

Practices, communities of practice and skills groups in IT

A vertical strip on the left side of the page shows a nighttime cityscape with illuminated skyscrapers and light trails from traffic on a highway below. The top part of this strip is a solid red color.

Rediscovering practices

A guide to practices and
communities of practice in IT

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Introduction

Acknowledgements:

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Terminology:

What this Note calls **practices** may sometimes be labelled as **skill groups**, **communities of practice**, or **centres of excellence**. The last is confusing as a centre of excellence can also mean a specialized work team (e.g. a SAP team) not a network spreading across the company.

'A key influence here has been Spotify, whose widely publicized and admired model for scaling Agile development methods includes two types of practice.'

Corporate IT is in danger of losing ground in the struggle to attract and engage really talented IT people. **The problem:** IT's newer 'tech' entrants (small and large companies), who compete for the same IT people, can seem much less hidebound and much more lively. It will disconcert some CIOs to see that some of those nimbler competitors proudly use an approach that was pioneered not in Silicon Valley but in corporate IT itself! In short, some CIOs have allowed something that can give them a competitive advantage to become an advantage – *but only for the other side*.

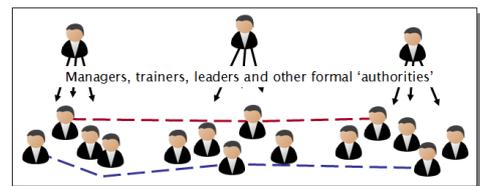
The 'something' in question is the 'practice': a number of employees, spread across work teams, who share a professional discipline, specialism or special interest and form a network. Most practices are created **primarily for learning** and development purposes, but some do much more.

A practice, at its simplest, will be informal and initiated entirely by its members. At the other extreme it will form a central pillar of the IT function's operating model, with practice members managed by practice managers who lead on their performance appraisal and management. Practices are organized and managed in a **greater variety of ways** than other types of team, for example project teams or service teams, and this can make practice management seem problematic.

Practices are seldom discussed in published sources so it is not surprising that something that can be a very positive mechanism is often overlooked. Recent experience has shown that practices are not just worthy mechanisms to educate professionals; they can **liven up workforces** and **improve engagement** by providing networks and contacts that, by falling outside the normal hierarchy of control, enrich life at work.

Practices: part of a bigger twenty-first century picture

Recently, the practice concept has stepped into the spotlight because it facilitates **horizontal**, or peer-peer, learning mechanisms. This is a response to the realization that formal training structures are impractical in areas where knowledge is advancing quickly and messily, and is often company-specific. So only by developing collectively using horizontal communications can specialists maximize their capabilities. And these horizontal communications tend to be lively and spontaneous. But big companies' internal communications tend to be **vertical**, i.e. to and from bosses, trainers, coaches and mentors. **Practices** are one way



of opening up horizontal interactions. Another is the **un-conference**, pioneered at Yahoo, where employers 'open the floor' to those who feel they have something valuable to pass on to colleagues. This contrasts with traditional conferences which, being curated, are top-down experiences.

It is interesting that Peter Drucker identified horizontal learning as a phenomenon relevant to all knowledge workers in the twenty-first century:

'Knowledge work requires continuous learning on the part of the knowledge worker, but equally continuous teaching on the part of the knowledge worker.'

A key influence here has been **Spotify**, whose widely publicized and admired model for scaling Agile development methods includes two types of practice.

This paper therefore appears at a very appropriate time.

¹ Peter Drucker, *Management Challenges for the 21st Century*, (London: Butterworth Heinemann, 1999) 'Knowledge-Worker Productivity' Chapter 5.

The informal community of practice

The simplest type of practice, the informal practice set up by employees without prompting by managers, was described by Etienne Wenger and William Snyder in 2000². They defined it as *'a group of people informally bound together by shared expertise and passion for a joint enterprise'*. Such networks, often operating mostly below managers' radar, are by definition composed of motivated and interested people. Such a group will probably rely on one or two individuals to organize them and to maintain collective energy and enthusiasm.

Wenger and Snyder's early description of the kinds of things these communities of practice can get involved in is still apt and helpful:

ACTIVITIES	EXAMPLE
Problem solving	'Can we work on this design and brainstorm some ideas; I'm stuck.'
Requests for information	'Where can I find the code to connect to the server?'
Seeking experience	'Has anyone dealt with a customer in this situation?'
Reusing assets	'I have a proposal for a local area network I wrote for a client last year. I can send it to you and you can easily tweak it for this new client.'
Coordination and synergy	'Can we combine our purchases of solvent to achieve bulk discounts?'
Discussing developments	'What do you think of the new CAD system? Does it really help?'
Documentation projects	'We have faced this problem five times now. Let us write it down once and for all.'
Visits	'Can we come and see your after-school program? We need to establish one in our city.'
Mapping knowledge and identifying gaps	'Who knows what, and what are we missing? What other groups should we connect with?'

Source: *Communities of Practice: The Organizational Frontier* by Etienne Wenger & William Snyder

Table 1: What do communities of practice do?

Corporate social networks and IT learning

A 2015 survey of 16 large IT functions (Snapshot Research 6055) showed that Yammer was particularly popular for this kind of application. Also mentioned: Huddle, SharePoint and Fuse.



Today, **online technology** has emerged as a major enabler of these kind of groups, both between and within companies, so many of the above examples look dated in terms of the 'how', if not the 'what'. The availability of publicly available blogs means that pure technical issues are often best solved by reference to sources outside the company. But there remain many areas where only colleagues can provide answers because of the employer's specific technologies, methodologies and challenges. Note that communities can be created round **roles** (e.g. project managers, developers), or **topics** (e.g. JavaScript, MapReduce, DevOps).

Spotify provides a public domain example of this format: see next page.

This kind of practice runs on the enthusiasm of its members and costs no more than a modest coffee and cake budget from a friendly manager. And as it forms a useful **learning and support** forum, and boosts the **engagement** of its members, it is the kind of initiative that any sensible management team would want to encourage. But care must be taken not to cross the line separating 'encouragement' from control or orchestration: the **informality and sense of freedom** is an attractive feature for members of these communities. That hands-off approach extends to being able to accept that a particular practice has been disbanded by its members. Perhaps the most a management team should do is to provide some encouragement and recognition, and leave communities to operate in whatever way is effective for their members.

The success of informal communities of practice can lead in time to the official adoption of the model and a decision to extend it into many, perhaps all, areas of IT: see next section. But even where more formal practices with formal roles

² See Etienne C. Wenger and William M. Snyder, 'Communities of Practice: The Organizational Frontier' in Harvard Business Review, January-February 2000.

CASE STUDY A: Informal communities of practice in Spotify: ‘Guilds’

A good example of informal communities of practice can be seen in Spotify’s use of what it calls **Guilds**, which it describes in the following terms:

‘A Guild is an organic and wide-reaching “community of interest”, a group of people that want to share knowledge, tools, code and practices... A Guild usually cuts across the whole organization. Some examples are: the web technology Guild, the tester Guild, the agile coach Guild, etc. ... each Guild has a Guild co-ordinator.’³

Note that Spotify uses, in parallel, another more formal form of practice, which is called the Chapter: see page nine.

and accountabilities have been introduced, informal **parallel communities of practice** may still be useful. These informal networks might cover highly specialized or new technologies and hence not be addressed by any mainstream, structured, practice. That is how Spotify’s less formal ‘Guilds’ operate - see box above.

The key message from this section is that whatever you do about practices more generally, encourage this kind of practice.

Formal capability-focused practices

IT leadership teams are often very impressed by informal communities of practice and want to ensure their benefits are spread across more disciplines in IT. They may decide to appoint some practice leaders, to whom they allocate time budgets, to make this happen. When they do, they tend to focus each practice round a particular **type of role**, rather than on a narrower skill or technical topic.

The immediate benefits may lie in the area of learning and development, but the very fact of having a recognized practice co-ordinator role with an allocated budget (albeit modest) raises the question of what, exactly, is expected in the role. There are many possible answers to this question. In thinking about this, the grid below might be helpful:

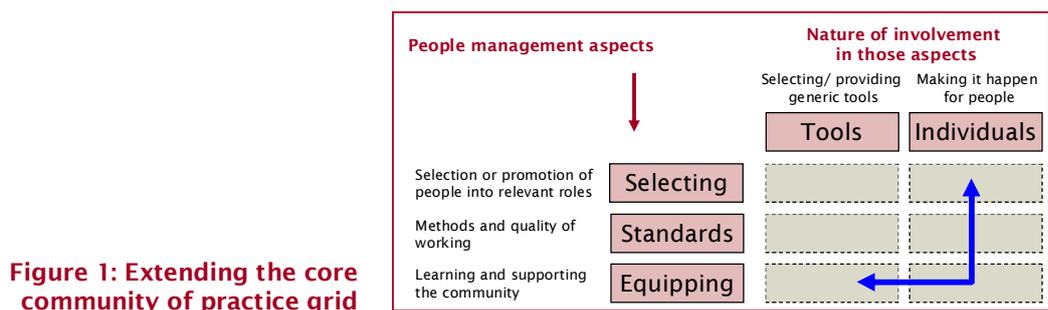


Figure 1: Extending the core community of practice grid

This grid shows the two dimensions in which an informal community of practice may extend from its core base of equipping individuals. In the **horizontal** dimension, it may extend from simply helping individual members to learn from others (and to teach others) into identifying, providing or selecting specific tools for wider use. In the **vertical** dimension it could extend into areas like selection, for example by having experienced members interview candidates for relevant jobs. It may do both: for example a practice might be tasked with developing a selection tool: a list of standard interview questions to be asked of candidates for trainee positions in the practice’s discipline.

³ From *Scaling Agile @ Spotify*, by H. Kniberg & A. Ivarsson, October 2012 - initial publication details are unclear but this document is freely obtainable from a range of online sources.

'Performance measures and targets – always worth setting out – may also vary between practices. Even if these cannot be measured with much precision, they serve to focus the minds of practice managers.'

Different companies will have their own expectations of practice co-ordinators. Expectations will vary internally, too. Leading an architecture practice of 30 is a different challenge than that of a development practice of 600. Pragmatism is needed to make this work, with practice leaders being given a time budget to match their specific circumstances, plus an expenses budget to cover events and other costs (teas and coffees, light refreshments and maybe travel).

IT employees will usually be **expected to participate**, at some level, in any practice that is associated with their particular specialism. But practice coverage is not necessarily 'complete': there may not be a relevant practice for everyone in IT. For example, where specialists in a discipline all have the same manager there is no point in setting up a parallel team structure. **The most popular** formal practice areas include project management, business analysis and architecture, with cyber security and software development also popular.

Some care must be taken when appointing practice leaders. These need not be the company's expert in the relevant discipline, but they must obviously have a real commitment and enthusiasm for the job if others are to enjoy and benefit from their involvement.

Some might want to introduce a single model of how all practices should work. This must be resisted: **practices will vary widely** in terms of size and needs. Some of the variation in sizes can be reduced, for example by having a number of systems development practices each defined around a particular location or technology. But no one practice model may suit all role types so time and cost budgets must be adjusted accordingly. **Performance measures** and targets – always worth setting out – may also vary between practices. Participation levels and members' feedback on learning, and possibly engagement, could all be used as measures. Even if these cannot be measured with much precision, they serve to focus the minds of practice managers.

Case Study B below describes one company's experience of this type of practice, which it calls Skill Groups.

CASE STUDY B: Skills groups implemented in a global company

This company has long experience of operating skill groups, or practices. A few years ago it changed its arrangements as part of a wider initiative and restructuring project. The following paragraphs describe the situations as it stood in early 2012.

Skills group managers have been put in place to develop skills in the following areas: architecture, business analysis, project management, information risk, and service delivery. Each manager takes a slightly different approach to the task. Skill group managers are not held responsible for all aspects of development – only for the specialized functional skills. The company has separate talent managers who are involved in recruitment, managing HIPOs, identifying succession opportunities, etc. The group that has gathered the most support and been most active is the architects' group so we focus on that.

Architects group: It is harder and harder in this company to get investment in IT people at the level given to core business people. The architects have come closest to it. The skill group manager organizes a one-day conference every two years which 60-70% of architects from all over the world attend. This gels IT architects into a global community where people feel they know others. There are also three 5-day programmes for architects, plus training, other meetings, webcasts, etc., all organized by the skills group manager.

Other groups: These attract less funding. For some, accreditation is a central part of the skill group's *raison d'être*. For example the Information Risk group and the project excellence centre focus on recognized accreditations. But not all groups will have recognized accreditation options available to them. Activity on web conferencing and other learning tools vary greatly between groups. **Much depends on the size of the group.**

Skills group managers may get involved in job progression decisions for junior jobs, where promotion does not take the standard form of applying for an advertised vacancy and being considered and interviewed alongside everyone else. For such jobs the skills group manager will help decide if an individual is ready to 'move up' the lower rungs of the ladder in terms of their:

- Competence – at the training and accreditation level,
- Breadth of experience on projects, and
- Performance on projects.