



June 2008  
Vol. 53, No. 6

## Passing On Know-How

*Knowledge retention strategies can keep employees' workplace-acquired wisdom from walking out the door when they retire.*

By Jean Thilmany

### WEB EXTRAS

SHRM article: **Employers Slow To Capture Baby Boomer Knowledge** (HR News)

SHRM article: **Research: Small Firms Best at Preparing for Aging Workforce** (HR News)

SHRM article: **Plugging the Boomer Drain**

When retirees walk out the door, they take with them everything they've learned on their jobs. Their replacements must slowly regain the on-the-job knowledge the ex-employees spent years accumulating.

In certain industries where special technical information is the norm, a retiree may be the only person who knows how to operate certain heavy machinery or expertly mix a chemical solution.

To prevent valuable information accumulated on the job from getting lost in the transition, HR professionals at many companies are finding ways to retain employees' know-how and best practices so that the information can be passed on to future workers. Tapping into -- or capturing -- and documenting employee knowledge takes a number of forms. Some companies interview employees and keep written records of their answers. Others make

employees the stars of their own "how-to" videotapes. Still others encourage workers seen as experts in specific areas to mentor other staffers or to remain on call after their departure dates.

In addition to capturing instructions for performing everyday tasks, these methods apply to the transfer of so-called soft knowledge, such as tips and tricks that no written manual is likely to include and that the departing employee often doesn't think to pass on.

### How To Begin

Why are companies focusing on knowledge capture now? Many experts point to the baby boomers now reaching retirement age, saying information will be walking off the job with them.

"We have a confluence of factors hitting organizations at the same time," says David DeLong, author of *Lost Knowledge* (Oxford University Press, 2004). "A major demographic bubble is bursting -- that is, the retirement of baby boomers -- and we're now retiring the first generation of professionals and managers who have deep knowledge of certain management practices, scientific fields, and complex and technical systems."

DeLong says baby boomer retirement is only one cause of employee knowledge loss, albeit a significant one. Another cause: In some areas, science and technology changes occur so quickly that even young employees leaving a company may take with them information that can't be easily replicated, including critical knowledge of external systems, social networks or new-product development, DeLong adds.

How a company implements a knowledge capture program depends on its structure, size and specialty as well as its business practices, says Darlene Lamp, a technical superintendent at LyondellBasell, a worldwide polymer manufacturer based in Clinton, Iowa.

Foreseeing a spate of retirements, LyondellBasell kicked off a knowledge retention program early last year. The first step was

asking key employees to take notes on what they'd learned during their tenures, items "that they knew weren't already documented," Lamp says.

Though the practice was somewhat effective, Lamp's team soon sought a more formal method to capture and disseminate vital job knowledge. Last fall, the company contracted with Knowledge Harvesting, a Birmingham, Ala.-based consulting firm whose employees capture and formally record the sometimes-amorphous information departing employees have learned on the job. LyondellBasell chose two soon-to-retire experts with vital job skills to work with Knowledge Harvesting.

One of the employees was a chemical specialist who had become an expert on a chemical catalyst process. During the course of one week, Pam Holloway, co-partner of Knowledge Harvesting, conducted structured interviews, of two to three hours each, with the employee.

"The majority of the important knowledge in an organization is in somebody's head. You really don't know what you have until you've lost it," Holloway says. "Our focus is on the difficult stuff that people do. That's not the same as documenting procedures that could be collected and made easily explicit."

As she did with the retiring chemical specialist at LyondellBasell, Holloway carefully structures interviews with departing workers to elicit employees' soft knowledge.

"I'm a psychologist by education and use many of those skills during those types of interviews," Holloway says.

She videotapes portions of the sessions that she finds need visual aids. When she interviewed the chemical specialist, for example, he told her that when the chemical reached a particular fluidity and color, it was ready -- a tidbit of information hard to pick up on the job. She videotaped the solution at the moment it achieved the desired color so future employees would have a visual reference.

The second LyondellBasell subject-matter specialist selected for the Knowledge Harvesting process rebuilt special mechanical equipment. Although the employee previously had been involved in training other workers during one-on-one sessions, trainees left those sessions with few documents to refer to, Lamp says.

"There were only so many instructions he could give trainees and still do his job," she explains.

But after Holloway interviewed the mechanical equipment expert, she encapsulated his know-how on a searchable web-based system accessible via the company intranet. Information gleaned from the chemical specialist also now resides on the intranet in a searchable format. For some segments, employees can click on video aids.

### **Mapping What They Know**

Consultant John Borchardt conducts soft-knowledge interviews for a large oil company in Houston. Certain industries, such as oil and parts of the information technology sector, have embraced knowledge retention interviews because the industries hire top-level employees from outside the field, Borchardt says.

In the oil and mainframe computer industries, the latter being one "kids don't want to get into today, the younger generation isn't around to step in," he says. And because of a slowdown in the oil industry during the 1980s, few oil companies took on new hires. As a result, many companies don't have seasoned workers within their ranks ripe for promotion and they must hire from outside the industry. These new executive and higher-level hires need more training than an internal employee who knows the oil industry would.

Borchardt spends about four hours interviewing each departing manager and executive, many of whom are engineers. He uses a technique called mind mapping common among business professionals, writers and artists alike to flesh out and organize thoughts in a nonlinear style.

Borchardt creates a diagram -- by hand and with the help of a software system -- that uses balloonlike graphics to visualize thoughts. He projects the diagram on a screen to help guide the interviews. A dialogue box is also projected on the wall so employees can follow what they say as Borchardt types.

"They see the thing taking shape, and it helps them structure their own responses and essentially say, 'I need to bring this up because it's not on your mind map,'" he says.

Borchardt then writes a report about 20 pages long that a new executive or manager can refer to when needed. The report includes organizational charts, an appendix and the mind map itself. Any employee can refer to the report at any time.

### **Making Knowledge Stick**

Retaining employee knowledge has also become a priority at 3M during the past few years as the issue of retiring employees has become more prominent, says Barry Dayton, head of the knowledge management program at 3M headquarters in St. Paul, Minn.

The company applies what Dayton calls high-tech, low-tech and no-tech methods to a gamut of knowledge retention measures.

"No-tech tools like storytelling work best for getting to that deep, tactical knowledge," Dayton says. High-tech "searchable knowledge bases are the best tools for knowledge that can be written down."

The company's searchable knowledge base, called Maven, makes the job information gleaned from 2,000 technical-service engineers across the globe accessible to all 3M employees. That's a huge business advantage in an industry where about 30 percent of the U.S.-based technical-service engineers are set to retire in the not-so-distant future, Dayton says.

Maven is a high-tech extension of a database system already in place at 3M's call centers. Historically, if call center representatives couldn't find an answer to a technical question, they'd ask a technical-service engineer, Dayton says.

"The rep called a favorite tech engineer and that person e-mailed them a file or PDF, and the process was done for another few months," Dayton says. "With this new process, that information goes into a corporate knowledge base the whole company can search."

The knowledge capture aspect and searchable parts of Maven already are being implemented in Canada and will be rolled out to all 3M locations in the future. The tool is complemented by a 3M corporate wiki that employees use to catalog and share expertise. Though similar in style to Wikipedia, the corporate system pertains only to 3M job information and can be searched only by 3M employees. Currently, experts are using the platform to contribute their know-how about low-class film manufacturing, for example.

The third tool in the 3M knowledge retention arsenal -- considerably less formal than Maven and the corporate wiki -- is a technique Dayton calls storytelling.

It works like this: A 3M department will identify business scenarios that, though they don't crop up often, happen regularly enough to merit consideration. When they do come up, these events can throw a wrench in day-to-day plant operation. Examples include a switchover to a new machine or a repair to production equipment that takes it offline.

After the situations are identified, Dayton's department creates groups of experts -- including production, maintenance and engineering employees previously involved in comparable situations -- to relate their experiences dealing with a similar event.

They "sit in a conference room and have facilitators ask them questions. We use software to map out their diagnosis of what happened" and what they did as a result, Dayton says. "We polish that up a little bit and publish it on their plant portal so that operators, in their spare time or when something happens, can do a quick search."

### **An Exchange of Ideas**

Though IBM has implemented many traditional knowledge management tools, its latest measure takes a slightly different tack than previous projects, says Karen Ughetta, director of learning and knowledge at the information technology giant. Last year, her department spearheaded a Learning Marketplace. The effort combines mentor and apprentice training with a searchable database filled with best practices and useful information.

To launch the project, IBM identified important business sectors likely to see the highest number of retirements in the near future. The company hired a consultant to help analyze the data, Ughetta says.

In some areas, the number of employees is dwindling because of retirement but the type of technology is in decline as well, so the areas are lower priority, Ughetta notes. After IBM identified high-priority business units, members of Ughetta's department asked pertinent experts in those units to mentor new employees as well as other employees looking to change jobs or pick up knowledge. Apprentices log on to the Learning Marketplace site to ask mentors questions. The dialogues are stored on the site.

"Most of this is done online, and it's much more valuable than a document," Ughetta says. "With IBM, a lot of people work from their homes, so this can be entirely virtual."

But for all the efforts many companies are making to capture the knowledge of retiring employees, some HR professionals say organizations need to do even more. Laurie Reeves, chief talent officer at the American Cancer Society, is concerned employees won't refer to static documents, whether stored as online dialogues or as written reports. And she's skeptical that employees new to a position will replay online videos.

Because of its makeup -- with 6,000 employees and close to 3 million volunteers -- the American Cancer Society relies on another approach to allow retirees to continue to impart their knowledge. The society encourages retirees to stay on as volunteers or to remain on call occasionally if a current employee wants to tap their expertise.

The society also uses other methods to retain retiree knowledge, such as conducting exit interviews and asking soon-to-be-departing employees to train replacements.

"You don't want a lot of information to walk out the door," Reeves says. "But there's a healthy employee life cycle, and for any organization to continually regenerate itself, people have to leave and come."

---

*The author is a freelance writer based in St. Paul, Minn.*

#### Reprints and Permissions

#### SPONSORED LINKS

##### [Time & Attendance Systems](#)

Easily collect time data with our exclusive clocks, and manage it through our software, TimeForce.  
[www.MyTimeForce.com](http://www.MyTimeForce.com)

##### [Pre-Employment Testing](#)

Know your employees before you hire. Aptitude, personality, skills tests. Free Trial.  
[www.criteriacorp.com](http://www.criteriacorp.com)

##### [Americans with Disabilities Act \(ADA\)](#)

Contact your regional ADA center today for information and training on the ADA.  
[www.adata.org](http://www.adata.org)

##### [Online Human Resources Certification](#)

Cornell University HR Certificate program, delivered 100% online from eCornell  
[www.eCornell.com](http://www.eCornell.com)

##### [Staff Files HR Software = Easy Employee File Mgmt](#)

Flexible, Fast & Easy to Use! Save time managing personnel records with this simple HRIS. Free demo.  
[www.abs-usa.com](http://www.abs-usa.com)

[Buy a Link Now](#)



Society for Human Resource Management

1800 Duke Street • Alexandria, Virginia 22314 USA  
**Phone US Only:** (800) 283-SHRM | (800) 283-7476  
**Phone International:** +1 (703) 548-3440  
**TTY/TDD** (703) 548-6999  
**Fax** (703) 535-6490  
**Questions? Contact SHRM**  
**Careers** [Careers @ SHRM](#)

Copyright © 2008, Society for Human Resource Management  
[SHRM Privacy Statement](#) | [Your California Privacy Rights](#)  
[Terms](#) under which this service is provided to you.