Video archive project can record lectures for posterity

August 11 2008

A new video service on University of Michigan's campus can capture presentations, classes and training workshops, post them online within 24 hours and archive them indefinitely in a high-quality universal format.

The goal of the Campus Automated Rich Media Archiving (CARMA) project is to record noteworthy happenings at the University and preserve them for posterity.

"We think it's a travesty that so much rich information is being generated within the University walls every day and no one's recording it," said Jeremy Herr, one of CARMA's developers. Herr, a research process manager in the Department of Physics, worked with physics professor Homer Neal and others to design and build the device and the software that makes CARMA possible.

Bob Lougheed, CARMA program manager, said it could also have profound affects on education.

"It's like having your own personal TiVo of a class. This could provide new ways of watching a lecture and new ways of using class time. Some professors are already doing things like this on their own. CARMA makes the technology available in a broader sense." Lougheed said.

Other options for video recording exist on campus. Michigan Productions produces and records videos. Some units have studios or rooms set up for easy recording. Many professors have developed their

own systems too.

CARMA is a portable, efficient, relatively inexpensive method in which the finished product is transferable between computer programs and stored long-term. CARMA integrates video, audio, presentation slides and whiteboard and blackboard notes into one high-resolution video file in addition to compressed web versions (RealPlayer, QuickTime and Flash). It does most of this automatically. CARMA is starting with 10 terabytes of space to store files.

Customers decide who gets to see their talk. It can be available to the general public or only those who log in.

CARMA is descended from almost a decade of research that began when the 1,900 physicists involved in the ATLAS particle detector project needed a way to conduct lectures and software training sessions without flying scientists to Switzerland from around the globe.

An educational pilot project called MScribe spun out of that for the 2006-2007 school year. MScribe used carts with robotic tracking cameras to capture lectures and slides from classes, post them on Ctools and study how students used them.

The CARMA project is the next step. It was established with seed money from the Provost's office as a trial to explore the demand for the service. CARMA developers and staff hope their project is self-supporting in future years.

"The ATLAS Collaboratory Project, the Physics Department, and the other participants in the CARMA effort have a bold vision for capturing the learning that goes on at Michigan and making it available for re-use by others. CARMA is an important step forward in this vision, and the Provost's Office is pleased to support it," said John King, vice provost

for academic information.

CARMA will primarily use live, experienced camera operators as opposed to robotic cameras. CARMA footage is not edited. It's a complete recording of a talk. It captures slides straight from the projector, so it doesn't matter what computer or program the presenter uses. No software needs to be installed on the presenter's computer.

Herr, who is also currently working in Switzerland on the ATLAS collaboration to advance the technology there, says the next steps at U-M are to make the speech and the slide text in the lectures searchable.

The cost for event recording, posting and archiving is $400, but the rate is reduced for multiple events such as classes. To schedule a recording, see examples, or find out more, visit: carma.umich.edu/ .

Source: University of Michigan