

# COMMUNITIES OF PRACTICE AND THEIR ROLE IN THE FIELD OF HIGHER EDUCATION

Klára Margarisová, Kateřina Šťastná,  
Lucie Stanislavská

Czech University of Life Sciences Prague  
margarisova@pef.czu.cz

## Abstract

Communities of practice are social structures based on voluntary participation of members, who regularly share their knowledge. They are natural and very common phenomenon and they can be found in many organizations as Hewlett Packard, Shell or Daimler Chrysler. This article deals with various definitions of these structures, mentions different types of these communities, the way of their development and also various roles of their members. The article is finally focused on the role of these communities in the field of higher education. The contribution of communities of practice for both areas, research and education, is defined. The article shows the possibilities of how communities of practice could facilitate development in area of higher education.

## Key Words

Communities of practice, Knowledge sharing, Higher Education, Research

## ARTICLE INFO

### Article type

Review study

### Article history

Received: October 31, 2010

Received in revised form: December 22, 2010

Accepted: December 23, 2010

Available on-line: December 31, 2010

## Introduction

Communities of practice are natural and very common phenomenon and they can be found in many organizations. They are called by various names, but their basic function is the same. They are called “learning communities” (at Hewlett Packard), “family groups” (at XEROX), “thematic groups” (at the World Bank) or “peer groups” (at the British Petroleum).

Wenger (2005) defines them as groups of people, who share a common interest for something that they are already acquainted with, interacting with each other on a regular basis, in order to learn more about it.

Chris Collinson and Geoff Parcell (2004), argue that communities of practice are meant to bring together people with similar interests and experiences, who subsequently share their know-how, either in order to increase the qualifications of each individual, enabling them to do their job better, or to attain a common goal.

According to Roberts (2006), communities of practice have emerged as a potential theory of knowledge creation in recent years.

## Material and Methods

This article is based on method of the literature review. The aim of a literature review is to show, compare and contrast different authors’ views on an issue; to group authors who draw similar conclusions; note areas in which authors are in disagreement; highlight gaps in research; conclude by summarizing what the literature says (Trochim, Donnelly 2008).

This review is based on 32 different sources (publications, articles, online sources and strategy documents). Framework for concept of communities of practice is based on publication

of Etienne Wenger and his co-authors whom are considered to be the most recognized authors on the field. For part dedicated to possible application of communities of practice in the area of higher education articles were found in the Scopus database, which ensures quality of these sources.

## Results and discussion

### Communities of Practice

Though the systematic study of communities of practice has first been undertaken by Lave and Wenger in their book “Situated Learning” (1991), or even in Wenger’s later book, “Communities of Practice: learning, meaning and identity” (1998), but the concept of communities of practice was known much earlier and has already been applied in medical sciences, in law, psychology, education and theology (Wallace 2007). However, Wenger’s position as a leading figure in this field cannot be denied. He was the pioneer of this concept in the area of management.

In his latest book, called “Cultivating Communities of Practice” (2002), Wenger and his co-authors, Richard McDermott and William M. Snyder (2002), gave a definition of communities of practice as being groups of people, who share common interests, a set of common problems, or a fascination for a specific theme, and who broaden their knowledge and experiences in their given field of interest by interacting among each other. Wenger (2004) describes members of the community as knowledgeable actors (specialists) in the given area.

Leader and Strock (2001) speak of communities of practice as groups based on a common interest, with members who regularly share information and learn from one another.

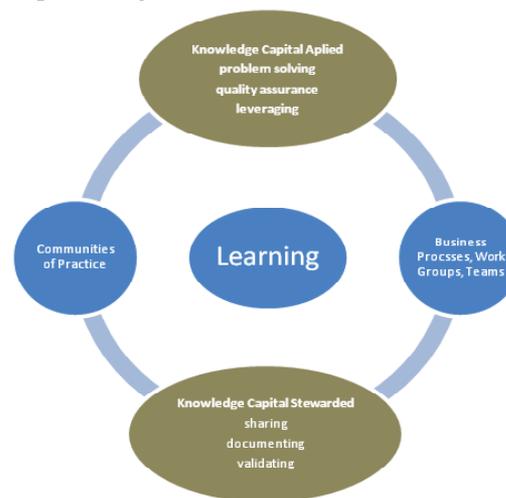
McDermott (2000a) considers communities of practice to be “ideal vehicles for leveraging tacit knowledge because they enable person-to-person interaction and engage a whole group in advancing their field of practice. As a result, they can spread the insight from that collaborative thinking across the whole organization.”

Etienne Wenger (2004) distinguished three basic characteristics of communities of practice, i.e. domain, community and practice. He defines the domain as a field of knowledge, which interlinks the members of the community and thus creates the community’s identity. Community is a group of people who are concerned with the domain, with the quality of mutual relationships and also with the line of demarcation, between the internal and the external environment of the specific group. Wenger argues that experience (practice) constitutes the fundament of knowledge (methods, instruments, biography, events and documents) which is shared and further developed by community members. He assumes that by combining these three elements communities of practice are able to manage knowledge.

Hasanali et al. (2002) found that communities “can be a highly structured group that follows well-defined procedures for sharing practices or a very informal, loose collection of individuals sharing ideas.” Other authors (Wenger, McDermott, Snyder 2002) acknowledge that communities of practice could be formalised, but they assume that communities should stay informal in order to function accordingly.

Communities offer an environment in which members of an organization feel at ease, and thus, without fear, can discover unexplored regions (Krogh, Ichio, Nonaka 2000). Wenger, McDermott and Snyder (2002) maintain the same idea. They even mention creation of this “hometown” atmosphere as one of the principles for cultivating communities of practice.

All of mentioned definitions are connected by emphasis on process of learning and sharing information, experiences and knowledge. How this learning process in communities works is described by Wenger McDermott, Snyder (2002). They assume that communities of practice contribute to the learning process at the workplace (work place learning), because of the double role of its members (community membership and work team membership). This double membership creates the so called learning loop (see Fig. 1).

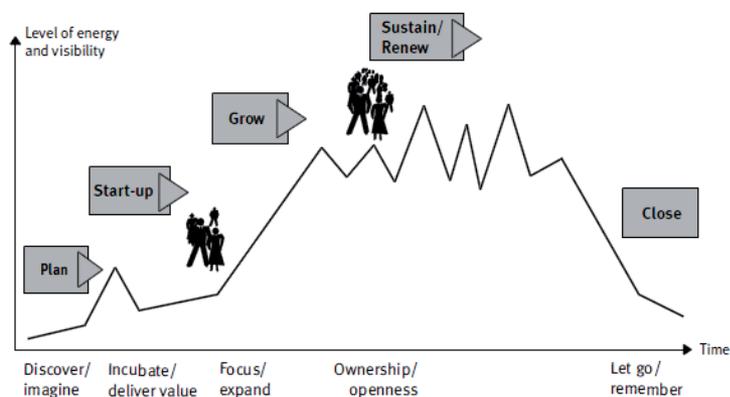


**Figure 1: The learning process in communities of practice, (Wenger, McDermott, Snyder 2002)**

This idea of “Double-knit” Knowledge Organisation stems probably from Argiris’ (1977) concept of “double-loop” learning in organization.

## Development of communities of practice

Collinson and Parcella (2004) speak of the life cycle of communities of practice. They have identified five life phases in each community: launching, building momentum, sustaining and closing. Another model was developed by McDermott (2000b). The model is also based on five stages (see Fig. 2).



**Figure 2: The stages of community development, (McDermott 2000b)**

Another model, describing the development of communities of practice, has been presented by Patricia Gongla and Christiane Rizzuto (2001). Their model is based on observation and research on communities of practice which was commissioned by IBM. As in the Collinson and Parcella life cycle, their development model also comprises five stages.

According to Gongla and Rizzuto (2001) at the first stage (potential), the basic function of a community is creating contacts. Members come to know each other and have ties. At

the stage of building, the so called memory of the community is created. The members come to know each other better and start to share their experience and knowledge. At the stage of engagement structures and processes built in the previous stage are set in motion. The main function of the community is to enable interaction between members and their access to the knowledge and experience of the community. Cooperation is the main function of a community at the stage of action. Specifically focused working groups start to manifest. The community starts to develop a relationship with other communities of practice in its region. At the stage of adaptation a community starts to develop the capacity to react to changes in external conditions, while simultaneously influencing and changing them.

## Typology according to the relation between the official organisation and the community

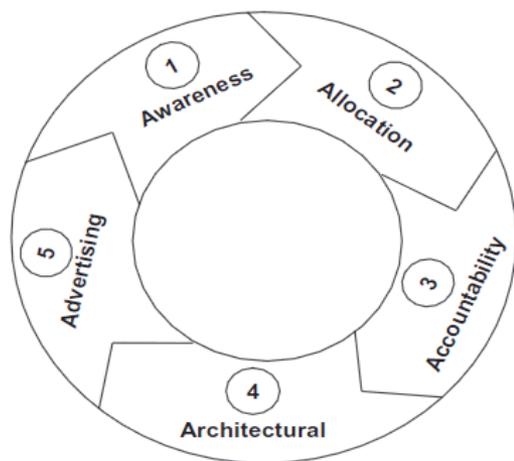
There are several types of communities of practice, depending on the type of relation that exists between the community and the official organisation. If a community appears to the organisation, and sometimes even to members, as being invisible, we speak of an unrecognised community. If it is visible to only a limited circle of individuals, it's called a bootlegged community. If it is officially recognised, it is called a legitimized community. In case that it receives funds from the organisation it is called a supported community. When a community reaches official status in the organisation, it is called an institutionalized community (Wenger, McDermott, Snyder 2002).

Hasanali et al. (2002) defined four types of communities based on their strategic intent: helping communities, best-practice communities, knowledge-stewarding communities and innovation communities. Many characteristics of the community

(kind of knowledge and practices, key activities, structure and even leadership) are strongly influenced by its type.

#### Membership and role in communities of practice

Wenger, McDermott and Snyder (2002) distinguish a variety of communities of practice. According to them communities are composed of key members, active members and fringe members. Though non-members are outside of the community, but they are not devoid of contact with the community. Borzillo et al. (2010) uncovered a sequence of activities encompassed in a 5-phase integration process through which peripheral members become fully integrated and legitimized core community of practice members (see Fig. 3).



**Figure 3: The “5As integration process model” ( Borzillo et al. 2010)**

Fred Nickols (2003) identifies 6 distinct roles that individuals may play in a community. He distinguished champion, facilitator, information integrator, member, practical leader

and sponsor. Gammelmark (2006) mentions 4 additional roles: editor, knowledge administrator, head of IT projects and IT developer. While Hasanali et al. (2002) emphasizes only 3 basic roles: sponsor, leader and member. The others roles as IT specialists, subject matter experts, content managers, and librarians Hasanali et al. (2002) describes as additional but also valuable.

#### Benefits and costs of communities of practice

People in organizations create communities of practice for various reasons. They may want to keep in contact with colleagues, or they want to take part in organizational changes, or in reaction to changes, which come from the company's external environment.

A short summary of the benefits derived from communities of practice is given by the HP Company in its book called HP Community Handbook (Gammelmark 2006). Amongst the main benefits we find: shortening the work cycle, re-using materials, expertise, experience in problem solving for the benefit of the involved partners as well as the client, cooperation throughout the branch that stimulates innovation, avoiding repeated mistakes, eliminating unnecessary work, effective learning through proper timing, localisation and development of knowledge and experience, availability of necessary information quickly and easily.

When studied communities of practice Gammelmark chose quite simple approach which is consistent with nature of company handbook. While this conception is acceptable for getting a quick overview of problem area, it could be confusing when it comes to deeper understanding. More sophisticated approach to study of benefits is represented by Fontaine and Millen or by Wenger, McDermott and Snyder.

Fontaine and Millen (2004) divided benefits of communities of practice into three different groups: individual benefits, community benefits and organization benefits. Similar approach is applied by Wenger, McDermott and Snyder (2002), but they created only two main categories (individual benefits, organization benefits) which are further partitioned to subgroups (long-term, short-term benefits).

Appreciation of the benefits that communities of practice bring to an organization depends on a proper level of expectation. It is unreasonable to assume that communities of practice could replace teams or entrepreneurial units. These units are usually not involved in the learning process and sharing of knowledge. Entrepreneurial units focus on immediate business opportunities; learning is not in the centre of their attention. On the other hand, project teams exist temporarily and the knowledge generated gets lost with their demise (Wenger, McDermott, Snyder 2002).

Communities of practice not only yield benefits, but generate additional costs. Millen, Fontaine and Muller (2002) identified 4 basic areas, which are related to costs of supporting communities of practice: costs related to the time that community members spend, costs related to the organization of meetings and conferences, costs for technical appliances and costs of publications and propagation.

### **The influence of communities of practice on company performance**

Communities of practice are most natural phenomena and they appear spontaneously. Therefore, it is not necessary to create them artificially. Organizations who wish to enhance the process of learning and sharing should focus on already existing communities and subsequently foster and support

them by all means. In order to fully utilise the potential of communities of practice, organizations should deliberately create an environment, in which these communities can thrive. They should appreciate their benefits in the area of learning; they should allow them enough time and resources required for their activities. Furthermore, they should encourage participation and remove obstacles. Communities of practice should be integrated in the organization as such. It is necessary that they are involved in the decision making processes, they should be allowed to influence the working units and set up internal processes for the management of values generated by the community (Wenger, McDermott, Snyder 2002).

Eric L. Lesser and John Strock (2001) have focused their attention on the relationship existing between communities of practice and company performance. They consider communities to be “motors” of the development of social capital, thus positively influencing company performance. They identified four specific consequences of the influence of communities of practice: faster training of new employees, quicker response to the needs and requirements of customers, reduction of repair related costs and repeated breakdowns, creation of an environment for the development of new, product-related innovative ideas.

Earlier, Eric Leader and Larry Prusak (in Lesser et al. 2000) have already written about the correlation existing between social capital and communities of practice.

Communities of practice in the field of higher education

Hezemans and Ritzen (2004) identified benefits of communities of practice for individuals and educational organisations. They demonstrate them on the cause of University for Professional Education and Applied Science, Utrecht. The table below (see tab. 1) shows their results.

|                                       | <b>Short term benefits</b>  | <b>Long term benefits</b>  |
|---------------------------------------|---|--|
|                                       | <i>Optimisation of the learning environment</i>   | <i>Educational innovation</i>  |
| <b>Benefits for the organisation</b>  | Environment conducive to solving problems<br>Multiple point of view with regard to the solution of the problem<br>Coordination, standardisation and synergy between teams<br>Source for implementation-strategies | Retaining talent<br>Capacity for knowledge development project<br>Capacity for developing new strategies<br>Raising visibility for undiscovered talent |
|                                       | <i>Raising the quality of work</i>  | <i>Innovation by the profession</i>  |
| <b>Benefits for community members</b> | Help with challenges<br>Access to a source of expertise<br>Taking enjoyment from working with colleagues<br>The feeling to belonging to something   | Platform for dissemination of skills and expertise<br>Fortification of professional reputation<br>Fortification of professional identity               |

**Table 1: Benefits of CoPs for individuals and educational organisations, (Hezemans, Ritzen 2004)**

A few differences could be found by comparison of this list of benefits with the one composed by Wenger, McDermott and Snyder (2002). Hezemans and Ritzen chose similar approach as Wenger, McDermott and Snyder which is mentioned in previous paragraphs. The list created by Wenger, McDermott, and Snyder is much wider, because there is no specific type of the organisation involved. Nevertheless Hezemans and Ritzen identify one additional benefit in the field of higher education, the raising visibility for undiscovered talent.

Andrew et al. (2009) confirmed one of the benefits identified by Hezemans and Ritzen (also mentioned by Wenger, McDermott, and Snyder). They emphasize importance of communities of practice in process of developing professional identity.

Andrew et al. (2009) focused their attention on the role of communities of practice in the process of developing professional identity in nursing academics. They assume that there are professions, as teaching and nursing, where knowledge may be more tacit than explicit, linked to the development of a professional identity. In such case workplace communities provide fertile ground for the evolution of personal and professional practice development, allowing groups of individuals to collaborate and share their experiences.

Study provided by Garrow and Tawse (2009) discovered another benefit of communities of practice in academic field which was not mentioned by Wenger, McDermott and Snyder or Hezemans and Ritzen.

Garrow and Tawse (2009) have focused on how new academics were introduced to the assessment process within a Higher Education context. They consider "that new academics coming into an established community of practice appear to be able to differentiate fairly rapidly between systems of assessment that have a tendency to encourage conformity for both markers and

learners and systems of assessment that enable more creative and critical possibilities.”

Others authors emphasize involvement of communities of practice in research. Short, Jackson and Nugus (2009) have paid their attention to communities of practice engaging in clinical research. They have focused on possibility to extend research capacity via an integrated academic and practitioner community of practice. They assume that integration of communities of practice “may offer the opportunity to enhance research skills and knowledge building which underpin the growth of a research culture. This approach has the potential to re-focus the research effort from the individual and provide the necessary “support” for research and the development of clinician–researchers.” Short, Jackson and Nugus (2009) consider that by supporting a research community of practice it is possible to systematically link academic and clinical knowledge.

## Discussion

According mentioned authors communities of practice are suitable instrument to manage, to share and to create knowledge. They could facilitate the realization of strategy in various types of organisations. Presented empirical studies show that concept of communities of practice could be successfully applied on academic environment.

Because of increasing importance of research and development in knowledge economy universities are expected to be active in this process (Kopicová 2010). Short, Jackson and Nugus (2009) emphasize the contribution of the communities of practise for research. Nowadays, university evaluation process is based on several performance indicators. The one of the most important criteria is outcome of university research (Ministerstvo školství, mládeže a tělovýchovy 2010). Because of this fact communities

of practice could be considered as useful tool for develop this area.

Another possible application of communities of practice is in the area of PhD studies. Increasing attention should be paid to this area because there are changes in the way of financing postgraduate studies in the Czech Republic. In near future universities will be penalized for any unsuccessful student. Study of Garrow and Tawse (2009) shows that communities of practice could have facilitate involvement of recent PhD graduates in all aspects of academic sphere.

Verification of the premise that communities of practice affect completion of PhD study creates possibility for additional research.

Although communities of practice are considered to be a valuable concept there are several issues.

First of all creating, managing and the most of all participating in communities of practice are time consuming. It can possibly leads to lower work performance which is basically the opposite of what is expected. Another problem which is also related to performance is possible lose of focus on work related issues. In this case community activities could be reduced to social chitchat far away from its original goals.

It is unrealistic to expect that every member contributes to the community with same intensity. Although this is common aspect of every social structure some members could be disappointed by it. This could lead to tension inside the community and result in corruption of the special friendly atmosphere mentioned by Krogh, Ichio, Nonaka (2000) and also by Wenger, McDermott and Snyder (2002).

As many social structures communities of practice reflect personal characteristic (strengths and weakness) of its

members. For instance members could be so confident about their knowledge and expertise that they become arrogant and ignore outside inputs completely. They simply believe that they know all there is to know. This results to separation instead of interconnection and rigidity of knowledge base instead of flexible and continuous learning process. As Wenger, McDermott and Snyder (2002) said: "failed community is often worse than no community at all."

Another relevant issue here is defensive reasoning defined by Argyris (1991). He argues that there are several reasons for defensive behaviour such as remaining in unilateral control, maximizing "winning" and minimizing "losing", suppressing negative feeling and being as "rational" as possible (Argyris 1991). Based on this premise it is safe to assume that people in organizations tend to protect their knowledge domain instead of share it through the community and to compete with others instead of cooperate. This behaviour of course has negative impact on learning process in communities and therefore in the whole organization. Argyris studied a group of professional consultants, meaning highly educated and intelligent people who are supposed to teach others. He assumed that these characteristics increase the defensive reasoning. That is why his study is relevant in an academic environment. In terms of humanities lots of parallels can be found between consultants and academics.

## Conclusion

The Lisbon agenda calls for efforts from a wide range of players. These include the universities, which have a particularly important role to play. This is because of their twofold traditional vocation of research and teaching, their increasing role in the complex process of innovation, along with their other

contributions to economic competitiveness and social cohesion (European Commission 2003).

According to Letiner (2002) universities and research organizations are confronted with specific challenges: new public funding mechanisms and greater autonomy; competition for grants and research contracts; measurement and evaluation of outputs which are intangible by nature; increasing demand for strategic development and systematic management of their most valuable resources, which are their intangibles; general call for accountability and transparency.

According to studies mentioned in this article, communities of practice have potential to aid universities to meet these challenges and requirements.

## Acknowledgements

The paper was elaborated in the frame of solving project IGA FEM CULS 201011140057 "Modern Management Approaches in the Field of Higher Education in the Czech Republic".

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