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Soar to New Heights
...with ASMC!

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Managing Knowledge in the Comptroller Community

by Jamie Schutze

Welcome to the Information Age.

Lest anyone think it hasn't changed our ways of doing business, look at how companies have used information to replace their physical assets—shrinking their inventories; consolidating their warehouses; and, in the case of banks, for example, replacing brick and mortar with information kiosks (ATMs) and on-line transactions.

Businesses have sped up their product development times by sharing knowledge across functional areas. They've improved distribution management by tracking shipment information from point of origin to point of delivery. And most of us work in organizational structures that have significantly flattened in response to the ability of electronic communication to easily and quickly convey information and guidance up and down the chain of command.

We are in a new age. But with these new opportunities also come new challenges, chief among them how to manage all that knowledge generated in the Information Age.
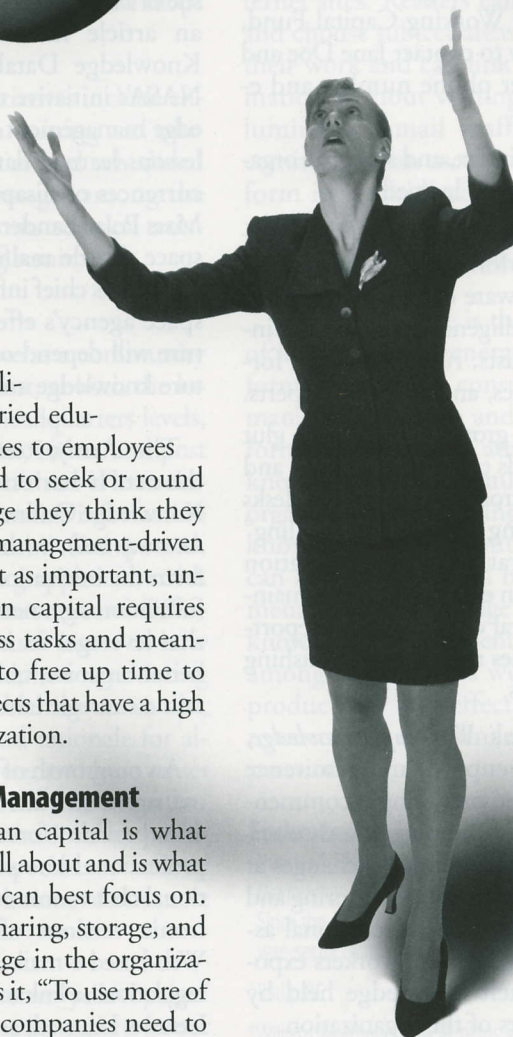
In his book *Intellectual Capital: The New Wealth of Organizations,* Thomas Stewart argues that there are three parts to intellectual capital: human capital, structural capital, and customer capital.[1] The human capital is the sum total of the knowledge of the workforce. And quite a force it is—on average, a 10 percent increase in workforce education led to an 8.6 percent gain in annual productivity in one study, while a similar 10 percent rise in capital stock (equipment) led to increased productivity of only 3.4 percent.[2]

According to Stewart, increasing this important human capital in an organization is facilitated by offering varied educational opportunities to employees who are empowered to seek or round out what knowledge they think they need, as opposed to management-driven training courses. Just as important, unleashing the human capital requires minimizing mindless tasks and meaningless paperwork to free up time to concentrate on projects that have a high return to the organization.

Structural Capital Management

Leveraging human capital is what structural capital is all about and is what I believe managers can best focus on. In essence it is the sharing, storage, and retrieval of knowledge in the organization. As Stewart puts it, "To use more of what people know, companies need to create opportunities for private knowledge to be made public and tacit knowledge to be made explicit."

Unfortunately, resident experts don't often have the opportunity or the time to share their knowledge. Worse yet, they frequently retire or find other jobs in different organizations. So capturing their knowledge as an organizational asset increases the company's value and its ability to perform its job. Some of the ways Stewart recommends to build structural capital are to:

- Recognize, encourage, and support communities of practice, which are the social and professional groups in which knowledge is built and transferred. An example might be the community of accountants in the corporation or the professional organization to which many of those accountants belong.

- Create knowledge maps or corporate "yellow pages" that allow workers to quickly find the resident experts on various subjects. This requires that all persons or key employees be indexed by their areas of specialized knowledge so that when someone from a distant part of the organization needs help, for example, on finding information on the Defense Working Capital Fund, he will know to contact Jane Doe and will have her phone number and e-mail address.

- Document, index, and store the organization's lessons learned.

- Share best practices of the organization's best performers through decision support software or perhaps through artificial intelligence programs, to include checklists, rules of thumb, formal guidelines, and names of experts.

- Combat the growing knowledge glut (the hundreds of e-mails, articles, and reports that cross our screens and desks daily) by using information "pulling" techniques rather than information "pushing." An example of this is maintaining central databases with reporting capabilities rather than publishing paper reports.

In their book *Working Knowledge,* Thomas Davenport and Laurence Prusak echo the preceding recommendations and add the suggestions to encourage more face-to-face exchanges at the workplace and to use mentoring and apprenticeships, such as rotational assignments, to give more workers exposure to the tacit knowledge held by senior members of the organization.

Both books acknowledge the value of information technology in managing an organization's knowledge resources. Current information technology resources include e-mail, corporate databases, decision support systems, electronic libraries, and Intranets. Though the authors don't advocate throwing automation at the solution, they advise that automation and communications technology, when applied judiciously, will make knowledge storage, sharing, and retrieval a key productivity tool and a corporate competitive asset.

Knowledge Management Gets Its Due

Knowledge management is getting increased attention in management circles. It's also getting a lot of press. A recent issue of *Federal Computer Week* contained an article headlined "NASA Plans Knowledge Database."[3] It explained NASA's initiative to establish a knowledge management team and to set up a lessons-learned database to prevent recurrences of disappointments like the Mars Polar Lander crash and the recent space shuttle malfunctions. According to NASA's chief information officer, the space agency's effectiveness in the future will depend on its ability "to capture knowledge and bring it forward."

The Army, too, is getting in on the act. It has established the "Army Knowledge Online" Internet site (*www. us.army.mil*), with a charter to "transform the institutional Army into an information-age, networked organization that leverages its intellectual capital to better organize, train, equip, and maintain a strategic land combat force."

An outgrowth of an Army knowledge management initiative, the site is intended to provide a forum for the exchange of professional knowledge through functional chat rooms and newsgroups, electronic versions of Army periodicals, Web-based e-mail, a repository of Army regulations, a link to the Center for Army Lessons Learned, and search engines for Army Web sites, installations, personnel, and news.

Progress Among Comptrollers

How is the comptroller field doing in knowledge management? Actually, I'd argue that in many respects it's leading the charge. Dollars may be the coin of the realm, but information translates into most bottom-line decisions, and its availability, analysis, and application are vital to the resource management (RM) community.

The financial managers of the world have reams of information, ranging from accounting reports to per diem rates, average salaries, equipment cost factors, inflation tables, and personnel strengths, all of which bear on major operational decisions. And they do a pretty good job of organizing this information and making it available to the RM community of practice.

The Assistant Secretary of the Army for Financial Management and Comptroller, ASA(FM&C), has an excellent Web site (*www.asafm.army.mil*) that offers indexed information on all facets of RM. For example, an analyst can find DoD-approved inflation tables on the Web site, as well as a primer on how to use inflation indices written by an expert in the field. The site has links to RM newsgroups and to other Army, DoD, and federal sites, such as DFAS, OPM, and GSA, which have information on accounting guidance, pay tables, and per diem rates, respectively.

Major commands can access and download their financial and manpower guidance from the ASA(FM&C) site. RM careerists can learn of training, rotational assignments, and job opportunities. RM professionals can read the current and back issues of the *Resource Management* magazine.

Last year's American Society of Military Comptrollers Professional Development Institute (PDI) featured a workshop on Advancing Knowledge Management in DoD. The Army's Software Development Center-Washington, a PDI exhibitor, demonstrated the technique of data warehousing and data mining of financial and feeder system (personnel, logistics, contracting) data. Their Financial Management Information System (FMIS)[4] allows an analyst or manager to get summary-level information and to drill down into the data to get source-level transaction data to clarify the big picture or to research discrepancies between the financial and feeder systems. This kind of

one-stop information resource will greatly increase the information available to the analysts, thus increasing their efficiency, and will provide to managers the total-picture knowledge required for making resource decisions.

Knowledge Management at the Local Level

Resource management shops below the service headquarters level are also working toward knowledge management objectives, albeit not always with that goal in mind. The Army Signal Command (ASC), a major subordinate command of the U.S. Army Forces Command, currently uses shared databases on central servers to store its major budget and manpower applications as well as current and historical accounting information. Up-to-date dollar and manpower information is a click away via canned reports and queries.

ASC is now moving toward Web-based applications to extend real-time information among the HQ staff and to its worldwide subcommands, and to make its budget and reporting processes interactive.

The ASC G8 is also heavily involved in developing the Command's Intranet site to include indexed RM policy documents, guidance, status of major projects, and a directory of employees. In addition to these automation initiatives, the G8 has recently begun a program of knowledge sharing via its *5-Minute Resource Manager* newsletters. They provide information and tutorials to subcommand commanders and resource managers on topics of major RM interest. Recent issues included tips on PPBS insertions points, working with the Army's Training Resource Model, and how to write effective Unfinanced Requirement issues. The G8 also recently developed strategic objectives, many of them indirectly addressing the building of structural capital within the organization.

To develop multidisciplined analysts, the G8 will approach other Army and DoD RM organizations on Fort Huachuca to propose rotational assignments with them. This cross-fertilization will make more balanced and experienced budget and manpower analysts. And it will facilitate communication among the RM community of practice, sharing previously tacit or isolated information among the various RM shops on post.

Other strategic initiatives include encouraging long-term training and educational opportunities and scheduled information interchanges among the HQ functional staffs via technical training or info swapping seminars.

Are We There Yet?

There are things we as a community can still do better. First, at both the local and the Service headquarters levels, we need to document, index, and post our lessons learned so there is less reinventing the wheel. Routine information issues can be captured and posted, rather than having to grapple anew with these issues each time someone different tackles them—such issues as how pay raise is calculated, how accounting system interface problems were solved, what the method and rationale for allocation processes were, and how we set up CONOPS accounts. We can become learning organizations by building upon earlier experiences and by documenting the solutions of our most knowledgeable folks.

Second, we need better "yellow pages" to find the subject matter experts in our community. Though many RM organizations have on-line phone directories organized by directorate and division, few if any have subject indices that allow a worker to find the knowledgeable person in areas such as foreign currency, contingency operations, or activity-based costing.

Third, like the rest of the federal workforce, we suffer from information overload. We need to push more of our information off e-mails and onto Internet or Intranet sites. The information can then be announced by short e-mails that summarize their content and location.

The Army Signal Command G2 shop provides to the headquarters staff a daily digest e-mail that lists newsworthy items on DoD and other Internet sites. Readers can quickly pick and choose subject areas important to their work and can link to that information without wading through voluminous e-mail traffic. The RM community can use this practice to inform its multidisciplined workforce without overburdening either workers or the communications bandwidth.

The bottom line is that a great deal of knowledge is generated in the Information Age. A conscious effort to manage the human and structural information capital is advantageous to knowledge-based organizations. Many organizations are setting up corporate knowledge offices, but comptrollers can also move toward better management of RM knowledge assets. Raising knowledge management consciousness among comptrollers will increase the productivity and effectiveness of our resource management community of practice.

Endnotes

[1] Thomas A. Stewart, *Intellectual Capital: The New Wealth of Organizations* (New York: Doubleday/Currency, 1997), p. 75. Since the customer capital is primarily applicable to private-sector companies, I've not discussed it here.

[2] Ibid, p. 85.

[3] William Matthews, "NASA plans knowledge database," *Federal Computer Week*, April 17, 2000, p. 22.

[4] Additional information available from *clarkh@fairfax-emh1.army.mil*

Jamie Schutze is the Senior Budget Analyst for the Army Signal Command. He is a graduate of the Army Comptrollership Program at Syracuse University and is currently attending the Army War College. He's a past Chapter President of ASMC Cochise Chapter.