

The Case Against Knowledge Management

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Companies waste billions on knowledge management because they fail to figure out what knowledge they need, or how to manage it. In his latest book, Thomas A. Stewart explains how to answer both questions.

Our primary purpose in this book is to teach you how to cook, so that you will understand fundamental techniques and gradually be able to divorce yourself from a dependence on recipes. -- Simone Beck, Louisette Bertholle, and Julia Child

At a company where I worked many years ago, circulating correspondence was an everyday practice. It was also one of the simplest and best knowledge management techniques I've ever seen.

Whenever you wrote a letter -- and we wrote a lot of letters -- you made two copies: one to file, one to circulate. Every week (or every so often) you took the circulating set, culled any that included confidential dope or made you look more stupid than usual, stuck on a buck slip, and put them into your outbox. By the time the folder returned, it was generally time to refill it and send it out again. Everybody participated, including the chairman and the president.

"A whale ship was my Yale College and my Harvard," said Herman Melville's Ishmael; when it came to learning my job, circulating correspondence was mine. Reading my superiors' letters opened a window into how they conducted business with the world outside; I aped things more experienced colleagues did, and saw how they handled tricky situations; I copied useful addresses into my Rolodex (another antique). I learned who knew what, and that made me better at asking for advice.

Circulating correspondence was obligatory, easy, and genuinely useful. As such, it stands in stark contrast to much of what today passes for knowledge management -- an activity that has assumed immense importance in the corporate world. Knowledge management undergirds a growing edifice of ideas, techniques, and technologies. International Data Corp., a research group that focuses on technology, estimates that poorly managed knowledge costs the Fortune 500 about \$12 billion a year. Reasons for the lost money, by IDC's reckoning: "substandard performance, intellectual rework, and a lack of available knowledge management resources." You don't need numbers like IDC's to know that the need is there: Just consider how much time you waste searching for information that ought to be at your fingertips.

The response to the need for knowledge management has been astounding. In *Intellectual Capital* in 1997, I wrote, "If the subject of intellectual capital ever spawns a business fad, it will be under the guise of 'knowledge management,' because there's money to be made selling software, systems, and consulting services with the touted goal of allowing every person in an organization to be able to lay his hands on the collected know-how, experience, and wisdom of all his colleagues." I was more right than I dreamed. Knowledge management has become "KM," and there are national and international KM conferences, local KM forums, the Journal of Knowledge Management, and Knowledge Management magazine. By IDC's estimate, knowledge management software and services will be a \$6 billion industry in 2002.

As time marches on, and Moore's Law with it, this technology gets swifter, stronger, and subtler. Why, then, is there a nagging sense that all of it misses the point? Or that much of the time it yields no more insight than a file of circulated letters? A couple of stories will get us toward the answers.

Software vs. Wetware

Jack Whalen, a sociologist, works at Xerox's Palo Alto Research Center. A few years ago, he was assigned to the Institute for Research on Learning, a nonprofit group Xerox supported. He spent a couple of years there studying

how people, computers, and expert-system software interacted in a customer service call center in Lewisville, Texas, north of Dallas.

The software (in this case, Inference Corp.'s CasePoint) was supposed to help employees tell customers how to fix problems with copiers -- paper jams, faded copies, and the like. When the call-center operator typed words spoken by a customer -- "jam," for example -- the software searched its memory bank of diagnoses and solutions.

Trouble was, employees weren't using the new software. Management decided that employees needed an incentive to change. The company held a monthlong contest in which employees earned points (which translated into cash) each time they solved a customer problem, by whatever means. The winner was an eight-year veteran named Carlos, with more than 900 points. Carlos wasn't a big favorite among managers -- "He's a cowboy," one of them said -- but his victory was no surprise. He almost never used the software.

The runner-up was a shock. Trish had been with the company just four months and had no previous experience with copying equipment. Her 600 points more than doubled the score of the third-place finisher. She didn't even have the new software, only an older, less sophisticated system. But she had a secret weapon: She sat across from Carlos. She overheard him when he talked. She apprenticed herself to him and persuaded him to show her the innards of copiers during lunch breaks. She built up a personal collection of manuals and handwritten notes about how to fix problems.

The case of Carlos and Trish says a lot about knowledge management. The point isn't to criticize the software; CasePoint has many fans and documented triumphs. Sure, Trish learned better from Carlos than anyone did from CasePoint. But how many people can sit next to Carlos?

Managing knowledge is not a matter of choosing software vs. wetware, classroom vs. hands-on, formal vs. informal, technical vs. social. Effective knowledge management uses them all -- and motivated employees will find unexpected new ways to put knowledge to work. Success depends on recognizing that all of these need each other. To see how the interdependencies work, consider the case of PricewaterhouseCoopers.

If I hear one more consultant say, "Knowledge is the only thing we have to sell," I will take up narcolepsy in self-defense. But it's true: A big firm like PricewaterhouseCoopers (with 160,000 partners and employees in 150 countries) has no reason to exist if it can't bring its collective brainpower to bear on clients' problems. When the company was formed in 1998 (through the merger of Price Waterhouse and Coopers & Lybrand), its top priority was to begin to act as one. Creating and sharing a collective universe of knowledge was vital. Otherwise, even trivial issues like nomenclature -- do we call this "process redesign" or "process reengineering"? -- had the potential to produce havoc.

Ellen Knapp, the company's chief knowledge officer, responded with an elegant, powerful intranet. On a system called KnowledgeCurve, consultants and auditors find a repository of best practices, consulting methodologies, new tax and audit insights, links to outside websites and news services, online training courses, directories of in-house experts, and more.

"Yet," says George Bailey, one of the firm's managing partners, in an echo of Xerox ([XRX](#)) management's trouble with CasePoint, "there's a feeling it's underutilized. Everybody goes there sometimes, but when they're looking for expertise, most people go down the hall." Human beings are screwy that way. When your computer freezes up, looking at the manual comes fourth, after futzing with the machine yourself, asking a neighbor, and calling a help desk.

A bit before the merger of Price Waterhouse and Coopers & Lybrand, a U.K.-based consultant, Jon Z. Bentley, and a few colleagues -- a group of "self-selected creatives," as Bentley puts it -- took it upon themselves to create a network where they could "collaborate so as to be more innovative." They set up a Lotus Notes e-mail list. It has no rules, no moderator, and no agenda except the messages people send. Any employee can join the list, which became known as "the Kraken" when someone joked that creativity in the postmerger company was like the mythological sea monster who, in a poem by Tennyson, lies "far far beneath in the abysmal sea" and sleeps "his ancient, dreamless, uninvaded sleep."

Today about 500 people are members of the Kraken. Though it's unofficial and ever-so-slightly renegade (a firm with so many accountants is never really renegade), Bailey calls it the premier forum for knowledge sharing in the company. It's still on Notes, although that technology isn't really suitable for a list as large as the Kraken has become. It's difficult to search the archives, and on a busy day, members might find as many as 50 Kraken

messages with the rest of their e-mail. Technologically, the Kraken is to KnowledgeCurve what Carlos is to CasePoint.

But it works, and so well that other Kraken-like creatures are spawning at PricewaterhouseCoopers. The question is why. Bentley, Knapp, and Bailey offer a number of hypotheses. First, it's demand-driven. The founders imagined that people would spark discussion by uploading white papers and the like; i.e., they expected that users would pile logs of content in the fireplace, generating fire in the form of questions, critiques, etc. Instead, the spark comes first -- 80 percent of Kraken traffic starts with questions: Does anybody know? Does anybody have? Has anybody ever done something like? Second, the Kraken gets at tacit and latent knowledge, provoking responses from people who didn't know they had something to contribute until they heard the discussion; similarly, it tolerates fuzzy, badly formed questions better than formal databases, where one often needs a bit of expertise even to begin. Third, it's front of mind, right there with the morning mail and coffee -- you don't have to make an effort to go there. Fourth, it's full of engaging opinion held strongly, rightly or wrongly. There's an old saying at Xerox PARC: "Point of view is worth 80 IQ points."

In all these ways, the Kraken differs from KnowledgeCurve. The latter is supply-side; it's full of documents, artifacts, and other explicit knowledge. The content in its repositories aims to be canonical rather than iconoclastic. The Kraken is a conversation; KnowledgeCurve and its cousins are compendiums. KnowledgeCurve is about teaching; the Kraken is about learning.

What Knowledge Management Needs

Technologists never evangelize without a disclaimer: "Technology is just an enabler." True enough -- and the disclaimer discloses part of the problem: Enabling what? One flaw in knowledge management is that it often neglects to ask what knowledge to manage and toward what end. Knowledge management activities are all over the map: Building databases, measuring intellectual capital, establishing corporate libraries, building intranets, sharing best practices, installing groupware, leading training programs, leading cultural change, fostering collaboration, creating virtual organizations -- all of these are knowledge management, and every functional and staff leader can lay claim to it. But no one claims the big question: Why?

Defining and Selecting

Knowledge management resources go unused for one simple reason: They're not useful. Either the work isn't connected to the knowledge or the knowledge isn't connected to the work.

Just as managing a business depends on deciding what business you are in -- General Motors builds cars, not parking lots, gas stations, or highways -- so knowledge management must begin by selecting the knowledge to be managed. It's no good assembling a library full of everything anybody could conceivably want to know about everything.

Before undertaking any knowledge management effort, answer three fundamental questions:

1. What is the work group? The first task of knowledge management is to select what one might call a unit of analysis or a unit of management. Then place primary responsibility for the content of knowledge management there. This is not necessarily a functional unit. Cross-functional project teams, for example, clearly need a "knowledge space" that is shared. Nor is it to say that the center, the chief knowledge officer, has no role. Some resources everybody needs; if there's no common knowledge, there's no reason to be one company.

2. What does the group need to know? It's important to distinguish between information and knowledge. Information tends to be transient; knowledge, abiding. Every work group needs information management and information resources, which range from magazine subscriptions to databases. You can find out what people need by asking them, and then arrange the fastest, cheapest, most effective way to get it to them.

You can also find out what knowledge they need by asking their customers. Most of us rarely deal with a whole body of knowledge; we nibble on it a fingertip at a time. Underwriters at Cigna use decision-support software to prepare insurance quotes for customers in California. Stuffed into the software are large bodies of knowledge about seismology and actuarial methods. Cigna's underwriters don't need that knowledge per se. For them, the knowledge management task is to create a tool that combines actuarial and seismic knowledge quickly, to teach the use of the tool, to develop interviewing and customer-relations skills, and to connect them to experts when special problems arise. The knowledge management problems for Cigna's actuaries are entirely different.

In the difference lies a core principle of knowledge management: Knowledge should be managed within the context where value is created. Design, development, and deployment of a system to support knowledge management must therefore be carried out with only one organization in mind -- yours. Not that of the industry, or even other divisions of your company if they create value differently or use different knowledge.

3. Are you a standardizer or a customizer? For a company that reuses knowledge, reinventing the wheel is a no-no, so it's good knowledge management to build a virtual storehouse containing the specs for every wheel ever invented. But an encyclopedia of corporate know-how is doomed to become an expensive failure for a shop where invention is the necessity. At PricewaterhouseCoopers, Bentley imagined that the Kraken would be filled with volumes of research papers; he was wrong, because the group's members were "creatives" whose purpose was "to be more innovative." They wanted a cafe, not a library. Their questions are unstructured, their problems may be new. They don't want answers so much as they want to talk to smart people. For innovators, the goal of knowledge management will often be to improve a person's chance of putting together the right team of experts. One of the great dangers of knowledge management technology is that it can lead you to invest in systems for reusing knowledge when innovation is central to your company's value proposition. If nothing else, that's a waste.

By contrast, production strategies for which you mostly know what knowledge you need -- and for which the tasks are mostly well understood, the processes mostly routine, and the problems mostly familiar -- lend themselves to a knowledge management strategy of codification, automation, and librarianship. Even in these cases, however, beware the danger that technology can be an enabler in the same sense that an alcoholic's spouse can be one. John Seely Brown and Paul Duguid of Xerox PARC warn against what they call "Moore's Law solutions" to problems:

"Moore's Law solutions ... take it on faith that more power will somehow solve the very problems that they have helped to create.... More information, better processing, improved data mining, faster connections, wider bandwidth, stronger cryptography -- these are the answers. Instead of thinking hard, we are encouraged simply to 'embrace dumb power.'"

Information technology better suits information than knowledge. It tries to change knowledge into information-like objects. When it succeeds, you have a problem. Says Amrit Tiwana, author of *The Knowledge Management Toolkit*, "Information does not necessarily translate into knowledge, for much knowledge is too tacit and too obviously ingrained in people's heads to be codified -- let alone transferred electronically."

There's no escaping the eternal management tension between technologist and humanist, hard and soft, Theory X and Theory Y, Hobbes and Rousseau. Things get dangerous when the tension becomes a struggle from which one side or the other emerges victorious. That's when knowledge management gets into trouble. No one can doubt that managing knowledge is a good thing, provided that the same rules apply to managing knowledge as to managing anything else. Chief among these is to manage what matters to the business -- to focus on markets, customers, and suppliers.

Andrew Michuda, the chief executive of Sopheon, which provides knowledge management software and manages a network of thousands of technical experts and analysts, perfectly describes how knowledge management goes wrong: "KM hits a wall when it is generically applied. You need the richness of human interaction with the efficiencies of technology, focused on a knowledge-intensive business application. Knowledge management is much more effective if it is not a stand-alone button on somebody's PC but is integrated into a key business process."

What do your customers expect you to know? What intellectual materials -- facts, bodies of knowledge, technologies, etc. -- do you call upon? Are they found in documents or brainpans? Do customers come to you for new ideas? Or do they look to you for flawless execution of the tried-and-true? How does work actually get done around here? The answers to those questions will reveal the structure and content of the knowledge management efforts that will make your organization more knowledgeable. ♦

Editor's note: This excerpt is adapted from Thomas A. Stewart's "The Wealth of Knowledge: Intellectual Capital and the 21st Century Organization," to be published in January by Currency Doubleday.