## Stakeholders

### Introduction

Stakeholders are an integral part of any Strategic Planning process, as they are the customers and constituency that your plan will impact. As such, it is important to clearly outline and define these groups to ensure your plan is comprehensive and thorough. Traditionally, there are two main types of stakeholders: Primary (those directly impacted) and Secondary (non-primary customers with peripheral impact). For our purposes, the 2 groups have been delineated as Primary and Non-Primary up to this point, but they could also be viewed as **Internal** and **External**. Constructing Stakeholders into these 2 separate classifications (Primary and Non-Primary) helped clarify our provision of services and resources, and therefore helped direct our overall planning process.

### Two Classifications

In identifying and labeling our stakeholders, two classifications emerged: Primary and Non-Primary. It is important to maintain this distinction for planning purposes, yet it may also be beneficial to construct the groups according to the main characteristic which seems to define and separate members of the 2 groups, their affiliation with the Georgia Tech community. In our discussion on the delineation of stakeholders, a clear pattern has developed in which those with direct ties and affiliations with the GT community have been labeled as Primary, and those with secondary or peripheral affiliations have been labeled as Non-Primary. Therefore, a simple analysis would leave us with 2 main classifications, **Internal** (Primary) and **External** (Non-Primary).

#### Primary Stakeholders- Internal Classifications

As previously stated, the Primary stakeholders are distinctive in the respect that they are almost all directly tied to the GT Community (with the notable exceptions of Archives and Government Documents Users), though there may be further breakdowns and sub-groups. These users include the GT students, faculty and staff that the library has an institutional mandate to serve. The following list will outline the Primary users, yet also provide the specific sub-groups that have been identified to this point:

**Faculty/Researchers & Staff**

1. Teaching Faculty
2. Researchers
   - Faculty Researchers
   - Staff Researchers
   - GTRI Researchers
3. General Faculty
a- This category includes those with professional development needs, and those with work-related information needs

4- Academic Professionals (including Post-Doc)
5- Visiting Scholars
6- Other GT Employees (Administrative Staff- often users who are acquiring information for Faculty members within their department)

Students (Note: there is significant crossover in these subgroups)

7- Undergraduate
8- Graduate
9- Transfer
10- Distance Students
   a- Students at other GT campuses (Savannah, Lorraine)
   b- Distance Education students without other campuses
11- Dual Enrollment
   a- BME/Emory
   b- GSU/GT
12- Student Teaching and Research
   a- Research Assistants
   b- Teaching Assistants

Other Primary Patrons (may include external patrons)

13- Government Depository/Patent services users
14- Archives Researchers
15- Users with Disabilities in all categories

Non-Primary Stakeholders- External Classifications

Non- Primary stakeholders are unique because they come exclusively from external sources, but also because their levels of access are variable. Some of the groups have affiliations through other universities that allow a quasi-primary status for Circulation services (they are able to check books out, but borrowing periods and available item types are more restrictive), yet they are classified as Non-Primary customers because many other Library services (such as reference help and research consultation) are
limited. The following list will outline the Non-Primary users, yet also provide the specific sub-groups that have been identified to this point:

General Public

1- Local Business Users
2- Community Users
3- Limited Access Visiting Scholars
4- Professional Education Students (DLPE)
5- Summer Program Attendees (OMED, CEISMIC, etc)
6- Unaffiliated local high school students/teachers

Special Customers

7- Corporate Liaison Program Members
8- GIL Express/ ILL Customers
9- Other local colleges/universities students, faculty and staff
   a- Board of Regents schools
   b- ARCHE affiliates
   c- Emory
10- Affiliated local high school staff/students
II. Organizational Mandates

Mandates can include both those things an organization is required to do as well as those things it is required not to do. Formal mandates are most often those required by a funding or authorizing group (e.g. the Institute or the BOR). If these mandates are not met, the organization may face serious consequences. Informal mandates are those expectations that may remain unspoken or unwritten. Often the expectations of clients or staff are informal in nature. Informal mandates include activities or duties which are performed as a result of what has come to be expected by an organization.

Our list of Organizational Mandates includes both the Formal Obligations (F) of the Library and the Informal Expectations (I) of what users want/expect:

i. Collaborate with campus units and external partners to enhance services and resources offered (I)
ii. Provide and manage administrative oversight for Institute records (F)
iii. Connect and provide access to external resources (e.g. ILL, GIL Express) (F)
iv. Provide training, professional development and staff development opportunities for Library staff (I)
v. Maintain license compliance with vendors for software, databases, etc. (F)
vi. Maintain integrity of Library infrastructure (e.g. building, IT structure, etc.) (F)
vii. Provide assessment of information use, quality of service, facility usage, satisfaction/perceptions, etc. (I/F)
viii. Distribute materials needed for educational purposes (e.g. Reserves, ILL, GIL Express, software) (F)
ix. Organize and manage resources (e.g. print, electronic, special formats, etc.) (F)
x. Preserve the history of the Institute and community (F)
xi. Capture the intellectual output of the Institute (F)
xii. Provide individualized and group information literacy/information competency training and instruction to help prepare students for life long learning (I/F)
xiii. Provide customer support in all aspects of library services and resources (F)
xiv. Maintain accountability for funds (state and non-state) (F)
xv. Provide a ‘place’ for study, research, and social activities (F/I)
xvi. Provide a safe, clean facility (F)
xvii. Support the research activities of the Institute (F)
xviii. Support the instructional activities of the Institute (F)
ixix. Collect, provide and interpret information resources (e.g. books, journals, technical reports, maps, etc.) (F)
xx. Support the technology needs (hardware & software) of the GT community (F)

III. Focus Groups (Questions utilized)

A. Library Department Focus Groups:
What is the mission of your Department? How does this fit into the Library? Do you see this changing in the next 3 – 5 years?
What do you (the Department) do well?
What would you like to change about the work you do and what would you like to remain the same?
Are your resources (staff, equipment, technology, space) sufficient? Why or why not?
What could you do better with adequate resources?
What products or services have been requested that you have not been able to provide?
What would need to change for you to be able to provide these products or services?
What other departments do you collaborate with and how? What other departments do you think you SHOULD collaborate with and why?
What new trends and technologies are developing in your area of the Library? How do you expect these trends to impact your Department? The Library?
Who are the Library’s ‘competitors’? How do they compete? Does your department have ‘competitors’?
How do you think those outside the Library (customers, peers, community) see us?
What kind of customer data have you collected in the past 2 years? What has it revealed? What additional data could help you do your job?

B. Student Focus Groups:
What do you think about the Library? Why?
How do you use the Library and its resources?
What services and resources could make the Library more useful for you?
If you could change one thing about the Library, what would it be?
How would you like news about changes/events/new offerings be communicated to you?
C. Faculty Focus Groups:
Do you view the Library as a positive or negative, and why?
What new resources and services would you like to see the Library make available to you and your students in the future?
What trends (in technology, etc.) are on the horizon, and how could they be integrated into Library services/resources for the future?
Do you see scholarly communication changing, and if so, how?
How can the Library become more involved with research and instruction?
How will the Georgia Tech student of 2020 differ from today’s students and what will the Library need to do to support them and their work?

IV. Surveys

LEC Questionnaire and Feedback Responses

The 5 survey questions are listed below, including the corresponding notes on feedback and responses:

What would you like to see the library do next?
The majority of these responses focused on the need to renovate other Library facilities (2-4 West were frequently cited), and requests for updated furnishings and high end accoutrements like projectors and waycom tablets. Comfort played a role, as desires for couches, more food selections, microwaves, and “comfy” chairs were noted. Another component was entertainment, as movie screenings and televised GT sporting events were requested on several occasions.

What would you like to see more of?
Many of these answers echoed those of the previous question, as electronic gadgets, DVDs, computers, and facility renovations were discussed unanimously. A notable exception is that a desire for more and better signage was expressed multiple times.

How would you like to receive news about library resources and events?
This answer seemed limited to a few common responses, though no single one seemed to dominate. Posters/fliers, the Technique, Buzzport, email, and the Library website received similar frequencies of mention.

What 3 things do you like most about the library?
These responses almost always included mention of the Commons areas, as well as our computers, resources or technology (the language deviated, but not the message). Standouts were our hours of operation, and the carrels/personal study areas.

What 3 things do you like least?
These answers were wide-ranging and diverse. The wait time for computers (and the number available) was often cited, as well as the older facilities and lighting on the higher
floors. Other mentions were the crowd in the Commons areas, a lack of power/data ports, DVD selections, noise, graffiti, and bad signage.

As for the comment boards left in the space, the majority of responses were positive reviews of the changes to the LEC. More computers, DVDs, microwaves and software were repeatedly asked for as well. A surprising number of responses were asking for goods/services that the Library already provides, indicating a general lack of awareness from our patrons, and bad communication on our part. Nothing shocking or groundbreaking was discovered with either of these methods. Generally, the responses and feedback we received were helpful, but mostly in the respect that they supported many of our other findings.

V. Documentation reviewed

a. Internal Documents

1. Library and Information Center Strategic Plan, 2002-2007

   http://smartech.gatech.edu/handle/1853/4758

The 2002-2007 Strategic Plan outlines the vision for the Library’s growth and development over the past five years. It lays out the Library’s official mission, and its goals to successfully fulfill that mission. The mission of the Library, as stated in the 2002 Strategic Plan, is:

   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.

It has been determined that this mission statement is to remain the same in the 2007 Strategic Plan.

In addition to the mission statement, the 2002 Strategic Plan defines six goals for the Library to achieve during the 2002-2007 time period:

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

2. 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.

3. Select, acquire, organize, preserve, and access 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.

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

5. 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.

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

The Strategic Plan also outlines specific achievements towards those goals by individual departments and divisions.

Technical Services Division Review Team Report was created in 2003 and outlines trends in library work and changes TRS should expect to prepare for to meet the challenge of the rapidly changing world of information management. The most important trends and changes include:

- An increasingly digital environment, with technology standards, metadata services, digital rights management, electronic records management, Web services, and instructional technologists becoming major growth areas for TRS.
- Less “department-confined” working space and an increase in teamwork and cross-department working groups.
- Changes in scholarly communications process – the traditional idea of the journal as container will diminish.
- Digital rights management will rise – authentication of classes of users will become more important.
- Digital institutional repositories will rise in importance, as will their integration into larger national or international networks of repositories.

The TRS Review Team also proposed several new positions that will be necessary to keep up with the ever-changing pace of technology, including:

- Digital Video Technician
- Licensing and Rights Management Officer
- Preservation Officer and Assistant

Created in 2006, this document proposes several new positions within the Library which will become necessary in the future as the Library’s involvement in the development of scholarly communications grows. According to this plan, the Library should position itself to become a leader in four key areas:
1. Technology – Additional staff will be needed to take on the responsibilities of
digital preservation, web development, and technology strategy, and the archiving
of electronic records.

2. Scholarly Communications – The Library should become and advocate for the
changes in scholarly communications by raising awareness of faculty’s rights as
authors, intellectual property issues, and the value of open-access publishing and
self-archiving in institutional repositories. To this end, it is recommended that the
Library create positions such as an Intellectual Property Officer and Technology
Services Manager to develop an outreach component for our scholarly
communications agenda.

3. Digital Intellectual Output – This area is currently a strength of the Library, but
should be expanded to include electronic publishing and user support, as well as
specialized digital projects.

4. Learning Technologies – In order to fully support teaching and learning at
Georgia Tech, it is vital that the Library work closely with faculty, students, and
IT professionals in developing new electronic learning tools and technologies.


Highlights of the Library Annual Report from 2005-2006 include:

- Continued emphasis on digital delivery to the desktop.
- Commitment to access and long-term preservation of digital materials.
- Reworking of workflows to account for electronic publications.
- LWC and LEC supported by campus administrators.
- Collaborations with Architecture faculty and the OIT/Library Resource Center.
- Growth of the PR/Marketing Group.
- Leadership in the development of the GALILEO Knowledge Repository.
- Development of journal support services.
- Addition of a website devoted to scholarly communications.
- Electronic Resource Management System (ERMS) evaluation.
- Expansion of the Web Steering Committee.

5. A New Model for Public Services: Vision for Consolidating Library Services, 2001

The task of this Public Services team was to find ways to consolidate the service desks in
Reference, Government Information and Technical Resources to improve support of
student information needs. The proposed model was to organize the Library’s public
services along functional activities rather than by material format. This reorganization
coincided with the OIT-Library partnership to form an “Information Commons” within
the Library building. This report outlines the changes that were necessary in Public
Services to accommodate the Commons, as well as to better serve the needs of the
student population.
b. **Internal Institutional Documents**

1. **Georgia Tech Strategic Plan (no date given)**

   Goal 7: Facilities Improvement and Expansion – “Enhance the educational environment through the transformation of the library and other appropriate facilities into interactive learning centers employing the latest technologies.”


   1. 87.2% of baccalaureate alumni indicated that they were prepared or better as it relates to “The ability to conduct an information search using catalogs, indexes, bibliographies, internet, etc. with a mean score of 3.64 (on a 1-5 scale).

   2. Almost 40% judged their satisfaction with the Library facility as less than satisfactory.


   1. 98.3% of baccalaureate alumni employers indicated that their employee’s “The ability to conduct an information search using catalogs, indexes, bibliographies, internet, etc. should be prepared or better with a mean score of 4.07 (on a 1-5 scale).

   2. This skill is rank in the top 10 preparation ratings for knowledge, skills, and abilities by employers.

   3. The importance as rated by alumni employers of the following: “The ability to conduct an information search using catalogs, indexes, bibliographies, Internet, etc.”

      - Extremely important 16.4%
      - Very important 33.9%
      - Important 29.0%
      - Somewhat important 15.3%
      - Not important 5.5%

   4. The preparation of our alumni as rated by alumni employers of the following: “The ability to conduct an information search using catalogs, indexes, bibliographies, Internet, etc.”

      - Very well prepared 35.0%
      - Well prepared 39.0%
      - Prepared 24.3%
      - Somewhat prepared 1.7%
      - Not prepared 0.0%

Overall: of 1,095 respondents indicated a 73.7% were extremely satisfied, very satisfied, or satisfied with the Library.


College of Management: of 79 respondents, 61% were extremely satisfied, very satisfied, or satisfied with the Library.
College of Engineering: of 734 respondents, 82% were extremely satisfied, very satisfied, or satisfied with the Library.
College of Sciences: of 77 respondents, 78% were extremely satisfied, very satisfied, or satisfied with the Library.
College of Computing: of 33 respondents, 66% were extremely satisfied, very satisfied, or satisfied with the Library.
College of Architecture: of 20 respondents, 38.5% were very satisfied or somewhat satisfied with the Library resources. Of 17 respondents, 32.7% were neither satisfied nor dissatisfied.

6. 2002 Your First College Year Survey (February 2003)

62.2% were satisfied or very satisfied with Library facilities and services compared to 85.7% “Consortium Total.” The Consortium is comprised of five similar institutions.


Mentions the following “specific assessable learning outcome” stemming from the following objective: “Georgia Tech students will be able to read a variety of documents critically, acquire and synthesize information, and shape a written or oral presentation that accommodates audience needs and show a mastery of basic communications skills.”

• “Conduct an effective information search that includes a variety of reference sources (e.g. indexes and library catalogs, bibliographies, and Internet searches).”

The report continues by saying that the assessment of this learning outcome is under development.

8. Fall 1999 HEDS Graduate Student Survey

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<thead>
<tr>
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<th>Satisfied/Very Satisfied</th>
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<tbody>
<tr>
<td>Library services</td>
<td>76.5%</td>
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<tr>
<td>Library hours</td>
<td>64.2%</td>
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<tr>
<td>Library facilities</td>
<td>61.6%</td>
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<tr>
<td>Library resources/holdings</td>
<td>58.5%</td>
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</table>
c. **External Documents**

i. **Trends & Organizational Change**

1. **5-10 Year Planning Horizon: Assumptions about the relevant future for academic and research libraries and librarians.** Association for College and Research Libraries’ Research Committee, August 2006.

   This report, created by the Association for College and Research Libraries (ACRL) Research Committee, consists of key factors likely to impact academic libraries in the future including the changing demographics, social values and politics, legislation and regulations, technology and science, and economics in a global climate. The purpose of the report is to envision the near future to build foresight for research libraries and ACRL.

   The changing demographics in higher education will create a big shift towards non-traditional student populations including minority students, first generation college students, distant learners and international students. This will require more content to be available online and more refinement of the online services we provide to fit with the varied learning styles and experiences of users.

   The changing societal values means university administrators will seek unique ways to attract and retain students, who see themselves more as consumers and universities as product to purchase. With this in mind, libraries must sell themselves as a unique “place” on campus, both physical and virtual. In addition, the culture of the university is becoming more collaborative and team-based. This will require libraries to facilitate this type of learning both in the lay out of the physical library and by librarians leaving the library and going to places where collaboration and learning happens on campus.

   In addition, libraries should continue to increase digitization projects and think about ways to use current technology to develop collections and gain access to information for library users. They must also keep aware of new forms of scholarly communication which will increase in the future.

   Many of the aforementioned changes will require more highly-skilled and specialized human resources, including many outside of the traditional library career path. This will mean more of library budgets will go towards salaries, staff training and development and enhancement of facilities.


   This OCLC report examines the "unbundling of content" from traditional containers (books, journals, CDs) and distribution methods (postal mail, resource sharing). As the boundaries blur between content, technology and the information consumer, “format” now matters less than the information within the container. The report lays out the top trends in content and what they may mean for libraries in the next five years. It also explores the next challenge of providing context to content with tools such as contextual searching.

   The report begins by looking at the perceptions of content, especially for students and young scholars. Users want content to be digital and available 24/7 as well as in as
granular a piece as they can get. They see content as format-independent and they want to buy, access, ingest information in these granular pieces. For libraries and publishers, that means how we buy, organize and deliver content must change to accommodate the expectations of our communities.

Libraries need to look into just-in-time models, shifting from a just-in-case model for acquiring material. Material needs to be delivered not just to PCs and laptops, but to smaller and more mobile devices such as smartphones, PDAs and web-enable cell phones. In addition, libraries need to see themselves not only as housing information but as broadcasting information to get it out to users. Broadcasting can be done through blog feeds, wikis and other new technologies.

The challenge of contextualizing information should be in our minds as we think about future services and job descriptions. These skills require skilled and service-oriented staff to give meaningful context to raw information that users now have easy access to. To have a unique role in the world of contextualizing, libraries should work on digitizing and utilizing their unique collections within the contexts of their communities.


This report was written by the National Academy of Engineering’s Committee on the Engineer of 2020 chaired by President Wayne Clough with the purpose to help higher education institutions prepare the future engineers needed in the changing environment.

The committee sees the engineers of 2020 as “broadly educated, who see themselves as global citizens, who can be leaders in business and public service, and who are ethically grounded.” These future engineers will have strong analytical skills, creativity, communication skills, flexibility, leadership skills, the ability to work in teams, and an interest in lifelong learning.

Higher education has a central role they must play in order to create and support these engineers for 2020. Providing a broad engineering education to students has become a greater challenge as technology and science explodes and new areas requiring more specialization are appearing. Not even the fundamentals are fixed as new technologies enter the engineer’s toolkit. This means the time students spend in college cannot be their only time learning new skills. Communities of higher education must teach students how to learn and how to continuously adapt since they will not get all their education while working towards their engineering degrees.

Engineering schools have to attract a new pool of students in order to “produce more technologically literate students who hopefully will understand the principles of the inquiry-based scientific methods and engineering under constraint and be able to apply them to the profession they choose to pursue and as citizens of a technical society.”

Academic libraries can play a critical role is helping shape these engineers of the future through partnerships with faculty, creating a group-based study environment, and through providing a wide collection of resources for students and researchers varied, multidisciplinary interests.

The DaVinci Institute writes ten key trends that are affecting the development of the next generation library then makes predictions for the future libraries. These trends cover areas related to library collections, services, patrons and staff.

Information is growing and technology is changing, creating patrons who want information 24/7 and immediately. Libraries must keep in mind that what we see and use now will soon be obsolete, so it is our job to continually learn new things.

Libraries need to increase and improve customer service as the patron can choose many places to find information. The “patron experience” is critical and should be evaluated often. Since information is easily accessible, the library must create a meaningful, unique experience with skilled, service-oriented staff to keep patrons using the library. To continue to be seen as a unique resource, libraries should focus on digitizing local collections and creating a unique space and experience for our users.


The Perceptions report provides the findings and responses from the OCLC online survey in an effort to learn more about library use, library awareness, use of library electronic resources, the Internet search engine, the library and the librarian, free vs. for-fee information, and the "Library" brand.

Results show generally positive ideas of libraries and the information they provide in the traditional old fashion sense of books, magazines and some audio/visual materials. Survey respondents did not often use the library’s website to find information and often do not know what is available to them via a library’s website. Given the choice between search engines and their library’s website, only 1% of respondents said they would go the library’s website. They believe the quality of information found at a library’s website and on a search engines are equal.

These results indicate that libraries need to spend more of their energy and focus on advocating for the library and marketing library services. The report suggests if users are going to search engines, then libraries need to make sure their stuff is easily accessible through search engines. Libraries need to broadcast their content instead of waiting for users to come to them. They also need to invest in professionally marketing their services and resources to their unique user groups.

6. What if Wal-Mart Ran a Library?
Joseph Esposito
Journal of Electronic Publishing
Vol. 9, no. 1, Winter 2006 [Link]

The author draws comparisons to Wal-Mart and the large-scale industrial processes that have reshaped the corporate environment, and anticipates that similar processes will impact the future of libraries. The premise is that eventually libraries will become consolidated and serve as storefronts, while resources are kept in centralized warehouses.
Doc delivery and buy-as-you-go models will become more common. Libraries will also form mega-consortiums and pressure publishers to provide reasonable pricing. Libraries will also be able to buy just content, not the interface, and integrate it into a federated search tool.

The author proposes that there will be significant opposition to the introduction of this change, especially because of the disruption of the lives of academic librarians and their institutions, inasmuch as the decisions to make these changes are driven by increasing economic pressures and will be made by authorities above librarians in the institutional hierarchy, the Wal-Martization of the academic library is inevitable.

7. The McDonaldization of academic libraries?
Brian Quinn
*College and Research Libraries*
May 2000
[http://www.ala.org/ala/acrl/acrlpubs/crljournal/backissues2000b/may00/quinn.pdf](http://www.ala.org/ala/acrl/acrlpubs/crljournal/backissues2000b/may00/quinn.pdf)

The author suggests that many aspects of the fast food industry are making their way into other areas of society, including libraries. The core premise is that the quality of information is not as important to students as quick access. Patrons desire a ‘fast-food’ model in which they receive answers and information immediately. The article also suggests that academic libraries are becoming more similar, in regards to collections, and less specialized or distinctive; they are becoming one-size fits.

The author also remarks that academic libraries have become extremely hierarchical and bureaucratic, and that jobs have become so specialized that staff are often segregated. Communication and collaboration are often limited, and work becomes repetitive and unchallenging. The author suggests alternatives to McDonaldization, including the establishment of humor rooms, joy clubs, and skunk work, as well as performing creativity audits, and new untraditional career path opportunities.

**Student Users/Millennials**

[http://www.beloit.edu/~pubaff/mindset/](http://www.beloit.edu/~pubaff/mindset/)

Beloit College in Wisconsin annually produces the *Beloit College Mindset List.* The 2006 List looks at the cultural benchmarks that have shaped the lives of the traditional (18 year old) first-year students. According to the authors, Beloit’s Humanities Professor Tom McBride and Public Affairs Director Ron Nief, this year’s entering students form “a generation that has always been ‘connected’ and is used to things happening in ‘real time,’ like live satellite coverage of revolutions and wars, instant messaging and movies on demand. They expect solutions for every problem, from baldness to diseased organs. To the chagrin of teachers and parents, they’ve developed their own generational means of communication.” The List is meant to help faculty and others in academia connect to
the freshmen students they work with; and it is meant to be both fun and thought-
provoking in its portrayal of the undergraduate student mindset.

2. ECAR Study of Students and Information Technology, 2006.
Gail Salaway, Richard N. Katz, and Judith B. Caruso, with Robert B. Kvavik and Mark R. Nelson

This is a longitudinal extension of the 2004 and 2005 ECAR studies of students and
information technology, based on quantitative data from a survey of approximately
29,000 freshman and senior students at 96 different higher education institutions. It
focuses on what kinds of information technologies students are using, and their skill
levels with the technologies. The study also examines the use of Information Technology
in undergraduate education and its contributions to their learning experience. Several key
findings include: 1) ownership, use and skill with Information Technology – nearly 98%
own PCs or laptops, spend 23-30 hours per week online, and use electronic
communication extensively, yet many expressed an interest/need for IT training in
software/hardware use; 2) Information technology use in courses – many students wanted
only a moderate use of IT in classes – including course management tools and response
devices, though nearly all appreciated the value of checking progress/grades online;
3) value of IT in learning – 65% agreed that IT improved their learning, and most rank
convenience as the biggest benefit of IT use.

Richard T Sweeney.

Sweeney examines the main characteristics of the Millennials that distinguish them from
other generations. He also suggests ideas for redesigning libraries and library services to
effectively serve the Millennials' information needs - particularly in light of their
constant exposure to and use of electronic media. Sweeney suggests several steps
libraries need to take to remain relevant for the Millennials: 1) maintain and organize
digital institutional, community, and professional repositories as a means to organize
knowledge; 2) help users find information in the way they want (i.e. google-ized search
mechanisms); 3) reinvent physical libraries with hours of service more desirable to
Millenials and with services (cafes, social activities such as games or movies) that appeal
to their lifestyle; 4) provide different kinds of ‘spaces’ for different needs – including
quiet zones for study and noisy zones for interactions (performances, socializing, group
work); 5) design library spaces that can continuously, easily, quickly, and cheaply adapt
to new Millennial needs; 6) partner with other units/organizations to combine resources
to provide a broader array of services/spaces; 7) retrain library staff to serve in ‘blended’
positions, integrating the skill sets of instructional design, instructional and information
technology as well as those of traditional librarianship; and 8) place Millenials in
decision-making positions to capture their ideas, energy and interests. Sweeney
concludes with the following admonishment for libraries and library managers:
“Millennials expect constant, rapid new services and far more options than they have been getting from traditional libraries. Library planners must respond with rapid, immediate new services that appeal to Millennials, and they must do so very soon. Each and every day more members of this huge cohort are entering colleges and the workforce and making decisions consciously or unconsciously about the relevance of libraries. Library planners must immediately target new, effective services to this generation and avoid delay.”

iii. Faculty/Researchers’ Changing Needs


This report’s major focus areas are digital preservation and repositories. There were no final conclusions or solutions identified in this report, but many talking points and questions that need to be considered by decision-makers related to the preservation of digital products. New-model scholarship poses challenges to preservationists: 1) How do we know what the value of digital objects is and may be decades from now?; 2) How do we anticipate and address the technical needs of fragile digital objects over time?; and 3) Who is responsible for preservation, and how is it financed? Librarians and archivists have been working on these issues for more than a decade, but they can’t answer these questions alone. Barriers to digital preservation can be summed up in one phrase: lack of infrastructure.

It’s important for creators of digital products/objects to
- work with libraries when beginning a project
- use standard and when possible non-proprietary formats
- determine the intended use and audience
- declare intended longevity.

Repositories should:
- work with data creators during all phases of the creation process
- declare policies and capabilities of archiving differing formats
- take materials into custody for preservation experiments

There is some debate about whether it’s advisable or even possible, for every institution of higher education, or even the largest institutions, to develop the full range of services needed for digital preservation. They are difficult and expensive to maintain. Some argue for a distributed model and some for a centralized model. There are concerns about the “orphans in the world” – the institutions that aren’t well-funded with a preservation mandate. University and college administrators and governors must play a visible role. To continue investing heavily in creating digital information assets without shoring up their long-term accessibility is like building castles on sand. It’s not just digital information that is at risk if the academy doesn’t act. It’s also the compact between the public and the research-and-development infrastructure that the public supports. Need to identify barriers to deposit and suggest incentives for deposit that can be created.
The five Organizational Models are: 1) Discipline-based; 2) Commercial Services; 3) Government Agencies; 4) Research Libraries; and 5) the Passionate Individual. A critical challenge to digital preservation in the near term is technical: the rapid rate at which hardware and software become obsolete means that information written in a specific code to run on specific hardware may be stranded by the adoption of newer, better code and hardware. Decisions about selection for preservation that can be deferred in the analog realm must be addressed early in the life cycle of digital files.

Four Commonly Understood Technical Approaches to Digital Preservation

1. Migration: stored in software-independent formats and reformatted as needed so that it can be accessed using current hardware and software.

2. Technology Preservation: data are preserved along with the hardware/software on which they depend.

3. Emulation: entails storing digital information alongside detailed information about how it looked, felt, and functioned in its original software/hardware environment. The look, feel, and functionality are then “emulated” or re-created on successive generations of hardware/software.

4. Persistent Object Preservation (POP): the opposite of migration, POP entails explicitly declaring the properties (e.g. content, structure, context, presentation) of the original digital information that ensure its persistence.

Of the strategies listed above, POP is the only one that starts with and remains focused on preserving the digital information from its inception. Another important technical approach is digital archaeology or data mining, which enables digital information to be rescued or recovered from disks, tapes, and other storage media that are no longer readable as a result of physical deterioration, neglect, obsolescence, etc.


A survey was designed and administered to evaluate a university library’s value to their faculty. Traditional statistics such as gate counts and circulation numbers were not assessing what the Library meant to the faculty. The survey was written to identify the information needs of the faculty, evaluate existing resources and services and predict future needs.

Changes made in response to this survey included a redesign of the library web site featuring a focus on services for the faculty, improved access to e-journals and expanded access to e-journals.

They discovered future needs to improve collection of research and teaching materials, to implement better existing e-resources and e-services and to communicate more clearly with faculty.
iv. The Future of the Digital Library

1. Digital Repositories Roadmap: Looking Forward
Rachel Heery and Andy Powell
04-07-2006
http://www.jisc.ac.uk/uploaded_documents/rep-roadmap-v15.doc

This article presents a vision of 2010 in which a high percentage of newly published scholarly output is made available as open access, with a growing recognition of the benefits of making research data, learning resources and other academic content freely available for sharing and re-use. It is written from the point of view of its UK authors.

They see a richer scholarly communication environment, supported by repository services at a mix of levels (institutional, national, etc.). The material types reviewed as important include academic papers, geospatial data, learning objects, research data, video and materials produced by students.

As the content of repositories expands to learning objects and data, they will become more interoperable with learning and teaching systems. A network of repositories, within and external to institutions, will develop. As this occurs, the services provided by repositories/institutions will become more important than the spaces where digital objects reside during their lifecycle.

Repositories support the aggregation of content and metadata and such services as content/metadata enrichment, interlinking of data and papers, visualization, and text and data mining. They feel that the responsibility for preservation of digital materials is cause for debate. Should the repository support it, or a national program?

They envision that repositories will become embedded in publication and peer review process as transition to having a significant proportion of publicly funded research outputs made available on open access basis. We need a new way to work with publishers and authors.

Currently, repositories tend to exist in isolation rather than being embedded into an interoperating network of services. Also, they are not integrated w/other institutional repositories. They are rarely embedded in an institution strategy. What a repository is & what services it offers is still evolving.

They authors feel that changes must be made in the policy, cultural, technical and legal environments. First, there must be a mandate that publicly-funded research be made open access. Culturally, the tenure structure needs to recognize open access publication as valuable and important. Repositories should be “well integrated into institutional and national access management approaches.” Technically, we need to support complex object models. Finally, we need to review our licensing to protect the intellectual property of institutions, academics and third-parties.
2. IMLS Status of Technology and Digitization in the Nation’s Museums and Libraries
Institute of Museum and Library Services
January 2006
http://www.imls.gov/resources/TechDig05/index.htm

A 2004 survey conducted to obtain statistical information about the “kinds of technology in use, the extent of digitization activities, and the adoption, maintenance, funding of, and staffing for technology and digitization activities at museums and libraries.”

Key findings:
71.4% of academic libraries report that they do not have enough skilled staff to accomplish their overall technology objectives.

On average, academic libraries feel somewhat deficient in their capability to initiate, accomplish and sustain digitization activities.

43.8% of academic libraries conduct assessments of user & visitor needs for technology-supported services; however, 78.8% do not conduct assessment for needs for digitized materials & images.

While many institutions are digitizing items, most do not have policies in place for digitization activities.

While collaborative digitization efforts are underway, they are not yet widespread. 21.3% of academic libraries report collaboration with other institutions.

The majority of state library administrative agencies surveyed provides funding or services to other institutions, including supporting cooperative digitization projects and supporting statewide digitization projects.

3. Institutional Repositories, ARL SPEC Kit 292
University of Houston Libraries / Institutional Repository Task Force
July 2006

Summarizes the results of a survey sent to the 123 ARL member libraries in January 2006, with 87 libraries responding. Presents statistics in narrative and graphical form. An institutional repository (IR) is defined as a “permanent, institution-wide repository of diverse, locally produced digital works that is available for public use and supports metadata harvesting.”

Top reasons for creating IR:
- Increase global visibility and dissemination of institution’s scholarship
- Free, open & timely access to scholarship
- Preservation & long term access of digital content
• Collect & organize the institution’s scholarship in a single system

Top challenges to implementing, promoting & running an IR:
• Content recruitment (63% found it to be “somewhat difficult” or “very difficult”)
• Staffing
• Faculty awareness/buy-in/interest/engagement
• Copyright issues

Most IRs had been established in the last two years, and the majority used the DSpace software. The library was likely to have been the most active institutional advocate of the IR. According to their results, most IRs had written policies and procedures & the majority of them had been submitted to institutional authority for review. ARL libraries have demonstrated a strong preliminary commitment to institutional repositories.

v. Library As Place

1. Bringing users back to the library: a case history.
New Library World
Vol. 107, No.1222, 2006
http://www.emeraldinsight.com/Insight/viewContentItem.do?contentType=Article&contentId=1550299

This article provides a case study for a renovation initiative at Michigan State University. Having noticed a decline in usage, the MSU Libraries hoped to bring users back to the building. The author suggests that libraries are shifting away from the monastery full of books model, into more of a marketplace concept; libraries are not simply information providers, but service and entertainment destinations.

The article outlines several steps taken:
1. They consolidated service points making it easier for patrons to get assistance.
2. They loosened up the Food/Drink policy and added a café.
3. They extended operating hours, 24 hours x 5 days, and aimed to be a home away from the dorm.
4. They added 400 public use computers.
5. They offered events and placed an emphasis on the atmosphere of the library.

These changes were effective as they saw a dramatic rise in attendance, and now average over 6000 visitors per day.

2. The Information Collaboratory.

This document provides a vision of a new engineering library at Stanford University. They intend to embed the library within a new engineering complex and will place a
heavy emphasis on an all digital collection, with the intention of phasing out printed materials. The Library will also design space to support collaboration and project-based learning. They are planning for a Document Center that will enable patrons to print books on demand, as well as posters, blueprints, and mechanical drawings. Librarians will be able to interact directly with engineering faculty and students, and will maintain online ‘channels’ or customized knowledge portals.

3. Library as Place: Rethinking Roles, Rethinking Space
Chapters 1 & 2

Libraries have a long tradition of being the central location for information, but with the proliferation of the web, libraries will have to evolve. Libraries are the only centralized location where emerging information technologies can be combined with traditional knowledge resources in a user-focused, service rich environment. In the past, expanding collections reduced user space, but now libraries are building around users needs, with an emphasis on the social dimensions of learning. Academic Libraries are also partnering with external departments, as well as with students to build a compelling enterprise. The goal of library design should be comfort and productively, enabling users to spend more time on the task of learning. Students are drawn to an environment that is sociable, in which they can hangout and talk with friends, as well as find seclusion when desired.

Classrooms and offices typically underscore the authority of the teacher, just as library space often reinforces the authority of staff. In this regard, libraries should seek to become more domesticated, belonging to the student community. Students should know or be familiar with others occupying the space around them. Very little within the environment should be alien to them, and there should be few threats for students to be themselves. And finally, occupants’ identities and activities should be acknowledged and celebrated.
VI. SWOT Analysis

STRENGTHS
The strengths relate to customer service, collaboration, staff expertise, being user-centered, marketing, respect, teamwork, assessment, and ‘free’ records management.

- **Customer service**
  - Good customer service and focus; able to handle difficult customers; responsive to customers.
  - Student interactions are good including TAs in the Library, tutoring services, etc.

- **Outreach/collaboration/teamwork**
  - Strong connections and relationships with campus units; willingness to work with others on campus.
  - Considerable involvement in statewide initiatives include GALILEO, MetaLib, the GALILEO Knowledge Repository (GKR), etc.

- **Staff expertise**
  - Talented staff with individual expertise.
  - Systems is able to provide in-house programming to develop enhanced technologies.
  - There are opportunities for training new archivists and for internships.

- **User-centered / flexibility**
  - User-centered consideration of customer feedback in decision-making process. There’s a student-centered environment in LWC and LEC.
  - Flexibility of “space” for student activities. Faculty view the library as a magnet/focal point for undergraduates.
  - Staff are able to multi-task, are adaptable, and share responsibility.
  - There’s a good tolerance for failure; risk-taking is embraced.

- **Marketing**
  - Some departments are successful at marketing their services.

- **Respect**
  - Dean and Director of Libraries has a good reputation on campus; we’re well-respected in the field.
  - Architecture Library is only one in Georgia and it’s well used by students from other colleges/universities and the general public.

- **Teamwork**
  - There’s a lack of division between Library faculty and staff.
Staff is moving in the same direction/shared vision/goals.

- Assessment
  - We have a developing culture of assessment with LibQUAL, other surveys, focus groups, etc.
- Free records management services for the campus.

**WEAKNESSES**
The weaknesses relate to collaboration, renovation/space needs, staffing needs, internal and external communications, resource needs, flexibility with publishers, technology enhancements, respect, student transportation, budget knowledge, staff development, and digital initiatives.

- Collaboration
  - More collaboration is needed with campus partners.
  - Lack of control over in-house partnerships; partnerships are poorly defined.
- Renovations/space needs
  - Space limitations (e.g. need for co-location; inadequate “office” or meeting space). Also need more shelving space.
  - Lack of adequate group space for users and staff.
  - Age and condition of the buildings.
  - Handicapped access to the buildings is difficult.
  - Location of Archives is problematic for access; feeling of isolation/separation for other departments in addition to Archives.
  - Limited space at Ethel St. warehouse for campus records.
  - Lack of quiet staff space and study space in the Architecture Library. No visitor printing in the Architecture Library.
  - Inadequate video viewing area.
- Staffing needs
  - Inadequate staff levels in some departments.
  - Insufficient funding for staff, space, and technology in some areas.
  - Need for more hours (24/7) with a potential for more staff.
- Communications (internal and external)
  - Inadequate PR/communications/marketing with our users.
  - Lack of communication between and with campus (need for open forums).
  - Communications between the various Library departments could be improved.
  - Too service-oriented at times; need to be more proactive.
- Basic unfamiliarity of students with resources/services.
- Resources and flexibility with publishers/vendors
  - Limitations imposed by publishers’ practices in collection development; non-responsive vendors.
  - Inadequate dissemination, review and use of collected data (e.g. customer data, usage data, etc.).
  - Limited collection budget/ inability to provide needed resources; our collections are viewed as third class. Inadequate foreign language collection.
  - The collection funding system is too conservative; doesn’t allow for rapid response to opportunities that arise (discounts, sales, etc.).
  - Users expect everything online.
  - Lack of funds for new databases, journals, DVDs, videos, etc.
- Technology enhancements (internal and external)
  - Dissatisfaction with some features of ILS: Voyager is not satisfactory, including the acquisitions and circulation modules; Voyager – bad timing for Galileo-driven updates; unable to provide reports in an easy and timely manner. Difficult to find DVDs, videos in GIL.
  - Need more student computers/printers/scanners, etc.; limited printing options for students; better copiers needed.
  - Lack of ability to engage with new technologies; we say we have cutting-edge technology, but we don’t; lack of technology collaboration. Library is viewed as friendly but technologically lacking.
  - Library not aware of the priority of internal software/hardware/programming issues as central to what we do for users (e.g. inadequate support of the infrastructure).
  - Library staff need to be aware that maintenance and support of “Open Source” products can be costly and difficult; they’re not free in that they require Library support.
  - Website not meeting user or staff needs.
  - Old technology in some staff areas (e.g. printers, bindery equipment, etc.).
  - Reserves software (Docutek) is slow and redundant for staff.
  - Lack of adequate server space.
  - Need for access via Citrix server to SciFinder and other resources.
o SFX/Open URL is getting better but not always accurate or reliable.
o ILL scans are low quality at times.

• Respect on and off campus
  o Faculty don’t have time for the Library.
o The reputation of the Library is less than that of the Institute overall (U.S. News and World Report rankings, e.g.).

• Transportation challenges
  o Lack of adequate campus transportation to Library (Stinger, Stingerette, Trolley); prefer 4th St. route for one of these.
o Lack of access for emergency vehicles at front entrance.

• Budget/funding knowledge
  o Library-wide lack of transparency of funding issues/initiatives (e.g. budget distribution).
o Layers of Library bureaucracy make equipment requests and software requests difficult; some equipment needs not being met.

• Staff growth and development
  o Lack of career paths; lack of focus on technology training/computer literacy and job skills training.
o Lack of support for risk-taking.

• Digital initiatives
  o Lack of an official mandate for SMARTech.
o Campus expectations of Digital Initiatives are unclear.

OPPORTUNITIES
The opportunities relate to many of the same topics as the weaknesses including campus respect, staff library involvement, reorganization, branch campuses, technology needs, digital initiatives, communications/instruction, and resources/collections.

• Campus respect
  o Perception that we’re “improving” and moving in the right direction; becoming more relevant to campus.
o Maintaining a good relationship with campus partners.
o Handling of funding issues has improved.
o Serve as a model for campus on providing places for socializing/help/technology.
o We’re in the spotlight because of LEC and need to take advantage.
o Lack of recognition in the field.
o Possibility to collaborate with additional campus units on records management.
• “We’ll try attitude” prevalent – faculty see us as willing to help.

• Staff Library involvement
  o Staff want to contribute at higher levels to library-wide activities (committees, etc.); staff want more involvement in decision-making processes and want to be involved overall.
  o Cross-training of Library staff.
  o More research opportunities; benchmarking to other institutions.

• Reorganization
  o A call for reorganization at some divisional levels.
  o Change in management style from top down to bottom up
  o More flexible positions.
  o Removal of print JSTOR journals and other stable electronic titles as appropriate.

• Branch campuses/DLPE
  o Georgia Tech’s international expansion and its impact on services.

• Technology needs
  o New staff (librarians and career staff) with high technology needs and skills.
  o Federated searching; exposure to all resources in a single interface (catalog, ETDs, SMARTech, etc.).
  o Provision of student computer services as the main “hub” on campus; role as computer lab for the campus for after hours work; need for computer lab/library services on west campus.
  o Potential for using laptops in staff offices.
  o Becoming a leader in offering and providing conference proceedings.
  o Integration with Google/Google Scholar.
  o More flexibility on LWC/LEC desktop during the semester.
  o Collaboration software available; improved Intranet; departmental wikis.
  o Self check-out.
  o Reorganization and integration of records management to include RFID technology; use senior design students/classes to assist with this initiative.
  o Use of capstone/senior design students for programming, etc.; student assistance in developing a collection analysis system.
  o More software to meet classroom needs (e.g. ChemDraw).
  o Possibility of electronic meetings and the software to support them.
• Delivery of content on mobile technology (e.g., cell phones, etc.).
  • Need to work in a more data-driven mode.
  • Library role in helping users access information more systematically (interface).

• Digital initiatives
  • Ways to help faculty capture digital-born products (e.g., conferences, podcasts, classes); growth of digital materials. Digitization of professors’ books and sponsored research; archiving online/digital courses. Working with faculty to capture data as it’s produced and to advocate for changes in capture and production of data and content.
  • College of Architecture materials that can be digitized.
  • Market research on digital user base (e.g., ARL’s DigiQUAL survey).
  • New Digital Initiatives projects offer new learning opportunities for the Library.
  • Awareness on campus of need for SMARTech (move to official mandate). Campus units are transitioning to SMARTech from homegrown systems.
  • Digital repository inter-operability; XML technology for digital publishing.
  • Initial acceptance of changes in scholarly communication on campus. Campus administrators and state political leaders can play a role in investing resources in creating and preserving digital assets.
  • Integration of IR with other electronic resources; linking to the IR on the Library web site, in various ways, to market the services to our users.
  • Collaboration with the Living History project.

• Communications/Instruction
  • Emphasis on the human element – encouraging students to use librarians and services.
  • Additional avenues for “advertising” – screen savers, blogs, etc.
  • Potential for groups/departments to bring content/ideas to IRC.
  • Working with Administrative Assistants on campus to support their information needs.
  • Sharing of campus “contacts” between individuals and departments.
  • Serving “niche” student groups on campus.
  • Social software for user communication.
  • Watershed courses where we can have educational impact; abandon the “cattle call” or generic classes.
  • New model of library meetings/communication.
• Circulation and IC collaborations.
• Library could have a greater role in providing access to, and teaching evaluation and selection of information and resources; also a role in plagiarism education.
• “Incidental education” – use of displays and a museum-like atmosphere possible.
• Partnering with faculty to advocate for information literacy; need for more faculty training; also international student training.
• Marketing to and providing services for the “group” mentality of the millennials.
• Need to support the “soft skills” and life-long learning of the “Engineer of 2020” curriculum.
• Better communication with contractors and others who use/maintain the building (for Security, Facilities staff purposes).

• Resources/Collections
  • Joint program access to resources (e.g. Emory journals); collaboration with Emory and others for resources (resource sharing).
  • More agile collections budget to capitalize on opportunities as they arise.
  • Identification and evaluation of resources “socially” – like social tagging.
  • Google’s sharing of publishers’ resources in exchange for advertising.
  • Serve as ex officio members of campus curriculum committees (for collection development purposes).
  • Growth of e-reserves.
  • “LENDs” services for graduate students.
  • Faculty interest in collection recommendations.
  • Integrating library funding into grant proposals.
  • Staying on top of the ways publishers/vendors are repackaging information – particularly the notion of microcontent to meet the user’s need for granularity.
  • Students from other universities use our Architecture Library collections.

THREATS
Most of the threats are budgetary and strategic.

• The “powers that be” in the Institute could mandate changes we don’t endorse if they fail to see our proven value.
• Tech’s entrepreneurial culture -- too much of everyone doing their own thing.
• Costs for library resources continue to rise, often exceeding the inflation rate. Faculty and graduate students are dissatisfied with
our collections. Start-up packages for new faculty don’t include library resources. Lack of resources for new departments on campus.

- There are licensing challenges in order to support internationally-based (remote) students with electronic resources, like GT Lorraine, etc.
- Institute does not view us as strategic and some students view the concept of libraries as out-of-date. They don’t necessarily embrace the concept of “library as place.” The Library faces competition as “place” on campus.
- There’s some fear the library services will be outsourced.
- Users want/expect everything online. “Instant gratification” mentality; fast service is never fast enough. Users may not want or use materials if they’re not digital. Some faculty aren’t aware that there are costs associated with “Open Access.”
- Users are willing to accept “non-authoritative” sources of information if they are free.
- GALILEO provides overlapping services and policies.
- Development of repositories/collections in other units on campus compete for funding with Library. Recruiting content for SMARTech is difficult.
- Faculty websites and WebCT serving as faculty’s own reserves system or repository. Others on campus “experiment” with new technologies while we are blocked from changing our system or adding software.
- Competition with Atlanta History Center for collections.
- Proposed reorganization of Architecture Library as part of College of Architecture Strategic Plan.
- Meeting new expectations for users (e.g. camcorders, digital cameras). Meeting ‘refresh’ needs for user materials (e.g. cameras, laptops).
- LEC has been well received, but the “instant theater” tends to be too noisy for (some) faculty presentations.
- Lack of space for growth in collections (Archives and General Collection).