

The Transformative Shift to Digital Services
President's Report on the State of the Center
April 2006



At the April 2005 Council Meeting we sketched the general outlines of “E-CRL,” the rationale and scenarios for enabling CRL to more fully incorporate digital technologies in its activities. The detailed analysis of CRL processes and services that we conducted since last April to inform planning for this shift, affirmed for us the transformative character of these technologies. We now realize that for CRL to truly optimize the benefits of technology and continue to fulfill its mission effectively, we will have to fundamentally recast CRL processes, alter its organizational structure, and reallocate important assets.

A. 2006 E-CRL Activities

FY 2006 was a year of planning and analysis for CRL. We analyzed the level and nature of use of CRL collections, determining which materials were most heavily accessed and how they were incorporated in users’ research activities.

We put in place at CRL the equipment and workflows necessary for on-demand digitization of fragile and rare materials. A number of fragile and rare materials, such as the CRL’s run of the *Journal officiel du royaume du Laos*, and several nineteenth- and early twentieth-century dissertations on medicine, psychology, and social science were digitized and mounted on a Digital Depository Server, using a Document Delivery Access Control Server to control access and authenticate users. The digital files are linked to catalog records in CRL’s OPAC.

We began to devise and test infrastructure and workflows for collection-level digitization. Test bed digital collections focused on materials for international studies: a collection of Chinese picture books and illustrated propaganda pamphlets from the early years of the People’s Republic and a small group of medieval slavery and manumission manuscripts from Timbuktu. The Web interface for the collections employs ContentDM software and the metadata is in Dublin Core format. (<http://ecollections.crl.edu>.)

At the same time CRL staff worked to improve discoverability of its tangible and digital resources by creating cross-links to the CRL OPAC and Web-based collection guides from various open access Web resources developed by CRL and CRL affiliates. The open access resources included the aforementioned CRL Chinese picture books collection, the Digital South Asia Library (<http://dsal.uchicago.edu/>) and Digital Library for International Research (<http://www.aiys.org/aodl/index.php>). We also made use of the CRL on-line newsletter *Focus* to publicize CRL topical collections and to make information about those collections visible on the Web.

Other important achievements this year helped strengthen traditional service and delivery of CRL materials:

- *CRL catalog records are now available gratis to members for loading.* For more information interested members should visit the FAQ page from the Center's home page at <http://www.crl.edu/content.asp?l1=14&l2=65>
- *466,795 dissertations have now been cataloged, out of a collection of approximately 800,000.* Progress will continue until the entire collection is cataloged. The records were also indexed and are now discoverable through Google and Open WorldCat.
- *CRL document delivery volume increased this year as a result of CRL joining the RAPID system.* Our fast delivery times fit perfectly with this consortium's requirements for document delivery.

B. Implications of Some Related Developments

Three recent developments in the world of library digital collections and resources have affected our planning for CRL digital access. These developments include large-scale digital enterprises focusing on monographs, newspapers, journals, and archives:

1. Google and Open Content Alliance Mass-digitization Projects – Both efforts concentrate on high-volume digital conversion and open access Web delivery of pre-1923 monographs.
2. National-level newspaper digitization projects undertaken by national libraries in the UK, Europe, and US
3. Emerging electronic archives and repositories, such as the National Archives and Records Administration's Electronic Records Archives and Ithaka Harbors Inc.'s Portico.

In addition, during the past two years pressure on academic and research libraries has mounted to divest of paper journals, government documents, newspapers, and monographs to free resources for electronic content. Hence provisions for cooperative or third-party preservation of "last-copies" are now critically important.

These developments suggest some principles that should inform CRL activities: researcher need, non-redundancy and persistence.

1. *Researcher need:* CRL digital activities must respond directly to the specialized needs of its community, specifically to those engaged in advanced research and teaching in the humanities, sciences, and social sciences. Those needs will dictate the digital conversion and delivery of some materials, including materials within the copyright period, on demand to support immediate scholarly projects. In its digital access efforts CRL will adopt a liberal interpretation of fair use and the "first sale" doctrine.
2. *Non-redundancy:* CRL digital services must provide electronic access to materials that augment, rather than duplicate, materials made available

through members' own efforts and the other existing large-scale digital enterprises.

3. *Persistence*: Reliable archiving of legacy collections digitized under the CRL umbrella must be folded into CRL digital access efforts. Conversely, CRL must closely align its collections digitization with the strategic collection management goals of its members, goals such as reducing storage, preservation of at-risk materials, and so forth. A solid economic foundation for CRL digital access requires that we achieve a balance of open and proprietary access strategies that provide public good while preserving incentives for support of CRL.

Clearly the task ahead for CRL is far more ambitious than simply substituting electronic delivery for traditional delivery method. To achieve this task we will have to implement at CRL a broader set of new activities than initially expected. In doing so we must also enlist organizations -- including member institutions -- that can bring critical resources to this important undertaking. *Consequently it will take longer to achieve full electronic collection delivery capability and conversion of collections than the three years originally projected.*

C. Near-Term Activities

In FY 2007 CRL staff will concentrate on providing digital access to CRL material in the public domain. We expect to deliver electronically:

- 100% of fragile materials requested (These include small-format materials that can be scanned in-house.)
- 100% of hard copy journal articles, regardless of length
- 35% of other hard copy requests for materials over 50 pages.

D. Long-Term Directions

Because of the scale and substantial cost of this undertaking we will have to adopt three broad strategies.

1. *Concentrate CRL efforts on three distinct collection areas.* Despite maintaining important areas of collections strength CRL resources lack a clear and distinct identity among the end users of those collections. To achieve adequate visibility we will have to link the development of CRL collections and collection-related services more directly to the communities of interest for those materials, allowing user needs to shape content and services more directly.

In our analysis of CRL collection use, funded by the Gladys Krieble Delmas Foundation, three focus areas emerged as particularly important to CRL members:

- *Science--* journals and dissertations (These represent approximately 38% of all CRL requests filled);

- *Humanities and Social Sciences* -- journals, government documents, and archives (18.7% of requests)
- *News and Political Communications* (16% of requests / 75% of pages delivered)

In all three collection areas international materials figure prominently. *In its digital efforts CRL will thus focus on “doing a few things well” and will evolve strategies suited to each of the distinct collection focus areas it develops and manages.*

2. *In the digital arena CRL will retain its “last copy” role by backing up electronic access with provisions for archiving of source materials.* Since its founding CRL has afforded its members access to a broad array of collection materials while minimizing and distributing the costs of acquiring, processing and managing those materials. Similarly, CRL’s digital activities will most benefit member institutions if they alleviate the burden of maintaining large and redundant physical collections and minimize the cost of digital preservation. *To meet this goal CRL will support the systematic digital conversion of important materials in tandem with reliable physical and digital archiving. In the long run CRL will not be a print and digital repository, but rather will build upon its distributed print repository and auditing of digital archives efforts to ensure for its community the services, including storage, necessary for the fail-safe preservation of tangible and electronic materials.*
3. *Actively engage and support the work of member universities, electronic publishers, networks, and other appropriate organizations.* The costs of the substantial new hard and soft infrastructure needed to manage and deliver CRL digital content are likely to be quite high. Such services include, for example, high-volume conversion, marketing, rights management, user authentication, exposure of content on the Web, hosting of content, and others. *Rather than build all of these capabilities anew, CRL will endeavor to obtain critical services from organizations where they are already brought to scale. In creating partnerships we will favor organizations, such as member universities and libraries, whose interests and goals are synonymous with those of CRL.*

E. Strategies, Area by Area

- **Science** – CRL specializes in scientific materials from areas outside the US and Europe, which are acquired by subscription in paper format. Increasingly, scientific information is accessed in electronic format. We will have to find ways to work farther “upstream” in the production process, to enable publishers, universities, and aggregators in regions of interest to deliver diverse scientific content electronically in a persistent and reliable way. This will involve supporting development of electronic publishing and distribution capabilities in regions where they do not yet exist, and co-investing in efficient access to specialized scientific content with organizations with common interests. Such organizations include, for instance, the International Networked for the Advancement of Scientific Publication (INASP) and Canada Institute for Scientific and Technical Information (CISTI).

It will also be essential for CRL to ensure that member needs and interests are adequately served by digital repositories and other parties that members rely upon to provide long-term persistence of born-digital scientific information.

- *Humanities and Social Sciences* – CRL will begin to support the digital conversion and delivery of the types of materials in traditional formats now microfilmed under the AMP programs and acquired through its regular acquisition activities. *Conversion should encompass not only AMP and CRL holdings but related materials in member collections as well, through cooperative digitization projects designed to yield the maximum return to the participating institutions.* Conversion must in every case be combined with adequate provisions for hosting and delivery of the digital content produced, the securing and maintenance of necessary rights for digital uses of the content, and reliable archiving. This will enable members to provide a high level of service and safely eliminate the costs of maintaining hard copy source materials locally.

Again, such activities will require partnerships with organizations that can provide important services and resources, organizations such as electronic publishers, digital conversion services, and third-party repositories and aggregators of important related source materials.

CRL might expand the role that it now plays in licensing specialized electronic resources for the German North American Resources Partnership (GNARP), to ensure the reliable archiving of electronic resources in which CRL members invest. It may be useful for CRL, for instance, to provide members information regarding the persistence of important electronic resources, such as ProQuest's *Early English Books On-line*, and large-scale repository projects like the National Archives and Records Administration's Electronic Records Archives and Portico.

- *News and Political Communications* – CRL digitization of legacy newspaper collections will address materials not converted under the various national newspaper digitization projects (British Library, BNdeF, LC) or the commercial efforts (NewsBank, ProQuest). Given CRL's area studies strengths, its natural area of focus is news from non-US, non-European regions, such as Latin America, Sub-Saharan Africa, and the Middle East. As with HSS materials, CRL's most useful role will be to work with member libraries to assemble and convert collections of related but dispersed holdings of important materials.

At the same time CRL will begin to secure specific rights to provide members digital access to newspapers acquired and preserved under its newspaper preservation programs: the Foreign Newspaper Microfilm Program (FNMP) and International Coalition on Newspapers (ICON). Under ICON CRL in 2005 promulgated a set of recommended digital preservation rights that libraries might acquire from publishers when obtaining permission to microfilm newspapers. <http://icon.crl.edu/rights-draft.pdf> CRL will seek to obtain from the publishers of newspapers microfilmed under the FNMP "Level 3" rights as defined in that document.

CRL will play a different but comparable role vis a vis news in electronic form. The traditional role has been to provide CRL members persistent access to

diverse news information sources and viewpoints. Most news today is published in electronic form and is managed by large commercial aggregators like Factiva, NewsBank, and Lexis-Nexis. The aggregators add to news content considerable value and functionality (discoverability, searchability, desktop delivery, mass storage, etc.) than publishers and libraries have heretofore been able to provide. The aggregators, however, largely serve markets for current news information and so the extent to which they will continue to maintain back content is unclear. *The task for CRL, then, is to negotiate an appropriate "division of labor" between the media sector and libraries in providing for the long-term maintenance of news content.*

On the archiving of Web-based political communications CRL will move deliberately and cautiously for the time being. Resources are scarce for this potentially costly activity. We sense relatively little immediate demand for this activity among the CRL community. And the outcome of the NDIIPP Web archiving initiatives is still undetermined. *Therefore we will continue to monitor the demand for Web archiving, and to assess the effectiveness and sustainability of the Archive-It and other technologies and systems for preserving Web-based political communications, news, and other international source materials on an ongoing basis.*

F. Next Steps

Although CRL's mission remains the same, the new strategies require fundamental changes in CRL activities. The essential change is one of emphasis, wherein the role CRL plays is conceived as being a guarantor of diverse, persistent resources, rather than more narrowly as a "light" repository. *Hence we will have to concentrate more CRL resources on delivery and maintenance of electronic content without compromising its ability to store and maintain tangible collections.*

For CRL to move decisively, new resources will be needed. CRL will have training, equipment, personnel, and funding needs beyond those that its partners will bring to the effort. To obtain these resources we will continue to work to expand CRL's membership base. This will be a major focus of CRL administration and Board attention in FY 2007, building on the successes of the past two years.

While 2006 was a year of analysis and conclusions, in 2007 CRL will begin to put in place concrete plans, partnerships, and resources needed to bring its digital access activities to scale. In the coming months the development and approval of a detailed plan and budget will be the focus of the efforts of CRL and the Collections and Services Advisory Panel, and will be the subject of a Board of Directors retreat in October. The CRL agenda is an ambitious one, but is consistent with the times and with CRL's traditional purpose. We look forward to moving forward in our traditionally collaborative way.

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President