# Communication in Communities of Practice: Knowledge Management Pressure Point

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#### Introduction

Knowledge management has moved from being considered a possible fad to a considerable lever of business strategy. Thus, it is appropriately positioned in this session, Strategic Issues. As practices and procedures become better delineated, more leaders in management education are incorporating this in strategy discussions. Peter Drucker in his book *Post-Capitalist Society* describes the journey from a capitalistic society to a knowledge society by saying, "knowledge is the only meaningful resource." (p. 42) The function of management is to apply existing knowledge and to define what new knowledge is needed and how it can be used. "That knowledge has become *the* resource, rather than *a* resource, is what makes our society 'post-capitalist.'" (p. 45) <sup>1</sup>

The study of knowledge management becomes increasingly important in engineering and technology as several forces converge:

- marketing to global customers
- competing with new providers of goods/services
- growing computer networks and increasing use of information technology
- restructuring hierarchical organizations into nearly flat or horizontal ones
- downsizing, rightsizing, reengineering business processes
- changing demographics of the workforce.

The effect of these forces has been heightened, according to David Skyrme, by "the growing recognition that knowledge and others forms of 'intellectual capital' are the hidden assets in a company. They . . . underpin value creation and future earnings potential." (p. 62) <sup>2</sup> Although he cautions about the hype surrounding software, especially, he states:

It is human knowledge that develops new products, comes up with creative marketing campaigns, discerns customers wants and develops special relationships with suppliers and business partners. If you delve beneath the fad, you will find good examples of organizational learning, business transformation, better innovation processes, accounting for intangible assets, information management and knowledge-based computer systems. All are different roots of today's knowledge management. What a focus on knowledge offers is a unifying perspective that helps people from different branches of knowledge management connect, explore their common roots and develop a common language for sharing their experiences. (p. 63)

#### Problems in knowledge management

Georg Von Krogh, Kazuo Ichijo, and Ikujiro Nonaka, authors of *Enabling Knowledge Creation*, discuss a common problem in knowledge management: the fundamental differences between Japanese and Western attitudes toward knowledge creation. The Western view is that knowledge is *explicit*—hard data that is easily communicated and shared. The Japanese see knowledge as being primarily *tacit*—rooted in an individual's action, experience, and values. This type of knowledge is difficult to share, but by creating knowledge using tacit understanding, Japanese managers disseminate knowledge throughout their organizations. Converting knowledge occurs in four patterns:

- 1) from tacit to tacit through socialization (observing and imitating without language)
- 2) from tacit to explicit through externalization (creating concepts, metaphors, "what if")
- from explicit to explicit through combination (exchange between people in meetings, conversations, and document exchange or reconfiguring existing knowledge by resorting or recategorizing data)
- 4) from explicit to tacit through internalization (after learning by doing and listening to stories or retold experiences, people build new thoughts into their tacit knowledge).<sup>3</sup>

Western management, emphasizing the combination or explicit-to-explicit interaction, rules out opportunities for observing and using metaphors, dialogue, and story telling. Japanese companies promote personal interaction and team activities, as well as evenings and weekends spent working to foster the context for knowledge creation. This, then, is the first problem in knowledge management—devoting resources to personal knowledge growth.

The authors' state that knowledge workers "cannot be bullied into creativity or information sharing; and the traditional forms of compensation and organizational hierarchy do not motivate people sufficiently for them to develop the strong relationships required for knowledge creation on a continuing basis." (p. 5) Knowledge creation is a uniquely human process which involves belief systems and feelings of which humans may not be aware.

This brings up a second knowledge management problem: getting people to share either implicit (tacit) knowledge or explicit knowledge. The competitive environment in some organizations fosters knowledge hoarding since possessing unique knowledge lends job security and offers a sense of power. Another reason for not sharing is lack of reward for doing so, either financial or personal. As employees come from increasingly diverse backgrounds, openness to sharing is affected by personal status and relations with others as seen through social or national cultures. Some cultures are reluctant to share private thoughts or claim expertise, since this may appear to promote self. Other cultures interpret asking for help as a sign of weakness. Western workers are highly mobile, while Asian workers, valuing loyalty and lifelong friendships, may distance themselves from culturally different people. Enabling knowledge sharing is a challenge.

A third knowledge management problem is the need to treat knowledge workers differently than industrial age workers. When bosses owned the means of production, they used command-and-control management techniques. Knowledge workers have their means of production in their minds, thus having their own market value. They can't be bossed in the same way, else they leave and take their value with them. Thus, more supportive work environments will increase knowledge sharing.

## **Communities of practice**

Etienne Wenger created the term "community of practice." Wenger believes that learning is a social activity and that people learn in groups. Their book *Cultivating Communities of Practice* tracks the field of knowledge management: the first wave focused on technology; the second wave on abstract issues of behavior and culture; and the third wave is focusing on communities of practice as an organizational structure to create learning organizations.<sup>4</sup>

Rumizen tells us more about communities of practice, especially the ways in which they differ from teams and work groups:

- 1. Communities of practice usually consist of volunteers; no one forces membership or contribution of expertise.
- 2. Although community members learn and work together, they don't necessarily have defined schedules or deliverables resulting from their work.
- 3. Goals, if they exist, are broader and more general than those of teams and work groups, and they may fluctuate.
- 4. Community members share a common bond or interest that could be similar jobs or skills; they tend to be like each other and they have a passion for what they do.
- 5. Communities last as long as members want them to last, rather than disbanding at the end of team projects or work group deliverables. <sup>5</sup>

Communities of practice are self-organizing groups who communicate with one another. They share common work practices, specific areas of competence or areas of interest, and are willing to share what they know. Also known as learning communities, networks, best practice teams, and family groups, communities of practice are an essential component of knowledge management. These informal groups cross organization boundaries to discuss best practices, issues, or skills the group needs, for example. In some sessions, they could collect materials and lessons learned from a project team in order to reuse the knowledge in future projects. They could also identify what knowledge is needed and where it resides, which becomes a living map for knowledge management. This is one way to start construction of corporate "yellow pages," a directory of people, along with their expertise and interests, in an organization. In summary, communities of practice have: an area of interest (a domain of knowledge) which members identify with and are drawn to; members who share personal relationships and spend time together either working or socializing so that they know and trust each other; a community practice or a shared way of doing things which may lead to creation of tools, documents, processes, best practices, to name a few activities.

Of great importance to a community of practice is an effective coordinator to help the community develop the practice and develop the community. Although most of the activity in a community occurs as private interactions between individual members, coordinators can organize events or conferences that gather members in face-to-face interactions with the larger community, as well as invited guests, perhaps bringing needed information from the external environment. Regular forums for exchange are also important, since discussion elicits information sharing and problem solving. Online communities are also a possibility for far-flung organizations. Good coordinators have a few years of job experience, intelligence, and a yen to know people. Not having a big ego may also help, since this work is that of connecting others.

One person useful to coordinators is a librarian, who can search for information and post it to the community. Librarians can maintain databases where knowledge is stored and retrieved, as well as maintaining web sites for access to community resources.

A classic example of knowledge sharing in communities of practice is that of Buckman Laboratories, manufacturer and distributor of chemicals, based in Memphis. <sup>6</sup> Bob Buckman knew the command-and-control hierarchy of the company had to change to meet customers' needs more quickly in a global environment. His idea was not only to sell chemicals, but also to create value by selling knowledge about chemical processes. To do this, he needed to put all the expertise of all his associates at the disposal of any one associate needing to solve a problem for a customer. His question became, "How do we move from a chain of command to a web of influence?" (p. 250)

True to Wenger's view, they first tried technology by setting up email sharing for the General Managers in order to create a best-practices knowledge base. Nothing happened managers had all the information they needed, and they weren't interested in sharing. Next, Buckman set up a Knowledge Transfer Department, hired a network manager to put its worldwide network online, issued every associate a laptop and online access, and set up technical exchange forums known as K'Netix. Every sales associate around the globe could put out a call for help company wide. Discussions between sales people and researchers crossed technical disciplines and organizational boundaries. One director for Asian activities asked for help with a proposal for pitch-control strategies, and got answers from Memphis, Canada, Sweden, New Zealand, Spain, and South Africa—replies from six countries which netted Buckman Labs a \$6 million order. "K'Netix created a new meritocracy where people gained influence based on how effectively they contributed to the success of others and how well they could share and apply what they knew." (p 254) Knowledge reciprocity soon became the norm for Buckman Labs.

#### Supporting communities of practice

Since managing communities of practice is a bit of an oxymoron, developing communities of practice consists more of supporting. Making a business case for communities is a start.

- For an organization, communities of practice can build core capabilities and increase innovation by transferring knowledge and best practices.
- The community itself has access to expertise and has a way of sharing knowledge which can be used to improve processes or documentation.
- For people in communities there is help doing their jobs, a sense of belonging, opportunities to learn something they care about, and new challenges to push their development. (Rumizen, p. 94)

Of course, the community needs to be aligned with the strategy of the organization and the communities themselves must be linked to the organization.

Another consideration for managers is that of organizational culture or "the way we do things around here." Knowledge sharing needs to be intrinsically rewarding to people. The rewards could be getting information critical to completing a project, saving time at work, talking with others about interesting issues, or even being recognized as an expert at something. Personal connection is an important motivator. Engineers and technologists usually exchange knowledge according to the level of personal contact they have with others. Bringing people together for face-to-face meetings helps maintain that sense of connection once people return to their individual work areas. People respond to a request for help when it comes from someone they know, especially when they already know what others know and need help with specifically. Helping others learn and nurturing personal knowledge creation are marks of caring professionals. Genuine care leads to empathy, understanding other people's needs, and supports a critical need for trust to achieve knowledge sharing in organizations. Knowledge management reflects respect for people and a belief that all humans beings have good ideas to contribute.

Ronald Heifetz and Donald Laurie, in a *Harvard Business Review* special issue, advise: . . . in order to make change happen, executives have to break a long-standing behavior pattern of their own: providing leadership in the form of solutions. This tendency is quite natural because many executives reach their positions of authority by virtue of their competence in taking responsibility and solving problems. . . . Solutions to adaptive challenges reside not in the executive suite but in the collective intelligence of employees at all levels, who need to use one another as resources, often across boundaries, and learn their way to those solutions." <sup>7</sup>

## Summary

In summary, ensuring that the best and most complete knowledge is available not only to upper management but to everyone whose work adds value to products and services will be increasingly important in the 21<sup>st</sup> century global economy. Sharing and using knowledge add value, as do communities of practice that collect and systematize knowledge while connecting people positively in accomplishing the goals of organizations. Davis Skyrme sums this up well: ". . . an organization's most valuable knowledge is human expertise and the processes by which it is shared and enhanced. . . . It needs a knowledge sharing culture . . . an integration of 'hard' and 'soft' that sets apart those organizations who have truly embraced knowledge as a key dimension of business strategy." (p. 82) Developing strategy and practices that optimize the knowledge resources of organizations should be the focus of knowledge management activities.

## References

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**TAGGART SMITH, Ed. D.** has served as Chair, Illinois/Indiana Section and as Chair, Engineering Management Division. An associate editor for the *Engineering Management Journal*, she is also Trustee for Gamma Rho Chapter, Epsilon Pi Tau, an international technology honorary. At Purdue, she teaches Contemporary Issues in Leadership,. Her book *Meeting Management* was recently published by Prentice Hall as part of the Net Effect Series.