Chapter VII

Online Communities of Practice as a Possible Model to Support the Development of a Portal for Science Teachers

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Abstract

This chapter looks at how the ideas discussed in the literature on online communities and communities of practice have been applied to the development of two European “blended” communities: communities with both online and face-to-face components. The chapter discusses the development and support of two communities of science teachers located in Ireland and Bulgaria as a way to support the development of an online portal. We discuss the communities in relation to recognized criteria and features that may be conducive to the success of small communities, and
specifically online communities and how these relate to the different stages of resource development. Sociotechnical findings indicate the need to blend the face-to-face meetings with electronic communications. The role of a key respected teacher/educator was also a pivotal feature in gaining the trust and respect of other participants at an initial stage.

Introduction

This chapter discusses how two communities of science teachers located in Ireland and Bulgaria were established as a way to support the creation of a shared online teaching resource that would subsequently be made more widely available within a broader teaching community. In the last decade, communities have become a hot topic in educational settings, and the number of online communities has increased rapidly. One reason for the popularity of communities among educationalists is the features that make them potentially powerful structures for supporting learning and professional development. This is particularly relevant given that the current dominant theoretical approaches to teaching and learning (e.g., the social constructivist approach) view learning as a social activity and emphasize the importance of the social context of learning, as do contemporary theoretical approaches to adult learning (e.g., Lea & Nicoll, 2002). This emphasis on social activity and the importance of locating learning within such contexts that we see in the field of education is also echoed by contemporary concerns in the fields of computing and HCI, for example in investigating how mobile devices can support learning (Taylor, Sharples, O’Malley, Vavoula, & Waycott, in press), or increasing our understanding of participation in technologically mediated communication (Nonnecke, Andrews, & Preece, 2005).

In discussions of communities, Wenger’s (1998) concept of communities of practice (COPs) has been particularly influential. It has been identified as a group of people that are tied together by their engagement in a joint enterprise, by a shared understanding of its purpose, and by the corresponding codes of conduct (Brown & Gray, 1995), all frequently dispersed over a wide geographical distance (Putz & Arnold, 2001).

This chapter looks at how the ideas discussed in the literature on online communities and communities of practice have been applied to the development of two European “blended” communities: communities with both online and face-to-face components as a way to support the creation of the new resource. These communities were developed as part of an EU-funded project with the formal title: “PDCDScience: Developing a Periphery-Driven Curriculum Development Model for School Science.” For the public access portal for the project, the title has been changed to the rather more manageable STAR Science (STAR). This project was part of the Socrates