KNOWLEDGE SHARING IN THE ENVIRONMENT OF A VIRTUAL COMMUNITY OF PRACTICE

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Summary: Designing e-Learning systems based on Community of Practice principles offers a different perspective to the learning process, providing an interactive and collaborative learning environment. This paper investigates the effects of collaborative learning environment on members' learning potential. Also, the paper aims to evaluate the sustainability of free knowledge sharing and collaboration in the learning process. Beside positive results, we have also observed the presence of significant barriers to participating in the knowledge sharing activities.

Key words: eLearning, community of practice, knowledge sharing.

1. INTRODUCTION

During the last couple of decades we have been witnessing different efforts aimed at improving the process of acquiring and transmitting knowledge in educational and organizational settings. Especially, the dominant trend is developing technology-enhanced learning, not only by introducing computers in traditional classrooms, but also by designing new kinds of learning environments. E-Learning, as one of the innovative trends, has in a short time since its emergence, evolved from a radical idea to the widely accepted concept that has become a standard service offered by most modern universities.

However, instead of capturing existing knowledge, as an objective and manipulative reality, inside formal educational systems, creating knowledge and making it available for use in practice requires, as Wenger (1998a) points out - the participation of people who are fully engaged in the process of creating, refining, communicating, and using knowledge. A theory of situated learning (Lave, Wenger, 1991) emphasized the relational aspects of learning within a special kind

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of a community - the Community of Practice (CoP). Learning, as stated in the Wenger’s vision of CoP (Wenger et al., 2002), is achieved through individuals’ regular interaction within the community, whereby their capacity to create and use knowledge is developed.

CoPs, representing interactive learning environments, offer a different perspective in the field of e-Learning, by promoting an element that is missing in current learning systems - social learning, and adapting them more to the needs of users than to the needs of institutions. In the light of new technological developments, concerning the use of Internet as a platform for e-Learning and the development of social software, we believe that virtual CoPs, supported by Web2.0, can meet the requirements of innovative visions of education, enabling knowledge sharing and collaboration between community members. The assumption is that virtual Communities of Practice enhance individual members’ learning potentials, through the individuals’ participation in the process of sharing knowledge and developing best practices in the collaborative environment that offers immediate feedback and relevant information.

2. VIRTUAL COMMUNITY OF PRACTICE

Originating from Lave and Wenger’s theory of situated learning (1991), where learning is considered to be an integral and inseparable aspect of social practice, Community of Practice has intensively been used to describe an environment for knowledge transfer, which includes a dynamic and interactive social dimension, necessary for the process of social learning. The basic assumption of the theory of CoP is that the engagement and participation of individuals within the community is the basic process through which people learn. Instead of focusing on abstract knowledge, the suggestion is that individual learning should be thought of as emergent, involving opportunities to participate in the practices of the community as well as the development of an identity which provides a sense of belonging and commitment (Handley, Sturdy, Fincham, & Clark, 2006).

CoPs have originally been defined as informal and self-organizing groups of people with a common interest, problem or passion in a particular domain, who want to gain knowledge or expand existing knowledge to specialize in a particular area (Wenger et al., 2002). The main dimensions of defining a CoP are (Wenger, 1998b): joint enterprise, which bounds the members together and is continually renegotiated; mutual engagement, reflected through norms and relations of members’ interactions; and shared repertoire as a set of common resources produced by members, including routines, sensibilities, artefacts, vocabulary, styles, etc.

With the development of online tools that allow people to exchange ideas in a virtual environment, the concept of face-to-face community has been expanded with virtual interactions. Online or virtual CoPs include the online platform where members share knowledge through online communication in the appropriate
domain. Development of virtual communities is enabled owing to the changes in ways of using the Internet and computers (Berners-Lee, 1989 as cited in Ebner, Holzinger, & Maurer, 2007), as they became affordable and available to the majority of people, and as there is no expert knowledge required for using the Web. The development of social network services, collaborative networking, social bookmarking, file sharing and tagging, instant messaging, online communities gain on flexibility and openness, and learners are displaced from formal learning settings. Internet becomes an actual tool for people participating in online activities and actively managing the content, without time and geographical constraints.

3. THE ROLE OF VIRTUAL CoPs IN ENHANCING MEMBERS’ LEARNING POTENTIALS

The idea that CoP could enhance members’ learning potential is based on the fact that it offers a collaborative social environment, which has an important effect on its members’ acquiring contextual and tacit knowledge. Tacit knowledge is embedded in people, while skills are discursively produced and disseminated in conversations and networking activities (Ardichvili et al., 2003). Considering learning to be “demand driven”, in a CoP, the problems are faced in a given context and resolved through practice, whereby learners “steal” knowledge by observing and participating in the process of brainstorming, conversations and pursuing ideas. Learning by practice manifests itself in the capacity to invent forms of involvement, to develop collaborative relationships, to elaborate a shared repertory in continuity with past practices but also to build new artefacts and new interpretative frameworks (Henri, Pudelko, 2003). This way, learners’ problem-solving and critical thinking skills are enhanced, while developing their communication and cooperation capacities. Emphasising active participation by the members, CoPs encourage creative and effective problem solutions. The knowledge accumulated in the CoP is greater than sum of individual participants’ knowledge, so that as the collective knowledge of the community advances, the individual’s knowledge is simultaneously growing.

On the other hand, learning within a virtual community keeps knowledge within the scientific context, since Web-based e-Learning is fundamentally not constrained by specific locations and classrooms but can be infused into varying learning situations (Hung, Der-Thanq, 2001). The advantage of a virtual community is that it establishes collaboration across geographical barriers and time zones, widening the learning settings so that incidental learning can occur.

Being a part of a learning community, not only gives the learners the possibility to gain new skills and practice, but also to reduce the isolation and enhance social and professional communication with other members (Gray, 2004). While in a traditional educational situation, all learners are required to learn the same thing at the same time (Johnson, 2001), the key concept in CoPs is expert-to-apprentice relation, so that peripheral roles (e.g., non-majors, apprentices, or
novices) play an important part in the CoP by developing and using skills that require collaboration and mixing different types of expertise.

4. EMPIRICAL EVIDENCE OF USING VIRTUAL CoPs IN EDUCATIONAL SETTINGS

In recent years, there is an increasing trend of incorporating web technologies in educational settings in order to enhance the efficiency of the learning process. For example, developing an online CoP within TPA (Schlager et al., 2002), as a support to education professionals in the process of implementing new practices and applying new content knowledge, where teachers and other education professionals can attend activities hosted by numerous education organizations and gain access to expertise, ideas, and information. The community enabled teachers to engage in a professionally meaningful and productive discourse online and achieve the same types of group objectives as they could in face-to-face meetings (e.g., brainstorming, decision-making, informing, knowledge building).

A similar case of educational CoP has been described in Rogers (2000), designed as an online workshop, offered by Teachers of English as a Second or Other Language, Inc. (TESOL) where the participants, as established professionals, acted collaboratively assuming the responsibility of furthering the workshop goals, sharing their knowledge and experience, through their roles of helping, questioning and applauding each other.

A VCoP, by the name of LearnLand, based on Web2.0, has been developed at Graz University of Technology (Ebner et al., 2007). Accessible to all university students and teachers and based on the open source platform ELGG, this community enables students and teachers to easily contribute and manage their personal content, perform efficient search, upload files, create new communities, etc. The authors conclude that even besides increasing importance and availability of such applications, only a small number of innovators and early adopters are actually using Web2.0 technologies to enhance existing learning behaviours.

5. CONCLUSION

Virtual Community of Practice, as a collaborative learning environment, offers an interesting perspective for observing the learning process. Although not a revolutionary new idea, designing a VCoP in the purpose of organizing a specific, task-oriented learning activity can be useful in reaching the goal of enhancing learning potentials of community members. However, designing and implementing a virtual community is not nearly sufficient for the community to become vibrant, active and sustainable learning environment, even besides investing efforts in continuous support and facilitation. For a sustainable, free knowledge sharing environment to be formed, it is necessary to maintain active, collaborative participation and contribution to community knowledge by its members.
One of the possible solutions is implementing the mechanisms for measuring trust among members, which would provide the CoP members with a possibility to assess the reliability of each member as a source of knowledge, which is especially important in virtual communities. In addition, being subject to the assessment of other members could also act in favour of motivating each individual member to willingly contribute knowledge, since it would accumulate his reputation and make him recognizable by his knowledge and experience. Introducing a rating system based on trust would not only help in searching for a reliable, trusted source of knowledge, but also build contributors’ credibility and reputation. This way, the VCoP could provide mutual benefits both to members seeking knowledge and those seeking recognition. The interdependency of interests of these two groups of members would make a sustainability mechanism for virtual Communities of Practice in e-Learning environments. According to these findings, future work is to be directed towards investigating trust determinants, as well as implementing algorithms for trust calculation.

REFERENCES