

Knowledge Transfer ...through People



**United States Strategic Command
Knowledge Transfer Office**

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INTRODUCTION

Knowledge management is a concept that has evolved during the past 20 years. It is the art of creating, organizing, applying, and transferring knowledge to improve performance, organizational learning, and innovation. This is accomplished by leveraging technology, processes, and people that help to make organizations more effective and efficient.

The human element is the most significant factor in the development of a successful knowledge management program. Unfortunately, management typically focuses on the technology and process aspects because they are easier to understand and manage. Our review of academic, commercial and government programs suggests that the greatest return on investment is achieved through efforts to develop knowledge appreciation by organizations. That is, an investment in human and social capital in order to create an environment that encourages the transfer of knowledge among its members.

This concept recognizes that knowledge is intangible and invisible, which makes it difficult, if not impossible to manage or control. Success depends upon the development of an organization that facilitates, encourages, recognizes, and leverages its knowledge workers. The real value of knowledge is achieved by creating an environment that has positive rewards for people who share and collaborate with other people.

Research has demonstrated that decision making, problem solving, and human performance is improved through social interactions. For example, Massachusetts Institute of Technology (MIT) researcher, Tom Allen, found that "engineers and scientists were roughly five times as likely to turn to a person for

information as to an impersonal source such as a database or a file cabinet."¹ In another study conducted by researchers at the University of Chicago, they determined that business executives who received training in social networking concepts were over 40% more likely to receive higher performance recommendations, to be promoted, and be retained after a two year period.² Yet, we tend to concentrate our efforts on developing the file cabinet.



In this document, we highlight knowledge transfer strategies implemented by other Department of Defense (DoD) organizations. Next, we identify several challenges faced within the DoD and U.S. Strategic Command (USSTRATCOM) that hinder our ability to leverage our knowledge workers. We then present six principles that are important to creating a culture that appreciates knowledge transfer. Finally, we describe several initiatives that are being considered and/or implemented within USSTRATCOM that will enhance organizational learning and performance.

¹ Cross, Rob "The Hidden Power of Social Networks" page 11.

² Burt, Ronald. "Teaching Executives to See Social Capital: Results From a Field Experiment."

KNOWLEDGE SHARING STRATEGIES WITHIN DOD

The post 9/11 threat environment is characterized as complex and unstable. DoD organizations must be able to respond through creativity, innovation, and flexibility. Both the Transformation Planning Guidance, April 2003 and Joint Vision 2020, "America's Military: Preparing for Tomorrow" describe the need to increase knowledge sharing, mutual understanding, and collaborative decision-making.

Leveraging our human resources is critical to creating a learning organization that facilitates knowledge transfer. The National Defense Strategy, June 2008, states that, "The people of our Total Force are the greatest asset of the Department. Ensuring that each person has the opportunity to contribute to the maximum of their potential is critical to achieving DoD's objectives and supporting U.S. national security.... The goal is to break down barriers and transform industrial-era organizational structures into an information and knowledge-based enterprise."

The USSTRATCOM Commander, Gen. Kevin P. Chilton, identified the importance of human capital during his speech at the U.S. Air Force Air Warfare Symposium on Feb. 21, 2008 "You need people. You need the human capital with the expertise, knowledge, and know-how." A knowledge transfer program recognizes that people are the critical element for organizational success and focuses on human capital development.

The military services have embraced knowledge-based initiatives through official policy statements, doctrine, and programs. "The Department of the Navy Knowledge Management Strategy" dated Oct. 20, 2005 recognizes the value of knowledge management by "fostering collaboration across organizational boundaries, time, and

space, and links people who have the requisite tacit and explicit knowledge with those who need it to do their job."

The Secretary of the U.S. Army issued the "Army Knowledge Management Principles" in July 2008, supporting the creation of a knowledge-based environment throughout the Army. In addition, the U.S. Army published Field Manual (FM) 6-01.1 Knowledge Management Section in August 2008, establishing the doctrinal principles, tactics, techniques, and procedures necessary to effectively integrate knowledge management into the operations of brigades, divisions, and corps. These documents have helped to define and recognize the value of creating a knowledge-based culture within DoD.



One of the best examples of the growing acceptance of a knowledge-based culture is the creation of a U.S. Army blog site called CompanyCommander.com. The initial concept was developed in 2002, by two U.S. Army officers who realized the value of sharing experiences and lessons learned from time spent in Iraq. The rapid acceptance and use of the site lead U.S. Army leadership to officially endorse, resource, and expand the concept into CompanyCommand.army.mil. Today,

Battle Command Knowledge Systems (BCKS) is leading the way by developing and implementing training, websites, and principles that foster the sharing of knowledge.

WHAT IS KNOWLEDGE TRANSFER?

Knowledge management has become a catch phrase for anything to do with information, communication, collaboration, and associated technology. The phrase implies the ability to control and direct the management of knowledge. Most people associate knowledge management with the capture and use of explicit knowledge that can be codified, stored in a database, or easily displayed.

The concept of knowledge transfer is one aspect of the larger knowledge management discipline. The U.S. Army defines it in FM 6-01.1 as, "The movement of knowledge – including knowledge based on expertise or judgment, from one person to another." This definition emphasizes the exchange of tacit knowledge through personal connections and that knowledge is embedded in work practices and bound by individually based experiences, judgments, and skills. As a result, it is impossible to fully capture it in a report or PowerPoint slide. While it is important to be able to discover and access explicit information, it is the actual transfer of tacit knowledge that is vital to increased learning and knowledge within an organization (figure 1).

Knowledge transfer is enabled through social interactions among people within formal and informal networks. It is beneficial to facilitate the establishment of personal connections to increase knowledge flow within an organization. This is based on the understanding that it is not only what you know but also who you know. Successful organizations facilitate and

support opportunities for personnel to interact, understand the value of informal conversation, and have established cultures that encourage a responsibility to share. The next sections identify the challenges and opportunities that a knowledge transfer program seeks to address.

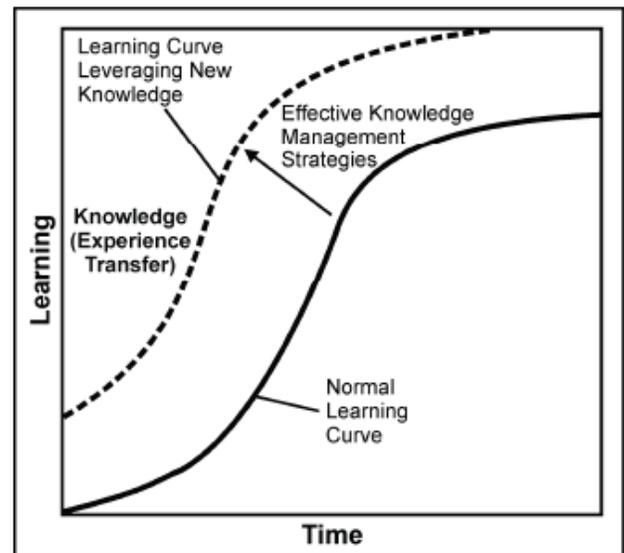


Figure 1

Challenges to Knowledge Transfer

Within the DoD and at USSTRATCOM, we face a number of challenges to transferring knowledge between those who know and those who need to know. Failure to share knowledge can result in longer decision cycles, degraded quality, and missed opportunities. These challenges minimize the effectiveness of both individuals and the organization.

A significant challenge is our perpetually changing workforce. Military personnel rotate roughly every 3 years, a large population of the civilian workforce is eligible to retire, and contractors potentially change at the end of each contract cycle. This continuous workforce turnover creates uncertainty in retaining knowledge and experience from departing personnel.

Our varied missions require us to work with people in a geographically distributed environment. It is often difficult to locate and reach out to other people across the globe. Multiple security domains also add to the complexity, making it difficult for people to collaborate and transfer their knowledge. It is important to be able to interact with individuals from both inside and outside the DoD.

KNOWLEDGE TRANSFER PRINCIPLES

Although we have many challenges, it is possible to develop ways to overcome them. We developed the following six guiding principles based upon the understanding that knowledge resides within people. The purpose of these guiding principles is to make people aware of the benefits and necessity to embrace knowledge transfer in their daily work routines.

Exploit tacit knowledge.

Information captured in digital form, on paper, and in pictures generally tells what and why, but not how. Tacit knowledge explains the "how" and resides in individuals. It includes experience and expertise gained from operations and training, learned nuances and subtleties, and work-arounds. Mental agility, effective responses to crises, and the ability to adapt to change are also forms of tacit knowledge. This knowledge form is the domain of individuals, not technology.

Promote knowledge transfer as a social and interpersonal activity.

The process of knowledge transfer can be enhanced through participation in interpersonal activities that are designed to expand shared experiences. Relationship

building activities further the goals of creating a knowledge sharing environment.

Focus on sharing knowledge.

Improved organizational effectiveness, operational processes, and decision-making are results of a knowledge sharing culture. This requires a culture in which people seek out others who have the knowledge and actively build their personal social network to improve knowledge sharing.

Connect people with expertise.

Knowledge transfer occurs when individuals are able to connect with others who have the desired expertise and experiences. Being able to leverage one's personal network through awareness and information technology can aid individuals who seek out, and desire to connect with the appropriate experts.

Foster a learning organization based upon knowledge transfer.

People learn from both their personal experiences and through the experiences shared by others. Organizational learning strategies should encourage interactions and collaboration that promote knowledge transfer among individuals in organization. Fostering learning produces organizations and personnel who are able to learn faster than enemies and adversaries do.

Promote trust and mutual understanding.

Successful knowledge transfer depends on willingness to share knowledge so that others can benefit. This requires trust and understanding on both a personal and professional level. Organizational initiatives should seek to increase trust and understanding among people in the organization to build stronger relationships.

KNOWLEDGE TRANSFER ADVOCACY

Knowledge transfer advocacy seeks to increase awareness and understanding of the knowledge transfer principles. Building awareness of knowledge transfer techniques can be maximized by utilizing multiple mediums that reach out to knowledge workers at different levels. The following are the primary methods that will be used to encourage people to embrace culture change:

Method	Description
Newsletters	The distribution of newsletters provides an effective method for making people aware of current and relevant topics related to knowledge transfer. Within USSTRATCOM, the Knowledge Transfer Office publishes "The Collaborator," a two page newsletter focused on specific knowledge transfer themes and concepts
Videos	Short video clips utilize visual and audio techniques to present specific knowledge transfer topics. Several short videos have been produced by other DoD organizations, including OSD/NII, U.S. Army CIO/G6. In addition, USSTRATCOM Knowledge Transfer Office has produced short videos that support an overall awareness program.
Workshops	Workshops, seminars, and other training forums provide a deeper understanding of knowledge transfer concepts through discussion and learning. The USSTRATCOM Knowledge Transfer Office conducts workshops, offering an in-depth exploration of knowledge transfer concepts such as leveraging social networks in the workplace.
WebPages	Wiki, SharePoint, and other web pages offer information seekers a resource to find explicit information or subject matter experts. Pages are available on multiple domains to maximize availability.
Organizational announcements	Announcements reach out to organizational employees to inform them of knowledge transfer initiatives. The USSTRATCOM Knowledge Transfer Office regularly posts information on internal web pages such as STRATWeb and SKIWeb.
Leadership awareness	Briefings and concept documents provide leadership with an understanding of the knowledge-based initiatives. The USSTRATCOM Knowledge Transfer Office provides leadership briefings on the application of knowledge transfer concepts available to the organization.

KNOWLEDGE TRANSFER INITIATIVES

There are numerous initiatives that can be used to implement the knowledge transfer principles within an organization. These efforts range from conveying past experiences through narrative techniques to a process of envisioning the future through scenario building. The following are initiatives relevant to USSTRATCOM.

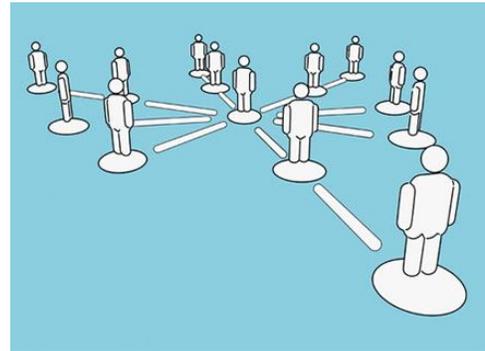
After action reviews: These capture and organize lessons learned after a major exercise or real world event. Knowledge transfer best practices can help facilitate behavioral changes that are beyond just capturing a deficiency or best practice.

Brown bag lunches: This brings people together around a topic of interest. This allows people to establish relationships with others and talk about their relevant experiences.

Communities of practices: These are groups of individuals who form a network centered upon a shared interest or practice. These voluntary groups differ from work groups or teams who are assigned to work on a specific task.

Conferences: These provide a forum for subject matter experts to swarm around a specific area of interest. This provides an opportunity for individuals with similar interests to expand their social network.

Greybeard programs: These programs leverage key retired personnel to share organizational history and to transfer knowledge of how they tackled past challenges. This may be implemented through a seminar series, panel discussions, or video recordings.



Knowledge trade fair: This is a best practice from industry to facilitate a learning environment where employees can learn about different parts of the organization outside their individual work area. A knowledge trade fair can be portrayed as an internal conference or exhibit fair that helps to broadcast the organization's expertise to its employees.

Listserves: These can be a great resource for connecting individuals who share similar interests and staying current on what is happening. Listserves are professional electronic mailing lists based on a specific topic. These mailing lists are usually supported by a mail server or website that automates the subscription of users and the forwarding of messages to an email group.

Mentoring: These programs are valuable for helping new employees learn from those more experienced, as well as providing experienced employees opportunities to learn new innovative ideas. A mentoring program can reduce the learning curve for new employees by helping to establish valuable social connections.

Narratives and storytelling: This is an ancient method for passing along wisdom and culture. Stories are a powerful way to exchange knowledge by grabbing the attention of the reader or

listener. A well-told story can build trust, cultivate organizational norms, transfer tacit knowledge, and generate emotional connections. Storytelling has been used at organizations such as the World Bank, NASA, and the U.S. Army to create a knowledge sharing culture.

Off-boarding: This is the process of capturing the explicit and tacit knowledge from employees as they leave the organization. The program can include establishment of exit interviews or creation of alumni associations for former employees.

On-boarding: This is a best practice for integrating new employees into the social networks of an organization. This initiative identifies the critical people in a network that are important to perform a job. When a new employee arrives, management ensures they are connected to those individuals in the applicable network.

Scenario building: This is a technique to help participants envision the future in terms of people, processes, and technologies. This process uses the participant's knowledge to look at what could be. It facilitates the development of innovative ideas and helps crystallize future requirements.

Social gatherings: These provide opportunities for employees to meet others and strengthen existing relationships. They can range in size from a specific branch to the entire organization. They can also be official events such as holiday parties or informal monthly social events.

Subject matter expert index: This provides the ability to search for people within an organization who possess skills or expertise relevant to a specific issue. Knowledge transfer initiatives focus on making people aware of the value of the search capabilities and the need to share their information.



SUMMARY

There is a growing requirement for our military forces to operate as an agile unit that is able to rapidly adapt to changes in the threat and operational environment. It is critical to create an environment within DoD and USSTRATCOM that encourages people to discover, access, share and transfer knowledge.

Knowledge resides in the context of people's experiences and is transferred as people work together to solve problems. Although it is important to codify knowledge in databases, we need to focus on initiatives which promote knowledge transfer through social interaction. The long-term benefit of a knowledge transfer program enhances the ability of the organization to adapt in a changing threat environment. It focuses leadership and management attention to leveraging our greatest national asset...our people.

This document has outlined the need for individuals and organizations to embrace knowledge transfer principles. Unlike previous knowledge management programs, these principles recognize that technology is an enabler and not the focus. The flow of knowledge depends on people and the social environment they operate in. As leaders and managers, it is important to understand the potential for improved performance by promoting a knowledge transfer culture within the organization.

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