CHAPTER 12

Synchronous Conferencing

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Introduction

Classic critiques of distance education (DE) stress the impersonal 'off-the-shelf', cafeteria-like style of its asynchronous (non-real-time) course delivery methods (Noble, 1985, 2001; Moll, 1998). The educational impact of these techniques can certainly be improved when combined with good face-to-face (f2f) tuition. It should not be forgotten, however, that asynchronous DE methods were originally conceived for situations in which physical teacher-student interaction was not available. Moreover, the definition of 'f2f' communication has evolved in the past two decades, owing to the wide range of synchronous (real-time) techniques by which teachers and students can now interact with each other, f2f and at no cost, across many miles and time-zones (Figure 12.1).

This chapter summarises the 15-year history of synchronous audio/video-conferencing in DE. It stresses online VoIP methods rather than the older, less cost-effective telephone-based conferencing methods (Integrated Services Digital Network: ISDN).

Synchronous conferencing methods

Voice over Internet Protocol (VoIP) methods trace their origin to the 'packet network' technique developed by Cerf & Khan (1974). The first commercial Internet audio software became available in 1995, when VocalTec introduced its *Internet Phone* freeware for one-on-one, online audio interaction over 28 kbps Internet connections. It was a technical breakthrough though by no means user-friendly, requiring configuration with both participants' IP addresses before each session. The author and a friend fought in vain with these settings for days, until finally giving up.
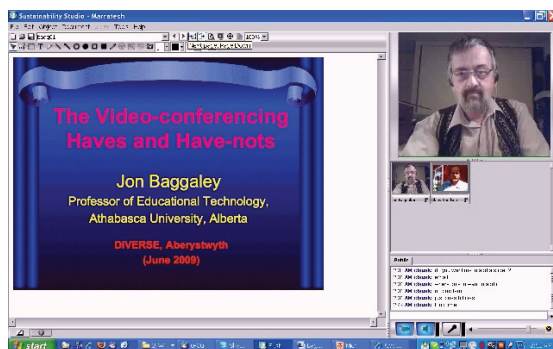

Figure 12.1. A live online video presentation.

A graphic user interface (GUI) was featured in online conferencing by *ThePalace* software, also introduced in 1995. Although not providing audio communication, *ThePalace* involved synchronous text-conferencing in chat rooms decorated by graphic images (avatars) on a visual background. The computing sciences department at Athabasca University in Canada immediately adopted this software and its community-building features in DE course delivery.

Such methods were not easily used by non-technical DE specialists, however. In 1998, an online audio service named *Firetalk* overcame the basic set-up and usage problems of other products, and rapidly became popular as a means of creating online DE communities (Baig, 1999). Informed about it by his students, the author used *Firetalk* in his teaching from 1999 onwards. It provided clear audio transmission, free of charge, between many people simultaneously. In the same year, the author and colleague Patrick Fahy talked to their Canadian students from Japan. Even with a delay of up to 15 seconds between signal and response, the experience represented an encouraging breakthrough, for it was now evident that the impersonal nature of DE communication could be reduced by live online audio interaction. Simultaneously, other products — e.g. *HearMe* and *CU-SeeMee* were developing rapidly.

In 2001, online support for *Firetalk* was discontinued, and the product was purchased by AVM Software, owner of the *Paltalk* service. By then, numerous audio and video-conferencing products and services had become available, many of them combining A/V conferencing features with previously 'stand-alone'

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applications (e.g., text-chat, whiteboards, polling, co-browsing, and other shared tools). Some services provided dedicated 'chat room' services for a minor charge (approx. USD 40 per month for *PalTalk* and *iVocalize*) while others (e.g. *Yahoo Messenger* and *MSN Messenger*) offered free services. The latter were rapidly adopted by millions of international users, though with the disadvantage that a student might have to navigate through non-educational, even disreputable discussion areas in order to enter a dedicated DE conference.

From the point at which conferencing products and services proliferated, the author and his DE graduate students evaluated over 150 softwares and services (see the *International Journal of Research in Open & Distance Learning,* Technical Reports, 2001-06). Their audio/video-conferencing ratings criteria were reported by Baggaley (2001a, b). A persistent finding was that students prefer products which do not involve complicated usage skills and a steep 'learning curve'. They commonly state that multi-feature software packages are too cumbersome, difficult to navigate, and require high-speed broadband connections that are not available to them. In addition, many students choose not to reveal themselves via online webcams unless there is a clear justification for doing so, which in many academic contexts is not the case.

For similar reasons, many DE teachers remain slow to adopt the synchronous techniques in their courses. Moderating an online conference is no easy task, whichever software is used, for it requires practice and the observance of clear protocols (Baggaley et al., 2004). Useful teacher-moderator practices include the use of an assistant to coordinate

participants' questions and comments via the text-box, and careful effort to involve as many participants in the discussion as possible.

DE teachers' hesitancy to use these techniques has been partially allayed by support for server-based conferencing packages at the institutional level. Examples include *Elluminate*, a Canadian product used at Athabasca University, and *Marratech*, a Swedish product used at the Royal Institute of Technology in Stockholm. From the educational institutions' point of view, however, server-based software licenses tend to be expensive. The charges of online services such as *Paltalk* and *iVocalize* (above) are minimal compared with those typical of server-based packages (e.g. USD 15,000 to 50,000 annually).

Inexpensive products that do not require a complex technical infrastructure are proving valuable for DE in developing countries. The *iVocalize* software, for example, was widely used by the PANdora Asian DE network from 2005-08, owing to its user-friendliness and low bandwidth requirements; and the *Skype* freeware, with a simple telephone-style interface and relatively few extra gadgets, has rapidly become the most universally recognised online audio/video communication tool of all.

The Next generation?

Online conferencing methods will continue to evolve with the emergence of 'social networking' techniques (Facebook, MySpace, Second Life, Bebo, etc.). These online environments have become popularly identified with the marketing label 'Web 2.0' (O'Reilly, 2005), although neither the bundled nor stand-alone methods associated with that term are essentially different from the techniques

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used in DE for over a decade. The writer remains personally skeptical about the educational value of current social networking methods in DE, despite the enthusiasm of many teachers and students for the online networking process. His view is based on analyses of the short life-spans of online communities after the initial novelty effect (Garber, 2004; Carter, 2009), and the frustration expressed by some students on being required to use complex graphic-based networking software for activities that they regard as mere play (Cleal, 2009).

Conferencing approaches will also evolve with their integration into open-source learning management systems (LMS). A study by the Asian PANdora network has created a video module for the popular Moodle LMS (Batchuluun & Wikramanayake, 2007), although the team also notes the serious access delays caused by Moodle's programming methods on the slow Internet connections typical of the region (Baggaley & Batchuluun, 2007).

The most sophisticated online conferencing techniques known to this writer are being developed in Norway and Sweden, using broadcast-style TV techniques and special effects to clarify the educational content (Knudsen, 2004). These methods remain to be applied in popular usage. With adjustment on the part of DE teachers, however, broadcasting models can offer a wide-ranging studio-style schedule of synchronous/asynchronous activities with great potential in DE (Baggaley, 2008).

It will be interesting to see if the current economic recession will put an end to educational uses of the more lavish conferencing softwares, which often provide surprisingly few extra options compared with their cost-free

rivals. In the so-called developed and developing worlds alike, uncomplicated products such as *iVocalize* and *Skype* may become staples in e-learning, while, for activities requiring a more complex graphic interface, pioneering packages such as *ThePalace* can still be downloaded and used free of charge, even though they no longer have technical support.

It is to be hoped that synchronous conferencing methods will be increasingly supported in DE, owing to their cost-effectiveness and as a counter to the common criticism that DE is essentially impersonal and involves no effective face-to-face teacher-student interaction.

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