# STANDARD SEVEN: LIBRARY AND OTHER INFORMATION RESOURCES

The institution demonstrates sufficient and appropriate information resources and services and instructional and information technology and utilizes them to support the fulfillment of its mission.

## DESCRIPTION

In 1997, the University of Rhode Island embarked on a clear and ambitious plan for the newly formed Office of Information Services. After a thorough assessment by the administration, and upon committee recommendation, the University Libraries and Information Technology departments—Networking and Telecommunications Services (NETS), Information and Instructional Technical Services (IITS), Technical and Operational Services (TOPS), Management Information Services (MIS) and Institutional Research (IR)—were merged into this organization under the leadership of a single Vice Provost for Information Services and Dean of University Libraries.

When this position became vacant in 2004, the Provost decided to again separate the Libraries from the Office of Information Services. Although the last decade has seen the Libraries and Information Services as a single entity, the University is now moving forward with two separate units. The University hired a Vice Provost for Information Technology Services (ITS) in July 2006 and appointed a new Dean of Libraries in July 2007.

The University Libraries have three locations: the University Library on the Kingston Campus, the Library at the Feinstein Providence Campus, and the Pell Marine Science Library at the Narragansett Bay Campus. The total collections contain nearly 1.4 million volumes. The University of Rhode Island's mission defines the institution as a "learner-centered research university" offering the distinctive educational opportunities of a "major research university" (<u>http://www.uri.edu/home/about/mission.html</u>).

The University Libraries' vision statement asserts that "...utilizing the newest technologies, [the University Libraries] will ensure optimum access to, and delivery of, information for the University and the State of Rhode Island." It continues, "... the libraries will continue to acquire, organize, and preserve materials in all formats and provide instruction for their use." (University Libraries Mission Statement, <u>http://www.uri.edu/library/univlibs/mission.html</u>) The Information Technology Services (ITS) mission is "...to provide systems and services for the effective, efficient, and timely use of information in support of teaching, research, and service." (<u>http://www.uri.edu/ois/gen/org.html</u>, Information Technology Services Mission Statement ).

Both the Libraries and Information Technology Services have credentialed and experienced staff totaling 127 in the 2005–2006 academic year. Of these, the Library staff numbered 52 in 2005–2006, down from 66 in 1999–2000. Professional librarians (18) are to possess a minimum of an ALA-accredited master's degree in Library and Information Studies. The median number of years of experience for ITS staff is 24 years. (Appendix 7.1 Technical Staff Internal Survey of 2006) ITS staff stay current through partnerships with vendors, regional collaboration with other universities, technical recertification, and participation in professional conferences and workshops.

The University Library is welcoming, comfortable, and conducive to study and research. Undergraduate satisfaction with the library "as place" is high according to the LibQual+ results (http://www.uri.edu/library/libqual/) and as documented in the LibQual+ Assessment Report. (Appendix 7.2) It accommodates 1,220 patrons in meeting rooms, study rooms, at small and large tables, in lounges with upholstered chairs, and in study carrels. (Appendix 7.3, URI University Library Seating Capacity) A coffee-and-bagel lounge is housed in a glass-enclosed area directly inside the main entrance which provides access as a 24-hour study space (the "24-hour room"). The main lobby has exhibit cases highlighting the Libraries' scholarly collections and a display of "new books" located invitingly near a grouping of comfortable chairs. The Library Gallery, where art exhibits are regularly scheduled, is located on the first floor, and artwork is displayed on walls throughout the Library.

In 2006–2007, the University Library renovated additional areas to house the newly mandated Curriculum Materials Library (CML) and the Confucius Institute. The CML is partially supported by a NOMAD grant for its technology. The Confucius Institute is an independent institute which fosters development of cultural relations with China. The Confucius Institute, through support from China and the University, will provide the University Library with a professional librarian and a general collection of 5,000 volumes related to the Chinese culture.

The University Libraries hold membership in the Higher Education Library Information Network (HELIN) Consortium, an association of 11 academic libraries and 15 health sciences libraries. Through HELIN's shared catalog, researchers have access to over 4.8 million items, including books, periodicals, electronic resources, videos, and audio materials. Borrowing is reciprocal among member libraries, and requests may be submitted online. In addition to materials purchased by the University and the HELIN Consortium libraries, students, staff, and faculty have access to other collections through Interlibrary Loan. Information Technology Services belongs to the Ocean State Higher Education Network (OSHEAN) (http://www.oshean.org/), a consortium that provides the University's Internet and Internet2 connections along with other communications services.

The public area on the first floor of the University Library is equipped with 18 public access computer stations, including a kiosk for express walk-up access to the online catalog. In addition to those in the ITS computer laboratory, there are 58 computers throughout the main Library; two are handicapped accessible. The Reference Online Center, where librarians are available for individual assistance, has an additional 25 workstations dedicated to online database research. In addition, the Pell Library maintains six access stations and the Feinstein Providence Campus Library has 15.

The Internet allows students, faculty, and staff affiliated with any of the University's campuses, studying abroad, or taking courses via WebCT, to access all content available in the Libraries' collection of online reference databases (<u>http://</u><u>www.uri.edu/library/reference\_databases/</u>), online journals (Full Text Electronic Journal List @ University of Rhode Island <u>http://zu4tq4pb5v.search.serialssolutions.com/</u>), and electronic books. To ensure that both software interfaces and new classrooms are accessible in accordance with Americans with Disabilities Act (ADA) guidelines, Information Technology Services staff meet regularly with the staff in the Office of Disability Services. The Kingston Campus is almost entirely wireless and is an Internet2 (I2) member.

The Libraries' operating budget was \$3.1 million for FY 2006, of which \$2,820,000 was capital. (Appendix 7.4 Library & Technology Five-Year Actuals FY 2002–FY 2006) This budget supports the purchase of electronic databases, serials (in print and electronic formats), and monographs. The budget is divided into funds corresponding roughly to academic departments. The Librarians, as subject specialists, and liaisons with designated academic departments, are responsible for selecting materials for purchase that support curriculum and research activities using scholarly selection tools. Librarians analyze usage statistics and review electronic subscriptions and databases for changes.

Most monographic materials purchased are general interest titles with the strongest support for the humanities and the social sciences. Conversely, most serials purchased are part of large packages, which are heavily weighted toward the hard sciences. Serials expenditures, at nearly \$2.5 million, consume approximately 85% of the Library's materials budget, leaving approximately \$350,000 remaining to purchase monographs and other materials. Monographs and serials acquisitions 1995–1996 to 2005–2006 are available at <a href="http://www.uri.edu/library/statistics/stats.html">http://www.uri.edu/library/statistics/stats.html</a>.

The Information Technology Services operating budget was \$4.7 million for FY 2006. (Appendix 7.4 Library & Technology Five-Year Actuals FY 2002–FY 2006) These funds pay for software acquisitions and renewals, technology acquisitions, maintenance and repair, installation of technology (including wireless access), and consulting and outsourcing.

The overall electronic environment on the three University academic campuses includes a variety of computer laboratories. ITS supports eight public computer labs (<u>http://www.uri.edu/ois/iits/student.facilities.html</u>) with the largest set aside for walk-in use. The computer lab in the Kingston Campus Library contains over 100 PCs and Macs. Many academic departments also have computer labs that use discipline-specific software, and science laboratories increasingly include a digital component to interpret data generated by probes or sensors.

Pharmacy, Computer Science, Engineering, and Business all maintain departmental computer laboratories. Computer facilities information is available on each college's web site: Pharmacy: <a href="http://www.uri.edu/pharmacy/animation/">http://www.uri.edu/pharmacy/animation/</a>; Computer Science & Statistics: <a href="http://www.cs.uri.edu/resources/resources.php">http://www.uri.edu/pharmacy/animation/</a>; Computer Science & Statistics: <a href="http://www.cs.uri.edu/resources/resources.php">http://www.uri.edu/pharmacy/animation/</a>; and Business: <a href="http://www.cba.uri.edu/classrooms/lab.aspx">http://www.cba.uri.edu/classrooms/lab.aspx</a>. Collectively, these locations provide an additional 400 PC, Mac, and Sun desktop workstations and nearly 50 laptops, bringing the total to approximately 550 computer workstations. The Feinstein Providence Campus provides 110 workstations and the Pell Library has six. Virtually all of these computer workstations provide Internet access. Wireless access is provided throughout the main Library helping to make it a "gathering place." The Library also provides four Ethernet data ports in the 24-hour room for hardwire laptop plug-in.

The University uses WebCT to provide a virtual learning environment and for distance education. Since 1997, the number of WebCT offerings has grown to 485, and the number of seats that access WebCT reached 15,706 in the fall of 2006. (Appendix 7.5 WebCT Course Data) In the past five years, the number of WebCT courses has increased by a factor of ten. A standing WebCT committee of ITS staff, faculty, and students meets regularly. Currently, although ITS offers regularly scheduled short courses on WebCT and other topics, there is limited formal guidance and support for faculty using instructional technology for the first time, or for more experienced faculty seeking more sophisticated means of presenting electronic instruction.

The Libraries make many services available electronically as well as in person. Students may ask library reference questions in person, by telephone (http://www.uri.edu/library/reference/reference.html), or through "IM URILibrarian" (http://www.uri.edu/library/imlibrarian.html), an instant-messaging service. Reference subject specialists often partner with teaching faculty to offer students research advice via email or WebCT. Patrons may renew books and make requests for interlibrary and intra-consortia loan materials online, then receive these periodical articles electronically via email (http://www.uri.edu/library/circulation/circ.html#renew) and (http://www.uri.edu/library/interlibrary\_loan/ill.html). The University Libraries' Electronic Reserves service (http://www.uri.edu/library/reserves/ereserves.html) makes over half of all reserve reading available via the Web.

Librarians provide bibliographic and information literacy instruction to all students through a wide variety of sources, including a one-hour tutorial for freshmen, three-credit courses, and partnerships with freshman writing instruction (http://www.uri.edu/library/instruction\_services/instruction.html). Librarians teach an average of 300 library instruction sessions each year reaching 6,000 students across a wide variety of curriculums and programs. In addition, all of the Libraries'"User Guides" (http://www.uri.edu/library/tutorials/libskills/index.html) are available in print and on the web site, as is an interactive "Library Skills Tutorial" (http://www.uri.edu/library/tutorials/libskills/index.html).

As noted in Standard 4: The Academic Program, the University's General Education program requires specific integrated skills, one of which is the use of information technology (http://www.uri.edu/facsen/GENED\_Program\_May04.html). In 2000, the University Libraries' faculty approved the Plan for Information Literacy (Appendix 7.6 Information Literacy: Challenges for the Future; http://www.uri.edu/library/instruction\_services/infolitplan.html\_and http://www.uri.edu/library/instruction\_services/infolitexecrpt.pdf) that includes collaboration with other programs outside the Libraries. These programs include: URI 101: Traditions and Transformations; the College Writing Program. The Libraries offer a three-credit course (LIB 120), "Introduction to Information Literacy," at both the Kingston and Providence campuses (http://www.uri.edu/library/lib120/). LIB 120 has become a major focus of the Libraries. As one of the keystones for information literacy, this course is an elective for students in the General Education program. From its inception in 1999, the Libraries have offered a total of 61sections of LIB 120, reaching 1,870 students. Now in its eighth year, seven sections of the course are offered each fall and spring semester, with two WebCT online courses

offered each summer session. The information literacy program also contains LIB 140 (1 credit), and LIB 508 (1 credit).

Each semester, ITS offers approximately 20 short courses on topics such as Website Design, Photoshop, SAS Basics, Digital Video Production, and Excel. These courses are open to faculty, students, and staff. The ITS Help Desk, located in the lower level of the University Library, provides computing and technology support. Staffed by professionals and students, the Help Desk assists faculty, staff, and students through scheduled and walk-in appointments as well as via instant messaging, telephone, and email. One ITS staff member provides support to research faculty in their use of SAS and SPSS.

In 2002, the University built the prototype technology-enriched learning space, the Seamless Classroom, using funding from the Champlin Foundation. After testing and modification, this prototype is now serving as the standard for University classrooms. The University has been fortunate to receive additional Champlin Foundation grants for technology. Champlin has funded many of the University's best classrooms and laboratories. In 2007, Champlin has awarded the University five grants totaling \$508,000. The grants fund new technologies that will enable students to visualize physical and biological processes at work in Narragansett Bay, accompany faculty virtually on research endeavors around the globe, and allow engineering and business students to design and plan with the latest entrepreneurial technology. An additional grant will expand opportunities for art and computer science students to work in three dimensions.

#### APPRAISAL

The 1997 self-study identified a need "to aid the campus community in understanding the enormous ramifications that networked information will have for the traditional, print-oriented scholarly communication process." The Faculty Senate and Library staff have worked tenaciously to keep the community aware of the growing financial responsibilities for supporting information resources and systems due to changing technology and increasing materials costs. The Faculty Senate Executive Committee's annual goals (Appendix 7.7, Faculty Senate Welcome letter), the Report of the Faculty Senate Library Committee (Reports of the FS Library Committee, Spring 2006 and Spring 2007 http://www.uri.edu/facsen/FacSen\_LibCom%2006.doc.pdf and http://www.uri.edu/facsen/FSLibComreport07.pdf), the University Strategic Plan (http://www.uri.edu/president/Strategic%20Plan\_2006-09.pdf#search=%22strategic%20plan%22), and the annual management letters to the Office of Higher Education from the President (2006: *see pages 12, 13, 17, http://www.uri.edu/pspd/planserv/2006 Mgt\_Ltr\_Final.doc;* 2005: http://www.uri.edu/pspd/planserv/2005 Management Letter.pdf *see pages 10, 12, 16–17;* and 2004: *see pages 7, 8 and 12*) all demonstrate that the level and breadth of resources and technology are central in the goals and planning for the institution.

The University has demonstrated its commitment to supporting the needs of the University Libraries with a planned supplemental fund of \$1 million over three years (\$300,000 in FY 2004, \$300,000 in FY 2005, and \$400,000 in FY 2006). The total of \$600,000 was supplemented in the first two years, but as stated in the 2005 Management Letter: "However, a planned increase in Library resources of \$400,000 in FY 2006 has been delayed due to funding constraints." There are plans yet to be realized for developing ancillary businesses (see the University Strategic Plan, Appendix 2.2) to generate \$500,000 annually for the Libraries.

The University Libraries are adding fewer volumes and purchasing fewer current serials than the median added by its peers. Monographic purchases are more than \$100,000 below the median spent by its peers, and serials purchases are more than \$500,000 below the median. Total library expenditures per student FTE are \$193 below the peer median. (Appendix 7.8, ACRL Peer Comparison chart, NCES Peer Comparison spreadsheet)

External factors make this situation even more troubling. Over the past ten years, the price of periodicals has increased 134%, while the price of scholarly monographs has increased 20%. The Libraries' operating budget, on the other hand, has increased by only 66%. Given that 85% of the materials budget is used for serials, the current serials budget of \$2.56 million would need to be \$3.49 million to purchase content equivalent to that purchased a decade ago. In the mid-

1990s, the Libraries were forced to cancel many subscriptions due to high-priced journals in the STM (Science/Technology/Medicine) fields. Only through cancellation of these important research titles were the Libraries able to maintain current subscriptions. As recently as 2003, the Libraries' budget for serials was reduced by 10%, forcing the cancellation of 274 subscriptions across all disciplines.

The Libraries now purchase fewer monographs due to the exorbitant increase in serials costs. With serials subscriptions taking an increasing percentage of the annual budget, the Libraries allocated only \$330,000 for monographs (Kingston) in FY 2006. Since the arts and humanities, and to a lesser degree, the social sciences, rely heavily on monographic literature, this reduction disproportionately affects these disciplines. Current comparisons to previous budgets can be misleading. While at face value it appears that the materials budget has increased 26% between FY 2002 and FY 2007, given the increase in costs and subscriptions the effective budget decreased nearly 25%. (Appendix 7.9, Collection Management Officer's [Michael Vocino] Response to Budget Presentation to Faculty Senate [November 2005])

Two recent campus-wide surveys serve as assessment tools for the Libraries. LibQUAL+ is a library evaluation tool created by the Association of Research Libraries. It was administered by the Libraries in the spring of 2006. Results of that survey (available in the workroom) show that faculty registered dissatisfaction with the extent of the serials collection. (Appendix 7.2, LibQual+ Assessment Report) This finding is consistent with a recent campus-wide survey of faculty conducted by the Faculty Senate which showed that one of the greatest areas of dissatisfaction for faculty was financial resources for research. (Appendix 7.10, Final Report, 2006 Faculty Survey)

The Libraries spend above the median spent by their peers on electronic serials, indicating the institution is a leader in the move to online access. (Appendix 7.8, ACRL Peer Comparison chart, NCES Peer Comparison spreadsheet) Online access is expected by today's students and researchers. It should be noted, however, that University-wide online access to many journals costs far more than print subscriptions. The majority of journal subscriptions have been shifted to online access, e-Reserves (begun in 1999) have grown exponentially, and Interlibrary Loan now provides electronic delivery of articles to requestors' computers. (Appendix 7.11, O'Malley, History of E-Journals presentation for Council of Deans, fall 2006) In addition, the University Libraries have begun building an institutional digital repository using ProQuest's Digital Commons software (http://digitalcommons.uri.edu/). The Library has digitized unique items (photos, documents, sound files) related to University and Rhode Island history and begun to deposit undergraduate honors projects into the repository.

Between 1997 and 2001, the University upgraded the campus network, which is now among the elite academic networks in the country, connecting to Internet2 through Rhode Island's nonprofit Internet consortium, OSHEAN. In this same period, the University and the State purchased and implemented the PeopleSoft ERP for financials, human resources, and student information services. After the NOMAD classroom technology upgrade (discussed in greater detail below), general assignment classrooms equipped with instructional technology hardware will increase from 35 percent in 2006 to 50 percent. According to the February 2001 Higher Education Technology Initiative Final Report, virtually all of the technology projects were completed as scheduled and within budget. (Appendix 7.12, Higher Education Technology Initiative: Final Report, February 2001) The institution completed its wire-connected infrastructure in 2002 and then quickly progressed to provide wireless access. Students living in the residence halls have wired and wireless internet access from their rooms. The University continues to improve and widen its technology offerings, being named as one of the 25 most-connected campuses by Forbes.com in 2004 (http://www.forbes.com/finance/lists/8/2004/LIR.jhtml?pas sListId=8&passYear=2004&passListType=Misc&uniqueld=950358&datatype=Misc).

Various colleges and programs are experimenting with electronic student portfolios to communicate to students the institution's expectations for student learning and to assess student progress toward specified learning goals. Ten years ago, the School of Education developed, with others on campus, its own proprietary system to assist in meeting education accreditation standards. Later, the Department of Music developed an award-winning product to guide performance and music education students in documenting their progress and achievements. Student electronic portfolios

are used in the College of Engineering and the College of the Environment and Life Sciences both to collect and analyze student work and to survey student and alumni perceptions. Still other programs require students to develop individual showcase portfolios of their work through standard Microsoft products such as PowerPoint and Publisher.

Several years ago, with assessment as a national focus, campus leaders identified the need to find and support portfolio software that would permit systematic, multi-faceted assessment of student learning in both academic and co-curricular settings throughout a student's tenure at the University. For the past two years, the University has maintained a site license for TrueOutcomes, an assessment-rich student portfolio system with a powerful relational database capable of making use of the wealth of student data collected by the PeopleSoft e-Campus system and relating that data to actual evidence of student learning and performance (http://www.trueoutcomes.com/). Programs in five degree-granting colleges are currently implementing the system, with usage ranging from elementary to sophisticated. The Office of Student Learning, Outcomes Assessment, and Accreditation anticipates that use and adoption will grow and become more robust and routine as assessment efforts at the University continue. The Rhode Island Board of Governors for Higher Education recently adopted TrueOutcomes for use by all State institutions of higher education. At the strong urging of the staff at TrueOutcomes, the University will host the software for all of the institutions on a single server and will lead this implementation effort.

While the Kingston Campus is well equipped electronically, ongoing maintenance and upkeep pose challenges. The total number of University-owned PCs has grown to about 5,000, the number of video projectors to 300, and the number of requested and installed software applications continue to grow. The cost of computer replacement and software upgrades needs to be built into the annual budget. Although the IT operating budget has increased 141.2 % over the last five years (Appendix 7.10, Library & Technology Five-Year Actuals FY 2002–FY 2006), the cost of academic software has risen sharply as the number of users has grown. Therefore, the number of software packages supported has declined due to both the lack of support personnel and the increasing costs of licensing. ITS now pays only for enterprise applications and the colleges have assumed the cost of discipline-specific applications. The University has installed significantly more technology in the classrooms, with funded plans to dramatically increase the number of installed classrooms over the next four years.

According to a Faculty Senate survey, users of curriculum and classroom technology have expressed concern about support. Users also have experienced rough spots with the implementations of WebCT and PeopleSoft in which upgrades have not gone smoothly, and support has been inconsistent. The ITS restructuring in December 2006 from four departments to two is intended to address these weaknesses (http://www.uri.edu/facsen/ITS\_Reorg\_1106.pdf).

One continuing challenge facing ITS is maintaining the rapidly expanding stock of classroom technology. While the number of academic technology users has increased tenfold in the past ten years, ITS support staff has remained constant. Increase in distributed support (32 staff positions within the various colleges and units outside of ITS) has ameliorated the situation somewhat, as has the use of new digital equipment management tools, but the increasing disparity between number of users of technology and technology support staff continues to be an issue. In 2005, the University had 159 technical and paraprofessional staff, approximately the median value of peer institutions whose range is from 69 to 360 staff.

In April 2004, the University hired an Information Security Architect (ISA) to oversee security for campus systems. The ISA now reports directly to the Vice Provost for Information Technology Services who added an additional staff position to this office. Security policies primarily relying on FERPA standards and general privacy laws are on the University web site (http://www.uri.edu/security/i.php?i=policies). The ISA office manages intrusion detection monitoring with technology tools (such as anti-virus systems, firewalls, and security systems) and by constantly checking for suspicious system and server behavior that is outside the norms. The ISA office handles violations through an established institutional procedure.

As the ability to protect users and information from intrusion has become more critical, so has the University's need for increased use of protective technologies including spam filtering and virus protection. ITS monitors, manages and implements security updates on close to 80 servers. Security layers are in place to protect University web sites where identity-management is crucial, such as WebCT sign-in, short course, and equipment signups, and e-Campus (People-Soft) sign-in.

The University Libraries and Information Services are offering appropriate and multiple avenues of instruction, training and support so that faculty, staff, and students may make effective use of library and information resources and instructional technology. A review of the General Education program's approved courses indicates that only 22% incorporate the information technology skill (http://www.uri.edu/facsen/GENED\_Program\_May04.html#Approved). Most of these courses are in the fields of math and science. These courses primarily address the use of information technology and software rather than addressing the development of students' use of information resources or their ability to gain increasingly sophisticated skills in evaluating the quality of information sources.

Although the University Libraries' involvement in the URI 101: Transitions and Transformations freshman seminar course at Kingston and Providence has been a strong component of the information literacy mission since its inception in 1995, there is concern that the reach is not sufficiently effective. While information literacy sessions are scheduled for all URI 101 sections, not all sections attend. And, while subject-specific library instruction is available, it does not adequately cover all disciplines due to insufficient library staffing.

No formal evaluation or assessment has been conducted of subject-specific library instruction. Comprehensive assessment of information literacy has not been addressed either, but plans are in place to evaluate learning outcomes for the information literacy instruction offered by the Libraries. A comprehensive exam is being piloted for all LIB 120 courses. Additionally, there has been no assessment of URI 101: Transitions and Transformations, nor has the success of any of the online instruction products been measured.

Mirroring general educational trends, the University has spent much of the past ten years successfully upgrading its computing technology, access to electronic journals, databases and information literacy instructional programs. This has been achieved at the cost of fewer monographic acquisitions and less targeted scholarly literature.

### PROJECTION

As is the trend nationally, physical location will become less of a barrier to accessing library and information resources as more materials become available online. The Libraries will continue to move in this direction, despite the financial challenges posed by providing online access to the increasing number of resources required to support students, programs, and research. In order to meet these electronic and environmental challenges, the Libraries and ITS must continue to identify and prioritize essential areas and levels of service and information technology support. With the appointment of the Dean in 2007, the Libraries will be able to coordinate services and planning to strategically move forward purposefully and productively. The new Dean's position description specifically endorses a close working relationship among the Libraries, the Development Office, and the URI Foundation. The University has recognized the need to raise funds to support the Libraries and they are identified as a specific area for support in the \$100 million Capital Campaign, a potential solution to the increasing need for additional funding.

The University Libraries have developed an action plan to address issues raised as a result of the 2006 LIBQUAL+ survey. The plan includes reevaluation of Library hours, optimizing the use of Library space, redefining quiet and workgroup areas, addressing issues related to the number and type of serial publications, and marketing the Library.

Although faculty, staff, and students receive training and support to make effective use of library, information technology, and other resources, no formative or summative assessment has been made to determine if instruction and training have been helpful in increasing the University's retention, graduation, and scholarship goals. There is a clear need for both Information Technology Services and the Libraries to develop initiatives that will create and implement formal methods of evaluation and assessment, which will be addressed by the new leadership in both organizations—ITS with its new Vice Provost, and the Libraries with its new Dean.

The Vice Provost for Information Technology unveiled a restructuring plan (http://www.uri.edu/facsen/ITS\_Reorg\_1106.pdf) effective December 2006 to reflect the current reality that the entire University community depends upon technology to conduct both its administrative and instructional work. Consequently, dependability and usability in both areas have become crucial. The need now is to focus more effectively on supporting existing technologies and on the careful selection of new technologies. Continuing implementation of the new ITS organizational structure will increase coordination among staff, reduce duplication of effort, create more lower-level staff positions to better support end-users and reduce internal bureaucracy.

Over the next four years, the State of Rhode Island will disburse a total of \$5.75 million to the University for technology upgrades in classrooms and laboratories. This funding will create 33 additional technology-enriched learning spaces in ten buildings on the three academic campuses. The project is called NOMAD (Next-Order, Multi-modal, Advanced-Design) and includes a core design for technology classrooms. The University is collaborating with the Community College of Rhode Island, Rhode Island College, and the State K–12 school system to establish disciplinary consistency in the use of technology for teachers within science, technology, engineering, and math (STEM) disciplines.

The University has enhanced its PeopleSoft e-Campus implementation to use information technology to more efficiently administer its programs and services. For the past two years, University College has been using a customized advising appointment system that the University is now implementing in the academic colleges. In July 2007, ITS completed its upgrade of the human resources and payroll modules for permanent employees. Significant initiatives with PeopleSoft in the coming year include completing the automation of workflow, particularly the hiring and purchasing processes, and providing document imaging capability for paper-intense operations such as the Office of Admission, the Controller's Office, and financial aid.

For the sake of planning and the prudent allocation of resources, the University must incorporate the maintenance of its sizeable investment in technology with the annual University budgets to reflect the life cycles of both hardware and software. More and more of this responsibility is directly falling on the University. In 2005, for example, the State Department of Administration stopped funding upgrades and maintenance of the PeopleSoft system, following the sale of PeopleSoft to Oracle. That decision transferred more than \$650,000 of expense to the University.

The University is planning a curriculum mapping project that will assess the scope of current coverage, future implementation, and future possibilities for the Plan for Information Literacy. Though extensive, the plan does not reach all students. Student Learning Outcomes should be more fully delineated in the plan. The Public Services Faculty will evaluate library instruction for URI 101: Transitions and Transformations. A plan exists to develop both problem-based learning (PBL) instruction sessions and an assessment for the Writing Program in collaboration with writing faculty. In addition, the Libraries have scheduled an assessment of library instruction for Talent Development. The results of the pilot comprehensive exam for LIB 120 will help to shape its content and delivery. Also, the Libraries will readminister the LIBQUAL+ survey in three years so results can be compared and planning refined.

#### **INSTITUTIONAL EFFECTIVENESS**

The next ten years will necessarily focus on the further maintenance, consolidation, integration, and expansion of the University's instructional and administrative technologies. Under the guidance of its Joint Strategic Planning Committee, the University will undertake a methodical assessment of its instructional technologies, electronic resources, and information literacy courses to determine how best to integrate them into the institution's educational mission.