Are We In The Midst Of A Technology Gap?

I've written about the impending retirements we're facing in our industry. It's not just in our industry, it's a demographic phenomenon. It's been acknowledged, studied, written about, re-acknowledged and affirmed. It's real and we know it. OK, so the recent crash may have pushed some retirements back, but that will only delay the inevitable. We know we'd better do something about it. So what do we do?

Last year, I wrote about the need for an industry knowledge base. I mentioned the use of Content Management Systems like TikiWiki, Joomla! and Drupal as tools vital to capturing and preserving the knowledge leaving the industry. I'm talking about the knowledge that is learned through experience, not books. Some call it "Tacit knowledge." Since then, I've spent a lot of time learning about these tools. When I first discovered them, I thought I had struck gold. I thought I had the answer... "This is it. Everyone will record all they know using this tool, and the problem will be solved." Visionary? Perhaps. Optimistic? Likely. Realistic? Not even close.

Let's digress for a minute. Remember Star Trek? It's a piece of Americana. I was captivated by Star Trek (color me a geek, it's OK.), but not the fancy, high production value, well-written, recent incarnations. I was captivated by the campy, fake orange sky, Styrofoam rocks, red-shirt guy is always the first to die version — the original. So what does this have to do with the current problem? Two words: "Mind Link." I was always intrigued with the idea of the Mind Link. You just touch a person's head and you instantly know what they're thinking. The Mind Link would be great for knowledge transfer. Imagine being able to "download" the contents of one of your company's "graybeards" into a database that you could access anytime you chose.

That was what I thought I had when I found Content Management Systems. I figured I could set one of these up, instruct the "graybeards" to start "downloading" everything they know onto wiki pages, discussion forums and file galleries. It would be a database of all past knowledge and experience. It was the Mind Link. Problem solved, right? Wrong.

Tools such as Groupware or Content Management Systems are part of what has been termed "Web 2.0" or, more aptly in our case, "Enterprise 2.0." "Enterprise 2.0" is a concept — it has been defined best by Andrew McAfee of the Harvard Business School as "the use of emergent social software platforms within companies, or between companies and their partners or customers." "Social software" enables people to collaborate and form online communities through Internet-based communication. "Emergent" means that the software is free-form and allows the patterns and structure inherent in people's interactions to become visible over time.

This is good stuff, really good stuff. It's a game-changing technology. In fact, much of our industry has attempted to implement it in various forms. But is it accepted? How are organizations doing in implementing this tool? Based on the feedback I've received, not well. I've implemented this type of social software because it lends itself so well to project management, particularly Joint Industry Projects, where people from different companies are spread over a large geographical region.

Seems like a good idea, particularly with travel curtailments. The software facilitates collaboration. It becomes a record of issues, discussions and decisions. Ultimately, after the project is over, the system becomes a searchable resource for all involved. The answer to the question, "What did we do during Project X?" is at your fingertips. You can even revisit the discussion that you had about a particular issue. Carry the concept further and perhaps the system morphs into an online community.

That's the vision, but the success has been mixed so far. The tool works well as a repository of documents and images, but that's no different than a file server. The community and emergent structure aspects, the real strengths of these tools, haven't caught on. Why?

I've heard a lot of complaints: "Nobody responds when I post a question," "People can't figure out how to log onto the system," "I use e-mail all day long — logging onto another system is just an extra step in my busy day." Most of the complaints boil down to two main issues: e-mail and the technology gap.

E-mail, a game-changing technology in its own right, is a part of our daily lives, both business and personal. I remember during the early part of this decade e-mail was growing so fast that e-mail attachments were predicted to be the largest source of Internet traffic — more than any other information moving through the Internet. It's a good tool, but it suffers when collaboration is required.

Have you ever tried to write a collaborative document by sending it via e-mail? Remember trying to coordinate all the various changes? How many versions of the same document did you receive? Sure, you could try to send the document to each person in turn, accumulating changes, but this requires management and coordination. Wouldn't it be easier if the document were centrally located and could only be modified by one person at a time? Wouldn't it be nice to be able to review all changes that were made and roll them back if you didn't agree?

The answer is a wiki page. The tools I mentioned use wiki pages. And how about e-mail discussions? Wouldn't it be nice to have discussions organized by topic, stored in a searchable database and available in a central location? Discussion forums do this and are an integral part of the tools. But e-mail is so ubiquitous, so accepted, so much a part of our lives, that it's become second nature. Many users aren't willing, or are just too busy to adopt this new way.

Paraphrasing Moore's Law, technology doubles about every two years. Let's work with that number. If you graduated from college in 1968, technology has doubled 20 times between then and now. So while you were a whiz kid with the punch cards, today's graduate is texting while listening to the iPod, while working with Excel, while visiting Facebook and maybe doing some programming on the side. In today's workplace, we have 60-somethings working side-by-side with 20-somethings and every age in between. The 50- and 60-somethings don't typically use social networking sites, but the 20- and 30-somethings do. This produces a troubling irony.

We are at a point in history where we have the technology to capture and store experiential (tacit) knowledge in an easily accessible format. This technology is commonplace to the younger generation, which needs the knowledge. But it's not well-accepted by the older generation, which possesses the knowledge. How much knowledge will be lost because of the technology gap? Will future developments narrow the gap or will it continue to grow, leaving the irony unresolved?

These tools are in their infancy and rudimentary compared to what the future might bring. But they are valuable, game-changing tools that are available today. Acceptance of these tools can facilitate the capture and preservation of valuable industry knowledge. If we can't find a way to capture and preserve the industry's collective knowledge, we will waste tremendous resources in its regeneration. It's something to think about.

Until next time PG&G.

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