Libraries Digital Program Division
First Quarter 2003

also at: http://www.columbia.edu/cu/libraries/inside/units/ldpd/reports/update_2003-05_discussion.html

1. Discussion

1.1. E-Resources & LibraryWeb

The lion's share of time and resources in the E-Resources/LWEB program area has been dedicated to the implementation of the Libraries' new Web Content Management System. The software was installed in September 2002 and Dmitri & Cathy have been working non-stop with AcIS and the vendor since then to learn, test, debug and configure the system for CUL use. This process has proceeded at a slower pace than we had hoped, chiefly as a result of support issues relating to the 2002 change in ownership of the project from eGrail to Filenet, Inc.

By January 2003 we began to see a higher level of commitment by Filenet to resolving the software and performance problems Columbia had identified. As of mid-May 2003, we have installed numerous patches and workarounds provided by the vendor, and finally begun data migration of current LibraryWeb content in earnest. Once new hardware has been installed and configured by AcIS (est. end of June), we will begin transitioning CUL web content contributors to the new system. This project has again demonstrated the critical dependence of the Libraries Digital Program on AcIS for system implementation, tuning, debugging and hardware recommendations and purchase support; and shown as well the possible need for additional AcIS capability in these areas.

In March 2003 we completed the year-long project to build a robust, CLIO/MMF2 publishing system and LWEB interface for ejournal listings. This process involved broad input by CUL staff into functional and interface requirements, and resulted in the development of new more highly functional approaches to MMF2 indexing and searching, which will also be propagated to other MMF applications such as APIS and the Jay Papers system. The next milestone in the project to improve access to CUL eresources will be to complete a parallel CLIO/MMF2 system for metadata for reference databases and other electronic tools. This new system will replace the 'reference tools and indexes' system originally implemented in 1997 and will position us to develop a set of new, value-added reference and research services for LWeb. Success in this next phase will require close coordination with and commitment from the Bibliographic Control Division.

1.2. Scholarly Tools & Special Collections

The closing phases of the Jay Papers, Digital Scriptorium and the Greene & Greene Virtual Archive have entailed significant and sustained efforts to meet project goals, expend allocated funds, implement additional changes and enhancements based on the initial use of the system by target audiences, and at the same time position the projects for possible later phases.

While each of these projects has been largely successful, the process of completing them revealed some weakness in our ability to manage large-scale imaging projects effectively and efficiently, particularly in the areas of quality control and internal Columbia coordination with curatorial divisions. With the departure of our imaging coordinator (effective May 2003), we have the opportunity to recruit someone who can help strengthen our program in this vital area.

As of May, we have completed 90% of the process of migrating the APIS database and application from MMF1 to MMF2. This has been a key accomplishment and urgent requirement in order to keep all our applications current and on the same software platforms. During this period we have also completed the project of working with major APIS partners to enable them to contribute their metadata to the project in a standard format, dramatically reducing the amount of central conversion and editing that will be needed for current and new partners in the future. During the same period, we received notification of a fourth NEH grant for the APIS project and began detailed planning for the next phase, although with a reduced budget & plan of central systems work.

1.3. Institutional Repositories

Planning for our institutional repository appears to be on course, although moving slowly, and perhaps also dividing into several subprojects, namely:

Image Repository. Significant progress has been made in our planning for a campus-wide image repository, in part because a task force was convened early and has been overseeing the process effectively and in part because our project partner, the Media Center for Art History, is highly motivated to work with us and in fact to migrate parts of their cataloging and image distribution activities over to the Luna Insight system. Insight, even before its installation -- now scheduled for August 2003 -- will be positioned to serve almost immediately as a home for multiple local and remote collections supporting teaching, research, selected electronic exhibitions. It will also act as an alternate showcase for the image content created for other library digital collection projects and become our de facto Libraries' digital image repository, providing a number of image and metadata management tools, collection building tools, use statistics, etc. It's worth recalling that Insight will also be the CLIMB project's most significant search and retrieval testbed and that fully half of the cost of the product is being paid from the CLIMB grant.

Unmediated Campus Archiving System (dSpace Pilots). Planning has only just begun for one or more pilots to implement dSpace for campus 'communities.'   In these pilots we need to learn as much as possible about technical issues, the levels of potential campus interest and CUL/AcIS staffing requirements that would be necessary to sustain and expand this type of service.

Mediated Archiving of Columbia Digital Content ("Curated Digital Archiving"). LDPD has undertaken a small pilot project that will give us basic experience in archiving individual Columbia born-digital publications -- another possible component of our institutional repository. The publication is Scholar & Feminist Online (http://www.barnard.columbia.edu/sfonline/) published by the Barnard Center for Research on Women. Preliminary discussions have been held with Center staff.

The experience gained through this pilot will have the side benefit of introducing us to tools and technologies needed to 'acquire' external web resources that merit addition to our collections. There are many technical, political and rights questions nested in this kind of project, but they do need to be engaged, if only on a small scale at this point.

Long-Term Digital Archiving. Campus solutions such as dSpace only go part way toward true digital archiving, at least as we understand it from the results of the several Mellon-based initiatives in this area. The working hypothesis that has developed is that the only viable strategy for long and very-long term digital archiving will to disperse content to one or more external 'trusted repositories' in addition to local archiving.   Looked at in this light, the dSpace approach might be better thought of as 'stabilizing' digital content -- in the sense that library conservation labs stabilize a fragile artifact It is an important step, but only the first that needs to be taken. While Columbia is not currently positioned to try to implement a 'trusted repository' that could be used by other institutions, we should certainly encourage others in this and involve DLF and others in developing and supporting a "certification" program for long-term digital archiving.

1.4. Technology Infrastructure

Filenet. Our Filenet installation should be stable and our LWEB content migrated by the end of the summer; by early this fall, we should have all contributors trained in basic Filenet functionality. The fourth quarter of 2003 will be a shakedown period where staff can become comfortable with the new system and LDPD can develop additional templates and short-cuts and explore Filenet's full feature set.

At that point we will need to make further decisions about next steps in exploiting this new tool, e.g., offering its use to other groups in IS, migrating SWIFT to the new system, building new interactive

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Eresource-related functionality using of Filenet features, etc. By early 2004 we should plan to do at least an informal cost-benefit assessment both of Filenet as a specific vendor product and of WCMS technology generally as something the Libraries and IS want to continue to invest in.   This early assessment will be necessary in part because next release of the Filenet WCMS -- which has been announced for Aug. 2003 and which will should a number of useful features and enhancements -- will likely entail some, as yet unspecified, additional costs. What these costs might be and whether they are covered by our original license agreement are still open questions. It currently appears that the current, 'legacy' version of eGrail/Filenet that we have implemented will be supported by the company only through 2004.

This new release also reflects the corporate strategy of Filenet in that the original eGrail product (on which we based our initial purchase decision) has been entirely rewritten to provide interoperability with key features of other core Filenet products. As part of our decision about whether to continue with the Filenet WCMS, we may also want to learn more about Filenet's other integrated products, which provide solutions to standard back-office needs such as online forms completion & processing, online document storage & retrieval, etc. As mentioned elsewhere, these are the kinds of tools we may not want to build ourselves on the Web, for reasons of both security and functionality.

Luna Insight. The Luna Insight implementation is now tentatively scheduled for the end of August / beginning of September.   The collection chosen for installation during implementation is Columbia's medieval and renaissance manuscript cataloging and images (i.e., Columbia's portion of the Digital Scriptorium database). The second, larger project -- the Campus Image Repository -- will follow close on its heals.

Apart from image migration and data conversion tasks that will be required for the VRC project, the Libraries are also making a commitment to support Insight as a metadata input and update system for the Art History Dept. It's unclear yet how much support that will actually require, but this project will create a new kind of relationship between the Libraries and a faculty department.

After the Visual Resources Collection is mounted, it will be important to do further planning re: campus-wide image metadata standards, Insight image collection development principles, new Insight collection priorities, approaches to promotion and end-user training, support for faculty in setting up class-room presentations, etc. Other campuses that have successfully implemented Insight for their collections have usually done a fair amount of such planning, and in some cases, put in place advisory and planning groups to prioritize and coordinate.   Although Insight's user interface is relatively fixed, it will also be important to do some usability and 'usefulness' studies so we can optimize the features Insight already provides and also give feedback to Luna about ways to improve the software.

A robust campus and digital library image system using Insight will, not surprisingly, require an ongoing, incremental budget line to accommodate hardware upgrades and selected new modules (such as, for example, the upcoming 'personal collections' feature).

Full-Text Indexing. Assuming successful outcomes to the Filenet and Luna Insight implementations, there remains one more infrastructure component needed to handle current Libraries digital program needs, namely, a full text indexing system optimized for marked-up texts such as TEI and EAD. A year or more ago Bob Scott and I reviewed available products and identified only the Michigan DLXS / XPAT-based system as meeting our needs. We've tentatively set aside $20,000 from the remaining capital budget funds to purchase a software license and appropriate hardware for this system, although we have had to delay moving forward on this until Filenet & Insight are in place.

Encompass. Within the next few months the Libraries will need to study and evaluate the Endeavor Encompass product to determine whether or not to purchase it at the special price offered as part of the Voyager acquisition. Preliminary considerations include: will the scope of "Encompass for Resources" be complete enough to offset the proliferation of additional, partial aggregation points for users? Is it worthwhile to give up our current investment in SFX and move to Endeavor's LinkFinderPlus? Will we be willing to rely on a single vendor's solution to the complex and evolving requirements of searching and presenting varying kinds of bibliographic and content-based results? Might Encompass's support for interoperability tools, such as Z39.50, HTTP/XML, web services, etc.

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provide us with important DL functionality that we would be better off not trying to develop locally? Will the recently announced Encompass / Luna Insight interoperability agreement really provide significantly more effective use of digital image <u>collections</u> made available through Insight?

Central AcIS Server Support. As noted elsewhere, AcIS has been increasingly helpful over the past year in providing Oracle database support for Libraries' applications. At the same time, though, the Libraries need to be able to budget adequately for the redundant server and software environment AcIS now requires for all 7x24 services, which includes most libraries digital program applications. Instead of budgeting for a single server $3,500 as we have in the past, we now need to budget $7,000 for two servers; instead of purchasing application software licenses for a single CPU we need to purchase or negotiate dual or multi-CPU licenses.   This will have a significant budget impact in the future, particularly as we find that we have to replace or upgrade servers to support additional collections & users.   We also will need to develop a clearer strategy for what kind of assistance and support AcIS will provide when it has agreed to host an application on their servers. Although we have, as indicated, received generally good response from AcIS in the Filenet implementation, there were nonetheless periods of days and even weeks when we received literally no response to requests for information or help, leaving LDPD staff unable to proceed with implementation tasks.

And, as mentioned in past reports, the level of Web infrastructure assistance that AcIS provides continues at the bare minimum.   There appears to be no active program of developing new CGI applications to support additional web functionality, and no development of generic utilities that could be 'plugged in' to departmental web sites to provide as session management, shopping carts, secure financial transactions, etc. Use of the Apache secure server for any type of real application development is complicated and highly constrained.   These technology gaps make it difficult and risky to use the Web for secure internal applications such as document management, forms processing, etc. It may be that Columbia cannot invest the resources needed to make the Web functional for such things and that it will be necessary to purchase external commercial systems to fully automate internal and/or secure applications.

New Near-Term Equipment and Software Needs.   The Libraries Digital Program division, Preservation, RBML the other distinctive collections will need modest-to-major investments in equipment over the next two years.

- As planned digitization initiatives gather momentum, the existing, nearly-obsolete Phase One digital camera in Preservation will need to be replaced and/or supplemented by newer, more flexible and functional digital camera technology.
- Staff in the distinctive collections have been hampered by inadequate or inadequately configured desktop equipment; at present, none of the staff in any of the distinctives are able to use key browser plugins needed to view newer kinds of digital content; many staff monitors in the distinctive collections need to be upgraded so that they are able to be calibrated for reviewing and giving feedback on locally-created digital content.
- The reading rooms in each of the distinctive collections require large-screen, high quality public workstations & monitors to provide adequate displays of the significant digital content we already have.

The Libraries Digital Program Division itself will require an ongoing capital budget to purchase new hardware and software for creating, editing, storing, 'burning' and viewing digital content (e.g., digital tape readers / writers, DVD R/W devices), along with upgraded desktop computers. For the present, no need for additional equipment or software for digital multimedia is required, but if this becomes a program area for the Division, adding funding will be needed.   New software for programming, SQL schema development and XML work will also be needed.

In the near future, we'll be preparing a capital budget request for the remainder of the current year and a ongoing budget for future years.

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2. Detailed Updates

2.1. E-Resource Access & Management

a) LWEB E-Resource Retrieval & Access

Accomplishments:

- Completed improvements & enhancements to LWEB ejournal interface (12/02 - 3/03)
- Implemented enhanced ejournal search and retrieval functionality (3/03)
- Number of ejournal records in MMF as of 5/03: 13,632

Next steps:

- Migrate legacy "Databases & Reference Tools" system to new CLIO/MMF2 environment (3Q03)
- Working with Bib Control, add support for selector annotation and assignment of multiple broad subject categories for eresources in CLIO for publishing to LWEB; add support for selector designation of 'key' resources for individual subject areas to provide for more effective guidance in LWEB (3Q03)
- Develop & implement strategy for capturing use information & generating relevant statistics for use in eresource selection and LWEB usability improvements (3Q03)
- Develop & implement plan for LWEB-based value-added subject & research guides using MMF eresources, e.g., online database/research 'intelligent' advisor, user-generated bibliographies (4Q03)

b) Enhanced Subject Access to LWEB E-Resources

Accomplishments:

- Completed full-scale revision to all sections of Columbia's Hierarchical Interface to LC Classification (HILCC) in consultation with Bib Control, Selectors and Reference staff (3/03)
- Implemented Improvement to MMF-related search and navigation programs to support subject access to eresources (3/03)
- Published article in library press describing Columbia's work on subject access to e-resources, (4/03):

  Davis, S.P. **" HILCC, A Hierarchical Interface to Library of Congress Classification : a project report on the development of an operational prototype LCC-based subject interface to electronic resources at Columbia University Libraries."** *Journal of Internet Cataloging,* v.5, no 4 (2002), p. 19-49

Next steps:

- Develop scripts to automatically generate LWEB subject menus to replace current manual system (3Q03)
- Investigate usability and design aspects of LWEB subject access tools (4Q03)
- Develop & implement strategy for interdisciplinary & presentations of LWeb e-resources (e.g., women's studies, area studies, medieval studies) (not scheduled)

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c) General LibraryWeb Development & Support

Accomplishments:

Although most new developments in LWEB were put on hold until after Filenet implementation, ongoing LWEB work continued. Selected accomplishments include: revised selected RequestIT pages & forms relating to Recap; assumed editorial responsibility for News section & spotlights; completed revision of Help sections; provided selective consulting and assistance for staff LWEB contributors; assisted with new CLIO design (1Q03-2Q03)

Next Steps:

- After Filenet implementation, continue with enhancements to departmental library home pages; develop proposals for improving "Services" and other top-level LWeb pages; (4Q03)
- Design and conduct targeted usability studies of key sections of LibraryWeb (4Q03)

2.2. Scholarly Tools & Special Collections

a) John Jay Papers

Accomplishments:

- Working with RBML, developed plan for using remaining Jay grant funds to: significantly increase the number and quality of Columbia's holdings in the Jay database, to enhance all Jay images by arranging for their cropping & straightening by Preservation Resources; and to significantly increase the number of records with abstracts. (1Q03)
- Working with RBML, arranged for the scanning & conversion of the original typescript manuscripts of all 4 volumes of the Jay letterpress edition in order to provide base texts for the new letterpress edition of v3-4, which were never published, and also to capture all letter & document transcriptions in these volumes for later incorporation into the online Jay database. (1Q03)

Next Steps:

- Review and load all new and edited Jay page images when returned from vendor (2Q03)
- Revise Jay interface to include: improved image display & navigation using MrSID features; allow display of additional of images from institutions who have granted us permissions since December; incorporate new and revised document abstracts; support for load & display of complete transcriptions from the Letterpress Edition; improved searching and navigation. (2Q03-3Q03)

b) Greene & Greene Virtual Archive

Accomplishments:

- Completed all image & metadata contribution to the Greene & Greene Virtual Archive project;
- Working with Avery staff, developed presentation for Columbia's Greene & Greene Finding Aid and images; used XSLT to publish an EAD/XML finding aid to the web for the first time

Next Steps:

- Project completed; will serve as one model for future finding aid + imaging projects

c) APIS (Advanced Papryological Information System)

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Accomplishments:

- Awarded additional NEH grant for APIS 4; of the total $350,000 grant, $75,000 will come to Columbia chiefly to support system enhancements, new & updated metadata contributions from existing and new partners (3/03)
- Completed rewrite of APIS database and search system for migration to MMF2 and for enhanced search features; currently in testing (4/05)
- Completed work with existing APIS 3 partners to reformulate their metadata to conform to the APIS contribution format; developed programs to validate and convert partner metadata into new MMF2 format (5/05)

Next Steps:

- Finish testing rewritten system & put into production (2Q03)
- Load new & updated Columbia, Berkeley, Michigan and Toronto records (2Q03)
- Work with new Phase 4 APIS partners on metadata & imaging standards (3Q02+)
- Complete design and testing of direct input and update application for metadata management (3Q03)

d) Digital Scriptorium

Accomplishments:

- Developed plan for using remaining grant money to do convert & publish Huntington XML catalog & images to Web and perform full technical analysis and modeling of possible next phase Digital Scriptorium data collection, management and publishing system; (5/03)
- Worked with RBML staff and outside consultant on analysis and data modeling;
- Worked with U. Texas on preparing their contributed images for CUL hosting (4/03)

Next Steps:

- Revise technology section for possible grant submissions for next phase of DS; (5/03)
- Finish all in-process contributions & image loading (for Texas, Columbia, etc.) (2Q03)
- Work with DS partners & others to develop plan for interim period without grant support; (2Q03)

e) Urban Theater Collection

Accomplishments:

- Designed and programmed a full-featured database application to allow finding aid data to be managed and edited in support of digital imaging and conservation projects (4Q02)
- Continued to make enhancements as needed for project requirements (1Q03)

Next Steps:
- Process & load digital images created so far to LWEB; arrange for archiving; continue to upload and inventory images created by the project on a current basis (3Q03)
- As project ends, reconstitute finding aid with links and conservation information into EAD/XML for publishing to LWEB; (4Q03)

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f) Chinese Paper Gods

Accomplishments:

- Assisted in planning for imaging and metadata creation for Starr Chinese Paper Gods collection (1Q03)

Next steps:

- When imaging is complete, create online presentation for LibraryWeb; (3Q03)
- Make metadata available to CLIMB project for use in testing; (3Q03)

g) Bunraku Puppet Theater

- Contributed analysis & text for metadata component for in-process NEH grant proposal;

h) Digital Project Pre-Planning Process

Accomplishments:

- Worked with Dev. Officer, Bib Control and Preservation on a draft project description questionnaire to be completed by curators et al. for prospective grant projects. (4/03)

Next Steps:

- Meet with Special Collection, Dev. and other staff to review and refine project description form and process for preliminary project proposals; (2Q03)
- Begin working with curators to develop individual project proposals; (3Q03)

i) Ongoing Collection Digitization Planning

Accomplishments:

- Met with Collection Steering to discuss planning and strategy for ongoing digitization projects for materials in Columbia's collections; (2Q03)
- Worked with Bob Scott and newly-appointed task force to develop criteria and policy options for selecting and prioritizing collection-based digitization; (2Q03)

Next Steps:

- Finalize proposal & review with Collections Steering & library management; (2Q03);
- Determine initial funding level and staff resources available for Years 1-2 of program; (2Q03)

j) Preliminary Planning for Digital Exhibitions Program

Accomplishments:

- Internal modeling for possible XML-based exhibition epublishing tool (1Q03)
- Began discussions with RBML about possible online version of current "Royal Court of Pages" exhibition; (4/03)

Next Steps:

- Use "Royal Court of Pages" to model possible e-exhibition publishing options (2Q03)

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- Work with exhibitions committee and special collections staff on a planning & implementation process for electronic versions of selected exhibitions; (3Q03)

2.3. Institutional Repositories

a) Campus Image Repository

Accomplishments:

- With Art History Department & CUL staff, developed general strategy and planning process for incorporating the MCAH Visual Resources Collection and slide library cataloging into Libraries' Luna Insight system (1/03)
- Developed detailed metadata plan for enhancing existing VRC records and loading images into Insight (3/03)

Next Steps:

- Develop functional and display requirements for Art History image database in Insight (3Q03)
- Configure & implement Art History application in Insight(3Q03)
- Convert & load MCAH metadata and images into Insight (3Q03)
- Train & support slide library & MCAH staff in direct metadata input and editing into Insight (3Q03)
- Develop & implement strategy for creating generalized Campus Image Repository using the Art History Collection as a core resource (4Q03)
- Implement multi-collection & multi-institutional search & retrieval of image collections via Insight (e.g., ArtSTOR) (4Q03)

b) Mediated Archiving of Columbia Digital Content ('Curated' Digital Archiving Service)

Accomplishments:

- Developed proposal for new Barnard e-publication (Scholar & Feminist Online) to be part of a pilot project for stabilization & long-term archiving of Columbia e-publications (1/03)
- Discussed plan with publication editor and got preliminary agreement to proceed (1/03)

Next Steps:

- Complete preliminary stabilization & archiving of test publication; (2Q03)
- Assess use of dSpace or other techniques as vehicles for this type of archiving (3Q03)
- Draft proposed project plan & supporting documentation (e.g., agreements w/ content provider, commitments by CUL) for 'curated' CUL digital archiving service to be offered as one type of selector-driven acquisition of eresources; review with Library management, etc. (3Q03)
- Discuss costs & benefits with Library management

c) Unmediated Campus Archiving System

Accomplishments:

- Met with staff from University of Rochester and AcIS to discuss strategies for implementing dSpace;
- Familiarized LDPD staff with dSpace and Columbia dSpace planning
- Explored with AcIS the capabilities and gaps in dSpace functionality, and best uses in the context of an Institutional Repository

Next steps:

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- Participate in TF (see below) (05/03+)
  Possible scenario:
- Parry out informal 'marketing' survey of possible desire for & use of such a service
- Develop functional requirements and scenarios for possible service; do conceptual modeling, using dSpace as possible software vehicle
- Conduct pilot operation with one or small number of campus 'clients'
- Assess pilot, determine feasibility & costs of service

d) Campus-based Scholarly E-Publishing

Accomplishments:

- Preliminary discussions; formation of task force to meet 2Q03

Next Steps:

- Continue planning with AcIS, EPIC and other stakeholders

e) Planning for Long-Term Digital Archiving

Accomplishments:

- Made preliminary arrangements for testing OCLC's Digital Archive system using original tiff files from selected CU Digital Collections Projects (e.g., Greene & Greene Virtual Archive, Digital Scriptorium, APIS, Ling Lung) (2/03)

Next steps:

- Complete test 'ingest' of digital collection materials with OCLC;
- Assess & discuss issues and options for using OCLC as 'trusted repository'
- Discuss with CUL management costs and benefits of longer-term use of OCLC's archiving service

2.4. Infrastructure Projects

a) Master Metadata File (MMF)

Accomplishments:

- Moved all applications moved from static pages to dynamically-generated search & retrieval (12/02); developed improved searching algorithms for use across applications;
- Implemented enhancements to MMF2 schema to allow for full migration from MMF1, 4/03
- Exploration begun w/ AcIS of strategies for building or adapting fuller repository model for digital assets 3/03

Next Steps:
- Explore & recommend broader repository / digital asset management options in the context of multiple service platforms, i.e., MMF, CLIO, Luna Insight, FileNET, dSpace & possibly Endeavor ENCompass (4Q03)
- Design & implement schema extensions and workflows for adding digital archiving information for content housed in MMF & Luna (4Q03)

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b) Filenet Web Content Management System

Accomplishments:

- Completed installation, testing & debugging with assistance of AcIS and vendor (4/03)
- Began preliminary migration of current LWEB to new Filenet system (4/03)
- Performed additional user & stress testing of system on current hardware; working w/ vendor & AcIS determined need for hardware upgrade for additional simultaneous users (5/03);
- AcIS has ordered more powerful server, expected to be online by (7/03)

Next steps:
- Carry out full LWEB migration & parallel CUL staff training (3Q03-4Q03)
- Implement additional user-based functional enhancements to help streamline staff LWEB contributions and provide end-users with better navigation & functionality (3Q03-4Q03)

c) Luna Insight System

Accomplishments:

- Completed revised Insight license & contract, working with General Counsel's Office & Luna (5/03)
- Completed equipment planning with Academic Computing (1/03)
- Completed preliminary planning for initial collection implementation (Columbia's Digital Scriptorium subset) (1/03)

Next Steps:
- Work with Luna and RBML to implement initial CUL collection (2Q03-3Q03)
- Work with AcIS on Luna installation and support (3Q03)
- Train LDPD staff on Luna system administration & application development (3Q03)

2.5. Other Programs & Initiatives

a) CLIMB Project

Accomplishments:

- Working With CRIA and CUL curators, completed significant grant milestones (1Q03-2Q03)

Next Steps:

- Per CLIMB project plan, convert & load test sets of enhanced metadata records into Luna Insight, MMF and CLIO; develop search & retrieval system for MMF version of data (3Q03)

b) Digital Seminars Series

Accomplishments:

- Hosted five seminars in 1Q03-2Q03: Media Center for Art History, Archaeology & Historic Preservation: Robert Carlucci; American Museum of Natural History Research Library: Tom Moritz & John Aubrey; and Developing E-Resource Management Systems: Tim Jewell & Ivy Anderson; "Prospects for Personalization in Digital Libraries: Computers as Assistants?," Clifford Lynch, Director, CNI; "The ICT Infrastructure and Local Content Development in Malaysia: Constraints and Challenges" and "Promoting the Concept of the International Islamic Digital Library," Ms. Siti Zakiah binti Aman, National Library of Malaysia.

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