

COMMUNITIES OF PRACTICE TO IMPROVE KNOWLEDGE MANAGEMENT AND eLEARNING IN SMEs

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The paper presents the concept of Communities of Practice (CoP) and how they may contribute to the solution of strategic problems in SMEs, particularly qualification and knowledge issues. In the second section of the paper, these findings are related to the EU project SIMPEL. There we discuss to what extent CoPs may be beneficial as a component in SME training strategies and which preconditions have to be met for this purpose. Specifically, we are looking at the learning management system Moodle as a possible software solution for accommodating and developing CoPs in the SME sector.

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1. Communities of Practice – an innovative approach to learning

The term „community of practice“ was first used in 1991 by Jean Lave and Etienne Wenger¹ and its meaning was expressed very well by Wenger in 2001: „We all belong to communities of practice. ... At home, at work, at school, in our hobbies, we belong to several communities of practice at any given time.“ Not surprisingly, therefore, a simple search for ‘community of practice’, say, on Google, returns entries as variegated as the “Government Customer Support Community of Practice“ of the US weather services², the International CoP on Farming for Health³, Large Format Photography⁴, of digital medievalists⁵, and even the Community of Practice on Communities of Practice⁶!

What are the features of a CoP in contrast to a mere community or social network in this day and age where communities are practically everywhere?

CoPs are characterised by

- a shared domain of interest of its members
- their – voluntary - commitment to this domain
- collecting and sharing of information resources
- shared or complementary competences among members
- common ideas and/or joint activities
- absence or near absence of hierarchies
- orientation towards exchanging experiences on
- developing best practice and/or agreement on standards for best practice

The core of Wenger's CoP conception is built on learning and intentional practice: "Communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavour." (Wenger, 2004) The emphasis here is on learning peer-to-peer, quasi "organically" in the course of interacting and collaborating in a social network focussed on practice/exchange of experience around practice in a particular "domain". This involves an appreciation of informal learning processes and also facilitates inter-linking learning and knowledge management, particularly efforts to make explicit "tacit" or implicit knowledge. Interesting research referring to this last aspect has been undertaken in the field of organisational learning (Attwell et al., 2003), in attempts to explain how personal knowledge and skills become shared in communities of practice or organisations and how new knowledge is developed. Nonaka and Konno (1998) have described a knowledge development cycle showing how tacit or implicit knowledge can be made explicit as a part of learning processes. These authors among others have pointed out, that knowledge developed in communities of practice is important for understanding different types of knowledge and how knowledge can be developed in different contexts. All these elements make CoPs interesting for consideration as one approach to organise learning in and for SMEs, where informal processes and implicit knowledge play such a great role.

¹ http://en.wikipedia.org/wiki/Community_of_practice

² <http://www.fedhelpdesk.osf.noaa.gov/>

³ <http://www.farmingforhealth.org/>

⁴ <http://www.f32.net/>

⁵ <http://www.digitalmedievalist.org/>

⁶ <http://www.cpsquare.org/>

Not surprisingly, CoPs received much boost by the Internet and the spread of e-Learning. Though CoPs often start in face-to-face settings and may, indeed, continue along a series of meetings, they will benefit from information technologies to keep up communications and for collecting and accessing information repositories. Many CoPs, however, grow into virtual communities (VCoPs), or work in a “blended” mode, combining the best of both worlds, much as their analogue eLearning thrives best in various forms of “blended learning”.

Working in a VCoP has a number of advantages:

- members can access the community and share their work largely independent of time and location
- it is easy to bring together people of different backgrounds and levels of expertise
- it is cost-effective
- people may be less inhibited to take part in the discussion than in face-to-face situations.

These advantages have to be balanced against possible disadvantages:

- to keep up motivation may be harder than in a CoP meeting face-to-face
- missing face-to-face meetings may give rise to feelings of social isolation
- a certain level of technical equipment and technical expertise (‘e-competence’) is required from the community members.

2. The SIMPEL project assessing CoPs for training strategies of SMEs

Early on in the work of the SIMPEL project, CoPs began to be considered as a positive option in the “training mix” for SMEs. Also, we decided to use a CoP to organise part of our project work to explore the concept further (Hamburg et al., 2008; Hamburg et al., 2007). Especially the elaboration of the “Guidelines on eLearning in SMEs” (SIMPEL, 2008) cumulating the eLearning experiences by the SIMPEL partners and their wider expert networks took place on a model of a “blended” CoP, combining workshops, seminars and “virtual” collaboration.

CoPs are open and offer immediate recognition for the skills of their members without presupposing or creating a hierarchy on the basis of these skills or levels of experience. They are flexible in time and do not press learning processes in predefined time-tables. Community members can find their own pace of work

and determine the overall life-time of the community according to their practical needs and their commitment.

Convinced of these advantages and wishing to test the CoP concept in our own practical work, we decided to use the learning management system “Moodle” to house the SIMPEL CoP. This choice was made on the basis of practical experience with this LMS by some of the partners, but more importantly because of the conceptual affinity of Moodle to Web 2.0 e-learning and, lastly, CoPs. Both CoPs and Moodle are based on social constructivism. Martin Dougiamas, the initiator of Moodle, underlines this association throughout his writings (Dougiamas, 2003). On the web-site of the Moodle community, the foundation on a social constructivist model is presented practically as the USP of the software (moodle.org, 2008). Consequently, Moodle is very flexible, enabling a wide range of collaboration scenarios of different levels of complexity. The market is paying its tribute to these advantages: at present, Moodle is the fastest growing open source LMS world-wide. It is used in all sectors of education, including the corporate sector and SMEs (Busse et al., 2007) as testified by the audiences at the various Moodle conferences throughout the world.

SIMPEL built four course rooms in its Moodle environment. In addition to the CoP courseroom Moodle was used for project management purposes, particularly the organisation of the Call for Papers for the Brussels conference:

SIMPEL
SMEs: Improving E-Learning Practices

Main Menu

- Site news
- Where to find Help?

Online Users
(last 5 minutes)
None

This is the Moodle-based E-Learning and Project Management Environment of the Project SIMPEL (SMEs: Improving E-Learning Practices).

This environment is provided by the Centre of Information and Media Services of the University of Duisburg-Essen, one of the project partners.

The project is supported by the European Commission under the eLearning Programme.

Full information about SIMPEL from our public website <http://www.simpel-net.eu>

Course categories

SIMPEL Final Conference 2008	1
SIMPEL Community of Practice (CoP)	1
SIMPEL SME E-Learning Network	1
SIMPEL Project internal	1

Fig. 1: Virtual course rooms on the SIMPEL Learning Management Platform Moodle

Apart from the Moodle administrators, all participants in the CoP-course-room, had equally full access and writing rights. These included members of the SIMPEL partnership, but also interested experts from the national seminars and workshops or experts requesting access after hearing about SIMPEL.

The Community was used for

- distributing information materials on CoPs and other issues
- presentation of successful models of eLearning
- elaboration of the “Guidelines” by using the Moodle WIKI
- documentations of events (workshops, conferences)
- toolbox: links to tools for e-learning; manuals for Moodle

The elaboration of the “Guidelines” was the centre piece of the activities of the CoP.

3. Conclusions

Our own experience showed us many of the possibilities of a “CoP in action”, combining face-to-face meetings with ongoing work on a virtual platform. Moodle as an integrated platform for a group of registered users proved to be more advantageous than mailing lists, forums or access-protected websites, because it provides various tools such as information repositories, forum, wiki, poll and many others in one framework with one log-on procedure. It is easy to use, even for beginners. If necessary, it allows for the assignment of different roles/access rights.

However, we had also conditions in the participating group which were favourable for a VCoP. SIMPEL as a project valorising eLearning and disseminating successful models and guidelines was not geared towards SME employees directly, but to managers and consultants. The people in our networks were conversant with training conceptions, blended learning methods and eLearning technologies. Therefore, the CoP was easy to launch and to maintain.

It seems to us, in conclusion, that CoPs can fulfill an important function as part of the training strategy in an SME or between SMEs. It is fairly easy to start a community of co-workers exchanging knowledge, know-how and problem-solving ideas on a particular problem of their work, if the mindset of the management is accepting the relatively loose, open-ended, non-hierarchical approach

to learning. It is probably also not too difficult to build information and knowledge repositories, say, as a simple data base electronically. But even this latter aspect presupposes some degree of familiarity with computers and information technology which may be absent in certain sections of the SME sector. Building a fully-fledged virtual or blended CoP, indeed, requires the same level of IT-equipment and e-competence (= e-skills and e-support) (Petschenka and Engert, 2008) as does the introduction of any other form of e- or blended Learning.

We consider CoPs as particularly apt for organising eLearning and blended learning for SMEs because they favour informal learning and facile, almost “organically growing” forms of knowledge management, but also because of their inherent affinity to eLearning, especially Web 2.0 applications and conceptions (“social networking”). The “domain” on which the CoP is directed, may be focussed on an individual SME or just a particular department/team, but also on exchanging experience and learning between several SMEs on a branch or a regional level. CoPs from different levels and directions might network into a kind of “meta-CoP”.

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