



COMMUNITIES OF PRACTICE: LEARNING AS A SOCIAL SYSTEM

BY ETIENNE WENGER

You are a claims processor working for a large insurance company. You are good at what you do, but although you know where your paycheck comes from, the corporation remains mostly an abstraction for you. The group you actually work for is a small community of people who share your working conditions. It is with this group that you learn the intricacies of your job, explore the meaning of your work, construct an image of the company, and develop a sense of yourself as a worker.

You are an engineer working on two projects within your business unit. These are demanding projects, and you give them your best. You respect your teammates and are accountable to your project managers. But when you face a problem that stretches your knowledge, you turn to people like Jake, Sylvia, and Robert. Even though they work on their own projects in other business units, they are your real colleagues. You all go back many years. They understand the issues you face and will explore new ideas with you. And even Julie, who now works for one of your suppliers, is only a phone call away. These are the people with whom you can discuss the latest developments in the field and troubleshoot each other's most difficult design challenges. If only you had more time for these kinds of interactions.

You are a CEO and, of course, you are responsible for the company as a whole. You take care of the "big picture." But you have to admit that for you, too, the company is mostly an abstraction: names, numbers, processes, strategies, markets, spreadsheets. Sure, you occasionally take tours of the facilities, but on a day-to-day basis, you live among your

peers—your direct reports with whom you interact in running the company, some board members, and other executives with whom you play golf and discuss a variety of issues.

We frequently say that people are an organization's most important resource. Yet we seldom understand this truism in terms of the communities through which individuals develop and share the capacity to create and use knowledge. Even when people work for large organizations, they learn through their participation in more specific communities made up of people with whom they interact on a regular basis. These "communities of practice" are mostly informal and distinct from organizational units (see "Communities of Practice" on p. 1).

Although we recognize knowledge as a key source of competitive advantage in the business world, we still have little understanding of how to create and leverage it in practice. Traditional knowledge management

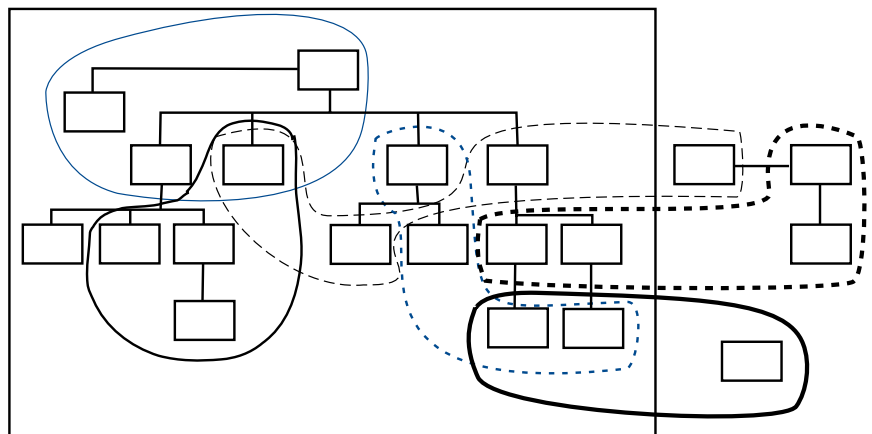
approaches attempt to capture existing knowledge within formal systems, such as databases. Yet systematically addressing the kind of dynamic "knowing" that makes a difference in practice requires the participation of people who are fully engaged in the process of creating, refining, communicating, and using knowledge. Thus, communities of practice are a company's most versatile and dynamic knowledge resource and form the basis of an organization's ability to know and learn.

Defining Communities of Practice

Communities of practice are everywhere. We all belong to a number of them—at work, at school, at home, in our hobbies. Some have a name; some don't. We are core members of some, and belong to others more peripherally. You may be a member of a band, or you may just come to rehearsals to

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hang around with the group. You may lead a group of consultants who specialize in telecommunication strategies, or you may only stay in touch to keep informed about developments in the field. Or you may have just joined a community and are still trying to find your place in it. Whatever form our participation takes, most of us are familiar with the experience of belonging to a community of practice.

Members of a community are informally bound by what they do together—from participating in lunch-time discussions to solving difficult problems—and by what they have learned through their mutual engagement in these activities. A community of practice is thus different from a community of interest or a geographical community, neither of which implies a shared practice. A community of practice defines itself along three dimensions:

- **What it is about**—its *joint enterprise* as understood and continually renegotiated by its members
- **How it functions**—the relationships of *mutual engagement* that bind members together into a social entity
- **What capability it has produced**—the *shared repertoire* of communal resources (routines, sensibilities, artifacts, vocabulary, styles, etc.) that members have developed over time.

Communities of practice also move through various stages of development characterized by different levels of interaction among the members and different kinds of activities (see “Stages of Development” on p. 3).

Communities of practice develop around things that matter to people. As a result, their practices reflect the members’ own understanding of what is important. Even when a community’s actions conform to an external mandate, it is the community—not the mandate—that produces the practice. In this sense, communities of practice are self-organizing systems.

Communities of Practice in Organizations

Communities of practice exist in any organization. They can be found:

- *Within businesses:* Communities of

practice arise as people address recurring sets of problems together. So, claims processors within an office form communities of practice to deal with the constant flow of information they need to process. By participating in such a communal memory, they can do the job without having to remember everything themselves.

- *Across business units:* Important knowledge is often distributed in different business units. People who work in cross-functional teams thus form communities of practice to keep in touch with their peers in various parts of the company and maintain their expertise. When communities of practice cut across business units, they can develop strategic perspectives that transcend individual product lines. For instance, a community of practice may propose a plan for equipment purchases that no one business unit could have come up with on its own.
- *Across company boundaries:* In some cases, communities of practice become useful by crossing organizational boundaries. For instance, in fast-moving industries, engineers who work for suppliers and buyers alike may form a community of practice to keep up with constant technological changes.

Communities of practice are not a new kind of organizational unit; rather, they are a different *cut* on the organization’s structure—one that emphasizes the learning that people have done together rather than the unit they report to, the project they are working on, or the people they know. Communities of practice differ from other kinds of groups found in organizations in the way they define their enterprise, exist over time, and set their boundaries:

- A community of practice is different from a *business or functional unit* in that it defines itself in the doing, as members develop among themselves their own understanding of what their practice is about. This living process results in a much richer definition than a mere institutional character. As a consequence, the boundaries of a community of practice are more flexible than those of an organizational unit. The membership involves whoever participates in and con-

tributes to the practice. People can participate in different ways and to different degrees. This permeable periphery creates many opportunities for learning, as outsiders and newcomers learn the practice in concrete terms, and as core members gain new insights from contacts with less-engaged participants.

- A community of practice is different from a *team* in that the shared learning and interest of its members are what keep it together. It is defined by knowledge rather than by task, and it exists because participation has value to its members. It does not appear the minute a project is started and does not disappear with the end of a task. It takes a while to come into being and may live long after a project is completed or an official team has disbanded.
- A community of practice is different from a *network* in the sense that it is “about” something; it is not just a set of relationships. It has an identity as a community, and thus shapes the identities of its members. A community of practice exists because it produces a shared practice as members engage in a collective process of learning.

People belong to communities of practice at the same time as they belong to other organizational structures. In their business units, they shape the organization. In their teams, they take care of projects. In their networks, they form relationships. And in their communities of practice, they develop the knowledge that lets them do these other tasks. This informal fabric of communities and shared practices makes the official organization effective and, indeed, possible.

Communities of practice have different relationships with the official organization. The table “Community’s Relationship to Official Organization” on p. 4 shows different degrees of institutional involvement, but it does not imply that some relationships are better or more advanced than others. Rather, these distinctions are useful because they draw attention to the issues that can arise in the interaction between the community of practice and the organization as a whole.

The Importance to Organizations

Communities of practice are important to the functioning of any organization, but they become crucial to those that recognize knowledge as a key asset. From this perspective, an effective organization comprises a constellation of interconnected communities of practice, each dealing with specific aspects of the company's competencies—from the peculiarities of a long-standing client, to manufacturing safety, to technical inventions. Knowledge is created, shared, organized, revised, and passed on within and among these communities. In a deep sense, it is by these communities that knowledge is “owned” in practice.

Communities of practice fulfill a number of functions with respect to the creation, accumulation, and diffusion of knowledge in an organization:

- They are nodes for the *exchange and interpretation* of information. Because members have a shared understanding, they know what is relevant to communicate and how to present information in useful ways. As a consequence, a community of practice that spreads throughout an organization is an ideal channel for moving information—such as best practices, tips, or feedback—across organizational boundaries.
- They can *retain knowledge* in “living” ways, unlike a database or a manual. Even when they routinize certain tasks and processes, they can do so in a manner that responds to local circumstances and thus is useful to practitioners. Communities of practice preserve the tacit aspects of knowledge that formal systems cannot capture. For this reason, they are ideal for initiating newcomers into a practice.
- They can *steward competencies* to keep the organization at the cutting edge. Members of these groups discuss novel ideas, work together on problems, and keep up with developments inside and outside a firm. When a community commits to being on the forefront of a field, members distribute responsibility for keeping up with or pushing new developments. This collaborative inquiry makes membership valuable,

because people invest their professional identities in being part of a dynamic, forward-looking community.

- They provide *homes for identities*. They are not as temporary as teams, and unlike business units, they are organized around what matters to their members. Identity is important because, in a sea of information, it helps us sort out what we pay attention to, what we participate in, and what we stay away from. Having a sense of identity is a crucial aspect of learning in organizations. Consider the annual “computer drop” at a semiconductor company that designs both analog and digital circuits. The computer drop became a ritual by which the analog community asserted its identity. Once a year, their hero would climb the highest building on the company's campus and drop a computer, to the great satisfaction of his peers in the analog gang. The corporate world is full of these displays of identity, which manifest themselves in the jargon people use, the clothes they wear, and the remarks they make. If companies want to benefit from people's creativity, they must support communities as a way to help them develop their identities.

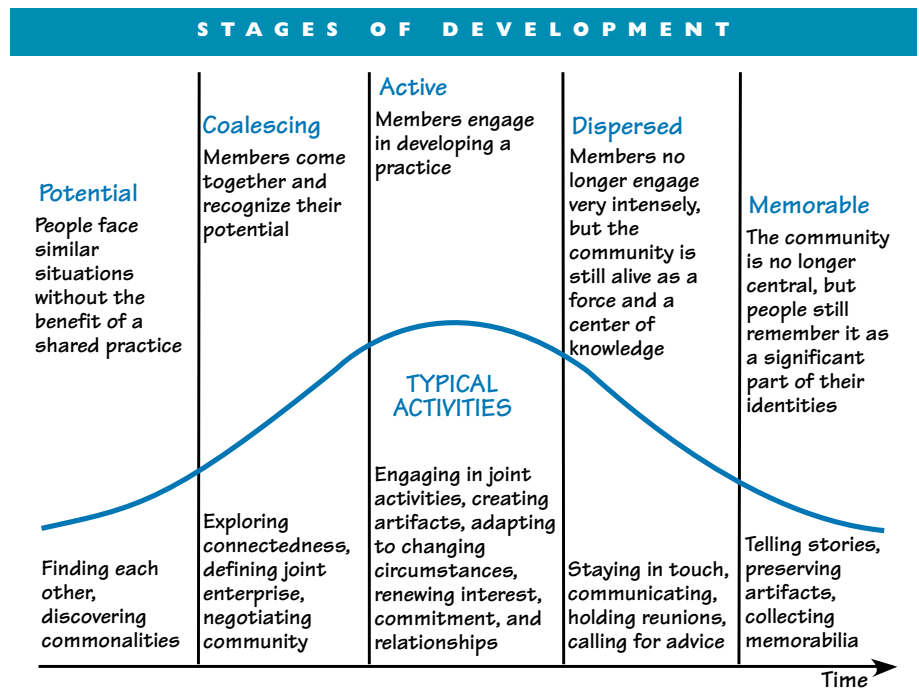
Communities of practice struc-

ture an organization's learning potential in two ways: through the knowledge they develop at their *core* and through interactions at their *boundaries*. Like any asset, these communities can become liabilities if their own expertise becomes insular. It is therefore important to make sure that there is enough activity at their boundaries to renew learning. For while the core is the center of expertise, radically new insights often arise at the boundary. Communities of practice truly become organizational assets when their core and their boundaries are active in complementary ways. To develop the capacity to create and retain knowledge, organizations need to build institutional and technological infrastructures that do not dismiss or impede these communities, but rather recognize, support, and leverage them.

Developing and Nurturing Communities of Practice

Just because communities of practice arise naturally does not mean that organizations can't do anything to influence their development. Most communities of practice exist whether or not the organization rec-

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ognizes them. Many are best left alone—some might actually wither under the institutional spotlight. And some may need to be carefully seeded and nurtured. But a good number will benefit from some attention, as long as this attention does not smother their self-organizing drive.

Whether these communities arise spontaneously or come together through seeding and nurturing, their development ultimately depends on internal leadership. Certainly, in order to legitimize the community as a place for sharing and creating knowledge, recognized experts need to be involved in some way, even if they don't do much of the work. But internal leadership can take many forms:

- The *inspirational* leadership provided by thought leaders and recognized experts
- The *day-to-day* leadership provided by those who organize activities
- The *classificatory* leadership provided by those who collect and organize information in order to document practices
- The *interpersonal* leadership provided by those who weave the social fabric
- The *boundary* leadership provided by those who connect the community to other communities
- The *institutional* leadership provided by those who maintain links with other organizational constituencies, in particular the official hierarchy
- The *cutting-edge* leadership provided by those who lead “out-of-the-box” initiatives.

These roles may be formal or informal, and may be concentrated in a core group or more widely distributed. But in all cases, leadership must have intrinsic legitimacy in the community. To be effective, therefore, managers and others must work with communities of practice from the *inside* rather than merely attempt to design them or manipulate them from the *outside*. Nurturing communities of practice in organizations includes:

Legitimizing Participation. Organizations can support communities of practice by recognizing the work of sustaining them; by giving members

the time to participate in activities; and by creating an environment in which the value they bring is acknowledged. To this end, it is important to have an institutional discourse that includes this dimension of organizational life. Merely introducing the term “communities of practice” into an organization's vocabulary can have a positive effect by giving people an opportunity to talk about how their participation in these groups contributes to the organization as a whole.

Negotiating Their Strategic

Context. In what Richard McDermott calls “double-knit organizations,” people work in teams for projects but belong to longer-lived communities of practice for maintaining their expertise. The value of team-based projects that deliver tangible products is easily recognized, but it is also easy to overlook the potential cost of their short-term focus. The learning that communities of practice share is just as critical, but its longer-term value is more subtle to appreciate. Organizations must therefore develop a clear sense of how knowledge is linked to business strategies and use this understanding to help communities of practice articulate their strategic value. This involves a process of negotiation that goes both

ways. It includes understanding what knowledge—and therefore what practices—a given strategy requires. Conversely, it also includes paying attention to what emergent communities of practice indicate with regard to potential strategic directions.

Being Attuned to Real Practices.

To be successful, organizations must leverage existing practices. For instance, when the customer service function of a large corporation decided to combine service, sales, and repairs under the same 800 number, researchers from the Institute for Research on Learning discovered that people were already learning from each other on the job while answering phone calls. IRL then instituted a learning strategy for combining the three functions that took advantage of this existing practice. By leveraging what they were already doing, workers achieved competency in the three areas much faster than they would have through traditional training. More generally, the knowledge that companies need is usually already present in some form, and the best place to start is to foster the formation of communities of practice that leverage the potential that already exists.

Fine-tuning the Organization.

Many elements in an organizational

COMMUNITY'S RELATIONSHIP TO OFFICIAL ORGANIZATION		
Status	Definition	Typical Challenges
Unrecognized	Invisible to the organization and sometimes even to members themselves	Lack of reflexivity, lack of awareness of community's value and limitations
Bootlegged	Only visible informally to a circle of people “in the know”	Getting resources, having an impact, keeping hidden
Legitimized	Officially sanctioned as a valuable entity	Scrutiny, overmanagement, new demands
Strategic	Widely recognized as central to the organization's success	Short-term pressures, blindness of success, smugness, elitism, exclusion
Transformative	Capable of redefining its environment and the direction of the organization	Relating to the rest of the organization, acceptance, managing boundaries

environment can foster or inhibit communities of practice, including management interest, reward systems, work processes, corporate culture, and company policies. These factors rarely determine whether people form communities of practice, but they can facilitate or hinder participation. For example, issues of compensation and recognition often come up. Because communities of practice must be self-organizing to learn effectively and because participation must be intrinsically self-sustaining, it is tricky to use reward systems as a way to manipulate behavior in or micro-manage the community. But organizations shouldn't ignore the issue of reward and recognition altogether. Rather, they need to adapt reward systems to support participation in learning communities; for instance, by including community activities and leadership in performance review discussions. Managers also need to make sure that existing compensation systems do not inadvertently penalize the work involved in building communities.

Providing Support. Communities of practice are mostly self-sufficient, but they can benefit from some

resources, such as outside experts, travel, meeting facilities, and communications technology. A companywide team assigned to nurture community development can help address these needs. This team typically

- provides *guidance and resources*
- helps communities connect their agenda to business *strategies*
- encourages them to move forward and remain focused on the *cutting edge*
- ensures they include all the *right people*
- helps them *link* to other communities.

Such a team can also help identify and eliminate barriers to participation in the structure or culture of the overall organization; for instance, conflicts between short-term demands on people's time and the need to participate in learning communities. In addition, just the existence of such a team sends the message that the organization values the work and initiative of communities of practice.

The Art of Balancing Design and Emergence

Communities of practice do not usually require heavy institutional infra-

structures, but their members do need time and space to collaborate. These communities do not require much management, but they can use leadership. They self-organize, but they flourish when their learning fits with their organizational environment. The art is to help such communities find resources and connections without overwhelming them with organizational meddling. This need for balance reflects the following paradox: No community can fully design the learning of another; but conversely, no community can fully design its own learning. ■

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