A Little Bit of Knowledge Is a Dangerous Thing

Donald J. Reifer

After studying knowledge management in recent years, wondering if it could help me manage software projects better, I've concluded that indeed it can. To illustrate this point, I've used Table 1 to list potential knowledge management benefits and drawbacks organized around the classical functions software managers perform.

Most articles on this topic focus on strategic, not tactical goals, describing potential benefits at the 40,000-foot level. But to determine where you and I as software managers can use this technology to deliver products on time and within budget, the focus must be closer to the 100-foot level.

You'll note that the table lists a “facilitating” function. That's because project managers need to bring in the right people at the right times to get the job done. Facilitation in this sense is high on any good manager's priority list. For example, as managers, you and I would need to coordinate with our legal departments to have attorneys available to review each subcontract.

Now, let's see how knowledge management can make your life easier, too.

Knowledge management—hype or reality?

After I constructed this table, I was skeptical: with these drawbacks, do managers ever take advantage of this technology? So, I talked to members of my peer network, mostly software managers with profit-and-loss responsibility in big organizations. It's a good thing I stayed open minded; most people I contacted in organizations that had mounted knowledge management initiatives were ecstatic about the results.

Here are several bits of what I heard:

- “We made a project knowledge repository available to all players on our intranet. Once we organized it into collections, useful information was available immediately—right when we needed it. Collaboration was fast and easy. Setting up and maintaining the collections using taxonomies that the corporation created was relatively painless.”
- “We had a lot of data that we needed to keep track of from old projects. Using existing knowledge management tools, we could mine the data quickly by discovering patterns and relationships that weren’t immediately apparent.”
- “My firm created a knowledge base of information highlighting critical success factors for project managers. When I first viewed them, I said ‘so what?’ But when I played with the system, I found it intuitive and useful. I could take messy data from my project and make sense of it once I played it through the system. I could also reason with the system based on heuristics derived from relationships.”

Not all the comments were this good. I also heard the following:

- “Here we go again. Upper management
must have taken a seminar. Another initiative—more time wasted at the worker level.”

“While it sounds good, I am too busy to look at knowledge management. I’ll play the wait-and-see game and hope it blows over soon.”

You can imagine some of the rest. Give a manager a chance to purge with a peer and that’s exactly what happens. But, the comments made me think twice about how I could use this technology to improve my ability to deliver. My research into the use of knowledge management had panned out. Instead of joining the naysayers, now I can think of a dozen ways the technology can improve my performance.

Making it work

I’m also convinced that I’ll need help. Not well versed in knowledge management, my staff had no experience with the tools and techniques. My contacts at large companies were lucky. Their corporate initiatives brought in experienced people who developed the processes project managers need to structure the knowledge base of information serving as their initiative’s foundation. These experts also developed the training and incentives needed to put the technology into practice.

I am also skilled enough to know that a little bit of knowledge about knowledge management can be dangerous. I’m not too bashful to seek help from those who have tackled transfer of this technology, building on their shoulders rather than repeating their mistakes.

You won’t get me to say that knowledge management is a cure-all. But I will recommend that you consider using it—especially if your firm has invested in it.

All too often, I’ve seen project after project get into trouble because of miscommunication. People are just too busy to tell each other what they’re doing. Using knowledge management, you can make this information readily available, especially if your firm helps you put the systems and procedures into place to overcome the challenges associated with technology transfer.

Keep an open mind, and check out this technology. You might like it.

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**Table 1**

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<thead>
<tr>
<th>Management functions</th>
<th>Potential upsides</th>
<th>Possible limitations</th>
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<tbody>
<tr>
<td><strong>Project planning</strong></td>
<td>Captures organizational knowledge and makes lessons that are often learned the hard way available for use in an organized and systematic manner.</td>
<td>Hard to capture lessons learned. Few incentives to use knowledge, especially when under pressure to get plans finalized.</td>
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<tr>
<td>Organizing</td>
<td>Determines patterns of organization that work best based on domain knowledge.</td>
<td>Your customer might require an organization that doesn’t adhere to preferred patterns.</td>
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<td>Staffing</td>
<td>Makes it easy to identify people with the skills and knowledge required to fill open slots in the organizational structure.</td>
<td>An individual’s ability to fit into a team is something that only the people he or she will work with can fully evaluate.</td>
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<tr>
<td>Directing</td>
<td>Makes it easy to deduce leadership and teamwork abilities. Identifies and streamlines optimal communication patterns in the organization. Exploits lessons learned relative to past experience.</td>
<td>Leadership and teamwork are qualities that need to be developed, not inferred. While communications can be streamlined, breakdowns often occur due to people issues that must be anticipated to address.</td>
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<td>Controlling</td>
<td>Creates benchmarks to compare performance against, both corporate and competitive.</td>
<td>Benchmarks might be misleading because they might be based on norms instead of specifics.</td>
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<td>Facilitating</td>
<td>Identifies linkages between work processes and highlights techniques that improve efficiency and effectiveness.</td>
<td>Good project managers can facilitate problem solving because they anticipate problems and bring in experts to work on them.</td>
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