to provide a Key Enabler for executing the TRADOC Campaign Plan. The last two years have demonstrated that opportunities for success are boundless. While challenges do exist in resources and focusing the organization to “do the right things right,” the key to success in the future will be to leverage Army Enterprise Services to provide the technical infrastructure to deliver knowledge to the mobile learner and warfighter, anywhere, anytime. Follow on articles will address some of the issues that the leaders in the Department of the Army must resolve in order to deliver the broad range of knowledge management services to our warfighters and their families.

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Join the Discussion
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ACRONYM QuickScan

AAC - Army Accessions Command
AKMP - Army Knowledge Management Principles
ALC 2015 - Army Learning Concept
AMEDD - Army Medical Department
ArCIC - Army Capabilities Integration Center
ATC - Army Training Concept
ATS - Army Training Strategy
ATSC - Army Training Support Center
AWC - Army War College
BCKS - Battle Command Knowledge System
CAC - Combined Arms Center
CALL - Center for Army Lessons Learned
CKO - Chief Knowledge Officer
CoE - Center of Excellence
DOTMLPF - Doctrine, Organization, Training,

Material, Leadership, Personnel and Facilities
IM - Information Management
IMT - Initial Military Training
JKDDC - Joint Knowledge Development and Distribution Capability
JNTC - Joint National Training Capability
KM - Knowledge Management
MSO - Major Subordinate Organizations
OIL - Observations, Insights and Lessons Learned
OSD - Office of the Secretary of Defense
T2 - Training Transformation Initiatives
TCP - TRADOC Campaign Plan
TKMC - TRADOC Knowledge Management Council
TRADOC - Training and Doctrine Command