Georgia Tech | Library and Information Center

2001-2006: Strategic Achievements

"Creating a better educated graduate for Georgia"

The Georgia Tech Library and Information Center aspires to be a great facility for student learning. In the coming years, the Library expects to profoundly enlarge, remodel, and reprogram its facilities. The Library transformation began five years ago as a series of ongoing experiments that reveal compelling data and unanticipated success, largely centered in a learning commons and a digital repository. The latest experiments launched in 2006 intend to extend this transformation leading to development of a major building addition.

Colleges and universities frequently fail to provide compelling learning spaces. The good news is that libraries are logical entities to fill this gap. Learning commons, if thoughtfully conceived and nurtured, readily become epicenters of student learning and suggest the next steps needed in library transformations and partnerships.

In order to create compelling learning spaces, library leadership must sustain meaningful dialogue with students, faculty, and others who care passionately about learning outcomes. Students who are asked to comment on their learning needs consistently mention secure and inspiring spaces that qualify as neutral ground, imbued to refresh mind and body, with active and quiet zones, and with robust technology and expert guidance. They want to see and be seen in the act of learning. Students report that academic libraries are logical destinations for their productive output, academic socializing, critical commentary, and presentation rehearsal.

Libraries pushing the student learning agenda frequently seek partnerships with other campus agencies for which student recruitment, retention, and success are paramount. Observing how students learn, one recognizes the importance of just-in-time tutoring, instruction, and intervention, and of providing highly skilled assistance with emerging technologies and software applications loosely referred to as multimedia.

We intend with this report to inform you on five years of progress and to convey our sense of direction for the future as we draft a new strategic plan. We welcome your reactions, observations, and questions.

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MISSION

The Georgia Tech Library and Information Center is a creative partner and essential force in the learning community and in the Institute's instructional, learning, and research programs. The Library plans, develops, and implements programs to provide expert staff, information, learning resources, and information competencies to students, faculty, and staff and selected services to off-campus clients. Using appropriate technology, the Library delivers resources to satisfy information needs, promote lifelong learning, and create productive connections for the scholarly community.

FIVE YEARS OF TRANSFORMATION

The Library and Information Center of the Georgia Institute of Technology reports here on its progress in the first five years of the twenty-first century. This period of time encompasses the most robust shift in methods applied to teaching and scholarship perhaps ever. Once characterized as a building full of books, today this Library proves more to be the portal to digital resources and a place for convergence of human interaction. The rapid advancement of computer technology brings with it ubiquitous networking among scholars at all levels. That networking produces immense opportunities for better intellectual sharing among faculty and for enhanced collaboration among students. This Library's programs over the past half-decade shifted strategically to optimize the opportunities that omnipresent networking makes available.

   For research scholars, the Library expanded access to intellectual output from others by 150 percent through purchase of electronic information resources. Simultaneously, the Library serves those resources to this clientele increasingly over network connections. While this shift makes it possible to provide access to the research published in traditional venues more effectively, other programs of the Library accelerate the opportunity for broadening the media used to deliver research results of the campus and to greatly expand their availability to colleagues at other campuses. That agenda reveals itself most through our digital repository, which grew to more than 8,000 items in little more than two years, producing more than 1 million hits and 500,000 downloads in its second year. Similar success with instructional support appears in Library work directly incorporating student engagement.

   Along with major efforts to shift the delivery of content to digital platforms, the Library established effective communications and advisory links directly with students. Today, all the public services programs of the Library are driven by the philosophy that student success—measured perhaps best by retention—is the foremost consideration applied to our programs. For the past five years, the Library administration, with collaborative support from the Office of Information Technology (OIT), worked assertively to bring student needs and issues to the table. The programs and outreach of the Library subsequently focused heavily on those needs and issues. The two annual awards received by the Library from the undergraduates for our efforts attest to the success of this agenda.

   The remainder of this publication extends and elaborates on these and the many other successes of the Library over the past five years.

SERVICES

Objective: Enhance and expand customer-centered services at all levels to enrich research, teaching, and learning.

- Established productive collaborations and partnerships with OIT, CETL, DLPE, Tutoring, and Advising;
- Aligned strategically with Association of Southeastern Research Libraries (ASERL) and with the major Georgia campuses of Emory, UGA, GSU, and the Medical College of Georgia;
- Implemented a twenty-four-hour operation from Sunday noon through 6:00 p.m. Friday and 9:00 a.m. to 6:00 p.m. Saturday;
- Staffed at all times with professional librarians or other specialists with appropriate skill sets relevant to student needs;
- Engaged assertively with undergraduate leaders to shape our programs and formally implemented a student advisory group that meets regularly with Library leadership;
- Enhanced public outreach efforts with new advertising campaign;
- Implemented online delivery to the desktop of interlibrary loan facsimiles and article photocopies;
- Dropped fees for printing from Library-installed computers, as well as from interlibrary loans and overdue fines;

- Increased annual user door count from 470,000 to 890,000 with the advent of the Library West Commons;
- Began producing electronic, online journals with *Information Technologies and International Development*, edited by Michael Best of the Ivan Allen College;
- Began engaging faculty in scholarly communications changes, alternate publishing methods, and copyright issues in support of scholarly productivity and dissemination; and
- Provided technical leadership and hosting for the University System of Georgia universal catalog with Web enhancements, online interlibrary loan, digital-based document delivery, and online electronic reserves.

The Library West Commons (LWC) opened in August 2002 as our initial attempt to better meet student needs and as an experiment to inform future building planning. LWC provides students with productivity and multimedia workstations, enhanced by skilled information and technology assistance. Students voted it "the best computer lab" on campus, and undergraduates voted the Library the "best place to study" on campus. These endorsements demonstrate a successful outreach to undergraduates in collaboration with OIT and the Center for the Enhancement of Teaching and Learning (CETL).

Implemented in January 2004, the Presentation Rehearsal Studio was booked by students as much as twenty-four hours a day. Especially important to instruction, this facility replicates the technology found in Georgia Tech classrooms.

We understand that the LWC contains important lessons for both the Georgia Tech Library and for other academic libraries in the country. In the last four years, we hosted academic librarians from across the country, curious to learn from us before they commit to their own commons installations. Library leadership accepted invitations to address twenty groups of librarians and technologists from member libraries of the Association of Research Libraries (ARL) and more than fifty other library and architect groups to tell the Georgia Tech Library story. In addition, presentations have been made at eight conferences/symposia as well as three university library consultations. Audiences are struck by the Georgia Tech Library's ability to create compelling learning spaces for students, to manage a deep and genuine partnership with OIT, and to provide aggressively for technology skills for our bright students with exceptional multimedia training, assistance, and round-the-clock staffing by informed and dedicated Public Services and OIT staff.

Another collaborative effort is the OIT/Library Resource Center comprised of student computing support, academic advisement, and 1-To-1 Tutoring,

which opened in spring 2006. Its goals are to provide student-focused, centrally supported, one-stop services in a flexible space. Some of the services of this OIT walk-in support component are to help students, faculty, and staff with computer account activation, password management, wireless network connection set-up, and spam filtering.

As the third phase of the experimental group spaces, the Library and OIT developed the Library East Commons (LEC), which opened in August 2006. The LEC includes high-tech group computing facilities, student-friendly study spaces, a performance theater, a café, and display areas for representations of student research and art. In some measure, this space meets demands that emerged subsequent to implementing the LWC, but additional imaginative components being installed here will contribute to the development of new ways to enhance instructional success. Student leaders participate assertively in the development of these facilities.

In addition to in-person service, the Information Services Department provides assistance via e-mail and online chat. Additionally, the Library extends its hours to 24/7 during the final three weeks of each semester. The Library's Public Relations/Marketing Group effectively promotes the Library's services and resources with new initiatives including T-Paper (a monthly restroom newsletter), a successful faculty lecture series called Tuesday Talks, and posters featuring student athletes to promote the Library. The Library Welcome Back event, President's Scholars tours, FASET Marketplace, FASET tours, Graduate Expo Housing Resource Fair, and RATS Week fun night comprise additional efforts to engage with students.

The Library engages Georgia Tech students in collaboration with other campus components by teaching information literacy skills in many forums including: Women in Engineering Technology, Engineering and Computing Camp, OMED's Challenge Program, and the Counseling Center's Teen Works. Other campus involvement includes a Library-organized voter registration drive in 2004 and librarian participation in Freshman Partners, a mentoring program. Combined, these efforts produced a sustained doubling of the Library's door count since August 2002.

INSTRUCTION

Objective: Expand instruction and training programs for students, faculty, staff, and alumni to provide competencies for navigating the Internet and finding, filtering, evaluating, and using information effectively.

- Instructed 13,220 students in 694 sessions on various Library tools and methods;
- Instructional programs conducted by CETL now take place regularly in the Library;
- Partnered with DLPE, CETL, and OIT to provide student instruction via the Tegrity course capture system;
- Teaching assistants from the Colleges of Engineering and Computing use the Library's LWC consultation cubicles to tutor, including teaching MATLAB proficiency; and
- Campus' centralized tutoring office established a new permanent location on the Library ground level.

Analysis of student observations gathered in work sessions by OIT and the Library Public Services division show that several factors bear on the opportunity for the Library to positively affect student instruction. Strong evidence from these conversations reveals a decided reluctance on the part of students to seek tutoring support in any building other than one as neutral as the Library. This is particularly true of students who take required courses outside their major and who do not feel comfortable seeking help in their non-major facility. Even the most assertive students can be intimidated by unfamiliar surroundings. Library staff recognize that getting students into the building at least one time, even on purely recreational pretenses, overcomes their apprehensions. The game night at the beginning of the fall semester accomplishes this agenda.

Formal instruction increasingly focuses on providing support for undergraduate education, a campus-wide priority, and on customized classes and instruction as we endeavor to move from an "instructional model" to a "learning model," emphasizing "information competencies for lifelong learning." Subject librarians also spent a substantial number of hours in individual consultations with students and faculty as well as on further outreach through office hours in campus units. Subject librarians also teach as many sections of GT 1000 as all but one other department on campus, in addition to contributing sessions on research to many other GT 1000 classes.

Experience over the past five years, combined with systematic assessment via surveys and interviews, reveal a substantive need for undergraduate instructional support outside the classroom. Faculty testify to long e-mail and network interactions at late hours with many students. For the Library, the sustained demand for twenty-four-hour access and collaborative service delivery by both OIT and the Library together clearly demonstrate the modern needs of students.
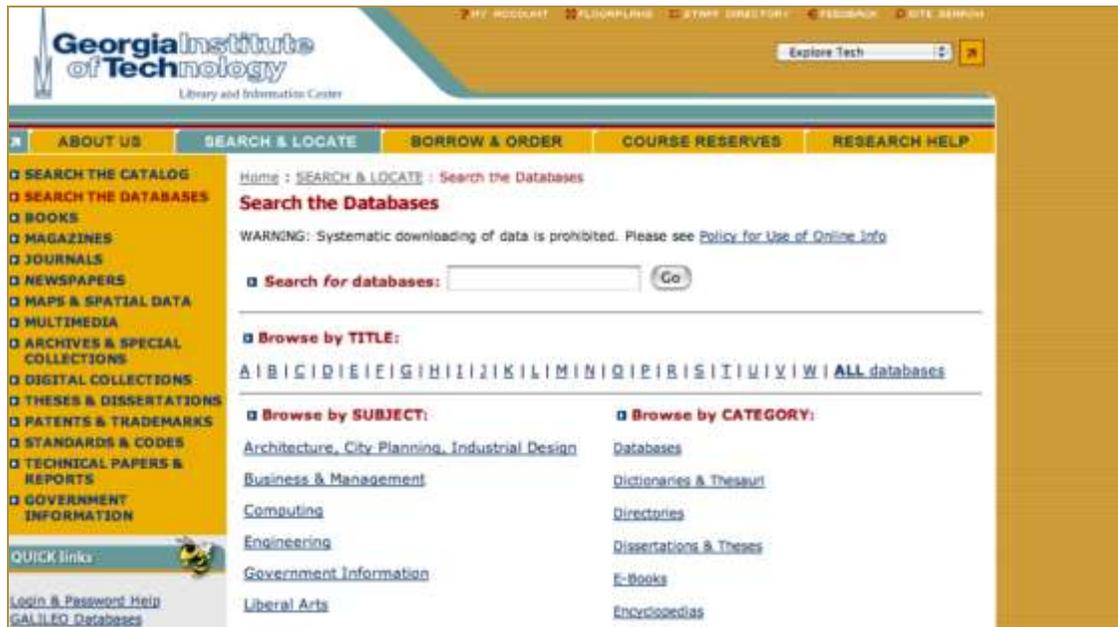
RESOURCES

Objective: Select, acquire, organize, preserve, and assess information and learning resources appropriate to Georgia Tech's mission and programs in cooperation with local university libraries and informed by the academic needs of our campus constituents.

• Implemented mission-critical delivery of digital content to the desktop and to improved accessibility for students, faculty, and staff;

• Implemented a substantial software upgrade called SFX to systematically link online index search results to the full-text content available;

• Contracted with vendors through several consortia to improve access to journals and to increase journal subscriptions by 50 percent to 26,068 titles;

• Systematically and completely reviewed serials subscriptions in 2003 and 2006 with input from faculty to focus as effectively as possible on the journal content most needed by students, faculty, and researchers;

• Absorbed the services, staff, and collections of the library of the Institute for Paper Science and Technology (IPST) into our overall operations;

• Integrated the use of software support from EndNote ™ with resources provided by a grant from the Student Technology Fee;

• Provide online catalog access to government publications, unlike most academic institutions;

• Added more than 100,000 electronic items to the cataloged collections available online; and

• In 2006, exceeded the 4 million level of cataloged resources offered to our clientele.

Traditionally, academic libraries collected print resources and organized them systematically in support of faculty research and student study. Resources were generally acquired to match the selection requests of faculty. General-purpose materials related to the instructional mission were acquired to support undergraduate instruction. Delivery of these traditional resources supporting user needs required physical access to a library building. To mitigate time constraints on users, the Georgia Tech Library focused on delivery to the users' offices to the greatest extent possible. In most cases, books were identified remotely by faculty and, following telephone or e-mail requests, items were hand delivered by Library staff.

Today, the Tech Library emphasizes digital delivery to the desktop. Online databases gather the vast majority of content needed by users and make it accessible over the Internet to Georgia Tech on all of its campuses. Therefore, Georgia Tech students matriculating in Savannah or France experience access to our collections approximately equal to what users on campus experience. Even monographs, which are delivered by courier on campus, are delivered by mail to legitimate Georgia Tech clients wherever they may be located, worldwide.

Two effects emerge from these approaches to supporting our clientele. First, users access a robust suite of material because consortial effort secures a broader collection. Second, users experience profoundly more effective delivery of purchased resources embedded in book and online journal collections to improve success with this strategic agenda. Goals being addressed as this transition takes place include concerted efforts to integrate the common practice of using Internet search software with programs that simultaneously access and deliver the intellectual content purchased by the Library.

TECHNOLOGY

Objective: Use cutting-edge technology to store and deliver information and multimedia content to the computer desktop and create online collections for scholars.

- Implemented major new program to develop an institutional digital repository, SMARTech (Scholarly Materials and Research @ Georgia Tech);
- Converted more than 8,000 knowledge items into the SMARTech repository since 2004, making it one of the ten largest academic digital repositories in the world, producing more than 1 million hits and 500,000 downloads in its second year;
- Partnered with OIT and the Student Publications Office to publish the student newspaper and provide digital dissemination and permanent preservation;
- Established the MetaArchive Preservation Network in partnership with Emory and four other southeastern libraries to build the nation's first distributed digital preservation network;
- Established the International ETD (Electronic Thesis and Dissertation) network in partnership with Virginia Tech, Florida State, Stanford, Humboldt State, the University of Capetown, and the Catholic Pontifical University of Rio de Janeiro;
- Became a founding member of the LOCKSS (Lots of Copies Keep Stuff Safe) Alliance, an initiative of pioneering software for preservation of digital resources;
- Conducted a facilitated Web usability study with an outside consulting firm to guide the upgrade of the Library's Web presence;
- Implemented and upgraded wireless and network portal access on all floors of the Library;
- Made wireless network cards available for twenty-four-hour check-out by patrons;
- Upgraded electronic reserves to streamline online access for students;
- Established a statewide GALILEO Knowledge Repository collaboration; and
- Allocated several FTE of research staff time to software enhancements to facilitate integration of collection exposure with Internet searching.

With the advent of SMARTech, the Library implemented an important new program from scratch to capture and preserve the intellectual output of Georgia Tech for distribution to the world. While research traditionally advances through sharing of ideas by means of published journal literature segmented into disciplines, modern Internet linkages dramatically impact opportunities. In the traditional system, libraries became increasingly vulnerable to predatory pricing activities of commercial publishers. The separation of consumers of journal articles (readers) from the purchasing operations of the Library created an environment favorable to third-party publishers to capture consumer surplus in the market. Self-publishing effectively offers an opportunity to overcome these circumstances.

Simultaneously, self-publishing on sophisticated server technology offers opportunities to enhance publications well beyond what print journals can do. In an online server-based distribution system, writers may readily accompany their output with full-motion video, datasets that can be manipulated or analyzed, or other media formats that cannot be duplicated in traditional print form. Therefore, for example, someone publishing a study of cell mitosis can conveniently illustrate the process with what is effectively an on-demand mini-movie. The limitations of print no longer hamper the distribution of new research. As a start, making campus dissertations available this way proved to multiply access by two to three orders of magnitude. Typically, print dissertations are purchased only a few times, whereas their electronic counterparts tend to be downloaded dozens to thousands of times.

These circumstances introduce complications that mislead users seeking information. To overcome this issue, Library programming staff work collaboratively with other campuses to integrate simultaneous searching of the Internet and legitimately purchased content such as journal articles. Library staff evaluated software for a federated searching (metasearch) option at a GALILEO-sponsored Metasearch Product Review in spring 2005. Federated searching provides the ability to simultaneously search multiple databases. The WebFeat ™ product was purchased and implemented in early 2006. The Library also provides the development for the state of Georgia of the MetaLib ™ federated searching solution to be implemented in 2007. These efforts are complex. Fortunately, the Library systems staff rank among national leaders in these endeavors.
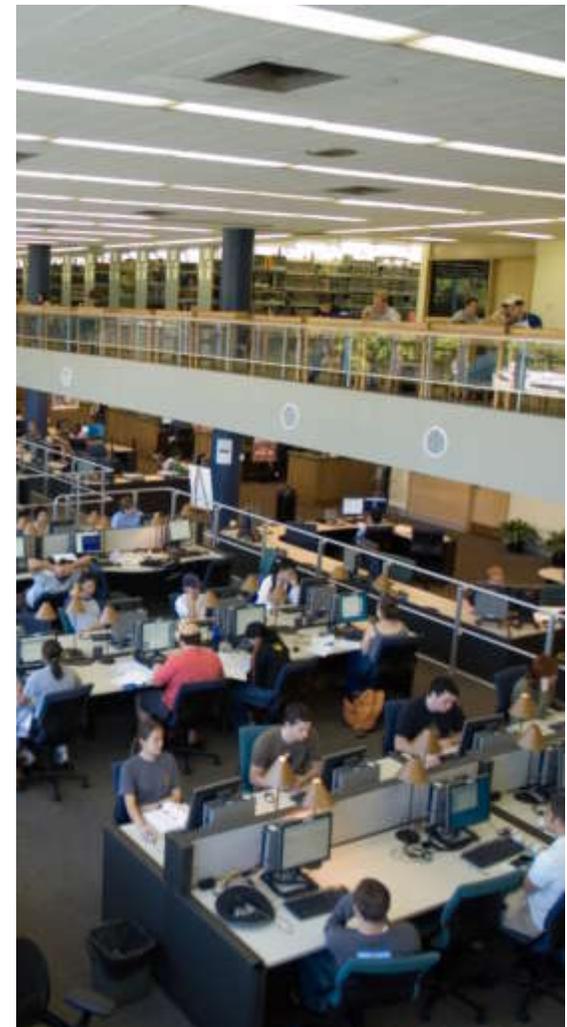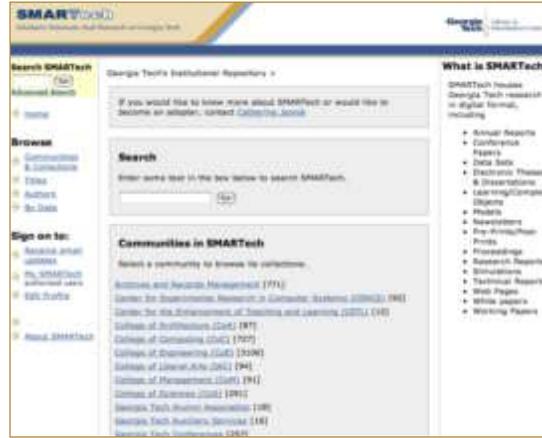
PRESERVATION

Objective: Acquire, organize, preserve, and provide access to the official records of Georgia Tech and archival material related to the Institute, its history, faculty, and alumni.

- Developed a new, much improved Web site for Georgia Tech archival finding aids;
- Developed a digital exhibit program;
- Implemented Electronic Publications Program via SMARTech.
- Completely processed major collection of the Fulton Bag and Cotton Mills Records documenting the business activities and the concerns of management and workers in this Atlanta mill during the early twentieth century;
- Implemented Georgia Tech Records Center, managed by the Library to arrange all campus business and operations records and transfer them to remote storage;
- Moved the majority of rare book collections to the Library's first floor Neely Gallery to facilitate access for student learning opportunities;
- Implemented exhibits program to provide opportunities for nationally prominent traveling exhibits from the Library of Congress and other organizations to visit campus; featured among these, the Library hosted: 1)"Legacy of Marie Curie" in

collaboration with Mechanical Engineering; 2) "Fifty Years of Women at Tech"; and 3) "Frankenstein: Penetrating the Secrets of Nature," a Library of Congress traveling exhibit on the social, ethical, and philosophical concerns raised by such scientific endeavors as cloning, xenografting, the Human Genome Project, and other new developments in biomedicine.

The Library's Records and Archives staff traditionally focused on physical processing of campus internal memoranda, letters, business transactions, and related content. These programs included services designed to process and store basic business records for professionally approved periods of time consistent with accepted business practices. Once those time periods expire, records are typically destroyed, or in limited numbers relocated to Archives for permanent preservation for historical reasons. The records program was established by funding support from the campus Business Office, which for the first time in Georgia Tech history provided the means to develop a certified program.

Similarly, the archival process reached a higher level of professionalism with the addition of several professional archivists. Miscellaneous rare book and other archival resources finally became accessible through the efforts of this program to thoroughly review a

miscellaneous assortment of collections gathered over nearly 100 years, but which were never systematically organized. Most importantly, the Archives proved the value of digital programs by creating a nationally recognized tool through the digitization of Edward Barnard's landmark resource, the *Photographic Atlas of Selected Regions of the Milky Way*, which received the Griffith Observatory Star Award for "excellence in Web sites that promote public awareness of astronomy." The new digital edition created by the unit was recognized worldwide as a tool that substantially enhances astronomical research. This effort demonstrates a new era that greatly increased the ability of Archives to document history in ways that enhance worldwide access to unique resources.

STAFF DEVELOPMENT

Objective: Support professional development opportunities for staff to promote skills development in order to provide valued-added services and a dynamic staffing and management infrastructure.

• Elevated discipline skills base and degrees (both bachelor's and master's) of Library staff including thirty-seven library/faculty members with discipline credentials in the areas of research at Georgia Tech; also many Library systems/IT staff possess degrees in computer science;
• Developed a new job classification bridging computing and library credentials to facilitate student support in the LWC;
• Implemented efforts emphasizing staff development, training, coaching, mentoring, and formal coursework that lead to certifications, undergraduate degrees, and new MLS-degreed librarians;
• Encouraged Library faculty and staff to actively participate in Office of Organizational Development classes and in their Professional, Supervisory Development, and Management Development certificate programs; a higher percentage of Library employees utilize these programs than all but one other unit on campus; and
• Increased leadership by Library faculty members and professional staff in professional association committees and conferences, including the American Library Association, the Special Libraries Association, the Association of Research Libraries, the Association of Engineering Education, the American Society for Information Science, EDUCAUSE, the Georgia Library Association, the Association of Southeastern Libraries, the American Chemical Society, the Voyager Users Group, the Georgia Users Group, the Association of College and Research Libraries, Coalition for Networked Information, Society of Georgia Archivists, Society of American Archivists, and the North American Serials Interest Group.

A working environment characterized by increasing complexity and rapid evolution of new technologies demands continued skills enhancement. Librarians must acquire higher levels of technical expertise within the discipline area each supports and invest substantially larger portions of their time within the discipline environment. More than half the librarians working at the end of the five-year period joined the Library during that period. Nearly all have special discipline expertise covering chemistry, biology, nutrition, mathematics, physics, electrical engineering, computer science, sociology, economics, music, and related areas as well as English, history, education, and political science. Today, the Library offers more sophisticated, knowledge-enhanced skills to the campus than ever before.

ADMINISTRATIVE IMPROVEMENTS

• Restructured the Library and Information Center into three divisions: Public, Technology, and Administrative Services; each division implemented new reorganization programs as well;

• Implemented continuous assessment and improvement of resources, facilities, staffing, and services via 2003 and 2004 participation in the Association of Research Libraries-sponsored LibQUAL+ Survey and in annual campus assessment efforts;

• LibQUAL+ assessment results and evaluative tools provided means to make changes to improve Library services;

• Anticipated planning for a new campus Innovative Learning Resource Center by substantive experiments in the LWC and LEC;

• Hosted more than 250 librarians from throughout the United States in the nation's first ever Electronic Resources and Libraries Conference, with attendance exceeding 50 percent of expectations;

• Raised $1,329,514 from outside sources since 2001 in support of collections and special building projects, not including special allocations amounting to $550,000 from the campus administration; and

• Upgraded and improved facilities in Homer Rice Center, Ferst Room, Kaiser Room, Neely Lobby, and the Presentation Rehearsal Studio.

The major thrust of changes and new programs initiated during the past five years emerged from ambitions to elevate the impact of the Library on the programs and success of the campus. Retention of undergraduate students emerged as chief among the objectives in this program. Related to this objective, the programs of the Library were refocused and simplified. That refocusing concentrated on pushing delivery of intellectual resources to the desktop of the user and on aggressively improving the opportunity of students to succeed so that they graduate.

Most importantly among the changes in emphasis, the Library concentrated its resources on reducing redundancy (lowering the excessive number of service points), focusing on the most important issues,

and elevating quality to match the high quality of faculty, students, and programs on the campus. These changes make clear that Library use is no longer about finding a book. Today, it takes intelligent access to intellectual content (as in digital platforms) combined with knowledgeable guidance in the use of resources. The combination of bibliographic and computing expertise merged in the Library today through the efforts of OIT and the Library staff undoubtedly elevate retention of undergraduates. Quite clearly, students on this campus today recognize the success of this effort. As well, the elimination of unstaffed computer labs around campus bears witness to the successful outcomes of synergism and collaboration.

With the conclusion of the Library's first five years of transformation in the new millennium, new initiatives are under way that make use of the knowledge realized from this pivotal period. This knowledge will inform a new five-year plan focused on sustaining our efforts to elevate the quality and success of information services on campus.