

The Master Lecture Archive
A Joint Proposal for ITAC funding in 2006-2007
By the College of Liberal Arts, the College of Fine Arts, and
University of Texas Libraries

Master Lecture Archive

For over one hundred years the faculty at the University of Texas has included teaching scholars who have excelled both in their field of research and in the classroom. Thousands of UT students have had the opportunity to enroll in courses taught by these scholars, attending lectures made up from materials gathered during lifetimes of study and interpreted through the understanding of great intellects. Until now the audiences for such lectures have been limited by course schedules and the physical size of the rooms available. Digital media technology and the Internet give us the ability to break these barriers and bring the University's most valued assets to student audiences unlimited by schedule or building space. Liberal Arts, Fine Arts, and UT Libraries propose to exploit these technologies to create and share an archive of Master Lectures, outstanding teaching presentations by our most renowned faculty. We request 2006-2007 ITAC funding of \$58,000 -- \$46,000 for the Liberal Arts, \$10,000 for Fine Arts, and \$2,000 for UT Libraries -- to begin the development of the Master Lecture Archive.

Using Master Lectures

An Internet archive of Master Lectures will provide a unique teaching resource for faculty across the participating colleges. Creating media enhanced audio and video recordings of distinguished faculty lecturing in their areas of deepest expertise enables faculty at all levels to deliver specialized knowledge across the breadth of a given course. Instructors could use digitally archived lectures in class so that students can receive one or two special lectures from world-class scholars. The archive would be particularly useful for teaching large introductory and service courses, in which even the most accomplished instructors might use lectures (or even excerpts) by colleagues who specialize in areas outside their particular focus. Teachers could also assign lectures for viewing outside class meetings, then spend subsequent class sessions discussing what was learned. Master Lectures will also give graduate student assistant instructors a strong basis for treating difficult topics as well as the chance to learn teaching techniques from a variety of experienced pros. And, of course, both current students and the University's thousands of lifetime learners can sit in virtual lectures for no other reason than pure personal interest. The Master Lecture Archive would use digital technology to create a flexible resource enabling students to benefit from the knowledge of a greater number of UT faculty members than ever before. In this sense, the archive is much more than a

collection of lectures; it represents an innovative new method for connecting more students with more faculty members, without any changes in curriculum or degree requirements.

Liberal Arts and Fine Arts are natural partners for the Master Lecture Archive. Both teach large survey courses that most students take as part of the core curriculum requirement. Liberal Arts requirements include Government, English, History, and foreign language while Fine Arts offers large survey sections in Music, Theatre, and Art History.

A existing example of the value of the Master Lecture Archive can be found at <http://utopia.utexas.edu/project/constitution/>. The video lectures by Dr. William Livingston -- a recent joint project of UTopia and LAITS – were used during the fall semester to in a section of Government 310, the large intro to American Government required of all UT students.

The Enabling Technology for Master Lectures

Internet delivered digital video has been around for some time but costs have been high and access uneven. Recent developments have changed this situation, making internet delivered digital video a much more accessible and cost effective way to give students access to wide range of course materials. New video compression technologies squeeze higher and higher quality into smaller and smaller files while video delivery options such as Apple QuickTime's Quick Start make it possible to receive high quality video under a wide range of network conditions.

Server equipment has also made major advances. Video files are relative large and fast servers are required to deliver them in the streams necessary for smooth viewing. File and video server costs have now come down to the point where serving and archiving large quantities of media files has become efficient and effective.

Our students' own computer technology and Internet connectivity has leaped ahead in the past couple of years. Most students and nearly all freshmen and sophomores now have high-speed connections to the Internet, to which they are attaching fast computers with lots of memory and storage.

Pod casting is the latest technology to catch fire. Using a collection of open standards, subscription based, pod casting makes it possible to use a standard web server to deliver audio and video materials directly to the users computers and hand-held media players. Apple's 5th generation iPod heralds a new generation of hand-held video viewing devices allowing viewers to watch video almost anywhere and at anytime.

These dynamic distribution technologies come hand-in-hand with advances in video production tools and methods. The combination of cheap, powerful computers, the DV video format, inexpensive, and highly quality cameras has made it possible to build

capable video studios with budgets typical of UT departments. On the software side, Final Cut Pro has done for professional video editing what applications like iMovie have done for home video. Video production suites that recently cost thousands of dollars are now available for a few hundred.

New facilities at UT also contribute to the feasibility of the Master Lecture Archive. Liberal Arts Instructional Technology Services (LAITS) will commission a new video studio with completion of phase II of the South Mall Renovation Project, and both LAITS and UT Libraries have added dramatically to their server capacity. Add these investments to LAITS's existing audio recording studio and the editing suites maintained by both LAITS and UT Libraries and you have all the infrastructure necessary to record, produce, and deliver large quantities of high-quality audio and video.

Producing Master Lectures

The two colleges will work together to create a process for selecting outstanding faculty members and work with them to choose lecture topics. After selection LAITS media directors will meet with Master Lecturers to determine the best way to present each lecture, and to plan and staff each recording project. Lectures will be recorded using media technologies appropriate for both the content and the lecturer. Audio recordings illustrated by slides can be produced at a relatively low cost and should work well for some lectures. These will be recorded in the LAITS Recording Studio and post-produced by student developers and LAITS staff. Audio recordings with slides can be easily delivered via pod casting and will be the most convenient for access.

Many experienced teachers are at their best at the front of a lecture hall full of students. These lectures will be video and/or audio recorded during actual class sections whenever possible. The original recording can then be edited and graphics added in post-production. Audio versions can again be pod cast and video versions can be either pod cast or delivered as standard Internet video streams.

Still other lectures will be video recorded in the LAITS video studio where audiences and sets can be assembled for maximum production quality. Sets can be easily set up to mimic offices, classrooms, seminar room, lecture halls, or any of a number of appropriate settings. One intriguing possibility is to offer faculty the option of arranging the lecture as a discussion with interested students or other scholars.

Different methods of production will come with its costs and requirements. The table on the following page shows a progression of increasing complex production methods along with the requirements in technology and staff that each entails:

Production Type	Source	Personnel Required	Production Support Required	Compression
Digital Audio Recording	Aiff	Producer, Audio Engineer	Wireless Mic(s), Audio Mixer, HDD Audio Recorder	Mp3 Audio
Digital Audio Recording with PowerPoint Support	Aiff, DV	Producer, Audio Engineer, Video Engineer	Wireless Mic(s), Audio Mixer, HDD Audio Recorder, Scan Converter, DV Recorder	Mp3 Audio M4v Video
Digital Audio Recording Adding Images in Post	Aiff, DV, Ppt	Producer, Audio Engineer, Video Editor	Wireless Mic(s), Audio Mixer, HDD Recorder, Scan Converter, DV Recorder, Editorial Support	Mp3 Audio M4v Video
Digital Audio Recording+ Single Cam Video Recording - Live	Aiff, DV	Producer, Audio Engineer, Camera Operator, Video Engineer, Video Editor	Wireless Mic(s), Audio Mixer, HDD Recorder, Scan Converter, DV Recorder, DV Camera, Camera Support, Editorial	Mp3 Audio M4v Video
Digital Audio Recording+ Multi Cam Video Recording - Live	Aiff, DV	Producer, Audio Engineer, 2 x Camera Operators, Video Engineer	Wireless Mic(s), Audio Mixer, HDD Recorder, Scan Converter, 2 x DV Recorders, 2 x DV Camera, 2 x Camera Support, Switcher, Preview Monitors	Mp3 Audio M4v Video
Digital Audio Recording+ Multi Cam Video Recording Adding Images & Effects in Post	Aiff, DV, Ppt	Producer, Audio Engineer, 2 x Camera Operators, Video Engineer, Video Editor	Wireless Mic(s), Audio Mixer, HDD Recorder, Scan Converter, 2 x DV Recorders, 2 x DV Camera, 2 x Camera Support, Switcher, Preview Monitors, Editorial Support	Mp3 Audio M4v Video

Student research assistants will be hired to work with faculty members to prepare slides, hand outs, “chalk talk” content, and other supporting materials for digital presentation. LAITS staff will manage the projects and student video producers and audio engineers will work with LAITS and UT Libraries media professionals to produce and record lecture presentations of the highest quality.

Although new technologies have brought down the cost of production and distribution of digital video, the effort required to produce high quality content is still far from trivial. Master Lecturers will receive a stipend to offset the substantial investment in time and energy that will be required to produce lectures.

The Library and the Master Lecture Archive

Digital and internet technologies and are opening new channels for the dissemination of instruction at the University. It is imperative that new processes for managing and archiving the content that is published through these channels emerge as well. The UT Libraries are committed to working with colleges and departments to assist in building these new channels and in preserving the content that is published as a result. Just as libraries have been the archival repositories for printed materials UT Libraries seek to extend that concept into the digital arenas through projects such as the Master Lecture Archive. The proposed archive will serve as a model of future collaboration as well as an important resource in its own right.

Funding and Staffing

UT Libraries and LAITS each have two full-time video professionals who will devote part-time to the Mater Lecture Series. LAITS's audio engineer and management and administrative staff from LAITS, Fine Arts, and UT Libraries will also contribute significant time. A total of 1.5 FTE will dedicated to the project the three units. LAITS will provide all equipment and production space for the project aside from office spaces housing UT Libraries' video staff and Fine Arts research assistants. Funding request for the project is limited to faculty stipends, salary for student research assistants and media developers, and an M&O budget to cover supplies and other incidental operating costs. Requested funds and contributions by the three collaborating units are detailed below.

Funding Details

Requested Funds	Liberal Arts	Fine Arts	UT Libraries	Total
Faculty Stipends	\$12,000	\$4,000		\$16,000
Student Research Assistants	\$15,000	\$5,000		\$20,000
Student Video Developers	\$16,000			\$16,000
M&O	\$3,000	\$1,000	\$2,000	\$6,000
Total Requested Funds	\$46,000	\$10,000	\$2,000	\$58,000
In-kind Contributions: 1.5 FTE	\$48,000	\$8,000	\$16,000	\$72,000
Total Project Cost	\$94,000	\$18,000	\$18,000	\$130,000

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