

**2008-2009
Instructional
Technology
Vision Plan**

College of Liberal Arts

EXECUTIVE SUMMARY

The College of Liberal Arts Vision Plan describes a large-scale, fast-growing information technology program funded at one of the lowest per capita rates on campus. The instructional mission of the College, and thus the impact of its technology program, spans the entire University with over 160,000 undergraduate semester credit hours taught to non-Liberal Arts majors each year.

ITAC allocations have played a critical role in sustaining this program, accounting for half of all related expenditures. Liberal Arts depends upon ITAC funds to fulfill the increasing instructional technology needs of its faculty, students, and by extension — the entire campus.

ITAC Request: One-time Project Funds (\$1,806,000)

Liberal Arts, as other colleges, uses non-recurring ITAC project funds to support instructional technology projects and necessary IT infrastructure. A large proportion of Liberal Arts ITAC project funds, however, are reserved for faculty-initiated, course development projects.

We request \$1,806,000 in project funds for the following areas:

- **Course Development (\$720,000)** - Developing 40+ multimedia course projects through grants to faculty members and large-scale course work reaching up to 5000 students each.
- **Technology Classrooms (\$400,000)** - Completing the installation of 174 smart classrooms across 26 buildings in Liberal Arts as well as the Colleges of Pharmacy and Education, The Schools of Social Work and Architecture, and General Purpose usage.
- **Computer Labs (\$400,000)** - Ensuring up-to-date computers and dependable support for 64 instructional computer labs available to every student on campus.
- **Servers (\$50,000)** - Maintaining at least 98 Mac, PC, and Linux servers that provide enterprise level support to faculty, students, and staff of Liberal Arts.
- **Networks (\$236,000)** - Supporting and upgrading networks in 25 buildings, including extending partial or full wireless access inside all Liberal Arts buildings.

Liberal Arts will also team with other colleges and units to request one-time projects funds for special, joint projects. These proposals will be submitted under separate cover.

ITAC Request: Recurring Infrastructure Funds

Recurring infrastructure funds provide technology maintenance, operations, and staff support to nearly all of the College's 21 academic departments and 29 centers — especially those such as Psychology and Geography where technology is closely integrated into the teaching mission. We request Recurring Infrastructure Funds in the amount of the previous years allotment plus merit increases for ITAC funded staff salaries.

1. OVERVIEW OF CURRENT IT PROGRAMS AND INFRASTRUCTURE

1.1 *Vision/Mission/Goals of Unit*

The College of Liberal Arts is committed to providing the highest quality technology-enhanced facilities and curricular materials to our more than 12,000 majors, as well as the tens of thousands of students throughout the University who are enrolled in our many 'core service' courses each semester. Since its formation in 1998, Liberal Arts Instructional Technology Services (LAITS) has pursued the linked strategies of supporting the development of network-delivered course materials while expanding the technical capacity of teaching facilities and infrastructure. After nine years, this effort has enriched the educational experience of every student at the University.

Our goals for 2008-2009 are shaped by a commitment to continue innovation and expansion of instructional technology resources, in spite of the funding challenges currently faced by the University. We will innovate by exploiting latent strengths and resources, especially building on our faculty's established track record with integrating research and teaching technology. We will also place a high priority on bringing our technology infrastructure up-to-date so that teachers have the appropriate methods to engage our ever more sophisticated students. Strategic priorities are:

- Provide tools and facilities to support undergraduate research as part of the instructional experience
- Multiply the impact of ITAC dollars by aggressively seeking outside grants for ITAC-supported projects
- Stretch limited funding by increasing efficiency and productivity
- Increase the involvement and employment of both graduate and undergraduate students in technology development and support
- Complete the installation of consoles in all appropriate classrooms
- Upgrade the oldest computers in student labs
- Improve and broaden technology support for faculty

Addressing these priorities will move us toward our ultimate goals of providing a fully-developed and vertically-integrated system of instructional software, technology-enhanced classrooms, computer labs, server and network infrastructure, and — especially — the highest quality professional support for faculty.

1.2 *IT Programs*

Course Development

Network-delivered, multimedia-enhanced curricular materials enrich the learning process by:

- *Engaging students in subject matter by providing more interesting, compelling, and interactive material*
- *Increasing cognitive integration of subject matter through multiple content modes — such as text, audio, video, and graphics — and increasing interaction with materials*
- *Increasing the quantity and variety of subject material readily available to students*
- *Easing access to timely, relevant, and customized scholarly materials*

LAITS encourages and sustains technology-enhanced course development through five basic programs:

- Faculty Course Development Grants
- Strategic Development Projects
- Student Technology Assistants
- Faculty Instructional Technology Workshops
- Multimedia Production Services

Faculty Course Development Grants

Faculty Course Development Grants are a prime stimulus for instructional innovation. These grants provide a wide range of funding and services custom-designed to help faculty members enhance their teaching with technology. Over \$2.9 million has been awarded through 174 Faculty Course Development Grants since 2002. (*See Appendix D for a full list of grants from 2002-2008 and see selected projects online at <<http://www.laits.utexas.edu/its/courses.html>>*). Grant recipients range from the technically savvy to the technically naïve. Faculty members are provided with the skills and resources they need to develop course materials, either on their own or in collaboration with professional developers. Funds can be used to support student assistants, and to purchase computers, software, and specialized equipment. Summer salary for faculty is also available to ensure that course development can proceed without interfering with instruction.

Faculty Course Development Grants are allocated through an annual competition. A Call for Proposals early in the Spring semester solicits faculty members to propose projects of exceptional value to students (*see Appendix C for the 2007-2008 call for proposals*). Department Chairs are required to rank the proposals of faculty members in their department and provide a statement of both departmental teaching goals and instructional technology vision. A committee of Liberal Arts students, faculty, and staff reviews each proposal. Faculty committee members are selected based on their dedication to instruction and to technology-oriented course development (*Appendix E contains a list of committee members*).

Faculty committee members are all experienced developers with an impressive array of awards to their credit, thus allowing review to go far beyond a simple thumbs-up or down. The potential of each proposal is thoroughly discussed during committee meetings. Many projects are funded conditionally, awarded small start-up grants, required to submit to special periodic review, or invited to revise and resubmit during the following funding cycle. The committee makes suggestions on how to improve projects and encourages applicants to seek training or advice from LAITS before resubmitting.

The review committee's funding criteria evolve in response to new challenges, opportunities, and leadership priorities. Undergraduate research is a priority for both President Powers and the Dean of Liberal Arts, and LAITS believes that conducting research is perhaps the most effective way for students to become personally engaged in subject matter. Accordingly, we have begun encouraging technology projects that make faculty research tools and data accessible to undergraduates enrolled in Liberal Arts courses. Current projects include:

- Sahotra Sarkar, Department of Philosophy: ResNet and ConsNet, interactive software for

simulating and assessing biodiversity and conservation models (*see* <http://consnet.org/>)

- Jason Baldrige, Department of Linguistics: Open CCG Grammar Writing GUI, a collection of natural language processing components and tools which provide support for parsing and realization with Combinatory Categorical Grammar (CCG)
- Katrin Erk, Department of Linguistics: Shalmanseser GUI, a semantics experimentation system that analyses texts in German and English (*see* <http://www.coli.uni-saarland.de/projects/salsa/shal/>)
- David Schnyer, Department of Psychology: *Neuro-imaging* Teaching Laboratory, an interactive environment for training undergraduates and undergraduates in the analysis of functional magnetic resonance imaging (fMRI) data

Faculty Course Development Grant recipients are required to submit annual reports with financial accounting, an explanation of the progress they have made, and an assessment of results. In addition, a public review forum — *LAITS Third Fridays* — requires faculty grant recipients to present projects for public comment and discussion by faculty and staff from around the University (*see Appendix F for a list of past and future Third Friday presentations*).

From proposal to finished product, LAITS and the IT Grant Review Committee make every effort to council and support faculty members engaged in technology projects. Results have been satisfying, with the number of Liberal Arts winners at recent Division of Instructional Innovation and Assessment IITAP awards growing each year (*see Appendix G for a list of award-winning Liberal Arts faculty and projects*).

Strategic Development Projects

Many strategic opportunities for exploiting technology require efforts beyond the scope of individual faculty members. LAITS address these opportunities with Strategic Development Projects focusing resources on:

Large service courses taught by multiple instructors and taken by students across the University

Department or College-wide instructional support applications

Projects requiring long-term commitment of resources

Inter-college collaborations and partnerships

Strategic Development Projects are selected to ensure the biggest bang-for-the-buck — the greatest impact on the greatest number of students — for the resources invested.

Whenever possible, these large-scale ITAC-funded projects are made freely available to both students and the public at large. Content for Strategic Development Projects is produced entirely by College faculty, students, and staff, and copyrights are cleared for perpetual and unlimited use by The University of Texas at Austin. Thousands of users visit these sites each day, reinforcing our image as a flagship university of international stature and a public institution providing valued services to the people of Texas.

The premiere example of a successful Strategic Development Project is *Français interactif* <<http://www.laits.utexas.edu/fi/>>. This NEH award-winning site contains all of the material for first year French language instruction, thereby freeing 1,000 UT students yearly from the burden of purchasing expensive textbooks. The text has also been widely adopted outside of UT and is currently reaching nearly 1 million ‘hits’ per day.

Lower-division foreign language programs are ideal opportunities for Strategic Development Projects. Language teachers have historically employed audio and video in language labs and on tape, and they were among the first to exploit the web to deliver multimedia directly to students’ dorms and apartments. To have widespread effect, however, development has to be centralized. Language study is required of *all* undergraduates, and Liberal Arts offers hundreds of sections yearly — most taught by graduate student Assistant Instructors. These AIs simply do not have the time to develop their own materials.

The College created the Texas Language and Technology Center (TLTC) to exploit technology in language instruction. Building on the success of LAITS projects such *Français interactif*, the TLTC and LAITS are supporting Strategic Development Programs in Persian, Arabic, Hindi, Spanish, and German.

The *Online Psychology Experiment and Research Application (OPERA)* is an excellent example of a Strategic Development Project with department-wide benefits. Created to help manage the experimental requirement in lower-division Psychology, the *OPERA* system is used by 2,500 students each semester. It streamlines tasks at the intersection between instruction and administration, and it allows teachers and students to focus on instruction — instead of the busywork of fulfilling requirements.

Digital Archive Services (DASE) is a Strategic Development Project with campus-wide value. Designed as a web-based application for managing digital images, sound files, video, and documents, *DASE* allows users to easily locate assets and organize them into personal collections and slideshows. Collections and slideshows can be downloaded, shared with other *DASE* users, or dynamically linked to other websites. *DASE* is used by departments in Liberal Arts, Fine Arts, Natural Sciences and others, and it currently holds several hundred thousand items in over 100 collections.

Texas Politics is a Strategic Development Project with exceptional value. This online textbook is available to the 5,000 students enrolled annually in the UT version of the state government course required of all public university students in Texas. *Texas Politics*’ wealth of original material features video interviews with Texas state leaders. This media-rich site engages students’ interest in a course designed to improve civic engagement and is judged to be more effective than traditional textbooks by 75 - 80% of student users. The site was cited as an example of New Scholarship and Emerging Forms of Publication in the New Media Consortium’s 2007 *Horizon Report*.

Student Technology Assistants

LAITS has greatly expanded course development capacity by employing Student Technology Assistants (STAs) as part-time development staff. The program capitalizes on the growing technical skill levels and technological professionalism of our undergraduate students to leverage investment in classroom technology and course development facilities. STAs work under the direct supervision of LAITS staff and are employed on a wide range of projects. STAs gain the invaluable experience of collaborating with faculty — a new and distinctive setting for learning — while faculty are freed from technical chores to focus on content creation and teaching. The

STA workplace — the LAITS Development Lab — has an ‘open door’ policy so that faculty can walk in to seek assistance with small-scale projects such as websites, audio, video, CDs, DVDs, Power Point, and a wide range of other technologies.

Faculty Instructional Technology Workshop

The LAITS Faculty Instructional Technology Workshop offers instructional technology training designed to give faculty the skills needed to create pedagogically-sound multimedia course materials. Attendees receive a stipend for their participation in the two-week summer workshop. Workshop sessions are led by senior faculty members and experienced technical staff. Participants learn the basic elements of project management and web design, engage in discussions about technology-enhanced pedagogy, and receive hands-on training in the use of hardware and software. Instruction is designed to increase the impact of our prior investments in technology. Effective use of multimedia equipment in technology classrooms is a particular focus.

Most participants are selected through the Faculty Course Development Grant proposal process. The IT Grant Review Committee directs recipients to the workshops to receive training prior to beginning projects or recommends the workshop to unsuccessful applicants who need to learn more about using technology before applying for future grants.

Multimedia Production Services

Multimedia can engage student interest, enrich meaning by contextualizing content, and increase cognitive integration through multimodal experience. LAITS encourages instructors to be creative in use of multimedia and offers a range of multimedia development services, including:

- Graphic design
- Image scanning
- On-location audio and video recording
- Audio studio services
- Video studio services

LAITS accepts small-scale projects on a first-come first-served basis. Faculty members with larger-scale plans are given startup assistance and advice, and they are encouraged to submit proposals for Faculty Course Development Grants.

Classroom Technology Support

Liberal Arts Classrooms Project

Course technology depends on classroom technology. Faculty members only invest the extra effort to develop multimedia materials if they are certain of teaching in a properly-equipped classroom. Conversely, the ubiquitous presence of multimedia equipment in classrooms is a powerful incentive for faculty to develop new and engaging teaching methods.

LAITS is entering the eighth year of a long-term plan to install standardized technology consoles and projection systems in all College classrooms. With the newly-renovated Garrison Hall building, Liberal Arts now supports over 160 classrooms with multimedia systems — including all of our classrooms with 50 or more seats. The key to the success of our project has been the design and mass-production of standard systems — especially our Classroom Technology Consoles.

Classrooms in the newly-renovated Garrison Hall will feature our new console design. The new console design has all of the features and functionality of the old standard console — with more work space and a slimmer profile. Telescoping legs allow the work surface to be raised and lowered electronically.

In the past two years, LAITS has installed technology in 25 additional General Purpose Classrooms and 25 departmental classroom — as well as having replaced projectors, touch panels and computers in 30 classrooms with existing systems.

LAITS has also designed a new dual-projection system that uses the same equipment we have in our single-projection classroom. This development is a huge improvement in terms of cost and support of our dual-projection systems. We have built five dual-projection rooms with the new design. The functionality is identical to the old dual-projection design — but at about half of the cost.

Plans are currently underway to construct a new state-of-the-art classroom complex as part of a planned new Liberal Arts academic building on the East Mall. Standing by its commitment to teaching, Liberal Arts will reverse the recent campus trend to omit classrooms from new buildings and plans to add 23 new General Purpose Classrooms with over 1,400 total seats — as well as 20 new departmental classrooms in the facility.

Campus-wide Classroom Services

Parallel efforts — often with Liberal Arts assistance — have been underway in every college. The technology classroom program has become a model for successful, large-scale, multi-unit collaboration.

LAITS continues to assist other Colleges and units with classroom equipment design, purchasing, assembly, installation, and support services. In the last two years, we have built rooms and/or provided support for Social Work, Architecture, Education, Nursing, Pharmacy and the Law School. Past clients and partners include Natural Sciences, Engineering, Communications, Human Resources, ITS, DIIA, and others.

In 2008-9 we will continue support for other Colleges with three major projects. During Summer 2008 we will install technology equipment in 7 new seminar rooms being constructed for the new Undergraduate Studies program. LAITS will provide support for these rooms under an arrangement similar to our contracts with Social Work and Pharmacy.

Liberal Arts is also assisting with the design and installation of a new 500-seat auditorium classroom as part of the Student Activity Center to be constructed next to Gregory Gym on the site of the F11 parking lot. LAITS will provide ongoing support for all scheduled courses in the auditorium.

Finally, LAITS is working out arrangements to assist Social Work with the renovation of the Utopia Theater. Support for the theater will be added to the existing LAITS/Social Work contract.

Classroom Management

A staff of 6 full-time and 20-30 part-time student staff provide all design, upgrade, maintenance, and support services for over 160 classrooms in Liberal Arts, Pharmacy, and Social Work. Student employees provide the lion's share of classroom support. Students test classroom equipment, operate a help desk, respond to trouble calls in classrooms, and develop web-based

support materials. Through weekly meetings, students work together to set policy and plan how best to communicate with faculty. Some more-experienced students assist with classroom upgrades while others are assigned management tasks that free professional staff to focus on upgrades and maintenance. Cost for student assistants is borne partly by Liberal Arts and partly by the federal Work-Study Program.

Computer Lab Operations

LAITS and the College's academic departments operate 64 instructional computer classrooms and labs, as well as 35 labs dedicated to student research. These facilities are spread across multiple buildings on both the main and Pickle Research campuses.

Most UT students now have personal computers, reducing the need for "walk-in" labs with general-purpose computers and software. Accordingly, Liberal Arts has concentrated investment in specialized computer labs and classrooms required by specific technology-enhanced courses. Examples of these specialized facilities include:

- The Psychology Neuro-imaging Lab
- The Computational Linguistics Lab
- The Computer Writing and Research Lab <<http://www.cwrl.utexas.edu/>> used by thousands of Rhetoric and Writing students each semester
- The GIS instructional classrooms operated by Geography
- The Physical Anthropology Lab with its advanced 3D scanning and viewing equipment
- The many language instructional labs operated by Spanish and Portuguese, French and Italian, LAITS, and others

Liberal Arts continues the emphasis on specialized labs with the plans for new Anthropology facilities on the top two floors of the new Student Activity Center to open in 2010. Labs will be constructed to support Linguistics, Anthropology, Archaeology, and Museum Studies.

The College is responsible for funding nearly all computer equipment for instructional labs. Equipment for the research labs comes from many sources, including some College funds. Departments request funding for lab computers by submitting proposals reviewed by the students, faculty, and staff on the IT Grant Review Committee described earlier. LAITS handles purchasing and maximizes volume discounts by aggregating purchases and inviting other colleges and units to take part.

Historically, departmental staff members have managed most instructional computer labs — often with ITAC or Liberal Arts salary support. Growing security concerns and the development of more efficient management methods have forced the College to rethink this arrangement. As a result, LAITS increasingly assists departments with lab management — a trend we expect to accelerate.

Server Operations

Liberal Arts encourages the use of central campus servers. However, many faculty and departments require specialized applications and/or support to meet their instructional mission (*see Appendix H for a list of Liberal Arts server facilities and systems*). Innovation in instruction

is encouraged, and many departments set up their own servers as part of the development of new projects. When these projects mature and go into production, departments are encouraged to take advantage of the managed server facility in Mezes Hall – where a team of system administrators manages the facility, provides web and application hosting, server co-location, and support services to servers administered by departmental staff.

Liberal Arts departments request funding for servers by submitting proposals reviewed by the students, faculty, and staff on the IT Grant Review Committee described earlier. Whenever possible, equipment is procured during an annual, college-wide bulk purchase.

Network Operations

Campus networks are used for the delivery of course materials, communication between students and faculty, administration of courses and programs, and nearly every other instructional function. To keep up with the demands of new uses and new technologies, networks are in constant need of upgrade. The College of Liberal Arts has complete financial and management responsibility for the networks in 18 University buildings and for substantial parts of the networks in 8 other buildings (*see Appendix I for detailed roadmap of the Liberal Arts networks*). College managers work with ITS to plan upgrades in accordance with campus standards, while LAITS staff do most of the day-to-day management, patching and equipment installation.

Security

Liberal Arts relies upon the central ITS Security Office (ISO) for recommended network security practices and procedures. LAITS acts as a conduit between the ISO and the departments by providing information to desktop support personnel, assisting them with identifying insecure hosts, and remediating compromised departmental computers. Recent security mandates and recommendations by the Texas Legislature, UT System, and the University have required the College to take a more active role in maintaining the security of its computer systems. In the last year, Liberal Arts completed the Information Security Office Risk Assessment (ISORA) and required a remedial scan for Social Security Numbers across all of its computer systems. These college-wide initiatives, as well as select Internal Audit reports, have helped Liberal Arts identify areas requiring remediation or attention. Working with the ISO, Liberal Arts has developed plans to improve the security in several departments, as well as across the College as a whole.

1.3 Infrastructure

The College of Liberal Arts and its 50+ departments, centers, and programs maintain technology infrastructure in over 30 campus buildings.

Web and Multimedia Development Facilities

The web and multimedia development suite in Mezes Hall consists of the following facilities:

- The Development Studio for web development and multimedia post-production

- The Recording Studio for audio recording and post production
- The Video Studio for studio-based video production
- Development Lab for an STA workplace and walk-in assistance for faculty
- ITS Scanning Center and Media Store for assisting faculty members with scanning and digitization of instructional materials; checkout of projectors, laptops, cameras, and digital recorders; and production and distribution of course materials on CD and DVD

Smart Technology Classrooms

Liberal Arts is in the final stages of its classroom technology upgrade project. Although our designs have evolved over time, we maintain 4 basic standardized types of classrooms: multi-screen auditoriums, single-screen console-equipped classrooms, seminar-style rooms with equipment integrated into the central meeting table, and computer classrooms with personal computers stationed at every student seat. Table 1 provides a summary of the classrooms upgraded and supported by the College of Liberal Arts. (See Appendix J for a list of Technology-Enhanced Classrooms.)

TABLE 1: SMART TECHNOLOGY CLASSROOMS BY TYPE

<i>Classroom Type</i>	Seminar	Single-Screen	Multi-Screen	Computer Classroom	<i>Total</i>
	18	118	7	19	162

In addition to our classrooms, Liberal Arts maintains 2 classroom support facilities which house support staff who impact a significant number of students:

- **LAITS Help Desk in Flawn Academic Center** — From this central location a team of students and one full-time supervisor answer trouble reports by phone and email and dispatch student technicians to assist users
- **Classroom Shop and Assembly Facility in Mezes Hall** — Three full-time staff with student assistants handle all system design, construction of technology consoles, and receiving and warehousing of all newly-purchased equipment

Computer Labs

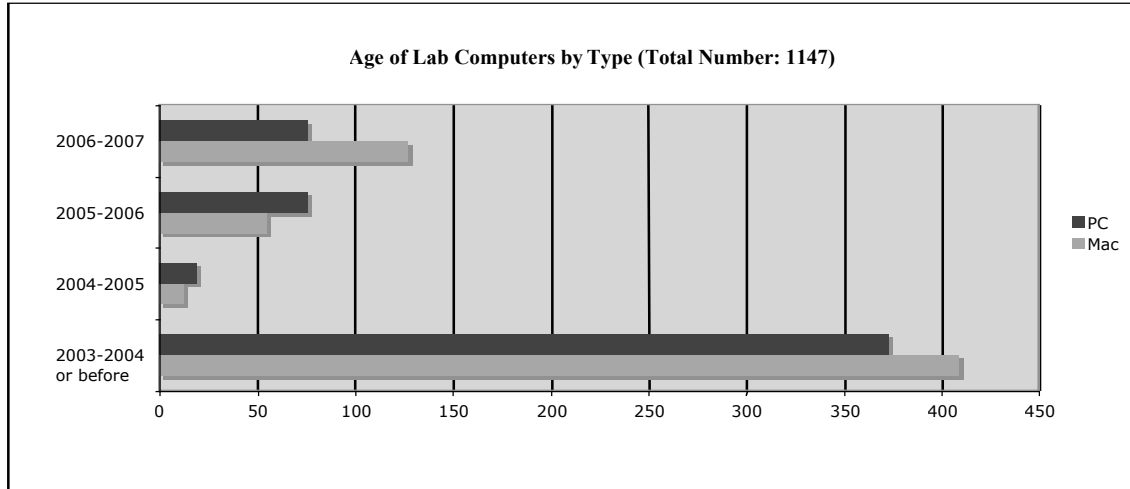
Table 2 provides details on the types and sizes of Liberal Arts Computer labs.

TABLE 2: INSTRUCTIONAL COMPUTER LABS BY TYPE AND NUMBER OF SEATS

<i>Lab Type</i>	Under 20 Seats	20 to 30 Seats	Over 30 Seats	<i>Total</i>
Classroom	7	16	3	26
Walk-In	35	2	1	38
Total	42	18	4	64

Liberal Arts instructional labs have approximately equal numbers of Macs and PCs. About half of all lab computers were purchased in FY 2003-4 when the new South Mall labs were equipped and the Computer Writing & Research Lab (CWRL) replaced aging computers. Two-thirds of our lab computers were purchased in 2004 or before and *will be four years old by the end of Summer 2008!*

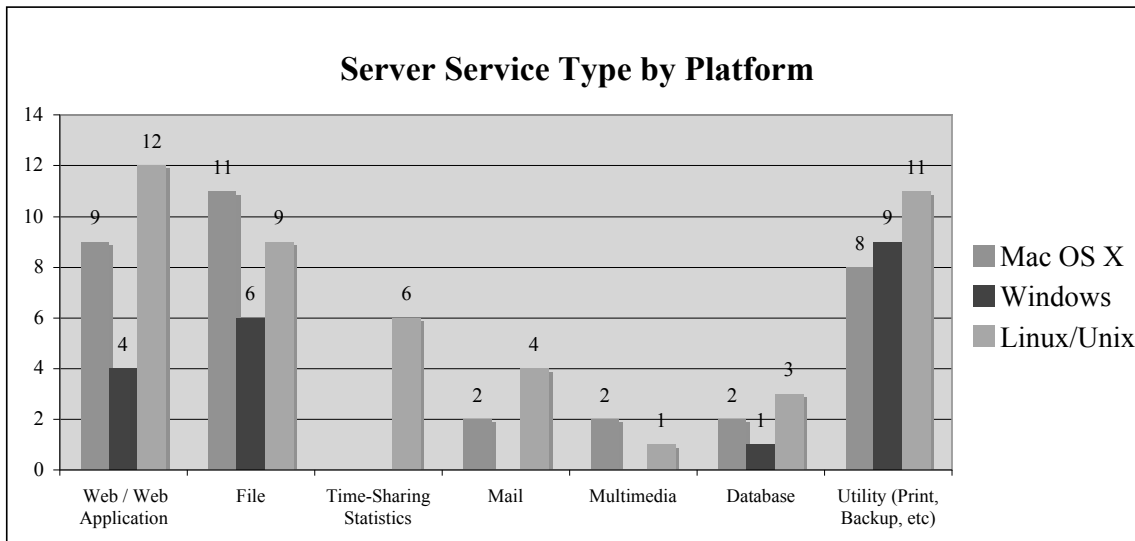
CHART 1: AGE OF LAB COMPUTERS



Server Facilities

Liberal Arts departments currently operate 100 servers with the majority being Linux/Unix systems — followed by Mac and Windows systems. Chart 2 details the usage of these servers by primary Service Type and Platform.

CHART 2: SERVER SERVICE TYPE BY PLATFORM



(See Appendix H for a full inventory of Liberal Arts server types, functions, and facilities.)

Wireless and Physical Networks

See Appendix I, table 5, for details of Liberal Arts Network physical and wireless infrastructure.

Security of Facilities and Equipment

Liberal Arts has actively participated in conversion of legacy physical security systems to the Building Access Control System (BACS). As a rule, all computer labs and technology classrooms are secured with Fiber Optic Loop Article Protection systems.

1.4 Current and Proposed Funding Sources for IT Programs and Infrastructure

ITAC allocations and income from flat-rate tuition account for all funding for Liberal Arts Instructional Technology programs in 2007-2008.

Funding Source	2007-2008
Flat-Rate Tuition	\$2,559,507
ITAC Recurring Infrastructure	\$639,256
ITAC One-Time Project Allocation	\$1,146,976
ITAC Recurring Joint Projects	\$59,000
ITAC One-Time Projects	\$105,000
Total	\$4,509,739

1.5 Best Practices

Planning New Building Technology

College and departmental technical staff responsible for installing equipment often are not included in new building and renovation planning until a late stage in the design and construction process. The resulting mistakes have cost the University millions of dollars. SEA and ACES are two recent cases where technology installations were expensively redesigned at the last minute or equipment was replaced soon after the facility opened. Liberal Arts now involves technical staff in every stage of building planning, design, and construction. The appropriate staff members review design documents, attend weekly project meetings, and are integral parts of construction teams. This practice has greatly increased the return on investment in the South Mall and Garrison renovations, and it will pay dividends in the new Student Activity Center and the new Liberal Arts Building.

Centralized Management of Technology Projects

LAITS has developed a set of formal practices and roles for management and administration of technology. Each project is also assigned a project manager charged with:

- 1) supervising the progress of the project
- 2) consulting with grantees/clients on design and technical questions

- 3) ensuring that appropriate equipment and technology are available both to faculty and the content and technical producers working on the project, and
- 4) exercising ground-level management to ensure the project's progress and cost-effectiveness.

Project managers are experienced LAITS development staff assigned on the basis of their area of expertise. Each project also gets a producer — a senior member of the LAITS staff — who assigns resources for the project, troubleshoots administrative problems, and oversees the project's progress.

LAITS administrative staff handle purchasing, appointments, and financial reporting, while simultaneously providing administrative support for the producer, project manager, and faculty client. These tasks were previously handled by the faculty members and their respective departmental staff. Centralization of responsibilities not only frees faculty to focus on teaching and preparation of instructional content, but it also increases the productivity of departmental administrative staff by allowing them to focus on more familiar, non-technology responsibilities. Central bulk purchasing and improved financial oversight save the College thousands of dollars each year.

Central Co-location and Hosting

Liberal Arts encourages faculty members and departments to innovate with instructional software, application servers, and server hardware configuration. When applications go into production or become mission critical, LAITS recommends that applications be moved to LAITS professionally-managed, enterprise-class servers — or that dedicated server hardware be moved to the LAITS data center in Mezes Hall.

Hardware Cost-per-year Budgeting

Historically, a large proportion of College instructional computers have been purchased during building, lab, and classroom renovations. This results in wildly different size generations of computers and huge variations in yearly replacement costs. Planning and budgeting have been complicated, and the College has had only an imprecise notion of the actual yearly cost of owning its computer inventory.

LAITS is now beginning to budget computer costs for labs, classrooms, and other instructional applications on a hardware cost-per-year basis. Departments, faculty, and lab and classroom managers are allocated \$250 to \$400 per year for each computer and must stay within that budget. For example, a lab manager allocated \$300/year could decide to purchase \$900 computers and replace them every three years — or purchase \$1500 computers and replace them every five years. The amount allocated varies according to the needs of the application. When this cost-per-year model has been fully adopted, Liberal Arts will be able to accurately calculate the true annual cost of its computers, providing a solid basis for long-term budget planning.

Leveraging ITAC to Attract Outside Grants

For years Liberal Arts has sought to multiply ITAC dollars by seeking outside funding for Vision Plan projects, especially those with both instructional and outreach components. Significant successes include Texas Beyond History <<http://www.texasbeyondhistory.net/>>, the Archive of

Indigenous Languages of Latin America <<http://www.ailla.utexas.org/>>, the Texas German Dialect Project <<http://www.tgdp.org/>>, and eSkeletons <<http://www.eskeletons.org/>>.

We feel that the current budget climate places us under an obligation to redouble our efforts to find new sources of support for instructional projects. In 2007, LAITS began aggressively seeking federal and foundation funding to expand the impact of ITAC funding. All Strategic Development Projects are being analyzed for outside funding potential, and all Liberal Arts Faculty Course Development Grant recipients are encouraged to submit proposals to appropriate public and private grant programs. LAITS staff are leading the effort to research opportunities and submit funding proposals, including the following in the past 12 months:

- 4 to the National Endowment for the Humanities (NEH)
- 3 to the Department of Education (DOE)
- 2 to the MacArthur Foundation
- 1 to the Texas Bar Foundation

Two were funded — most notably, a DOE FIPSE (Fund for the Improvement of Post-Secondary Education) award for the Texas Language Technology Center in the amount \$545,154. Two were declined, and six are still pending. We plan to further increase the rate of applications over the next two years.

Modular Design for Classroom Technology

LAITS is committed to the development of modular designs for classroom consoles. Such design — which continues to evolve as funding for new hardware and software becomes available — allows most equipment to be integrated into consoles in a mass-production facility, and then be quickly installed in the classroom. Modular design minimizes labor cost and allows equipment modules to be easily removed from the console, thereby simplifying maintenance. The improved cable management also greatly reduces failure and cuts support costs.

Re-granting ITAC Funds with Centralized Administration

Historically, Vision Plan project proposals were prepared by central College staff on behalf of departments and faculty in a more or less ad hoc manner. This placed decisions on project funding in the hands of staff, rather than students and faculty. The alternative was to include project details in the Vision Plan for review by the ITAC. But for a college the size of Liberal Arts, the inclusion of faculty project details meant that Vision Plans were hundreds of pages long.

Funding lag was also a serious problem. Since Vision plans are completed in the Fall preceding the funding year, projects had to be planned a year before funding. Worse, the many technology projects to be completed over the summer had to be planned and proposed 18 to 20 months before funds became available.

For the past six years, Liberal Arts has addressed these problems by holding a re-granting competition for faculty and department technology projects. (*See the discussion of Faculty Course Development Grants in section 1.2 above.*) The students, faculty, and staff on our IT Grant Review Committee — some of whom are also ITAC members — assure that funding decisions are properly vetted and that funds are available in a timely fashion.

Web-based Graphical User Interfaces (GUIs) for Undergraduate Research

Research data that requires extensive manipulation and research software that requires complex scripting or programming are effectively inaccessible to most undergraduates in the context of a semester-length course. LAITS supports the development of instructionally-oriented, web-based GUIs for data analysis software and research data whenever possible. These GUIs provide access to software and data for non-programmers among students enrolled in Liberal Arts courses and the world at large.

Sharing Volume Pricing

Liberal Arts continues to invite smaller units to participate in volume pricing generated by its large, systematic bulk purchases of technology equipment and software. Over the past 8 years, this practice has saved the University — especially ITAC budgets — many hundreds of thousands of dollars.

Student Developers

Student technology assistants have historically been assigned to faculty members on a one-to-one basis, with the faculty member being responsible for planning and overseeing the students' efforts. Projects languish if the faculty member is either inexperienced in managing developers or simply too busy. And, if the student does not possess the necessary skills or the project is not finished when the student's limited tenure is over, then the faculty member must look elsewhere for help. As a result, most instructional technology projects are never fully completed and many are of little or no value.

With the Student Technology Assistant (STA) program, LAITS has improved upon the traditional 'research assistant' model for student developers. STAs work as specialists on team projects under the supervision of professional staff — essentially, as part-time members of the LAITS development staff. Projects are managed by full-time staff who assign tasks to STAs based on their skills and experience. STAs may specialize in HTML and CSS, art and design, video production, Flash, database programming, or any of a number of other technologies. While simple projects may be completed by a single STA, complex ones may employ a large number. When STAs graduate, others step up to continue the work on incomplete projects.

STAs spend their working hours in the Development Lab where professional staff and other STAs are always available to lend a hand. This fosters a sense of camaraderie that makes working as an STA a valuable and satisfying experience, and makes STA-staffed projects a pleasure for faculty members. (See <<http://www.laits.utexas.edu/its/stamovie.mov>> for a short video about the STA project or visit the STA webpage at <<http://www.laits.utexas.edu/sta/>>.)

2. USE OF PREVIOUS ACADEMIC YEAR ALLOCATIONS

2.1 Infrastructure

In 2006-2007 Liberal Arts received \$639,256 in funding for recurring infrastructure. These recurring funds were distributed to Liberal Arts departments with \$292,415 used for staff salaries and \$346,841 used for Maintenance, Operations, and Equipment.

TABLE 3: 2006-2007 RECURRING INFRASTRUCTURE EXPENDITURES

Expenditure Type	2006-2007 ITAC Recurring funds
Departmental Staff Salaries	\$292,415
M, O & E	\$346,841
Total	\$639,256

2.2 Projects

The 2006-2007 Liberal Arts Vision Plan requested \$1,935,000 for our five project areas and was awarded \$1,310,976 in project allocations. As Table 4 shows, LAITS allocated \$1,659,747 of funds to these programs. (*See Appendix A for additional details.*) The FY 2006-2007 expenditures exceeded award allocations due to monies from the previous year that were encumbered and carried forward from FY 2005-2006 for the technology classroom upgrades in the Garrison Hall renovation.

TABLE 4: 2006-2007 PROJECT RELATED EXPENDITURES

Expenditure Type	2006-2007	2006-2007
	ITAC Request	ITAC Expenditures
Course Development	\$740,000	\$717,884
Classrooms	\$505,000	\$649,102
Computer Labs	\$350,000	\$221,788
Servers	\$50,000	\$57,755
Networks	\$290,000	\$13,218
Total	\$1,935,000	\$1,659,747

This includes the ITAC One-Time Project Allocation, Recurring Joint Projects, and One-Time Joint Projects.

3. NEEDS AND PROPOSED USE OF FUNDS

3.1 Non-recurring Project Funds

TABLE 5: TOTAL 2008-2009 REQUEST FOR NON-RECURRING PROJECT FUNDS

	2008-2009	2008-2009	2008-2009
TOTALS	ITAC Request	Liberal Arts Funds	Total ITAC & Liberal Arts
Course Development	\$720,000	\$541,432	\$1,261,432
Classrooms	\$400,000	\$447,036	\$847,036
Computer Labs	\$400,000	\$234,410	\$634,410
Servers	\$50,000	\$185,742	\$235,742
Networks	\$236,000	\$176,063	\$412,063
TOTALS	\$1,806,000	\$1,584,683	\$3,390,683

Course Development

Cost: \$1,261,432

ITAC Request: \$720,000

Liberal Arts will continue to emphasize development of network-delivered, multimedia course materials. Our Course Development request of \$720,000 for 2008-2009 includes:

Student Technology Assistants (STAs)	\$90,000
Faculty IT Workshop	\$30,000
Strategic Development Projects	\$200,000
Faculty Course Development Grants	\$400,000

Student Technology Assistants

The STA project is one of our most successful programs to date. STAs, faculty clients, and students enrolled in Liberal Arts courses all benefit. In 2008-2009, LAITS hopes to expand the number of STAs to match growing demand. STAs will perform an even bigger share of instructional multimedia and web development. They will continue to work closely with LAITS staff on major projects and lend support to faculty on a first-come first-served basis in the Development Lab. See <<http://www.laits.utexas.edu/its/stamovie.mov>> for a short video about the STA project or visit the STA webpage <<http://www.laits.utexas.edu/sta/>>. We request \$90,000 in ITAC funding for student wages.

Faculty Instructional Technology Workshops

In Summer 2008 — keeping with its goal to leverage ITAC dollars — LAITS will add sessions on grant procurement to its popular and effective Faculty Instructional Technology Workshop. Attendees, who receive a stipend for participation in the workshop, will be encouraged to submit a proposal for outside funding within 18 months of the completion of the workshop. Professional grant procurement staff will be on-hand during sessions and available afterwards to assist with research, writing, and submission. The workshop will continue the technology boot-camp format with some public sessions open to any faculty member who wishes to attend. We request \$30,000 to support the workshop in 2008-9.

The Colleges of Liberal Arts and Fine Arts will submit a joint proposal to greatly expand the program in size and scope in fiscal year 2008-9. In Summer 2007, a number of Fine Arts faculty attended the workshop in an experiment to both enrich the workshop sessions and broaden the impact of the program. The experiment was an unqualified success. Faculty from both colleges benefited from lively discussions and new perspectives. Liberal Arts and Fine Arts will continue this collaboration at current levels in Summer 2008 and beyond. The proposal for an expanded workshop in 2008-9 will be submitted under separate cover.

Strategic Development Projects

The following are descriptions of selected Strategic Development Projects that align with our goals for 2008-9:

OPERA/LASSO Integration

The *Online Psychology Experiment and Research Application (OPERA)* will be fully integrated with our Liberal Arts Survey System Online (LASSO). This will provide Psychology students seeking to satisfy their research subject requirement a one-stop, online location where they can complete a pre-test, register as experimental subjects, and complete their participation in the experiment.

Middle Eastern Studies Digital Scholarship Initiative

The Department of Middle Eastern Studies has undertaken a major initiative to develop top-ranked language programs, including a series of world-class instructional web projects in Persian, Arabic, and Hebrew language and culture. Together, these programs and applications are creating a foundation for a better understanding of the complex interdependence and vast diversity of contemporary Middle Eastern cultures. This effort has been recognized through the award of Defense Department Flagship Program designations in Arabic and Persian. ITAC funding support and assistance from LAITS are critical components of this program.

Texas Language Technology Center

In Fall 2006, Liberal Arts launched the **Texas Language Technology Center**, a hub for the further development of comprehensive, media-rich, language instruction web sites for use in the College's large and numerous language programs. Rich, relevant, and high-quality audio/visual materials are essential to illustrate the subtleties for language learners. Making these materials available online provides cost-effective access for students and allows professors to more easily customize items for their own specific uses. This center also promises to foster a community of language scholars and disseminate materials and best practices throughout the University.

DASE – Digital Archive Service

DASE will continue to be a priority strategic project as it becomes a key infrastructure element for the whole campus. Several new collections have been added from departments both in and outside of Liberal Arts. Visit *DASE* <<https://dase.laits.utexas.edu/>> to see a complete list of public collections. A joint proposal by Liberal Arts, Fine Arts, and DIIA for further development of *DASE* will be submitted under separate cover.

We request \$200,000 in ITAC funding to continue these and other important strategic projects.

Course Development Grants

Our re-granting program continues to be the mainstay of our course development effort. Liberal Arts faculty members and departments eagerly anticipate our Call for Proposals and plan their technology efforts around the annual proposal/review/award cycle. Recipients in 2008-9 will be encouraged to work with LAITS staff to pursue additional outside funding. We request \$400,000 in ITAC funds to continue this vital program.

Technology Classrooms

Cost: \$847,036

ITAC Request: \$400,000

Our Vision Plan for 2008-2009 includes 4 primary classroom initiatives:

1. Completing the classroom upgrade project
2. Replacement projectors and computers
3. Enhanced faculty support
4. Classroom audio recording and podcasting systems

Completing the Classroom Upgrade Project

In 2008-2009 Liberal Arts proposes to complete the process of upgrading all General Purpose Classrooms and departmental classrooms with appropriate technology. As we approach completion, faculty have become increasingly eager to see all classrooms properly equipped. Faculty who use our technology classrooms are exposed to powerful new teaching tools. The only way to assure faculty that the effort is worthwhile is to finish the process of upgrading all of the rooms.

To this end, by the end of Summer 2009, we plan to upgrade the 27 remaining non-technology General Purpose Classrooms located in Liberal Arts buildings. (*See the Summary section of Appendix J*). We will continue to minimize the ITAC cost of necessary classroom infrastructure work such as electrical upgrades, hazardous materials abatement, painting, security installation, and lighting, by coordinating with building renovations and other facility projects.

Replacement Projectors and Computers

While most of the equipment in technology consoles will serve for many years, projectors and computers must be replaced every 4-6 years. Liberal Arts proposes to use ITAC funding to replace 80 computers and 30 projectors in 2008-9.

Enhanced Faculty Support

In 2008-9 LAITS proposes to launch a major effort to further improve support for faculty teaching in our technology-equipped classrooms. Phones will be installed in classrooms to ease direct communication between instructors and support staff, our problem tracking and response software will be improved, and we will work with other colleges to implement a single phone number for all classroom support requests. We also plan to redesign our computer software imaging system and setup a dedicated test lab for computer images and equipment.

Classroom Audio Recording and Podcasting

Video recording of class sessions has been the subject of much discussion in recent years. LAITS believes that video cameras, distribution equipment, and servers are prohibitively expensive — and will be for some time to come. This is certainly true in the current budgetary climate. Audio

recording with delivery by podcast, on the other hand, is much less expensive. Existing technology-equipped classrooms already have most of the necessary equipment, and podcasting server technology is both inexpensive and simple to deploy. In 2008-9, Liberal Arts proposes to partner with other Colleges and units to begin the deployment of audio podcasting capabilities in all of our larger classrooms. A joint proposal for this project will be submitted under separate cover.

Computer Labs

Cost: \$634,410

ITAC Request: \$400,000

Liberal Arts does not currently plan the addition of new computer labs in 2008-9. However, two thirds of the computers in our 64 existing instructional labs will be four or more years old by the beginning of the 2008-9 fiscal year. These machines must be replaced. Among others, we urgently need to replace 100 computers in the award-winning Computer Writing & Research Lab (CWRL) and an additional 100 computers in the Spanish Language Lab used by the 3,000 students in lower-division Spanish each semester. Both of these labs support large service courses and are heavily used by students from all over campus. We also propose to replace approximately 200 computers in a variety of smaller labs. We request \$400,000 in ITAC funds toward the purchase of these 400 new computers in 2008-9.

Servers

Cost: \$235,742

ITAC Request: \$50,000

Liberal Arts has continued to consolidate services from individual installations around campus into the central LAITS server facility. Upgrading obsolete servers and compliance with the security mandates from UT System and the Information Security Office (ISO) will necessitate some hardware and software upgrades throughout Liberal Arts server facilities.

Networks

Cost: \$412,063

ITAC Request: \$236,000

Liberal Arts has network projects plan in four major areas for 2008-2009. (*Appendix I shows detailed network upgrade plans for the next several years*).

Network Security Hardware

The installation of a firewall security module in the Seay Building is a priority for 2008-2009. This module will provide Psychology Department, the Center for Perceptual Systems, the Children's Research Lab, and other units with an additional level of network security, protecting private data collected from students and experimental subjects.

Wireless Expansion

Liberal Arts has steadily increased the wireless coverage in its buildings, placing priority on buildings with large numbers of classrooms — such as Burdine Hall, Parlin Hall and Ralph A. Steindam Hall. Our goal is to continue to aggressively expand this wireless coverage, providing full coverage in all primary buildings in 2008-2009 — and complete coverage in all buildings the following year.

Equipment Life Cycle Replacements

Finally, several of our buildings — notably Seay and Jester 'A' building — will require updates to their gateway and leaf switches in order to achieve current minimum standards of network performance. The replacement of the obsolete 2948G series of distribution switches is another priority.

Network Cable Upgrades

In 2008-2009 we will complete the conversion of all our major buildings to Category 5E network cables. Liberal Arts has standardized on Category 5E for its network cabling infrastructure and believes that this standard will provide solid performance for several more years. Future technology, however, will eventually require re-cabling to support higher network bandwidth.