

Virtual Learning Communities

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INTRODUCTION

The synthesis of global communication networks available at low cost, enormous growth in popular uptake of personal computers and communication devices, and the need for more sophisticated discussion of complex issues are continually pushing the boundaries of our expertise. Virtual learning communities (VLCs) are emerging constructs that depend on the notion of socially constructed learning to provide a focus for informed discussion and lifelong learning. They make use of increasingly sophisticated technologies to establish, support, and maintain communities—collections of individuals with a common purpose, acting in social settings, and geographically disparate.

Virtual learning communities are defined as groups of individuals that come together to study some area of common interest. They are virtual communities in the sense that they depend on a variety of information and communication technologies (ICTs) to coordinate their activities. They share many characteristics with virtual communities of practice. The nature of the relationships among these three constructs is explored in this article. The role of ICTs and multimedia in supporting VLCs is reviewed. This article concludes with a summary of the challenges facing both the organizations in stimulating the presence and growth of VLCs and the individuals who participate in such communities.

BACKGROUND

Virtual Communities

A virtual community is a cyber-location where a group of individuals can meet on the basis of a shared interest. Virtual communities are enabled by ICTs such as the Internet, the World-Wide Web, electronic mail, discussion forums, chat rooms, conference calls, and so on. Access may be restricted or unre-

stricted; activity or discussion may be moderated or unmoderated. Such communities may have a physical location, or they may be purely virtual.

Virtual Learning Communities

Learning communities form where individuals come together to study, often in connection with some formal course. Social constructivism is a process of learning where knowledge about a topic is actively constructed (Jonassen & Duffy, 1992) and where all participants in the community have a role to play in the development of knowledge (Jarvis, Holford & Griffin, 2003). This social aspect is central to the notion of a learning community where meaning is negotiated by the group as a whole. A learning community can capture the experience of current and prior participants and act as a resource for future ones.

A virtual learning community is a kind of virtual community where the motivation of group members is the study of some topic in order to learn or construct knowledge about it. Virtual learning communities extend traditional learning communities by meeting in spaces that have an online component. As with virtual communities of practice, virtual learning communities benefit from face-to-face contact (Kowch & Schwier, 1997).

When learning communities become virtual, the activities of inquiry and interaction are mediated by technology rather than face-to-face attendance. There are factors that affect social learning as a result; while the barrier of distance may be removed, the barriers of access and information literacy are raised instead. The virtual learning environment is a collection of tools and technologies that supports the activities of the community.

Communities of Practice

A community of practice is described as “a set of relations among persons, activity and world, over time and in relation with other tangential and overlap-

ping CoPs” (Lave & Wenger, 1991, p. 98). Hildreth et al. (1998) described communities of practice that coordinate work in a geographically distributed sense.

A community of practice is characterized by “individuals with common expertise participating in an informal relationship to resolve a shared problem or situation that impacts upon their shared futures” (Bowles, 2002, reported in Kilpatrick, 2003). The construction of knowledge is enabled by a sophisticated process of negotiation and collaboration, and the social capital that results develops the understanding of professional practice. The characteristics of negotiation, collaboration, shared understanding, and shared interest are in common with virtual learning communities.

Virtual communities of practice are enabled by the same kinds of ICTs as virtual learning communities. Such constructs come into being to support collaboration among professionals across wide geographic distribution, for example. While they are enabled by ICTs, face-to-face interaction appears to be a crucial element of such communities in order to cement relationships and build trust among participants (Schwier, Campbell & Kenny, 2004).

MAIN FOCUS—LEARNING THROUGH INTERACTION

In a virtual learning community, problems, issues, and activities are defined by negotiation among participants (McConnell, 2004; Schwier, 2004). Participants build knowledge in a social setting and engage in discourse related to the purpose of learning in the chosen area. Virtual learning communities are thus socially-centered and task-oriented. Participants learn from each other by doing authentic tasks.

The patterns of interaction that can occur during the activities of a VLC are complex and vary with the nature of a task, the participants involved, and the technology used. Although VLCs depend on technology for their existence, any particular technology is viewed as a tool, not a central artifact. In this section, we review the role of different ICTs that can support VLCs and explore the types of social constructs that can emerge.

The Role of Technology in Mediating Interaction

Technology can provide support for different forms of leadership and styles of working found in group organizations. We consider groups to negotiate their position along several key dimensions (Table 1) that characterize the learning environment. Flexibility in the environment to support negotiation is a key factor in the effectiveness of the VLC.

The position occupied along each dimension affects the nature of activity in a virtual learning community. For example, if a group member undertakes activity in a private workspace, the others must trust their integrity and commitment to complete the task and report back to the group. Conflicts can arise when individuals adopt positions significantly different from those negotiated by the group. The group must record its rationale for taking positions and renegotiate them as needed.

Certain technologies can be deployed to support these positions. For example, the use of electronic mail, discussion forums, and shared workspaces can support an empowering leader (Hansson, 1999) to coordinate work by allowing the leader and delegates to accomplish work in their own timeframes. The agility of the group is determined partly by how they

Table 1. Dimensions associated with learning activity

Focus of activity	Group ↔	Individual
Working environment	Shared ↔	Private
Nature of interaction	Discourse ↔	Argument/rhetoric
Mode of interaction	Synchronous ↔	Asynchronous
Management method	Self-organized ↔	Delegated
Nature of leadership	Co-operative ↔	Traditional (power)
Style of Learning	Co-operative ↔	Collaborative

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