

Foreword

THE EVOLUTION OF VIDEOCONFERENCING

Videoconferencing is a teaching/learning medium with a long history in education. Replicating as many advantages as possible of face-to-face interaction has dominated attempts to design learning across barriers of distance and time. Using a high-bandwidth visual/auditory medium to convey not just verbal information, but non-verbal cues (e.g., facial expression, body posture, voice tone and inflection) is an obvious extension of the intellectual and emotional dimensions of human instruction.

At the time of its development, television (“broadcast” videoconferencing) was a major advance in distance education technology (Dede, Brown-L’Bahy, Kelehut, & Whitehouse, 2004). As early as 1934, the State University of Iowa used television to deliver course content. Early research into learning via television indicated mixed results, with several studies showing that it was similar to conventional instruction. Two generations ago, echoes of current debates about technology as a tool for learning were heard regarding the use of broadcast media in distance education (Nasseh, 1997).

Similar concerns about “talking heads” have dogged videoconferencing from its beginning, since presentational/assimilative instruction is a relatively weak form of pedagogy. In predominantly one-way videoconferencing, teachers communicate with students across distance in ways essentially similar to face-to-face, lecture-based pedagogies; this type of instruction does not take into account the full strengths of media for informing, sharing, and expressing. The exclusive use of conventional, presentational models of instruction can lead to a deficit perspective on videoconferencing: A remote participant is perceived to have “almost” as good a cognitive, affective, and social experience as those immediately present with the teacher.

And yet, this limited form of videoconferencing is still extensively used as a means to access expertise not available locally. In part, this popularity is due to the fact that teaching by telling and learning by listening are familiar forms of instruction that don’t require teachers reconceptualizing their pedagogical approach. Also, the dramatic drop in costs of Internet-based videoconferencing equipment and services, compared to older forms of satellite-based and digital telephony forms of videoconference, has created a resurgence of interest in this medium.

Fortunately, in recent years advanced developments in technology-based and distance education are generating novel instructional strategies based on the capabilities of new interactive media and the learning styles of Internet-generation students. The private sector uses sophisticated forms of videoconference for coordinating global workplaces in a “flat” world (Friedman, 2005). Outside of school, kids use highly interactive forms of webconferencing for personal communication and expression (Lenhart & Madden, 2005; Roberts, Foehr, & Rideout, 2005). Research is documenting that presentational face-to-face instruction is not the “gold standard” for many students, who sit silent and passive in lectures, but instead “find their voice” in various forms of mediated interaction (Dede et al., op cit).

Creative educators are developing many innovative, interactive forms of videoconferencing that build on these trends in society. This book documents intriguing, exemplary methods of using videoconferencing to engage students and improve their educational outcomes. The affordability and ubiquity of Internet-based videoconferencing makes these innovations scalable across a wide range of settings. This is truly an exciting time in the history of the videoconferencing medium, and I hope you will join these authors in developing novel, powerful educational applications.

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