

**Washington University Libraries  
Environmental Scan  
2003/2004**

**Executive Summary**

This summary will offer brief abstracts of the larger reports developed for each of the scan areas: Social, Technological, Economic, Political, and Users. Several issues recur in several reports and this may be of interest:

1. Resource sharing between libraries as a response to dwindling acquisition and facilities budgets.
2. Influence of rapid pace of innovation in information technology on users' information seeking and the libraries' response to it.
3. Crisis in Scholarly Communications.
4. Ongoing staff development to cope with rapid change.

***Brief Summary of Social Trends***

- Due to demographic changes in the United States, and ever more rapid globalization, the university student body will become increasingly diverse.
- Technology, particularly communications technology, will continue to be a powerful tool influencing how our patrons create and understand information in the context of their communities.
- Further, expectations that patrons bring to us about information are increasingly demanding. Patrons want accurate, personalized information and they want it fast. They've learned to expect systems and processes to do this.
- Teaching and learning in the university is evolving rapidly. Not only are new departments emerging, but new pedagogical methods (using new insights from research and new technologies) are developing. Emerging programs and departments continue to need bibliographic and reference support. Library administrative structures should reflect the changing university and be poised to respond flexibly and swiftly to these changes.
- In order to serve as the informed guides to information that patrons expect and need, staff should have ongoing training related to customer service, information resources, and patterns of information use to help them keep up with the increasingly more complex social environment of the Twenty-first Century University.

***Brief Summary of Technological Trends***

- We have to keep an eye on how our users seek information, and use this awareness in systems design. In response to ever more complex desires of our patrons for a variety of powerful information systems, systems interoperability will remain a knotty issue.

- Further, as the library acquires these new systems, the library must keep in mind technical best practices and standards, make use of off-the-shelf technology, and avoid single-vendor solutions.
- Data standards must also guide acquisitions. These standards include technical areas like file formats for multimedia files. They also include metadata standards, and this is an area where new technology might partner with more traditional library functions such as subject analysis and object description.
- New technologies must be monitored and assessed as they mature for applicability to library uses.
- Managing the library's growing digital assets will be challenging. This challenge will involve tracking assets, managing obsolete formats, refreshing assets through copying, and migrating obsolete formats to new (hardware and software) formats.
- Finally, ongoing support for the complex array of technologies within the libraries will remain an issue. In order to make the most of limited support staff we need an aggressive training program for library staff and library users, to empower them to operate as independently as possible, maximizing their own effectiveness and minimizing the need for ongoing support.

### ***Brief Summary of Economic Trends***

- Acquisition costs are up and budgets, with the exception of moderate increases for acquisitions and staff raises, are largely static. The library is working to do more development work through donors and grant writing, and may want to establish a fund-raising campaign.
- Membership in cooperative alliances such as MOBIUS, GWLA and SPARC will become increasingly important as the library struggles to supplement collections budgets hard hit by the rising cost of periodicals and monographs.
- In another vein, the ownership and ability to vend information will be an ongoing struggle played out through DMCA and legislation like it, and will have an ongoing effect on notions of fair-use and public domain information access and use. Technologies for digital rights management, mentioned in the technology report, is the kind of new development for managing information that is emerging in response to economic concerns about information ownership.

### ***Brief Summary of Political Trends***

- An important trend is the decrease in funding for public and state university libraries over the last several years. This is a trend that is likely to continue, and will have a strong effect on consortial partners and therefore on the libraries. WU should continue in advocacy for full funding for libraries at the federal and state level.
- National legislation has been passed (and more is under consideration) that promises to make patron records more easily accessible to government agencies. There is concern within academic and library communities that this may have a chilling effect on free inquiry, and a faculty member here has expressed concern that this could have an impact on academic research.

- In response to pressures from the media industry and the ease of copying information using new information technology, new legislation has been passed that makes copyright more restrictive. This challenges established notions of fair-use long assumed by the library community, and will be an administrative challenge in the future.
- The Federal Depository Library system will be beginning to move to digital delivery of information in 2005 – another model for developing institutional repositories.
- In order to leverage shared resources, joint library projects involving universities, private foundations, and government have begun. WU libraries should monitor this trend. With this in mind, WU is already positioned in consortia like MOBIUS and GWLA, and might consider how to collaborate with fellow members on both programs and facilities in the future.

### ***Brief Summary of User/Patron Trends***

- A sidebar in the recent pre-release of OCLC's environmental scan, *Pattern Recognition* quotes a "content vendor" provocatively saying that Google is "disintermediating the library." While the question list for the focus groups made a nod towards alternative routes for information seeking (in the fifth question), our focus groups concentrated on information seeking within a library context.
- These focus groups made it quite clear that our patrons greatly value librarian's function as guides and mediators through the vast labyrinth of information that confronts them. If patrons have research to do, they generally begin by assuming they need and want the expertise librarians provide. Our patrons told us they want more and better help with their research, including more subject assistance and stronger public service.
- Our patrons want books and information quickly and easily.
- They like coming to the library as a place, and value the variety of spaces the library offers from the areas for quiet study to the collaborative spaces of the classrooms with whiteboards.

### ***Library and Social Trends***

- The libraries are in danger of falling behind emerging social trends and must evolve to meet the increasingly complex information needs of the Washington University community.
- The libraries must continue to streamline services related to seeking and finding information. This is important for both the physical and the digital resources the libraries provide. Consolidating service points at the new front desk takes a big step in the right direction.
- On the other hand, library systems work less well than the commercial systems that shape our patron's expectations. Amazon.com offers a wonderful example of user-centered, customizable, mediated searching. The III catalog is not as advanced or user-friendly. As for other resources, proxy access to databases, e-

mail and chat reference are good beginnings, but could be better integrated. This is a tall order, and given minimal resources in the systems area, the libraries have done well.

- Of course, putting good systems in place means continuing to learn about patterns of use by our patrons. The libraries currently work with traditional use statistics, but have only just begun to understand how to interpret web statistics regarding online use.
- The libraries should also continue active study of the impact of social trends on patron information-seeking (perhaps through focus groups and surveys).
- In addition to existing patrons, the libraries should seek to understand non-users and use this information to develop new clientele on campus.
- The libraries must continue to respond to evolutions in academic disciplines within the university. For example, while bibliographers have been assigned in newer areas such as Women's Studies, there is no bibliographer for American Culture Studies. The libraries should continue monitoring program changes in the university, and continue to assign bibliographers and subject resources for new areas. Sharing resources between old and new subject areas will be tricky.
- The libraries must continue to respond to new methods of teaching. This means seeing information as an ongoing conversation with patrons about knowledge as well as a product to be delivered. Changing class formats and teaching methods will require support for more collaborative models. Olin Library, with study rooms and an Internet café begins to address these needs, but the library should remain committed to actively fostering learning community through its staff and within its physical walls. New teaching will also use more digital media. WandA, I-Teach, ERes and the Arc all offer ways to begin focusing resources on new kinds of teaching. Orientation programs in partnership with classes have also done this, should continue, and should be enhanced. The libraries should coordinate these programs more systematically. Stronger collaboration with the teaching center may be necessary.
- The libraries should reconsider its current unit structure in order to address changing service realities and address gaps between evolving service areas and unit roles. As an example, staff currently working with new media are too widely distributed to fully support multimedia access and storage needs (online serials are an example of this). Creating a separate digital library unit for creating and managing new media might help.
- Finally, but perhaps most importantly, the libraries must continue its commitment to staff development. The complex and rapid responses necessary for keeping up with social change in the contemporary university means that the libraries must maintain programmatic support for ongoing staff training, staff empowerment, and staff teams. Everything from public service to systems design will be affected by changes in university population, patron information seeking, and teaching. Staff will need adequate information, administrative structures, and authority to respond to these evolving service needs.

## *Overall Conclusions and Recommendations*

### *Technology*

The foregoing survey of current trends identifies few, if any specific action items for the library. It has generally been the case in the past that the library's technology initiatives do not arise in the technology support units, or from technology-centered planning, and this pattern is likely to continue. However, whatever initiatives are undertaken as an outcome of library strategic planning, certain "infrastructure" issues must be addressed or continue to be addressed:

1. Systems integration and interoperation. Reference was made above to interoperability of different applications on different servers. This problem has been around for some time, but the evolution of the Web has carried efforts to standardize interoperation protocols to new levels. In acquiring new software and developing skill sets of staff, the library must keep technical best practices and standards as a top priority--making use of off-the-shelf technology while avoiding single-vendors solutions.
2. Beyond the standardization of technical processes, there are important data standards that must guide our choices. These standards include such purely technical areas as file formats for multimedia files. But they also include metadata standards, though this is an area where new technology is the vehicle for traditional library practices of subject analysis and object description.
3. Technology assessment. This "environmental scan" report represents a snapshot in time. Particularly in technology, it must be followed by ongoing environmental monitoring--evaluating new technologies as they mature for possible applicability to the role of libraries in archiving and support of scholarly communications and instruction.
4. A particular problem of environmental monitoring is the problem of digital preservation. As the library's digital assets grow, we must keep track of what we have in what storage formats, periodically refreshing it by copying (and reading the copy) and, as part of that process, migrating to new (hardware and software) formats as the old become obsolete.
5. Finally, the heterogeneity of the technologies with which we work (enforced on us by the constituencies we serve and the sources of our content) will continue to present a support problem. Any one staff member can only be master of a few technologies. And we need more than one person supporting any one resource. In order to make the most of limited support staff we need an aggressive training program for library staff and library users, to empower them to operate as independently as possible, in order to maximize their own effectiveness and minimize the need for ongoing support, which diverts resources from our ability to undertake new initiatives.

### ***Library and Economic Trends***

Over the next five years the Library will face many fiscal challenges. The budget for materials will continue to remain a challenge. While budgets remains steady, the relative buying power for materials has been decreasing and the trend is that it will continue to decrease. It is likely that in the near future, costs of periodicals, monographs and electronic resources will continue to rise. In addition, the devalued dollar abroad contributes to the high cost of foreign monographs; however, this trend can change at any time. A concerning trend is the rising costs of periodicals published by fewer and fewer publishers. A clear development of these increased costs is that as Olin Library purchases more electronic subscriptions more print subscriptions will be cancelled.

Hopefully in five years the libraries will improve their ability to obtain funds through the development process. For example some of the money that comes with named professorships can go to the Libraries to purchase materials. This is done routinely at MIT. Currently this is only done for Women's Studies here at WU.

The Library benefited from the most recent University fundraising campaign. The Development Office promoted the Libraries, resulting in increased membership in the Eliot Society and Century Club promoted the Library. The Chancellor has made the Library a higher priority. Increased support of the Libraries through donations is a welcome trend; however, current donations and funding levels will not be able to keep up with accelerating costs for equipment and materials. The library has continued to pursue large donors individually, and has done a good job of this. Perhaps (with the assistance of the development office) the libraries need to develop a fund-raising campaign.

Because of steep cost increases and a static budget, resource sharing may become more necessary over the next five years. Membership in cooperative alliances such as Missouri Bibliographic Information User System (MOBIUS), Greater Western Library Alliance (GWLA) and Scholarly Publishing and Academic Resources Coalition (SPARC) will become increasingly important as the library struggles to supplement collections budgets hard hit by the rising cost of periodicals and monographs. The not-for-profit collaboration between communications journals through ASCUS is another promising example of cost limiting collaboration which attempts to re-focus academic journals on ideas rather than profit (Stephen, 1). For journals, increasingly, the trend appears to be electronic over paper; however, there are at least three faculty members in each department that want print. It is unknown if this will continue to be the case over the next five years.

### ***Library and Political Trends***

In general, the libraries need to recognize and stay current with trends in the political climate that may be far-reaching, monitoring the policy and service implications of politics on both intellectual rights to free inquiry and rights to privacy cherished by the academic community. Recent legislation including the Patriot Act necessitates maintaining progressive policies and reassuring the library's community of policies that maintain the library's integrity regarding library record disclosure.

If the Government Depository Library system changes, depository libraries will significantly change, and the depository program as we now know it may be discontinued. However, the ever more complex nature of government information combined with the existing body of materials will require professional attention for the foreseeable future.

The libraries should continue to monitor the development of programs such as the Public Library of Science. They offer a fresh model for making current research available to the academic community. While collaborations such as PloS may help the library cope with a portion of the Scholarly Communications issue (see the Economic section), PloS only represents a partial solution.

At Washington University, collection development should continue to be undertaken in light of what other libraries in the MOBIUS consortium are purchasing. If the state universities are not able to maintain their collections at the same level, this will have an effect on consortial resources. Advocacy at the state and national level combined with an awareness of our position within our consortia may be part of the appropriate response.

### ***Library and User Trends***

Generally High School Students are the most positive regarding our role and services saying that, “librarians were experts and could help them with anything ... are smart and can help to get work done more quickly.”

Surprisingly the transition to Undergraduate brings the least positive attitudes, “The library is overwhelming.” When asked about approaching a librarian at a desk, one undergrad replied, “I was intimidated. I stay away from Librarians.” On the question of missing human contact when using electronic resources one undergrad answered, “No, I like not having to be intimidated;” another responded, “No, I feel like they would say, ‘It’s online.’” Granted this is a small sample and there were many positive statements in that focus group, but still statements worded as strongly as these must give reason to pause and reflect on our public image. Nearly all the undergraduates made the statement that using the library was hard. Interestingly undergraduates view electronic resources as an alternative to working with a librarian, yet they ask the highest number of questions about how to use the public catalog, the databases, and the other online services.

Graduate students and faculty appreciate the online resources, but consider librarians as a resource when they get stuck or need help in their work. While graduate students and faculty work more independently in the library than undergrads, their expectations for specific services are greater.

Faculty noted that renovation had changed their behavior slightly - they began relying more on using the catalog online from their home or office rather than going to Olin physically. On the other hand, though graduate students mentioned browsing the stacks to do directed searching, faculty are the one group to comment on the advantages of “serendipitous discovery of interesting topics through browsing.”

There is still work to be done comparing the qualitative data from the focus groups with quantitative data from library statistics.

A few points of interest have already appeared:

1. The undergrads complained about the Arc being overcrowded “happens every day – I just leave” and the report from the Arc shows consistently full to capacity weekdays from 11am to 2pm.
2. All focus groups reported heavy use of electronic resources – this seems to be supported by the number of hits on the Library WebPages – 1.6 million on November of this year.

There are a number of other areas of interest that the focus groups can open up for study and/or pilot projects.

### **Requests for More/Different Services**

#### ***Staff Service***

1. Better service of a directional/functional nature.
2. Receipts for returned items (grad, faculty).
3. Better organization of A/V materials (faculty, grad).
4. Self check-out (grad).
5. Better understanding by service desk staff of computer functions (grad).
6. General lack of training among student workers (faculty).

#### ***More expert advice in the form of subject librarians and pages***

1. Better service on part of subject librarians (grad).
2. Broader coverage of subject areas by librarians (grad).
3. Staff shortage and lack of training among student workers with microfilm equipment (faculty).
4. Frustration with Reserve in terms of locating items, rush requests, and feedback (faculty).
5. Received no answer on Chat Reference (undergrads).
6. “I get emails from the career center like every other day, why not from the Library?” (undergrads).
7. Include the Library in freshman orientation (undergrads).
8. Have librarians go to living units and speak at floor meetings (undergrads).
9. Have a set weekly time for library training and instruction (undergrads).

#### ***Library Website***

1. Revise Library Website “I get confused between full text and databases.” (undergrads).
2. Don’t merely list 10-15 Databases, make recommendations (undergrads).

#### ***Circulation***

1. Receipts for book returns (faculty, grads).
2. Better information about accounts:
  - a. E-mail notifications about pending overdue items sooner (grad).
  - b. Longer window to return recalled items. (grad).



3. Easier access to online resources (grad).

#### ***Better organization of WU stacks***

1. More information about re-shelving and more frequent reshelving of books. (grad).
2. More frequent checks on shelved books.(grad).

#### ***Interlibrary Loan/Document Delivery***

1. Better notification of expirations (grad).
2. Adjustment of loan periods to allow longer periods of use. (grad).

#### ***ERes***

1. Modification of file size and type for ERES. High res files are too large for effective use. (grad).

#### ***Shelving***

1. Better understanding of sweeps for books left by copiers (grad).
2. Clearer organization of reshelving area (grad).
3. More frequent shelf-reading (grad).
4. Keeping video shelves in order (faculty).
5. Book turn in at the South40—especially at the end of the semester (undergrads).
6. S40 as a pick up site for books instead of campus. (undergrads).

#### ***Collection Development***

1. More online journals (JSTOR #2!) (grad).
2. Databases for international materials (grad).
3. Continued collection development for traditional materials (grad).
4. Library support of A/V materials for the classroom, rather than just a popular collection (faculty).
5. Popular music for checkout (undergrads).
6. A directory of book locations and bathrooms (undergrads).
7. New York Times daily online as well as the archive (undergrads).

#### ***Equipment***

1. Microfilm scanners (faculty).
2. Laptops for use in Library (undergrads).

#### ***Library as a place***

1. Continued availability of study in both grad rooms and regular study areas (grad).
2. Look forward to finished renovation with better study environment! (all).
3. Better management of temperature in branches (grad).
4. Cleanliness of restrooms (undergrads).
5. Overcrowding of the Arc (undergrads).
6. a big hangout space/gathering space (undergrads).

### ***Better Marketing of our Services***

There are several items that were requested which are already provided by the library, or some participants were surprised to learn that such services were available. Perhaps there are ways that we can better “market” our services.

1. Receipts for returned books (faculty, grads).
2. Librarians available to make presentations to classes.
3. Faculty were not aware of Chat reference.
4. That the library is wireless.
5. How to access a subject librarian (undergrads).
6. Inter-Library Loan (undergrads).
7. Most undergrads not aware of subject pages on the Library website.

### **Areas for More Study**

We should study database use, especially quality of results. We know that all groups rely heavily on our databases and electronic resources, but three times as many questions are asked at the Help Desk about how to find something in our catalog. Older literature from the pre-Internet days suggests that searches mediated by librarians were usually more successful than patron searches. Have our users truly become proficient searchers, or they just don't ask?

We need more analysis by means of WebTrends software. Where are the 1.6 million hits per month are actually going on our website?

We need more analysis of subnet addresses to identify where our electronic users are originating – within libraries, offices, dorms, etc.?

*The Making of America* and a Cornell University project were cited by faculty as being a significant resource outside the library. Perhaps we can consider our approach to digitization in terms of resources that we hold; also the possibly getting more involved with the Merlin digital work.