



Using lecture capture technologies for distance learning: A case study using Panopto

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In the past students commonly used 'pen and paper' to take notes of key points during lectures. With the increased sophistication of recording software applications, lecture capture applications have been developed. Lecture capture technologies allow educators to easily and seamlessly record all the activities that occur during a lecture. For example, audio, video, screen-capture, white board and power points. The use of lecture capture technologies is increasingly becoming commonplace in many tertiary institutions. In this poster, a pilot of the Panopto suite of lecture capture software used to capture lessons on Journalism Law, to use as content for a new distance-learning programme, will be described.

Keywords: Blended learning, distance learning, lecture capture, web based, note-taking, podcasting

Background

Students in the past attempted to capture the essence of a lecture through taking notes (Eisenberg, 2007). As computer software applications became more widespread some lecturers printed copies of their notes and used these as student hand-outs. In addition, lectures started to be recorded, and the audio files made available as podcasts. More recently, the increased use of learning management systems has enabled flexible and ongoing access to these notes and files.

But none of these methods provide the full context of a lecture, such as where emphasis is placed in explaining a point or extra examples that may be given by the lecturer when illustrating a point. Lecture capture technologies can be used to record all aspects of the lecture. For this and other reasons, lecture capture technologies are becoming more widely used in tertiary institutions, especially web based lecture technologies, which deliver the recorded lectures online to students.

Lecture capture technologies

In essence, lecture capture technologies allow educators to record learning events. This enables learners to have on-demand access to the events outside the normal scheduled times.

As well as overcoming potential barriers created by time and location it is argued this increased accessibility provides learners with:

- the time to reflect on their learning,
- the ability to more closely examine the detailed steps of the learning event and,
- on-demand access to appropriate digital materials to review for formal and informal assessment tasks (Saravani & Clayton, 2009).

For example, in an automotive demonstration on "tuning the engine" the demonstrated procedure can be "started and stopped" and the learner can more clearly focus on the complexities within demonstrated procedures and more readily recognise the correct sequence of events.

Case study

In 2008 the Waikato Institute of Technology became an active member of Panopto Incorporated Socrates Project. This project provided the institutions with access to a suite of software applications (CourseCast Recorder, Editor, and Server). These applications integrate with audiovisual hardware (web cameras and microphones) and other software applications (such as Microsoft Power Point) to capture learning events.

In this case study, the Panopto suite of lecture capture software was employed to capture lessons on Journalism Law for online delivery of the National Diploma of Journalism. While the entire diploma is being recreated as an online course, in the planning stages the tutors involved felt that the content of the legal classes in particular would be best delivered as online lectures. The 'serious' nature of the lecture, and the need for students to rote learn much of the content, were given as reasons for this. Additional advantages to using Panopto software included:

- the ability for students to take notes while watching the recordings
- the ability for students to skip through the recording to key parts, either by searching through their notes to find key content areas, or by clicking through the slides
- files could be easily added to Moodle, the LMS used by this institution.

Two three-hour lectures were captured, using Panopto, a web camera and a microphone. All files were saved to an external hard drive and then uploaded to the server. A link to the recorded lecture was made available to staff involved in the project. Once set up, the software was found to be very easy to operate, requiring little more than to push one button, and it was easy to access the recorded lecture.

Further improvements, however, were suggested to improve the learning experience for the students. The files will need to be edited, and in future recordings the tutor will need to be encouraged to have their presentation completely prepared before recording starts, and be encouraged to stand in sight of the camera whenever possible.

Future investigation will be undertaken by focus group interviews into tutors' perceptions of the use of Panopto. Students' perceptions of the recordings produced may be explored by questionnaire.

Summary

Overall, web based lecture capture is a technology that has been largely well received by students and, to some extent, staff, in tertiary institutions. In this case study, an attempt was made to capture a learning event – a face-to-face class lecture – and to re-use the learning object created as content in an online distance learning course. While the attempt was generally successful, it has highlighted some improvements that will need to be made in future attempts at capturing lectures.

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