Chapter 3.16
VIPER:
Evaluation of an Integrated Group VoiceIP Software Application for Teaching and Learning in Higher Education

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ABSTRACT

Recent developments producing new Internet conferencing (IC) and multipoint desktop conferencing (MDC) systems have emerged, which may supersede text-based and audio/video conferencing (AVC) software. The newer IC or MDC systems also integrate interactive tools and have the advantage of operating at a fraction of the cost when compared to AVC systems. Communication by face to face methods are important within the learning process, but can online methods that incorporate sound, video, and integrated online tools be as effective? AVC systems within higher education (HE) have been available for some time although the quality of such approaches, however, has been open to question. This chapter evaluates an exploratory study of one MDC application, "Voice Café," in a higher education, business school setting. For commercial distinctiveness, the academic application of this software was called "VIPER" (voice Internet protocol extended reach). Consideration is given to the software itself in terms of its features, pedagogic aspects, and how students and faculty viewed its use.

INTRODUCTION

Recent developments producing new Internet conferencing (IC) and multipoint desktop conferencing (MDC) systems have emerged over and above the text-based discussion and audio/video conferencing (AVC) software. The major differences of the newer IC or MDC systems are the integrated use of interactive tools and their advantage of operating at a fraction of the cost when compared to the AVC systems. Communication

by face-to-face methods is important within the learning process, but can online software that incorporates sound and video and interactive tools be as effective? AVC systems within higher education (HE) have been available for some time. The quality of such approaches, however, has been open to question when compared to face-to-face methods (Knipe & Lee, 2002). Compatibility issues exist between competing AVC commercial providers, which have limited deployment, they are relatively expensive, and disagreement has also been voiced about how AVC should be used (Laurillard, 1993; Mason, 1998).

Easy access to education is not available for everyone. As a result, pressure is upon teaching providers to develop different methods of communication to extend the "reach" from an institution to students. Computer conferencing using text-based systems is widely used within online courses although learners and tutors have noted problems (Cartwright, 2000; Harasim, 1997; Salmon, 2000).

This chapter evaluates an exploratory study of an MDC application, "voice café," in a higher education, business school setting. For commercial distinctiveness, the academic application of this software was called "VIPER" (voice Internet protocol extended reach). Consideration is given to the software itself in terms of its features, pedagogic aspects, and how students and faculty viewed its use.

VOICE CAFÉ AND VIPER

The business school became aware of the voice café software at the beginning of 2004. It was initially evaluated as a useful means of improving communication for staff, students, and between partner institutions. It was initially applied to the overseas MBA program. Because of the "newness" of this software and the alacrity of HE providers to search out new methods of communication, it was decided to call the academic application of this software "VIPER," short for voice Internet protocol extended reach. Figure 1 shows a screen shot of the VIPER, which has the following features:

1. **Voice to voice capability over analogue telephone modem:** For a participant to speak, similar to a "walkie talkie" participants depress the F9 or ctrl button continuously for others to be heard. Either speakers or headphones can be used with a microphone needed for speech. Important, however, was the feature that communications took place over an ordinary telephone line and a broadband connection was not needed, helpful for connections in many parts of the world do not have the advantages of broadband. The minimum requirement for the software was 33kb, which is well below the normal analogue telephone connection speed of about 40- 50kb, although in some countries speeds as low as 26k were recorded.

2. **Up to 25 synchronous connections:** The version used provided up to 25 simultaneous connections, although up to 500+ are possible. One connection could be one person, a group in front of one computer, or a computer in a lecture theatre. Where there was more than one person, a suitable screen or projector was needed, as well as speakers and a "moderator" to control the computer to allow for a full dialogue to take place.

3. **Browser capability with "follow me" functions:** The ability to combine voice and browser capability proved to be a most powerful feature. Not only could Web sites be accessed, but also materials for presentation within discussion could be viewed. The PowerPoint™ "publish and save as Web page" function proved to be most useful because of its ease converting PPT files to HTML files, which also provided an index

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