

Chapter 4.2

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, Sirmakesis, 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 & Berner,

2000; Hardwick, 2000; Heragu, Graves, Malm-bourg, 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 in meaningful ways with both a distant instructor and other distant students. Online forums and bulletin boards also have been shown to provide platforms that support variations in interpretation and construction of meaning among students. Alexander (1995) noted that learners interpret reality individually as they engage in apprehending structure, integrating parts, and acting and reflecting on the world.

One of the most interactive modes of online learning is videoconferencing. This medium breaks down the barriers of communication among participants by providing online access to learning and information in a way that encourages the building of interactive communities. Videoconferencing has been defined as “a live connection between people in separate locations for the purpose of communication, usually involving audio and often text as well as video” (Tufts University: Educational Media Center, n.d.). Unlike many other forms of online communication, videoconferencing requires the participants’ real-time physical presence to communicate with learners at distant sites. To take advantage of this modality, learning communities must adapt pedagogy and educational content to form a more dynamic mode of interaction. In the best of scenarios, students participate in classroom activities that include interactive questioning and discussion with presenters, thereby merging the local classroom community with others at geographically distanced sites.

Proponents of the medium believe that using videoconferencing in the classroom community has many advantages. One of the benefits of videoconferencing rests in its capacity to import external resources to the classroom via advanced

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