Library & Information Services
Master Plan
2003-2008

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Introduction

This Master Plan For Library and Information Services (LIS), 2003-2008 proposes to employ information resources and technology to enrich active learning for students, to facilitate research for faculty, to promote more interaction among all members of the Canisius College community, and to improve administrative processes.

The Canisius College Strategic Plan places a high value on a high quality curricular and co-curricular experience. The Strategic Plan recognizes that information resources and technology will continue to play an important role as Canisius College strives to become a major regional university enrolling high quality students from geographically diverse areas. The Academic Plan for Excellence has several objectives that require investments in information technology, including one to “develop, maintain, and support state-of-the-art technology in service to state-of-the-art teaching and learning.” The increased emphasis on student and faculty scholarship also requires continued investment in library resources, both print and electronic. This LIS Master Plan offers initiatives in the area of information resources and technology that will move the College closer to its vision.

LIS Vision, Mission, & Goals

LIS Vision

LIS will build a ubiquitous information commons. Convenient access to scholarly resources, widespread use of information resources and technology as components of active and personalized learning, improved administrative processes, and improved communication among all in the Canisius College community are characteristics of this information commons. The information environment will be comparable to the leading comprehensive universities of the Northeast.

LIS Mission

Library and Information Services (LIS) is the information service organization of Canisius College. In support of the College, LIS will provide library and information technology resources for instruction, research, and college administration.

In its role as a service organization, LIS will assist the operating areas of the College in the appropriate use of information resources and technology so that they may meet their stated objectives. In particular, LIS will seek to incorporate information resources and technology to improve instruction, research, and administration. LIS will serve as a collaborator in a distributed information technology and resources environment. LIS will also provide the collections, information infrastructure, and training that will be necessary to empower people to effectively utilize information resources and technology.

Core values of LIS

Service

LIS is committed to a service philosophy that is in keeping with the Jesuit principle of concern and respect for the individual. In this spirit, individualized service will be provided whenever possible, and courtesy, understanding and professionalism will characterize all dealings with LIS users.
Trust and Communication
LIS will foster an atmosphere of trust, flexibility, and open communication between LIS personnel and others at Canisius College.

Continuous Improvement
LIS will actively seek feedback from members of the Canisius College community on services provided to them so that improvements can be planned and delivered.

Utility
LIS acquires information resources and technology not for their own sake but because they empower faculty, students, and staff to excel in their respective roles. LIS activities will be consistent with the Canisius College Strategic Plan.

Efficiency
LIS will deliver its services in a cost-effective manner. This calls for good stewardship of human resources, consumables, and capital items.

Organization of LIS
LIS consists of Information Technology Services (ITS) and the Bouwhuis Library. In turn, ITS consists of Academic Computing and User Services, Administrative Computing, the Media Center, Network Services, and Technology Administration. Bouwhuis Library consists of Access Services, Collection Services, and the Archives. An organization chart is on file in the LIS Office in Bouwhuis Library.

Objectives
- Improve learning, teaching, research (Academic)
- Improve student life (Student Life)
- Improve business processes (Administrative)
- Offer library and information services comparable to similar peer institutions (Peer competition-Best Practices)
LIS Initiatives

Academic

*Upgrade Internet connection*

**Recommendation**

- Upgrade Internet Connection each year

**Discussion**

The Canisius College connection to the Internet has steadily increased in capacity (15 million bits per second in 2003) but still has lagged demand. Use of the Internet has evolved from text-only to incorporate increasingly demanding media: graphics, photography, sound, and video. The responsiveness of the Internet Connection is key to library databases and the world of knowledge beyond the campus. The Internet has become the information superhighway for the 21st century. Canisius College will continue to need to prioritize information handling based on the type of information carried; for example, music sharing among the residence hall students receives a lower priority than a library database search. Still, the College must continually expand Internet Connectivity, radically if economically possible.

**Library Collections-General**

**Recommendations**

- Increase library spending by the appropriate inflation rate for books, electronic databases, and video.
- Add additional funding to hasten acquisition of electronic materials.
- Continue the policy of purchasing 75% of titles in appropriate disciplines appearing in Choice Outstanding Academic Titles.

**Discussion**

For many years, prices of library materials have increased at a rate greater than the general inflation rate. These price increases have had a great impact on the Canisius College library collection, as well as many other institutions, over the past several decades. The cost of the Bouwhuis Library print journal collection, for example, increased by 10.5% for 2003 renewal, approximately four (4) times the general inflation rate for 2002. The library will need to spend resources wisely. Other ways to counteract library materials hyperinflation include:

1. Canceling paper subscription if electronic equivalent is available.
2. Strengthening the collection through collaborative arrangements with other libraries, particularly in New York State.

*Special emphasis on collection improvement: Catholic Identity, Science, and Education*

**Recommendation**

- In addition to inflationary increasing, strengthen particular portions of the collection that will be emphasized as part of the Canisius College Strategic
Plan: Catholic Identity, Science, and Education

Discussion

The College will need to improve its science collection as an important component of improving the sciences, much as the Blue Cross building will improve the Science’s physical facilities and emphasizing research will improve the intellectual climate.

Furthermore, there will continue to be areas of special emphasis for Canisius College such as its Catholic identity, the excellence of its humanities programs, and the expanding role of the School of Education and Human Services on campus; these will have a large impact on collection development. (For a more complete statement on collection development, see http://www2.canisius.edu/canhp/canlib/coldev2002.pdf).

Classroom Technology

Recommendations

• Increase number of Information Technology Classrooms (ITCs) that have projection or other digital imaging capability
• Increase number of ITCs that have computers built into podiums
• Budget for appropriate replacement cycle of classroom technology

Discussion

There has been increased adoption of classroom technology. Faculty seek more rooms that are laptop-ready and that already have computers in them. At the same time, they seek more sophisticated equipment in those rooms, particularly projectors capable of finer resolution and brighter display. In addition, faculty want more classrooms to be equipped with document cameras. Classroom technology requires continued investment both in equipment and supplies.

Information Literacy/Technology Competence

Recommendations

• Increase librarian staffing by .5 FTE to support expanded information literacy role for the library.
• Collaborate with Faulty Senate and Academic Affairs to incorporate an information literacy objective into both upper and lower level courses.

Discussion

The Middle States Commission on Higher Education has as one of its standards for General Education, "college-level proficiency in general education and essential skills, including....technological competency and information literacy." The Faculty Senate must decide how to best meet this need in the core curriculum. Library and Information Services staff will increase collaboration with faculty on information literacy issues with the goals of i) improving student instruction on information literacy and ii) incorporating information literacy and technology competence into a new core curriculum.
Leveraging Information Technologies to Improve Instruction & Research

Recommendations

• Establish a liaison program that increases faculty access to information technologists and librarians.

• Establish a faculty support center where faculty will find Media Center, Academic Computing and User Services, and Center for Teaching Excellence personnel who can support them (short term- Tower basement; long term-Blue Cross).

Discussion

A primary goal of Library and Information Services is to improve instruction. Certainly each area of LIS has its own opportunities to accomplish that. The Library will improve the collection and teach others how to access and use it effectively; User Services will teach faculty workshops on useful software tools; the Media Center will improve classroom technology; and Network Services will maintain and improve the campus network and Internet connection. These efforts may be leveraged by collaboration within LIS and with faculty. For example, the Library, User Services, Network Services, and faculty will collaborate to ensure that appropriate library materials are available from Blackboard. The Media Center and User Services will collaborate on streaming video resources for faculty and students. Network Services, Technical Computing, and the Library will collaborate to implement single sign-on for Blackboard, Network Access, and Banner. By leveraging collaboration within LIS, services will improve for faculty and students.

The Center for Teaching Excellence (CTE) will continue to be a special partner in developing improved resources for faculty. In addition to acting in its current role, LIS will staff the CTE area with Media Center and Academic Computing staff. This will provide technology expertise that is available in an accessible location.

Improved Instructional Support for Faculty

Recommendations

• Recruit an Instructional Designer(s)

• Increase instructional software budget

Discussion

Faculty are already using a standard course management system, Blackboard. As they gain experience with computer mediated learning, both for hybrid “on-ground” and distance learning, faculty will want more sophisticated tools to incorporate richer content. This content may have simulation, audio, and video components. Faculty will require additional assistance in designing and implementing this more sophisticated content. A new position, Instructional Designer, is requested. The person who fills this position should have experience as an instructor as well as a thorough appreciation of how learning technologies can be used effectively. After the first such position is filled, additional positions will be recruited as demand and budgets warrant.

Other software may also be desirable to support instruction. For example, the availability of web-based research and the ease of cutting and pasting it into student-
authored documents, eases considerably the mechanics of plagiarism. Software is available that assists faculty with determining if a student’s work is original or copied. There will be other software needs in the emerging computer mediated environment.

**Assessment- Electronic Portfolios**

**Recommendations**

- Purchase and implement an electronic portfolio system targeted at student assessment, but also useful for faculty portfolios

**Discussion**

Middle States and other accrediting agencies are stressing assessment of both academic and administrative processes. Assessment is also a prominent part of the Plan for Academic Excellence. Some departments choose to have students create portfolios as one method of assessing students. A common college-wide electronic portfolio system will provide a space efficient and organized way to store student work. Student work will be accessible to those on campus with a need to know as well as to other constituencies of the students’ choosing (e.g. select employers). Such a system might also have applicability to faculty work, particularly in the promotion and tenure context.

**General and Discipline Specific Computer Laboratories**

There is no expectation to increase the number of general purpose computer laboratories on campus. The number of discipline specific computer labs such as the Language Lab, Music Midi Lab, School of Business Lab, and Media Center Lab have been increasing. This trend is expected to continue.

**Improved support for remote computer and library users**

**Recommendations**

- Purchase virtual reference software that may be used cooperatively with other institutions.

**Discussion**

Many computer and library users do not normally complete their academic work on campus. Even if they are on campus, they typically work in a location where they may rely on telephone support from the help desk or reference desk. Virtual reference software will enable reference librarians and help desk professionals to view what the remote client is doing and assist them. The AJCU institutions are considering sharing the cost of a virtual reference package in which other institutions’ librarians would be available to answer questions from all participating institutions. This will expand the hours of availability of professional librarian assistance.

**Archives**

**Recommendation**

- Increase operating budget of the Canisius College Archives

**Discussion**

The Canisius College Archives is a treasure chest of tradition and history. Though
actively used by a small number of Canisius College faculty and staff, others both inside and outside the College deserve to have convenient access to more of its collection. The physical move of the collection to Bouwhuis Library removes one barrier, as the location in the library is now in a premier space accessible to all. Additional steps to greater access will include digitization of portions of the collection, better indexing methods for finding materials, and promotion of the collection as a teaching resource.

**Administrative**

**Event Scheduling**

**Recommendations**

- Purchase and implement the Resource 25 system for classroom and event-scheduling.

**Discussion**

Campus event sponsors such as Alumni, Student Affairs, Athletics, and Campus Ministry, and campus service providers such as Physical Plant, Dining Services, Media Center, and Public Relations need to communicate and coordinate their activities to produce successful and well promoted campus events. In addition, as the academic facilities grow in number, and their characteristics multiply (e.g. available technology, capacity, seating style, location, etc), computer assistance is highly desirable in academic scheduling.

The system that is in place today is running on ten-year-old hardware and software that is scheduled to be retired when Banner migration is complete in 2004.

Resource 25 is a full-featured event scheduling, conferencing, and web publicity package. It handles resources, web-based requests from end users, and web-based scheduling for venue managers. Communication facilities are in place for service providers such as dining service, media center, and physical plant. Resource 25 can be used to schedule events, large and small, from summer conferences to conference rooms. The software can be used to schedule classrooms.

Conferences can be robustly defined with respect to times, rooms, fees, etc. An event may be scheduled on a regular or arbitrary ad-hoc basis. Requesters of facilities can search on the Web for appropriate rooms that have appropriate resources (seats, media, etc).

Web publicity is available for viewers. Events are publicized or not depending on the event and the sponsor's preferences. Viewers can see events by location, type, or date. The pages can be branded to have the Canisius College look and feel.

**Desktop Access to Administrative Data**

**Recommendation**

- Develop a data repository that is optimized for reporting of administrative data

**Discussion**

One of the promises of the new Banner system is to make data easier to manipulate for reports and ad-hoc analysis. ITS selected a tool, Business Objects, to deliver on this promise, and those that have used it agree that it is easy to use. There are a number of
remaining challenges to fully deliver on the promise, however: i) additional Business Object licenses must be purchased to accommodate additional computer users; ii) ITS and departments must collaborate to expand the number of data views that optimize the Banner data for reporting; and iii) there must be training for campus users to get the most out of this technology.

**IT Disaster Planning**

**Recommendation**

- Enhance the IT Disaster Plan

**Discussion**

The consequences of IT outage for an extended period are dire. Typical vulnerabilities include traditional threats such as fire and physical damage, but there are new more insidious threats having to do with computer hackers and network attacks.

Canisius College has made considerable progress on its disaster plan for information technology. Many of the most critical activities can be continued in a secondary computer room location, although the "failover" will be anything but automatic; changeover could well take several days. In fact, the changeover, as is now constituted, entirely relies on key ITS personnel availability. As our external auditors recommend, the recovery procedures need more proceduralization and testing. Furthermore, the plan needs to be extended out of the IT central area and into College departments who must develop their own procedures. Finally, following this strategy has funding implications for continuing to incorporate redundancy into the most important elements of the technology infrastructure.

**Student Life**

**Express Computer Clusters**

**Recommendation**

- Expand the number of express computer clusters

**Discussion**

Computer clusters for electronic mail and Internet access have been installed in Palisano, Old Main, KAC, and the Student Center. These clusters are part of the fabric of ubiquitous technology on campus. They have been extremely popular with students, and there will need to be additional locations in other buildings on campus such as the Blue Cross building and Health Science Building.

**Partner in Building Renovation**

**Recommendation**

- Incorporate information technology into new and renovated buildings

**Discussion**

For new building renovation projects such as the new science building (Blue Cross),
as well as repurposed buildings, such as Health Science, Wehle Technology Center, and Horan O’Donnell, ITS will assist in the planning and implementation of appropriate information technology for building occupants. As these buildings are planned, it will be important to step back and consider best practices. For example, the new science building offers a unique opportunity to integrate information technology with a comprehensive science environment. A new residence hall offers similar opportunities to provide state-of-the-art information services to students.

Peer Competition-Best Practices

Wireless Campus & Networking

- Cover the campus with wireless networking
- Hire a Network Services security administrator to improve network security
- Increase network capacity for wireless

Discussion

Wireless data communication is sprouting up all over the higher education and residential networking scene. Two-thirds of the higher education respondents to Kenneth Green's National Survey of Computing in Higher Education report wireless networks on their campuses in Fall 2002, up from less than one-third in Fall 2000. One in ten of the respondents indicate that their entire campus is covered by their wireless network; this number is expected to rise to 20% by September 2003. The technology is ideal for classroom, library, laboratory, and lounge locations, where wired connections are not always practical.

At Canisius College, wireless communication is already popular in the Library and in the Wehle Technology Center. The Library illustrates the powerful use of wireless laptop computers to support the academic mission of the College. Students can use both print and electronic library resources at any comfortable location in the library. With access to research sources as well as word processing software, students may conveniently write their papers. Wireless networking is also used in the library instruction room. One can envision faculty with a laptop computer in a future classroom setting in which there is wireless connectivity to both the projector and to the campus network. The new science building will have wireless capability in both classrooms and laboratories.

The Student Center was added to the list of wireless enabled buildings in Summer 2002. The renovated Campion Hall is the first residence hall with wireless communication available everywhere. Wireless adoption will continue; there will be close attention paid to evolving new standards that will enable higher speed wireless access. This will be phased in at the rate of at least one to two buildings each year. The order of implementation will be: buildings being renovated; classroom buildings; residence halls; and administrative buildings.

To support the wireless upgrade and to make other necessary improvements, the wired infrastructure will need regular upgrading as well.

In addition to wireless data, ITS will need to investigate and recommend institutional approaches to wireless voice (cellular) communication, particularly for students. National marketing information indicates that 85% of the freshmen class will arrive on campus with a cell phone. That high penetration has implications for the kinds of telephone systems planned for the residence halls.
Additional Technology Renewal

Recommendations

- Provide funding for purchasing/replacing desktop computers on a four to five year cycle
- Provide funding for purchasing/replacing server and networking equipment on a four to five year cycle.

Discussion

The Canisius College Strategic Plan refers to recent technology upgrades, and indeed the College has seen a radical transformation of both its instructional and administrative information technology. To keep the campus competitive in this area requires continued investment. Increased capabilities become highly desirable and require new equipment and software. Technology renewal extends to software infrastructure (such as electronic mail), network systems, telephone systems, classroom technology, and desktop computers. Technology is in a constant state of change; one-time show-cases risk becoming embarrassments.

Upgrades and replacements are also required because of increased adoption. When Blackboard software made its debut on campus, it was run on a small personal computer. Now there are hundreds of class sections that use Blackboard, and a much more capable server is required. Many instructors have come to rely on Blackboard to supply an important component of both class material and student interaction. This is only possible because of upgraded systems, which themselves will need upgrading as Blackboard adds features and adoption by faculty becomes more widespread. Because Blackboard software has become such a critical part of instruction, redundancy is required as well. This Blackboard example is but one where initial investments will need to be followed by regular funding.

Technology Integration

Recommendations

- Synchronize Blackboard courses with actual class rosters without the need for faculty to drop students in Blackboard
- Synchronize access control system with Banner administrative system

Discussion

As Canisius College enters select technology spheres, there is a need to integrate them. For example, Canisius College uses Blackboard for its course management system and Banner for its student information system. These two systems need to be aware of each other and interact in a seamless, intelligent way. When a student registers or drops a course, there should be proper Blackboard processing. A student authenticating into one system, for example, for network access, should not have to authenticate into another system- and especially not have to authenticate using different passwords as is now the case. (See more about integration issues in the Simplified Sign-On section below). Other systems that need more integration work include card swipe and library systems. Those
systems require a good deal of manual entry for keeping their records current.

**Simplified Sign-on**

**Recommendations**

- Implement simplified sign-on
- Implement password retention and overall identification credential policy

**Discussion**

In the current environment, we need to authenticate (i.e. "login") to different services. For example, at Canisius College, a student or faculty member may have to login separately to electronic mail, Banner, Blackboard, the Novell network, or the electronic reserves library system; some systems have different conventions for the username and password. Forgotten PINs and passwords are among the most frequent reasons for user assistance by the Registrar and Help Desk. Simplified sign-on capability reduces significantly the number of logins. Furthermore, because a more secure password can be selected than in some of the individual systems, the College is more immune from computer hackers.

Because of the sensitive nature of the College’s administrative data, there must be great care about access. The external auditors of Canisius College have strongly recommended that everybody’s passwords need to change on a regular basis. Those with the greatest access to sensitive data should have the most frequency of password changing, but everyone would see at least one change per year. On the positive side, a system that supported the simplified sign-on environment would also support easy but secure resetting of passwords based on a shared secret (e.g. what is your mother’s maiden name?).

**Improved email and web-based client**

**Recommendations**

- Implement a new web-based email client to replace the current Griffmail web client
- Implement a new email infrastructure

**Discussion**

The current electronic mail system suffers from a number of problems:

1. The underlying email architecture is designed and maintained by ITS staff. With anti-spam, anti-spoof, and anti-virus technology integrated, the environment has become increasingly complex and takes an increasing amount of time to maintain.

2. The Web client (Griffmail) is now dated and does not include features expected in an email product such as filtering, more flexible display options, and subscription to other email services such as Hotmail. As a result, students are increasingly using other email services and are drawn away from official college communications.
**Budget Summary**

A summary of costs is on file in the LIS Office in Bouwhuis Library.