Managing Knowledge in Organizations

Summary of an interview with Marshall Van Alstyne and Hind Benbya

Knowledge exchange among practitioners in low- and middle-income countries is now at the forefront of global development policy formulation. But the question of how to connect the right people with the right knowledge at the right time isn’t new. Knowledge Management (KM) has been an established discipline since the 1990s. We talked with MIT’s Marshall Van Alstyne and Montpellier’s Hind Benbya about the state of knowledge management and information exchange in organizations today, and how new practices like knowledge markets can help us find better solutions to some of today’s trickiest development challenges.

How has knowledge management changed since the 1990s?

Expectations from knowledge management (KM) have changed significantly since the 1990s. In particular, early KM approaches mostly sought to support employees in their everyday tasks and to create revenue streams by exploiting knowledge. The organization’s main concern was: How can we use KM to prevent reinventing the wheel?

Most organizations believed in the potential value of KM, but adopted a top-down strategy that relied heavily on deploying a large sophisticated repository—either by codifying

When migrant farm workers return to their home town for the annual Spring Festival, the local Bureau of Labor takes advantage of the mass homecoming to open vocational centers where they can learn new skills through computer-based training.
knowledge or linking individuals through information technology (IT)—to overcome geographical and temporal barriers to accessing information and expertise.

Yet, few companies succeeded in reaping benefits from their KM investments. Most of their mistakes relate to unrealistic expectations for IT-based solutions that are often hyped by vendors. Several of these mistakes are summarized in Table 1.

**Recent approaches to managing information and expertise recognize that the implementation challenge is complex and evolutionary.**

- First, the system must be highly dynamic, and evolve as users, business processes, and the environment change. Therefore all knowledge-related roles and structures must continually change and adapt. Beyond defining update periods, organizations now pay careful attention to document version control and life cycle.

- Second, motivating knowledge workers to share their expertise implies rewarding workers in proportion to their contributions, combining social and material rewards, and defining both individual and team-based incentives.

- Third, KM systems are useful for effectively exploiting and transferring existing practices and techniques as well as standardizing work practices, but they remain limited for managing nonroutine knowledge. All successful organizations must deal with nonroutine problems.

- Emerging models of collaboration, specifically the role of Web 2.0 technologies—blogs, wikis, and knowledge markets—provide a solution for managing nonroutine knowledge. All successful organizations deal with nonroutine problems.

**What is the future of knowledge exchange?**

**Effective knowledge exchange** will combine the earlier, highly structured systems with newer, more open and participatory tools and environments. The 80–20 rule illustrates the current state of knowledge exchange. Existing systems enable organizations to share work practices across locations. They support the exchange of the most common 20 percent of codified knowledge. Emerging solutions for exchange, such as knowledge markets, help firms experiment with the remaining 80 percent.

**Tell us about knowledge markets. How are they useful?**

A **knowledge market** is a forum for matching information demand with information supply, together with the material and social incentives to encourage effective trading. Now that the Internet has linked us all so closely, we need better mechanisms to help us find “who knows what” and to reward people who provide valuable information. The size of the problem—that of creating and moving information to the people who need it—is so large that applying market principles is one of the best ways to find solutions.

Knowledge markets provide opportunities for matching knowledge seekers with sources. A good match helps generate, combine, and rank ideas and also helps develop new solutions, products, and services. Markets are great for facilitating the reuse of existing information, for creating new information to address previously unsolved problems, and for effectively using information resources, including peoples’ time.

**How can we cut through the clutter and improve access to relevant development knowledge and expertise?**

**First, employ mechanisms** that let people raise their professional reputations by helping others. Using status cues in online communities motivates experts to speak up and self identify. And, experts will help quickly cut through the clutter of less relevant information.

**TABLE 1: COMMON MISTAKES IN KNOWLEDGE MANAGEMENT**

<table>
<thead>
<tr>
<th>MISTAKE</th>
<th>CAUSE</th>
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<td>Thinking that by relying on a specific technology KM can capture best practices, success stories, and lessons learned that could then be reapplied by others.</td>
<td>Emphasis is often placed on the technology rather than on how it should operate, what problem it is supposed to address, and how it will integrate with the overarching technology strategy.</td>
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<td>Implementing a KM program because competitors did so and achieved benefits.</td>
<td>The implementation of KM should derive from a company problem or opportunity. The KM leader should assess which department or existing process is most likely to provide a context for a KM initiative, and start the implementation there.</td>
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<td>Failing to address the important question from a knowledge worker’s perspective of “what’s in it for me?”</td>
<td>Knowledge workers are unlikely to exchange their expertise without a fair return on their time, energy, and opportunity costs.</td>
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<tr>
<td>Considering KM as a deterministic, static, and one-time-event.</td>
<td>KM is a dynamic, evolutionary process. Each stage requires distinct management practices in order to be effective. Organizations should tailor their efforts to their particular KM maturity stage in order to extract more value from their knowledge assets.</td>
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*Source: Authors.*
Second, reward the brokers. People who are really good at what they do are often busy doing it. They often do not have time to browse lists of other people’s open issues. But organizations also have many gatekeepers and brokers who know the best people for different tasks. These gatekeepers can help match problems to opportunities and this too can prevent clutter. Just make sure they also get recognition.

Lastly, reward members of the community for providing context. When a solution worked in Taiwan but needed adaptation in Tanzania, the people who provided the modification also need to be recognized or compensated. Clutter is partly a function of finding apparently relevant answers that turn out not to work. So, it helps to have context on how to apply them in new ways.

In a sense, these steps address both the false negatives, like not being able to find the right people, as well as the false positives, like finding apparently relevant information that isn’t. Knowledge markets do all of this.

**Explain the difference between absolute and relative rewards and their different effects on organizational behavior**

Organizations often face a tradeoff between effort and information sharing. These are tied to reward systems but in ways that many people miss. Let me give you a simple example. How do organizations promote people? Typically, they want to reward the “best” people, whatever that means. Now imagine that there are seven candidates for a single promotion. Each person is likely to work hard at being the best. But if Sarah gets the job, then Sam can’t get it. If Sam is close to getting promoted, he is unlikely to want to share his best ideas with Sarah for fear that she will perform better than he does. Then she beats him to the promotion. This is a relative reward system where everyone is rank ordered and prizes go to the top. Relative reward systems promote competition. This leads to high individual effort but little information sharing.

Now consider a reward system where anyone who meets a specific goal is rewarded. Suppose, for example, the goal is to provide successful loans to 100 small businesses. In this case, when Sarah meets her goal it does not mean that Sam cannot also meet his goal. Sarah and Sam can pool their ideas. All seven coworkers can help each other attain the same goal, so collaborative knowledge trading helps teams cross the finish line together. This is an absolute reward system where everyone can potentially succeed. Absolute rewards promote collaboration and information sharing. The problem is the potential for free riding. Simon might simply borrow the ideas of Sarah, Sam, and the others and add no effort of his own.

The best incentives for stimulating knowledge exchange balance competition and collaboration. Absolute incentives encourage sharing but employees can coast on the work of others. Relative incentives discourage sharing but employees work harder individually.

Use more relative incentives when problems require greater speed or diversity of approach, and when solutions are substitutes. InnoCentive runs a competitive external market where diverse solvers from around the world compete to find the best solutions to R&D challenges. Answers are strictly ranked, prizes are strictly limited, and contestants cannot see each other’s work. Use more absolute rewards when problems require complex coordination and solutions are complements. InnoCentive also runs a collaborative internal market inside client sites that offer online team rooms. Partial answers appear on discussion boards, and prizes go to whole groups of mixed expertise with little concern for individual rank.

**How can governments and large institutions like the World Bank meet new demands for knowledge and expertise?**

Large organizations that have a wealth of information and talent often have difficulty accessing it. Managing information flows laterally and vertically, across specialties, locations and countries, has proven particularly challenging. Managing the growing demands for expertise in diverse contexts requires decentralizing information exchange by providing access to diverse sources, not just the central repository. Meeting unanticipated needs implies providing access to untapped knowledge. Markets provide the most common form of such decentralization.

Management must support the change in power that follows from a change in the sources of expertise. And management must accept, or at least acknowledge the market verdict. When people pose better questions and post better answers, the knowledge market should empower staff to influence important management decisions, not just fringe issues.

Knowledge markets provide a solution to arbitrage the gap between problem and opportunity. They represent the information equivalent of just-in-time production, and help people pull information and contacts when needed. A knowledge market opens an institution to new forms of governance and creates completely new roles for those who would manage expertise. Truly democratizing knowledge requires an open organization where employees can deliberate, argue, vote, compete, and collaborate horizontally across fields of expertise.

Marshall Van Alstyne is an Associate Professor at Boston University and a Research Scientist at MIT. Hind Benbya is an Associate Professor at the GSCM Montpellier Business School (Groupe Sup de Co Montpellier). Van Alstyne and Benbya’s article “Internal Knowledge Markets” is forthcoming in the Sloan Management Review. For a complimentary copy, please visit http://ssrn.com/abstract=1652432.

Interview conducted by Aaron Leonard, World Bank.

Endnote