

Capturing Pearls of Wisdom

BY MARTY ROSENHECK

Long-term success is integrally linked to how knowledge is transferred within an organization, but many traditional knowledge management practices fall short. The key is to develop an integrated transfer process and get experts to buy into it.

“**T**he baby boomers are retiring and taking their expert knowledge with them!”

That has been the cry of warning in organizations large and small over the past few years. Whether experienced employees are retiring, being downsized, changing jobs or even staying put, an organization's long-term success is tied to how well its knowledge is transferred to the next generation. Organizations are grasping for ways to capture the knowledge of experienced employees, store that knowledge and transfer it to new and existing employees.

Many traditional knowledge management practices have fallen short in terms of capturing the right knowledge, keeping it current and translating that knowledge into proficient job performance. Two factors are critical for the success of knowledge transfer initiatives. The first is to develop an integrated knowledge transfer process or knowledge transfer cycle. The second factor is to elicit the right knowledge from experts, knowledge capture.

Knowledge Transfer Cycle

A knowledge transfer cycle is an integrated knowledge transfer, sharing and generation system that includes initial learning and ongoing learning. Organizations that combine training and knowledge management elements into an integrated system can gain productivity benefits greater than either of those elements in isolation, especially when focused on a specific and well-defined set of results. The knowledge transfer cycle (see Figure 1, pg. 40) consists of the following steps:

- Capture knowledge, both explicit and tacit (unconscious competence) from experts, in a form that can be used throughout the cycle.
- Store knowledge in a form that is accessible, well-organized and easily searchable. Users need to have confidence that the right knowledge will be there when they need it and that it will be current. Knowledge can be stored in databases, documentation, process tables, decision trees, wikis and quick reference guides. But one of the most powerful ways to store knowledge is through stories. Much knowledge, especially tacit knowledge, exists in the minds of the experts and can be made accessible through mentoring or through connections using social media tools.
- Transfer knowledge to others, either during initial learning or through ongoing learning.

Initial learning (formal training for new employees or on-boarding) aims to jump-start the learning process so that new hires can quickly reach a level of proficiency that enables them to fruitfully participate in an ongoing community of practice. Initial learning works best when it focuses on learning by doing, working through a series of realistic cases, scenarios or job tasks while accessing and applying stored knowledge at teachable moments throughout the process. Accessing knowledge and resources in the simulated situations prepares learners to find and use the same knowledge resources on the job. Initial learning is best done within a community of learners that provides support and opportunities for discussion and reflection. This community of learn-



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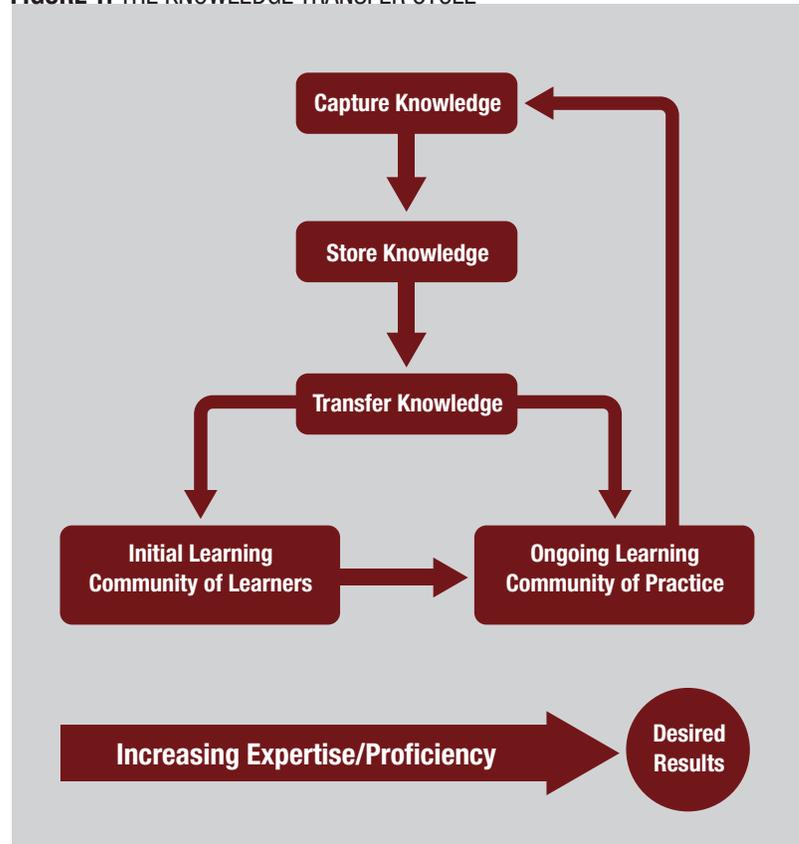
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FIGURE 1: THE KNOWLEDGE TRANSFER CYCLE



ers can then transition to become part of the larger community of practice.

Ongoing learning is the informal, job-embedded learning that happens within communities of practice. Learning at this stage becomes more informal and exploratory, sharing with others and learning directly from expert mentors with the support of Web 2.0 social networking tools. As community members develop their own expertise, they contribute to the community of practice, mentoring others and creating new knowledge to be captured.

Knowledge Capture

The entry point into the knowledge transfer process is to capture the knowledge of the experts. Once the right experts are selected and it is clear how the knowledge is to be used, one can begin capturing knowledge. The most common method is to interview the experts. This can be effective to get a certain amount of explicit knowledge, but a basic interview has its limits.

Cognitive science research over the years has identified the characteristics of experts in relation to novices. One of the key characteristics of experts is their knowledge becomes so automatic that they can no longer articulate it; it becomes implicit, unconscious competence. Because much of an expert's knowledge is unconscious, we need to dig deeper to elicit the real pearls of wisdom that make a difference in the degree of success in solving real-world problems.

Another key difference between experts and novices is that experts' knowledge is organized according to how it is used to handle real-world situations or problems, whereas novices' knowledge is organized according to the textbook. Experts notice the salient cues in a situation and make instantaneous connections from those cues to the knowledge they need to handle the situation effectively. They develop this implicit knowledge from years of experience, trial

and error, and reflection on that experience.

If the explicit knowledge of an expert is the only thing collected, the whole knowledge transfer cycle is working with only part of the story. The learner will get partial information, especially in initial training, and the time it takes to become proficient on the job will be extended.

A number of methods for eliciting this implicit knowledge have been developed by cognitive scientists and knowledge engineers. These methods can be very useful for capturing the implicit heuristics, principles and guidelines that experts use. Two common methods are card sorts and process tables.

Card sort: The card sort is used to elicit how experts organize their conceptual knowledge. In this method, for a knowledge transfer project, a group of experts brainstorm problems, issues and typical situations that they encounter and write them on index cards. They then sort the cards into categories that make sense to them, and then subcategories, creating a tree structure, which reveals the way they organize their knowledge.

The act of categorization gets experts to make judgments that uncover their implicit knowledge of their job, information one would not get by just asking them in an interview.

The categories contain the cues for the solution to the problem. For example, these experts organize problems by how they are solved, using categories such as “communication problems with subcontractors.” The sorting task also enables the construction of a taxonomy of cases, where typical situations are categorized and sequenced from simple to complex to serve as a model for initial learning for novices.

Process table: A key to eliciting process and problem-solving knowledge is to work through real examples of the problems or tasks the expert engages in. Card sort results identify prototypical cases. These cases can then be used to create a process table that walks them through the steps and sub-steps they take. This process can then be used to identify the decision or action that needs to be taken. When you ask an expert why

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The most important knowledge is often tacit knowledge. It can make the difference between success and failure on a project or task.

she makes a particular decision, she will often say, "It's just common sense" or, "That's just the way it's done." Of course, it's only obvious to that expert who's had 10 years of experience doing it.

So we need to dig down and unpack the thought process behind making those decisions. For each decision or action, the goal is to elicit the implicit heuristics or guidelines that the expert uses. It begins with first asking, "Why?" Then, after the first answer, which just scratches the surface, keep asking why again and again, like a child might ask her parent, until you have gotten to the bottom of the decision. Another method is to have the expert compare this decision to decisions in other situations, to get at the distinctions in the expert's mind.

The remainder of the process table captures the information, resources and tools the expert uses to accomplish that task or make the decision, and how they're used. Finally, find which other people are involved at each step and what they see as common pitfalls. Through this process, you are able to get at the unconscious heuristics, principles and guidelines they use to make those decisions in accomplishing the task or solving a problem. These are the pearls of wisdom that we want to make explicit and help new people to learn.

Why go through all this? Because the most important knowledge is often the tacit knowledge. It is what can make the difference between success and failure on a project or task. People may be able to learn the tacit knowledge on the job, but it can take many years. Why not jump-start the process by capturing the right knowledge and using that as the basis for creating an integrated knowledge transfer cycle? And do it before your best experts walk out the door. **CLO**

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