

# EXPERT SERIES

The "Expert Series" is a collection of articles, papers and writings by PM Solutions' associates and other industry experts that provides insight into the practice and value of project management.

## Communities of Practice in the Projectized Organization

Two experts discuss how encouraging community benefits both individuals and organizations

by Jeannette Cabanis-Brewin

NO SOONER HAD THE "KNOWLEDGE WORKER" BEEN GIVEN A NAME THAN THE TERM "KNOWLEDGE MANAGEMENT" BEGAN TO BE FLUNG ABOUT, usually in reference to some new twist on database technology. But knowledge is more than documents or information. The management of creativity, ideas, expertise and learning - the core areas where knowledge workers provide value - is a lot more complex than the old widget-counting paradigms of management can handle.

We know how to make sure workers are at their desks, but not how to ensure that they are thinking. Technology and new products - the lifeblood of today's economy - depend on creative people working in groups, while the old "scientific management" practices were established to ensure uniformity among individuals. Quality in a service industry depends on the knowledge - and in some cases, the wisdom - of service providers - just ask anyone who has ever hired a consultant. Over the past decade, many thinkers have explored the nature of knowledge accumulation and transfer, seeking to help organizations tackle the challenges of managing both knowledge and knowledge workers. Concepts such as the "learning organization" and the "community of practice" sprang from studies of how people learn and how learning migrates from theory to practice.

One of the leading figures in this field of study is Etienne Wenger, author of *Communities of Practice: Learning, Meaning and Identity* (Cambridge University Press, 1998). Wenger, with a doctorate in artificial intelligence has been working for over ten years to map the ways in which people learn and share knowledge. His work-originally theoretical-is now applied to practical problems surrounding innovation and continuous improvement in many organizations, including project-oriented businesses such as National Semiconductor, Shell, and Xerox. But when it comes to the specific application of communities of practice-defined as groups of people informally bound together by shared expertise and passion for a joint enterprise or discipline-in the field of project management, we turned to Lynn Crawford of the University of Technology at Sydney. Crawford's work with international networks of project management practitioners has led her to adopt the community of practice as a model way to nurture project management competence, especially among isolated or far-flung practitioners.

The Best Practices Report asked Wenger and Crawford to share their insights on how the community of practice model can dovetail with the project management discipline.

**BPR:** Many people view knowledge management as having a lot of data on file. But isn't tacit knowledge-the things people understand but haven't written down-the real value of a KM structure like a community of practice?

**Crawford:** Knowledge is really embodied in people; it's just data until people interpret it on the basis of their own tacit knowledge, and different people will interpret and use the same data in different ways.

It's the sharing of tacit knowledge that creates new knowledge. When it just sits there inanimate in a database, it's of no use to anyone. It has to be animated. And that's where a community helps.

It's as simple as someone coming to you and saying, Did you read that article? People with shared interests bring things to each other's attention which otherwise would fall by the wayside. This is how you create new knowledge. They up each other's brainpower, kind of like a distributed computing network. People try to have systems that automate everything, but you can't automate knowledge management until it's embedded in people.

**Wenger:** Knowledge workers are not knowledge workers individually; they have shared exchange, information is discussed, pushed, reconsidered – the ability of the knowledge worker to reach his or her full potential is related to the ability to be in exciting communities. The knowledge that organizations are interested in today is more complex than any single person can keep within himself. People are not knowers or experts by themselves.

**BPR:** What kinds of tacit knowledge do project managers lose out on when they are not part of a community of practice?

**Crawford:** They miss out on a sense of reality – on late-breaking news – on having their attention drawn to things, on opportunities for improvement and reflection. Working in isolation, one can become extremely introspective. People become trapped in their particular paradigm or model and can get more and more out of alignment with reality. A lot of engineers believe they gave project management to the world so they know all about it and they don't need to have anything to do with associations or with others. As one practitioner I've interviewed in my research explained, "they don't see there is any need to change because they think they are doing all the right things. So those who can see the need for change leave the organization, and leave the people who need to change behind. The organization doesn't have the skills to change because those skills left. They may not even recognize the need for change, because they've become so internally cohesive that they can't see what's wrong."

Of course, refusal to adapt and change isn't an option these days. If you don't look outside your organization and outside project management into a wider community than we are going to perish and die.

**BPR:** Where should project managers look?

**Crawford:** Virtually anywhere. All the important discoveries have happened by bringing unusual things together. Let's face it: just about everything has something to do with projects. Complexity science, information science, systems engineering, all are very relevant. It's appropriate to look beyond the very simplistic tools-oriented view of project management. There's a need for cross-disciplinary communities because if you only talk to people exactly like you, you only hear what you already know.

**BPR:** In your paper you say that "lessons learned" is project-management speak for knowledge management. But you've also pointed out that very few companies actually maintain any kind of record of lessons learned.

**Crawford:** That's true. There's quite a lot of rhetoric about it, but research done in the Human Systems Network shows that only 25% of organizations actually apply lessons learned to new projects. Yet, Terry Cooke-Davies [of the Human Systems Network in the U.K.] did a presentation at the International Project Management Association last year which indicated that those organizations in the network that had processes for capturing and disseminating lessons learned were likely to have more successful projects (as measured by cost and schedule predictability). That's not a strong reliable statistic, but it is a trend.

**BPR:** Etienne, in your book you talk about the tension between the "designed" institution vs. the "emergent" practice. Project management has a history as an emergent discipline operating under the organizational radar. But today the discipline is being recognized and institutionalized, in project offices for example. But there's a danger there, too, isn't there?

**Wenger:** Institutions are designed systems and practice is improvised, so the tension never disappears. However, I don't think we should view it as an inherent conflict. It's more a matter of an institution recognizing its own limitations. In a community of practice, you are dealing with a living entity.

**BPR:** How can we design our institutions so that living entities can thrive inside them? How do we allow for change, evolution, and the development of internal leadership? We are now at the same point with communities of practice that project management and teams were a decade ago: the beginning of a steep learning curve. Many questions related to power, authority and organizational structure were raised by these new structures. When you move into the realm of community of practice you have to take this a step further.

As we move into a knowledge economy, organizations must realize that they no longer "own" the sources of creation of knowledge. Traditional labor theory does not apply to a knowledge economy. Workers don't sell their labor day by day; they own their ability to create knowledge.

We are still learning how to define the relationship between knowledge and performance. The organization must analyze who they really depend on for their performance. More and more communities are a mix of bottom-up and top-down processes. A pure grassroots CoP often is at the mercy of changes in the organization; it's difficult to get resources. As institutions become more intentional about managing knowledge, they have to pay more attention to communities of practice, but the spirit of an informal community can be easily crushed by being over-managed. So this pure top-down approach does work, either.

**BPR:** How can a company ensure that the project office is a community-friendly organization?

**Crawford:** There's a changing attitude toward project offices. There was a time when they were viewed as police. Now they are looking like centers of communities: providing forms, advice, support.

**Wenger:** It's the spirit that counts. As they evolve, communities are bound to become a stable place in the organization. As long as the person in charge of the project office understands that a higher aspiration to create a lively community of practice exists among project managers, and that this supports rather than threatens the institution, it can work. I tell my clients they have to live with this paradox of formal and informal structures existing concurrently, not try to resolve it one way or the other. It's not that one is bad and one is good—they can support each other.

**BPR:** What about purely virtual communities, such as those centered around Web portals? Can they succeed?

**Wenger:** The jury is still out. I certainly don't rule it out. Most communities have more than one medium of exchange. Some communities meet very rarely and are still successful. But after a while people feel the need to pick up the phone or see each other.

**Crawford:** I think e-mail discussion lists can be more useful because people go to their e-mail every day. A Web portal is useful in support of a community but doesn't represent a community in itself. Having said that, the one I've seen with the best sense of community is New Grange Center for Project Management ([www.newgrange.org](http://www.newgrange.org)). They refer to themselves as a skunkworks, which gives a cohesive "alternative" character.

**BPR:** There seems to be a close alignment between the concepts of "profession" and "community of practice." In what ways do professional associations serve as communities?

**Wenger:** It's not the old model of profession, but it's an exciting way of looking at it. I'm told that many professional organizations are reconsidering their role. For example, the union of engineers in Denmark is rethinking the role of a union in a knowledge economy, getting beyond agreements and contracts to consider what kind of relationship they can offer their members. If the profession is a community, an engineer who works in a very small firm can prevent feeling isolated in his work.

**Crawford:** I have a beautiful example of that – a study done of architects in Australia showed that architects in tiny country towns were more likely to keep up with trends and less likely to be sued for negligence. Those working in cities thought they had everything at their fingertips so they were "unconsciously incompetent." The ones in country towns participated more in professional activities because they had to actively pursue the latest information. Likewise, in project management, we've found that there are people who are marginalized by their systems. They are at the coalface and they have to inquire in order to survive and that is where development is occurring. These people looking for something to help them do the work, they want to reflect on things; we call them practitioner researchers.

Then, too, more and more people don't necessarily have an office. There's an increasing trend toward isolation with virtual project teams. That is one reason communities of practice are so important. As our "workplace" is broken down, we need somewhere to belong, people to relate to. A professional group can serve that purpose, providing a community that is exterior to your workplace -- even to your geographic area.

**BPR:** That brings up an issue that has been sticky for some project management communities: intellectual property issues.

**Wenger:** To some extent, knowledge is fluid. But I don't think the idea of intellectual property is going to disappear. This is something professionals have dealt with for a long time, you go to conferences and publish books and you have to weigh, what do I say, what do I keep proprietary.

If you belong to a community of practice outside an organization you have to use some discretion in these matters.

At the same time, organizations have to understand that hoarding information is counterproductive. Participation in a knowledge economy means participation in a broader system. The thing that makes Silicon Valley a constantly renewed source of inventiveness is that the basic source of creativity is not any single company, but the fabric of interrelationships that underlies it. These companies live with the fact that workers will move from one company to the next. To some extent, there are still trade secrets but at the same time that movement of people is a resource. The recombination of talents creates new knowledge.

This is a hard transition and 100% of companies are not going to do well at it. Competition and collaboration are always working off each other; even within a single organization, it's not pure collaboration, since people still compete to be on certain projects and so on. But what organizations are learning is that their best learning partners are their competitors. Competition is no longer the only thing around. Knowledge is too complex for an individual, or even a company, to own.

**BPR:** You have been involved in the creation of some international communities of practice. What lessons learned can you share about those experiences?

**Wenger:** I developed a "six Cs" checklist in the paper I presented with Terry Cooke-Davies at IPMA and those are: Cooperation, Credibility, Creativity, Commitment, Continuity (in terms of having a core group of people who participate regularly) and Collateral-things that you develop together and share.

The other thing that is important in terms of knowledge management is a spirit of inquiry and reflection. I think the Human Systems Network and the Project Management Benchmarking Forums organized by Frank Toney of the University of Phoenix are excellent examples of true communities of project management practice, on every count. They gather regularly, share problems and solutions, develop and publish research, and generally add tremendous value to their own organizations and the discipline as a whole. We can use these as examples to extend the community of practice concept wherever project management is practiced.

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