Chapter VI

Videoconferencing Communities: Documenting Online User Interactions

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Abstract

Online communities have expanded to include a complex array of technologies that allow us to integrate multiple modes of interaction among participants. One such method of interaction is videoconferencing. As part of a multi-year national program, the authors developed and investigated multiple methods by which videoconferencing could be used to expand PK-12 educational communities such that students at geographically distanced sites have opportunities to interact with external resources. The authors identified four major types of videoconferencing communities and common patterns within each that help to support effective use of the process. The chapter examines the nature and structure of these videoconferencing communities, provides examples of successful use, summarizes key user variables...
that impact the process, and makes recommendations for methods that should be used when studying videoconferencing communities.

“Education is longing for a deeper more connected, more inclusive and more aware way of knowing.” (Kind, Irwin, Grauer, & DeCosson, 2005, p. 33)

**Introduction**

As the 21st-century online revolution gains momentum, there is growing understanding that new modes of education consist of intersecting communities of teachers, administrators, parents, students, and informal educators (e.g., museum educators, zoo educators, librarians, artists, scientists, etc.). While these communities have divergent missions and goals, they clearly unite in their common desire to provide resources that will result in higher levels of student achievement (Barbanell, Falco, & Newman, 2003). As a result, educators are creating new online structures using innovative tools to provide content that will enable students to reach higher standards while preparing for the interactive digital world of their future.

Online instructional environments encompass structures that facilitate access to Web-based learning resources and the learning tools embedded in those resources. Access to high-level learning resources is supported in online environments through both synchronous and asynchronous communications that use e-mail, digital bulletin boards and discussion groups, and, sometimes, videoconferencing. As noted by Rigou, Sirmakessis, Stravrinoudis, and Xenos (Chapter X, this volume) and Schwier and Daniel (Chapter II, this volume), these online communication modalities possess different characteristics and provide different levels of interaction, which include but are not limited to linear written response, asynchronous analytic discussion, and real-time interactive socialization. These differences in turn promote different types of communities.

Online learning, in its many manifestations, is emerging as a primary mode for transforming existing content and curriculum into a more cognitively engaging medium, and as a result is leading to a more efficient and productive education of the new era. Online learning has been shown to yield positive educational results in several areas. For example, several authors (e.g., Childers & Beren, 2000; Hardwick, 2000; Heragu, Graves, Malmbourg, Jennings, & Newman, 2003; Hull, 1999) have shown that Web-based (online) education can increase student motivation and participation in both class discussions and student projects. Lauzon (1992) indicated that online technologies provide an excellent medium for allowing learners to interact
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