

**SCHOOL OF INFORMATION
IT Vision Plan
2006-2007**

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**Prepared For:
Information Technology Advisory Committee**

Submitted by: Andrew P. Dillon, Professor and Dean

**Prepared By:
Mary Lynn Rice-Lively, Associate Dean
Carlos Ovalle, Computer Systems Development Specialist
Quinn Stewart, Computer Services Manager
Shane Williams, Sr. Systems Analyst**

I. SUMMARY OF REQUESTS

The requests outlined in this year's School of Information IT Vision Plan can be grouped in three general categories: 1) Expanded and improved IT support for students and faculty through the addition of IT staff and IT equipment resources; one-time projects that will 2) strengthen the School's development of its digital library curriculum and initiatives and 3) improve the quality, currency, and instructional delivery media of technology literacy curriculum both to undergraduate and graduate students.

Infrastructure Projects		
New IT Positions		
Information Analyst	20,500.00	Supplement with IT Fee
System Admin Apprentice	9,150.00	Supplement with IT Fee
VMware	50,000.00	
Classroom Teaching Station Upgrades		
Computers	20,000.00	
Projectors	13,500.00	
Student computer lab lifecycle upgrade	20,250.00	Supplement with IT Fee
Software upgrades	12,500.00	Supplement with IT Fee
	145,900.00	
One-time Projects		
Living Textbook		
GRA	15,000.00	
Equipment	5,000.00	
Digital Video Library		
Network attached storage	30,000.00	
Film-to-digital conversion equipment	12,500.00	
Digitization in the Round: Teaching Theatre HD Video Conferencing	30,000.00	
E-paper information architecture and usability project	9,000.00	
	101,500.00	
Total Vision Plan Request	247,400.00	

II. OVERVIEW OF CURRENT IT PROGRAMS AND INFRASTRUCTURE

Vision/Mission/Goals of Unit

The School of Information seeks to engage those best and brightest people who thrive on challenges such as exploring and understanding the extraordinary complexity of information and to discover principles and processes that will manage its immense volume and tap its promise for enhancing our lives. The School of Information aims to making a difference in the lives of citizens by shaping information realities that are accessible, useful, usable and sustainable.

The School's mission is to shape information realities for human and social benefit by:

- Discovering new and vital knowledge about information through research;
- Educating the next generation of information researchers, scholars and practitioners;
- Fostering leaders at the top echelons of national and local information organizations and agencies;
- Facilitating information literacy among the UT student community; and
- Providing continuing education and expert advice on information issues through collaborative

relationships.

Programs

Currently, the School has 17 full-time faculty members who reflect a broad range of teaching and research interests. The School also employs 15 adjunct instructors and has 17 support staff (5 are part-time). This group of faculty and staff support both Master's and PhD programs to 273 graduate students (239 Masters and 34 PhD). The School accomplishes its mission through the following specific programs:

- A PhD program for information researchers, scholars and advanced information managers.
- A Master of Science in Information Studies program for top-level information professionals in archival enterprise, information architecture, information policy, information systems design and management, information usability, librarianship, multimedia design, museum work, and preservation of the cultural record.
- General information study coursework for undergraduates and graduates in other fields of study.
- Various specialization certificates in the areas of school library certification and youth information services; reference services; preservation administration; and conservation science.

Personnel

Three full-time and one part-time employees support a wide spectrum of iSchool IT services: a senior systems analyst (network and server administrator); a manager of computer services (lab management, faculty instructional support, and online teaching tools); and a computer operations specialist (faculty, staff and lab IT support.) The School also has a part-time Web manager. Currently, resources from ITAC, iSchool IT, and Distance Education fees and classified budget lines fund these critical positions.

Facilities

The iSchool is housed in approximately 10,000 square feet of the 4th and 5th floors of the Sánchez building, and 6,000 square feet of the Collection Deposits Library. In these two buildings we have four classrooms, one computer and two conservation labs to serve around 300 graduate students and approximately 700 undergraduate students taking courses through the School. School ITS staff members support computing and networking services for faculty and staff, including nearly 100 desktop and laptop computers (Macs and PCs.)

Students have access to the latest computer and AV technology, premium software, a variety of digital imaging tools and a helpful, friendly support staff comprised of Teaching Assistants selected from iSchool student applicants. The lab and IT staff develop and support a cluster of online tutorials (<http://www.ischool.utexas.edu/technology/tutorials/index.html>), face-to-face short courses, and other services to assist students with the acquisition of skills in the use of a variety of application and Internet-based computing tools. Additionally, the IT lab (PCs, Macs, scanners, and video production equipment) maintains a wide selection of equipment to be checked out for student use, including laptops, digital cameras, and digital video cameras. The lab is open to students over 70 hours per week. The 5th floor Computer Classroom supports students' hands-on experience using both PCs and Macs with a wide range of hardware and software as part of regular classroom instruction. During the past year this classroom has been outfitted to support a wide range of digitization activities in a number of graduate level courses.

All classrooms, offices, and conference space in the iSchool provide high-bandwidth wired network connectivity as well as wireless capability via UT's public network. The classrooms and Dean's conference room include computers (Apple and PC), projection, VCRs, sound systems, and document cameras. Twenty different servers support Internet and other services to faculty, staff, and students with individual functions including streaming video, webcasting, web, email, file storage, searching, and digital archiving.

III. CURRENT AND PROPOSED FUNDING SOURCES

As noted above, the iSchool has several different funding sources to support the development and use of technology in the School. For the current fiscal year (2005-2006) these funding sources are noted in the table below. The "Digitization in the Round" project, a collaborative project with the University of Texas Libraries Digital Library Services Division), is funded by the Institute for Museum and Library Services. The Digitization in the Round project aims to recruit and educate library and information professionals in the art and science of creating and managing digital libraries. Specifically, the project is building both a curricular specialization in digital libraries and an instructional technology infrastructure to support these activities. The School will be receiving funds for the project through December 2007. For more information on the project please see <http://www.ischool.utexas.edu/~digitize/>.

IT Funding Sources for School of Information for FY 2005-2006

Funding Type	Budgeted Allocation	Carryover	Total
iSchool IT Fee	169,868	17,572	187,440
IT Vision permanent allocation	82,000		82,000
IT Vision one-time project allocation	71,054	4,413	75,467
ISchool Distance Education Fee (web-based courses)	39,254	11,646	50,900
Digitization in the Round Project (IMLS Grant)	123,122		123,122
Special equipment, etc. (includes furniture, computers, telecom)	30,000		30,000
TOTAL	515,298	33,634	548,929

IV. BEST PRACTICES

Since the last Vision Plan the School of Information has implemented the following practices that may be of interest to other academic IT programs. IT Services staff (including full-time and student support staff) have:

- o Tracked student use of equipment available for checkout to study demand for these types of services. Accordingly, the School has increased the type and amount of multimedia equipment available for student use, and we continue to measure usage and need.
- o Measured space, hardware, and staff utilization in our student lab facility. We will continue to assess trends in the utilization of these resources.
- o Upgraded the software used to track license and software use. We hope to work with other organizational units in the University to evaluate licensing and license tracking practices. Furthermore, we have created resources for use by those with an interest in technology licensing at the University, as well as a University-wide licensing mailing list. We have solicited the assistance of UT System general counsel.
- o Due to the ongoing space constraints endured by the School of Information, innovative uses of existing space were required to successfully implement the IMLS grant received in 2005. Our existing computer classroom was retrofitted with shelving designed by iSchool staff to house the additional digitization equipment required to support our new digitization curriculum. Computer mounting brackets were designed and installed by iSchool staff to double the number of computers in the existing space. A private network was deployed to both protect the digitization lab computers and provide adequate internal bandwidth for large file transfers. Finally, an innovative storage system was implemented to provide approximately 6 terabytes of secured storage for student-digitized materials. This equipment and additional computers are available for use by all School of Information students, and make SZB 546 one of the largest dual-platform computer labs on campus, as well as the largest digitization lab on campus.
- o Deployment of LDAP (Lightweight Directory Access Protocol) services and increased use of both local and remote LDAP services has simplified account management across platforms and applications and made use of group- or school-wide systems easier and more feasible (e.g. Wikis, Horde, etc.)

IV. USE OF PREVIOUS ACADEMIC YEAR ALLOCATIONS (2003-2005)

Proposed Infrastructure Projects

Project	Estimated Cost
Document Cameras	7,500
Network Attached Storage	20,000
CDL Wireless	2,500
Permanent allocation	63,000
Total Infrastructure	93,000

Actual Infrastructure Projects Completed

The only infrastructure project not completed during this reporting period was the purchase of a network attached storage device. All other purchases were completed. These projects included the:

- Purchase and installation of equipment to support wireless access in the Collection Deposits Library building that houses the School's preservation and conservation studies program;
- Replacement of one existing document camera and the purchase of two more document cameras for classrooms; and
- Ongoing support of IT staff salaries.

Phase one of the project to deploy a network attached storage system to house and manage digital video collections was partially completed. This phase included the purchase of digital cameras and appropriate software to begin building a digital video collection housing digitization projects completed by iSchool students. Phase two of the project has been carried over into the current fiscal year as part of the "Digitization in the Round" project referenced above. New faculty member Gary Geisler, joining the iSchool in January, will bring considerable expertise to this project in that he has developed and continues to manage the Open Video Project. See http://www.open-video.org/project_info.php for more information.

One-time Projects Proposed

Project	Estimated Cost
Digital Video Library	6,500
Portable Usability Lab	20,000
Photo and Text Digitization	4,500
Voice Recognition	1,650
Total One-time	32,650

Actual One-time Projects Completed

Digital Video Library.

As noted in the above discussion of the network attached storage system, the Digital Video Library effort is an ongoing project. Students in the fall 2005 semester's "Survey of Digitization" class will have completed a number of digital video projects, some of which will be housed in the iSchool Digital Video Library. Supporting servers have been upgraded to accommodate this and other video storage projects.

Portable Usability Lab.

Happily, the portable usability lab project morphed into an actual physical usability lab, which culminated in the November 3, 2005 "grand opening" of the Information eXperience Lab (IX). Previous to the opening of the IX Lab, products such as Morae testing software were purchased and evaluated, and other specifications for the lab were developed out of existing faculty and student usability research. For more information please see <http://www.ischool.utexas.edu/~utasist/ixlab/>.

Photo and Text Digitization

In the 2004-2005 Vision Plan we proposed to purchase scanners as part of collaborative "Digitization in the Round" project. New scanners were purchased, as was a \$75,000 DigiBook Scanner now housed in the University Libraries Digital Library Services Division. The scanner contains features of vital importance for working with rare and fragile materials, including minimum lighting and minimum heat on the paper, as well as very high quality reproduction. The DigiBook Scanner is one of two existing scanners on the UT campus, with the first scanner purchased by the Harry Ransom Humanities Research Center. iSchool students pursuing a specialization in digital libraries will receive instruction in the use of the scanner in their course work.

Voice Recognition for Captioning and Accessibility

Voice recorders were purchased and evaluated in conjunction with voice recognition and captioning software both in classroom and other settings. Results of this testing were mixed, but use of these tools for captioning of video tutorials holds promise. For an example, see

<http://www.ischool.utexas.edu/technology/tutorials/gmProjects/gimp/broadband/gimpfinal1.html>

V. NEEDS AND PROPOSED USE OF FUNDS

Infrastructure

- **New IT Positions.** As the School of Information continues its evolution, the School's IT Services staff has begun to feel increased pressure to provide a wide spectrum of technical support to increasingly technology savvy faculty and students. Over the past three years long-time faculty have retired and new faculty have been recruited and hired. Consistently, these new faculty hires have more frequent and more complex demands for computing and networking equipment, as well as technical support. In the interim the three highly competent and service-oriented full-time IT workers are unable to keep up with the day-to-day and long-term technical support required of them. For this reason, the school plans to add 1.5 FTE to its IT Services staff. These positions include a full-time information analyst (whose duties will include assisting with day-to-day technology support and managing ongoing IT tutorial projects that have become a staple for iSchool students and others with access to the Internet (see <http://www.ischool.utexas.edu/technology/tutorials/>). The second position is a part-time (20 hours/week) student systems administrator apprentice. The position's primary responsibilities will include OS and software maintenance of second-tier systems, account maintenance on second-tier systems and handling or triage of one-off requests (quota problems, user requests, etc.). Other responsibilities might include some account management on first-tier systems, reviewing system and security logs, or assessing new server applications and software. The expense of supporting these positions will be divided between the School's Vision and IT Fee accounts. **(\$29,650)**
- **VMware** – The VMware project will enable the School to combine multiple servers running on separate physical servers to run simultaneously (by using virtualization) on a one or two, high-powered, high-reliability physical servers. In addition to saving physical space, this project provides improved scalability and flexibility in deploying and testing new services and provides more efficient use of system resources. The iSchool has already identified numerous servers and projects that will benefit from improved reliability and computing power, including servers used in support of INF 385M, Database Management; INF 312, Information in Cyberspace; as well as the Texas Legacy Project; Labman; and DSpace, a digital archive system used in numerous classes. **(\$50,000)**
- **Classroom Teaching Station Upgrades.** Classrooms supporting the academic mission of the school will need upgraded equipment in the teaching stations. This will require upgrading five projectors to equipment that offers high definition display as well as both Mac and PC computers available in the teaching stations in SZB 468, 464, 546, 556, and CDL (home of the Kilgarlin Center for Preservation of the Cultural Record; see <http://www.ischool.utexas.edu/kilgarlin/> for more information). **(\$33,500)**
- **Student Computer Lab Lifecycle.** iSchool IT Services has implemented an 18-month lifecycle for student-use computers that provides up-to-date machines for both our general use computer lab as well as our computer classroom. The next upgrade cycle will be summer 2007, when 33 PCs and 12 Macs in the general use lab will be upgraded and the older machines cascaded to the computer classroom. **(\$20,250)**
- **Software upgrades.** Ongoing software upgrades for student lab computers. **(\$12,500)**

One-time Projects

- **Living textbook.** Course Content Development and Repurposing- The iSchool offers one of the largest Web-based undergraduate courses at the University, an introduction to Internet technologies and issues called "Information in Cyberspace." The course is team-taught by iSchool PhD students, and requires significant effort to maintain currency of the course materials. Modeling the success of the "Texas Politics" project of LAITS, the School of Information intends to create an original online textbook to support this class. The resource also will be available to iSchool graduate students for remedial education, and serve as a primer on basic technology literacy for college students to the rest of the campus community. The project would require one GRA for a year and supporting equipment. **(\$20,000)**
- **Digital Video Library Project. Phase 2.** Film-to-digital conversion equipment- building upon our current digitization courses for sound and analog video, the School of Information proposes to purchase equipment capable of converting 8mm and 16 mm film formats to digital formats. Many University libraries, archives, and departments have historical and educational materials that exist only on film, and the purchase of this equipment will allow the School to expand our digitization curriculum to cover these formats. Additionally, we will purchase and install a networked attached storage device to continue the support of the Digital Video Library. **(\$42,500)**
- **Digitization in the Round: Teaching Theater for Digitization of Rare and Fragile Items.** Portable high-definition video-conferencing equipment- The iSchool through its curricular specialization in digital libraries has worked with on- and off-campus collaborators to develop a practical series of courses on digitization. The collaborators (UT's University Libraries and HRC and the Austin History Center) have volunteered unique

materials in a variety of formats for students to exam and to digitize. The availability of portable high-definition video-conferencing equipment will expand our efforts in this area in support of video delivery for remote presentation of computer displays as well, using the Picture in Picture (PiP) capabilities of the HD video standard. For example, this technology will support remote interaction with various libraries and archives in our digitization classes as well as with off-campus companies partnering with usability and information architecture class projects. **(\$30,000)**

- **E-paper Student Usability Project.** Handheld Sony LIBRI'e using E-ink- Master's and PhD students specializing in information architecture and usability testing will checkout the Ebooks for class projects and usability testing. The School will purchase 3 student development kits for use in the Information Architecture and Usability classes. **(\$9,000)**