

# Learning Communities in Virtual Environments

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## INTRODUCTION

Recent research on collaborative learning and computer-supported collaborative learning (CSCL) holds an integrated and holistic perspective on learning, instruction and educational technology. Within this approach, learning activities and technological tools are seen as a merged unit, tailored to a particular context and for a particular group of participants (Crook, 2000). In line, current trends in higher education (e.g., Virtual University) set demands on developing novel educational practices that support collaborative learning in virtual environments (Häkkinen & Järvelä, in press). In this chapter, it is argued that in higher education virtual learning communities could be welcomed as a timely and innovative educational practice, with all nested complexity of relationships between individuals and collective needs, various motivations and personalized objectives (Lowyck & Pöysä, 2001; Lowyck, Pöysä, & Van Merriënboer, 2003).

However, in spite of increasing research on virtual communities, we do not yet fully understand how learning communities evolve. Also, a too narrow focus on the “technology” might blind us about what participants’ actual learning environments include and consist of (Goodyear, 2000). Primarily, early research on virtual communities often abstracted participants from their physical environments (Jones, 2002). However, in recent discussions on learning communities, a more holistic portrayal is widely recognized, and this theme is also taken up in studies of educational technology. It is emphasized that in higher education context, “virtual” learning environments are not limited to a technology-only environment but are likely to provide an amalgam of distance and face-to-face education, where students’ on- and offline milieus are not separated but are part of the other (Sterne, 1999; Dillenbourg,

2000). As such, virtual interaction and learning should be seen in a broader social context that also includes face-to face communities – the physical context of virtual interaction (Illingworth, 2001; Häkkinen, Järvelä, & Mäkitalo, 2003). In addition, people tend to participate in several social contexts and social practices, with different personal meaning and commitment involved in them (Dreier, 1999). These aspects may be critical also for understanding the relationships and participants’ engagement in the course of evolving virtual learning community (Pöysä, Mäkitalo, & Häkkinen, 2003).

## BACKGROUND

“Community,” as well as “communication” and “communal,” are words drawn from the same basic origin in the English language – one that evokes some kind of association, sharing and participation in common relationships (Davies & Herbert, 1993). Traditionally, humans have always been part of groups that can be called communities, where close ties, often based on kinship and reciprocity, bind people together. In general, virtual communities could be seen as one of the spatial and temporal transformations of the contemporary social life in general that are supplementing rather than replacing older ties (Parkin, 1998).

Educational research on learning communities has resulted in a rich mixture of different understandings of the concept of community. The concept is being used to denote a variety of meanings which have, for instance, centered on research on “social infrastructure” (Bielaczyc & Collins, 1999; Bielaczyc, 2001), “communities of practice” (Lave & Wenger, 1991; Wenger, 1998), “communities of learners” (Brown, 1997; Brown & Campione, 1994) or “knowledge-building communities” (Scardamalia & Bereiter,

1992; 1994). Albeit, as the existing literature testifies, the concept has been examined from various points of view, though research on and conceptualization of community also involve common themes of interests. Often, it is underlined that associations take place in some defined and shared area – be it a physical or a virtual environment. But, it is also remarked that the connection to a community is not only spatial but also emotional and cognitive (Shumar & Renninger, 2002). However, scholars in cultural geography and environmental design (i.e., Tuan, 1977; Seamon, 1982, 1983; Casey, 1996; Relph, 1985) have extended the concept to include both environmental and symbolic meanings as counterparts. They have long studied the notions of “place” and one’s positioning with it—the changes in the ways in which a “sense of place” is created. In this article it is put forward that the concept of “place,” if seen as a particular mode of togetherness, could be transferable to virtual environments and might, in turn, contribute to a better understanding of learning communities in virtual environments.

## A “PLACE” AS A CONCEPTUAL VANTAGE POINT

The different dimensions of a community in a virtual environment may crystallize around the rich and vivid concept of “place.” A “place” covers a territorial context, a common environment that may enhance and reinforce interactions and evoke a sense of at-homeness—feelings of enclosure, security and trust (Seamon, 1982). Equally, a “place” refers to a feeling of belonging. As Kolb (2000) likens it—it points to a sensation that you are “a part of select few” (p. 122). Also, the concept includes a history in forms of a collection of individual and collective experiences and memories (Casey, 1996) that allow people to return to a place again and again, not as a same position or a site but as a same “place.” As Tuan (1977) states, what begins as an undifferentiated “space” becomes a distinctive “place” as members come to know it better and endow it with value. A “place” has unique attributes that make it different from the other places. Thus, if “space” is abstract from its nature, a “place” is more concrete and real. Knowledge of “place,” then, denotes to *Erlebnis*, “lived experience,” rather than to

*Erfahrung*. Thus, places not only *are*—they *happen* (Casey, 1996).

Yet, to examine how a sense of place is created in a virtual environment means focusing on special aspects. A virtual environment may ameliorate some aspects of physical environments. As such, it can offer different constellations of communicational and spatial possibilities; for example’ by means of changeable, simultaneous and multi-layered interaction (Kolb, 2000).

Similarly, more free and sustained interaction in a virtual environment can bring new insights to collaborative learning. But in contrast, online context may also increase stressing elements in the realization of collaborative work. Often, the nature of interaction in virtual environment is fragile, mainly based on written communication. For instance, in a Web-based course, the task-oriented quality of interaction may confine the discussion to a relatively non-personal level (Kreijns, Kirschner, & Jochems, 2002), and thus can reveal gaps in ongoing communicational interaction between the participants.

However, the basis for building a trusting relationship between the participants in a virtual community is crafted through the interaction in the course of mutual and shared practices. This raises the question whether the use of innovative technological applications such as three-dimensional virtual spaces could be turned into effective “places” for collaborative learning in learning communities (Järvelä & Häkkinen, 2003). For example, for Karjalainen (1997), personal relationship with a “place” is not primarily information-related but essentially sensed. In three-dimensional virtual environments, the sense of other peoples’ presence can be engendered by personified avatars who are able to use voice, facial expressions and body gestures to communicate (Talamo & Ligorio, 2001). This, in turn, may provide fundamental experiential features that can result in the feelings of belonging in a virtual environment. As Lovell (1998) reminds us, belonging may have a large potential for tying participants to a “place” – to the environment and to the social relationships together. Thus, the exploration of how notions of belonging are constructed could be particularly relevant.

Finally, when focusing on virtual and artificially generated and mediated learning environments in higher education, there is a need for a more general description of a “place.” That is, a definition that

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