The second generation KM

Interview with prof. Mark W. McElroy by Beata Mierzejewska, November 4th 2004,

There are a number of knowledge management books on the market right now. How is *The New Knowledge Management* different from others?

It was the first book to declare and doument the multi-generational view of KM, and to specify the outlines of, and the distinctions between, first- and second-generation KM frameworks. It was also the first book to introduce the all-important concept of sustainable innovation, pointing out that there can be variability in the sustainability of knowledge processing systems in organizations.

Why is it important to understand the second-generation KM? What are the key principles for second generation KM?

It is important because second-generation KM raises awareness of the fact that knowledge is something we create, and that we create knowledge with differing degrees of quality. Thus, it shows that we can improve the quality of our knowledge by actively managing knowledge production. And that, in turn, means that we can improve the quality of our decisions, actions, and outcomes, which all rely on the quality of our knowledge. This whole line of thinking is entirely missing from first-generation, supply-side KM programs.

You emphasize in *The New Knowledge Management* that what really matters is not just knowledge sharing or knowledge making but it's *both* that matters. How to put into practice that integrative approach?

You must begin by recognizing that people in organizations are already engaged in knowledge production and integration. Thus, these are things that already exist in an integrated form. Their quality, however, is variable and can be improved. There are two ways to make improvements: top-down, or bottom-up. In the top-down approach, we do a comprehensive assessment of the quality of knowledge processes across the board. We then also specify target levels of quality, and the gaps between the current levels and target levels are then assessed and systematically closed via numerous KM interventions.

In the bottom-up approach, we start with existing problems in an organization and we trace them to their decision roots, so to speak. We then focus on the discrete decisions people make as a precursor to action (i.e., the actions that are apparently leading to problems) and we then make a KM intervention there aimed at improving the quality of knowledge at the point of decision-making. We then measure impact using metrics defined up-front.

Both the top-down and the bottom-up approaches to developing KM strategies and making related interventions are now being taught in KMCI's "CKIM" classes, and involve the use of its KM methodology, K-STREAM™. I prefer the bottom-up approach.

What do you believe are the key factors behind a successful initiative?

There are many, but there are two that are more important than any others. The first is that the practitioner must be able to make the distinction between KM and knowledge processing. KM is the management discipline; knowledge processing is the social process in

organizations that KM attempts to improve. Too many KM programs confuse the two and thereby diminish their own effectiveness. For example, they say "KM is knowledge sharing," when what they should be saying is that "KM improves knowledge sharing." KM is the management discipline; knowledge sharing is a knowledge process that KM tries to improve, among others.

Incidentally, if you have a first edition of my book, the figure shown as Figure 1-2 has been updated in the second edition. This is very important. Here is the updated figure as now shown in the second edition:

http://www.macroinnovation.com/images/NewKM_3_tier_model.pdf

The second factor is the need to make a meaningful distinction between knowledge and information. My colleagues and I at KMCI, for example, define knowledge as a type of information; a type that has survived our tests and evaluations and which can be held or expressed in mental or linguistic form.

This view informs us in our practice of KM and determines the types of strategies and interventions we pursue. It helps us distinguish between KM strategies that are relevant and those that are not. Too many approaches to KM, however, fail to make this distinction (or any like it), and as a result amount to little more than information management (IM) masquerading as KM, as if it were different – but it's not.

Integrating complexity theory, knowledge management and organizational learning seem to be pretty complicated. Do you think your KM model can be successfully implemented by any company?

I think the article you're referring to here is a purely theoretical statement that need not be exposed in a corporate KM program at all. It is helpful, though, to be able to see and understand knowledge processing behaviors in organizations for what they are: self-organizing, problem-solving, collective learning systems. That view informs us of how to approach them, and suggests to us the kinds of KM strategies and interventions that are likely to be successful versus others that may not be. For me, this view led to the policy synchronization method described in my book. That is a direct result of understanding knowledge processing behaviors as self-organizing phenomena. It is a very good illustration of how theory informs practice, and also of how in the absence of theory, practice can be nothing but shallow guesswork.

Second generation KM emphasizes the existence of a Knowledge Life Cycle composed of three main processes: Production, Validation and Integration. What practical measures would you suggest to implement the Production process of the Knowledge Life Cycle?

First, the KLC has evolved somewhat since my book was published. We now refer to knowledge validation as 'knowledge claim evaluation' and it is part of knowledge production, not separate from it. Here is the latest view of the KLC:

http://www.macroinnovation.com/images/KnowledgeLife8.01.03.pdf

Next, as I said above, people are already doing knowledge production to one degree or another in all organizations. They cannot take action without knowledge, and so they must be

producing knowledge in one way or another. So your first step is to find out how they are currently doing it. Then you need to assess the quality and effectiveness of it, and consider interventions that could improve it.

You can use the KLC to guide you in this process. That's what it was created for. Try to examine the makeup of knowledge processing in organizations using the KLC as a template for doing so.

What are the drivers for organizational learning?

What drives organizational learning is the onset of problems that need to be solved. More specifically, it is the gap between knowledge that individuals in organizations have versus knowledge they think they need to have. These epistemic gaps trigger episodes of individual, group, and organizational learning. People learn because they are motivated to do so in order to close their epistemic gaps. This helps them close their instrumental or operational gaps, such as fulfilling customer orders or managing departments.

What conditions are critical for organizations to achieve higher rates of innovation and creativity?

The most critical conditions are what we call "internal transparency" and "epistemic inclusiveness." Both relate to the conditions present in organizational knowledge processing, which must (a) be open to inspection by internal stakeholders, and (b) open to participation by them as well. This leads to the very important idea that there is a difference between business processing and knowledge processing. The conditions I speak of relate to the latter, not the former. We can have openness in knowledge processing in the ways I've described without having the same principles spill over into the business processing side of the equation.

In other words, to say that we are transparently and inclusively open in knowledge processing in an organization is not to say that management should be carried out in democratic ways. On the other hand, managers must learn to lose their monopoly on knowledge processing. Everyone's knowledge is fallible and no one's is sacred. Organizations with high rates of creativity and innovation will be ones that manage to separate control over actions from control over knowledge. It is when we co-mingle the two under the same hierarchical management schemes that we get into trouble. All knowledge should be held continuously open to criticism, no matter what the authority or role of its source, and yet all employees should fulfill their contractual duties, no matter how much they might disagree with their manager's knowledge in use.

Managers, after getting familiar with any new management concept, usually ask: "OK. I like the idea, but … what should I do on Monday?". What would you suggest them if they wanted to implement the new KM in their organizations?

They should identify areas of performance in the organization that are causing them pain or sleepless nights – areas where risk and the cost of errors are high. They should then trace these risks and outcomes to their associated business processes, and then identify the decision points within those processes where errors can originate. They should then consider implementation of knowledge processing functionality at those points with an eye towards quality-controlling related knowledge, and thereby quality-controlling related decisions. This is the bottom-up approach I referred to above, and its advantage is that it (a) begins with

highly topical business cases, (b) has immediate impact on business performance, and (c) thereby demonstrates the value and relevance of KM early in the process.

Although the awareness of KM is rapidly growing in Poland, there are still not many companies implementing KM. How would you convince Polish managers that introducing KM is the first step for achieving competitive advantage based on sustainable innovation?

I would make the following very simple argument. Performance in business is largely determined by the quality of actions taken by employees. The quality of actions taken by employees, in turn, is largely driven by the quality of the decisions they make. The quality of the decisions they make, in turn, is largely driven by the quality of their knowledge about situations and how to deal with them. This is where KM comes into play. By improving the quality of employees' knowledge about situations and how to deal with them, we can improve decisions, and the actions and business outcomes that follow. To prove the point, simply identify cases where poor outcomes can be tied to errors in decision-making, and the rest then logically follows as I have explained it. It's really that simple.

The idea of sustainable innovation comes next. Innovation (or learning behaviors) in organizations can vary in its sustainability. To be sustainable, innovation must (a) actually solve our problems by helping us to adapt, and (b) be internally consistent with the manner in which people naturally learn. If the learning behaviors (or the innovation system) is too contrived or artificial, it can actually conflict with the way in which people naturally prefer to learn, and thereby undermine the quality of learning overall, not improve it. Understanding how people naturally prefer to learn is therefore key to KM, and that is why theory is so important. For without a theory of how people naturally prefer to learn, we are likely to build knowledge processing systems that may be ineffective and unsustainable.

Mark W. McElroy

Mark W. McElroy is a well-known authority on knowledge and sustainability management, and a twenty-seven year veteran of management consulting. Much of his career was spent as a partner at KPMG Peat Marwick and a senior manager at Price Waterhouse.

In the past few years, Mr. McElroy's interests and activities have revolved around the integration of organizational learning and sustainability management. He is the originator of the *sustainable innovation* concept, an enabling model for corporate sustainability, having first developed it in 1999. He currently teaches related management tools and methods at the Knowledge Management Consortium International (www.kmci.org).

Mr. McElroy is also Director and Chief Sustainability Officer at the *Center for Sustainable Innovation* (CSI), a non-profit think tank he formed in September of this year (2004). CSI was created to more formally pursue Mr. McElroy's concept of sustainable innovation, which entails working for sustainability within and by means of innovation.

Mr. McElroy is also president and CEO of Macroinnovation Associates, LLC, a small consultancy based in Windsor, Vermont. He is the principal developer of his company's Policy Synchronization Method (PSM), a technique for improving organizational performance by embracing collective problem solving, learning, and sustainable innovation.

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