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Abstract:
The history of the Center for Research Libraries (CRL) during the last decade is one of adaptation and innovation, driven by the need to keep pace with a rapidly changing world. CRL is a cooperative collection development enterprise, created in the age of print. Today we are confronting entirely new paradigms of information exchange and access brought about by digital media and the Internet. I will discuss how the past decade has been a time of re-engineering CRL services, re-orienting operations, and forming partnerships to put vital new capabilities at the disposal of academic and independent research libraries in the CRL community. In short, it is a narrative of how one organization recast its role from a centralized repository to a collection development and preservation community.

Building the Foundation

CRL was established in 1949 and was the product of a particular place and time: the postwar era in the United States. At that time the United States was experiencing an unprecedented expansion of its higher education sector, prompted in part by a huge influx of new graduate and undergraduate students, their educations subsidized by the federal government under the G.I. Bill.

It was also the Cold War period. American colleges and universities were responding to a growing demand for political and economic expertise commensurate with the new status the U.S. had achieved as one of two dominant world powers after World War II. This new status created a ravenous demand for information and documentation on all world regions, developed and emerging. As America pursued a foreign policy dominated by a will to contain the spread of Communism, few populated areas of the world were not of interest.

Unfortunately, at the same time America was experiencing the worst economic downturn since the Great Depression, a downturn that, among other things, deprived the growing U.S. universities of the
resources they needed to expand their library collections and facilities. It was a time of austerity, and little capital was available to enlarge or expand existing library buildings or create new ones to store rapidly growing collections, even at the wealthiest American universities.

In response to this set of conditions CRL was established by ten major U.S. research universities, to support their newly enlarged humanities and social science research agendas. The Center was to be the locus wherein those universities could, working together, build and manage shared collections of foreign materials that no single university could afford to obtain on its own; and the increasing amount of non-current domestic publications that had become less critical to the everyday activity of scholars. Those materials included newspapers, government documents, microform archives, historic journals, dissertations, and other materials identified as critical for advanced research but infrequently used. During the next three decades millions of volumes were obtained through foreign acquisition programs or transferred from member libraries to CRL’s collections facility in Hyde Park, Chicago. The creation of CRL thus signaled the dawn of an unprecedented period of large-scale, collective investment by American libraries in amassing research collections for the study of humanities and the social sciences and all world regions.

*An Enlarged World of Scholarly Inquiry*

During the 1960s and 1970s, as area studies grew in importance for American scholars, CRL provided an administrative home for several important cooperative projects focused on building collections from emerging regions of the world.

The Area Microform Projects combined the talents and expertise of many of the foremost bibliographers and historians of world regions like sub-Saharan Africa, the Middle East, Latin America, South Asia, and Southeast Asia. These groups, consisting of scholars and librarians, identified primary source materials critical to research on the languages, arts and peoples of their respective regions of interest.

Over the next three decades the AMPs succeeded in building major collections of primary documents at CRL, which provided a rich and unique trove of source materials subsequently mined by American political, social and cultural historians. The extraordinary legacy of those efforts includes extensive microform archives of anti-apartheid publishing in Southern Africa; documentation of genocide in
Cambodia under the Khmer Rouge; the ministerial reports of nineteen South American governments, and the French colonial archives in Senegal (shown here), to name a few.

In 2005 there occurred a catalytic event: the Global Resources Program, developed by the Association of Research Libraries and Association of American Universities with funding from the Andrew W. Mellon Foundation, was placed under CRL’s administrative direction. The program consisted of a set of projects created to increase North American scholars’ access to source materials for international studies. Like the area microform projects, each Global Resources project focused on a particular world region or major Western language.

But unlike the microform projects the Global Resources efforts were created to bring newer technologies to bear on preservation and access, and spawned an entirely new set of outputs: indexing of foreign language texts, digitization of primary documents, cooperative collecting arrangements, and the licensing of foreign-language databases.

These Global Resources projects, though progressive in character, were all built on a relatively small scale and were reliant for most of their activities upon grant funds and upon the voluntary efforts of area and language specialists. In order to operate on a scale commensurate with its traditional collecting scope, however, CRL needed to enlist partner organizations that could bring robust technical infrastructure and distribution capabilities to bear on its collection development and digitization project efforts.

**Changes in the Information and Communications Environment**

The advent of digital media and the Internet in the last decades of the twentieth century brought with it profound changes in the way information and documentation are produced and distributed. With digital media and the Internet documentation and the containers of information changed from solid, tangible objects like newspapers to fugitive signals in magnetic code. Documentation went from being enclosed by library walls, to being hosted in the Cloud. The impact those developments have had, and continue to have, on libraries is the subject of countless studies. For CRL, however, this meant that the notion of a physical repository was losing some of its relevance as more and more documentation was produced in electronic format.
What also had an impact, however, was the subsequent, massive expansion in the knowledge economy brought about by political and economic globalization. Globalization brought with it rapid and enormous growth in the financial industry, as a percentage of the U.S. and world economies, giving rise to immense new financial information businesses, like Bloomberg and Thomson Reuters. At the same time, a dramatic expansion of the policy research sector occurred, brought about in large measure by the simultaneous increase in US trade and national security interests in other world regions and a downsizing of the U.S. federal government’s own research apparatus.

This expansion also fueled the development of powerful – and expensive -- new information and text processing software applications to serve the for-profit research industry, raising the bar for the functionality and tools expected to accompany databases. With these developments American libraries suddenly found themselves to be a smaller segment of the information market. Whereas in the past libraries were among the major repositories of published content, they were now suddenly dwarfed by information giants like Dow Jones and LexisNexis that were scaled to serve well-funded and voracious consumers of information in the business, government, and intelligence communities.

To this add the later mass digitization and knowledge-building efforts of organizations like Google and Wikipedia, which created major new online resources that captured the attention of students, scholars, and researchers thus eroding libraries’ share of their traditional user base. Similarly, and in part as a response to the Google effort, commercial aggregators like ProQuest, Gale, and others redoubled their own efforts to reformat library collections of unique or rare materials like newspapers, government documents, and archives to sell (back) to research libraries in expensive digital databases. Meanwhile, the resources of the library sector were being consumed by the ever increasing cost of journal literature.

To make matters worse, due to the global economic downturn and ideological conflict in American politics, US federal support for libraries was in decline; and there was a reduction in university budgets, and in some cases, ambitions.

**New Strategies**

In the face of these developments we at CRL realized that the traditional cooperative collection development and management model was in danger of becoming obsolete, that non-library organizations were amassing – and maintaining --enormous amounts of content and creating online
“libraries” at scale that served more and more researchers. CRL needed to update its approach to supporting advanced research and its relationship with its community of libraries.

In 2006-2007 Strategic planning by the Center’s Board of Directors and management staff created a blueprint for a new set of services and activities, through which CRL would broaden and enhance its programmatic support of scholarly resource preservation and access. The blueprint outlined a set of new strategic priorities for the Center and a process whereby CRL would reshape its operations and services. Under the plan, dubbed GRN 2014, CRL was to concentrate its resources on three areas of service:

1. *Expanding electronic access to critical primary source materials* for the CRL community through systematic digitization of CRL and member library collections and digitization on demand of source materials to support specific scholarly projects.

2. *Ensuring continuous, long-term access to “last-copy” paper and microform collections* for the CRL community through coordinated archiving and collection-sharing arrangements with key partners.

3. *Supporting informed investment in digital resources and preservation* by making available to CRL libraries actionable information on digital repositories, collections, and services.

In 2008 CRL was awarded funding in the amount of $1.45 million by the Andrew W. Mellon Foundation to undertake a fundamental transformation of the organization.

**Partnerships and Coalition-Building**

Facing the daunting challenge of reorienting CRL operations, we looked to our historic strengths. The area microform projects, although designed to deal with tangible media, were actually quite serviceable models for pooling resources and focusing specialized expertise on collection development in areas of common interest. They provided a useful template for CRL’s efforts to foster coalescence of communities of interest around common preservation and access objectives.

To achieve its new goals, though, CRL management resolved to focus its attention on four key areas of common collecting interest, in order for CRL to have a significant impact:

1. News
2. Law and Government
3. The History of Science Technology and Engineering
4. The History and Economics of Agriculture.

These were areas of high current and prospective interest to the CRL community. We then devised and pursued a distinctively tailored strategy in each area. In each area, however, we did not choose to go it alone, but rather sought partner organizations with compatible, if not kindred, missions that could bring important capabilities to the table.

Focus Area 1: News

In 2007 CRL began to work with Readex and its parent company, NewsBank, to create the World Newspaper Archive. The project set out to provide electronic access to back files of newspapers from microform and paper holdings of CRL and several major newspaper repositories such as Harvard University, the New York Public Library, the University of Washington, University of Texas–Austin, University of Florida, the University of California–Berkeley, and others. To this ambitious undertaking Readex brought a formidable combination of expertise and capability, providing the systematic digitization and Web delivery of the back files of international newspapers that CRL and its larger member libraries had long collected and preserved in paper and microform. The initial release of the first collection module, Latin American Newspapers, occurred in December 2008. Additional collection modules, on African, South Asian and Latin American and Caribbean newspapers have been produced in subsequent years. CRL libraries, together, have invested over $4 million to date in developing these digital collections during a time of extreme austerity.

Focus Area 2: Law and Government

In 2010 CRL forged another key partnership, this time with a major preservation organization: the Law Library Microform Consortium (LLMC). LLMC was founded in 1976 by the law libraries of the University of Hawaii and Wayne State University, to preserve the historical legal texts that were then beginning to be de-accessioned by many law libraries, supplanted by major text databases like LexisNexis and WestLaw. Initially, LLMC reformatted the texts in microfilm and fiche, but in 2003 the Consortium, then with over 200 institutional members, embarked upon a program to convert its filmed titles to digital format, and to archive paper copies of the digitized content. LLMC created a web-based platform, LLMC-Digital, which provided access to the digitized materials and was available to subscribing libraries.
As of September 2011, the LLMC-Digital database included over 30 million pages of primary legal materials. LLMC also has archived tens of thousands of volumes of those titles in secure, dark storage.

The partnership with the law library consortium enabled us to increase the impact of CRL preservation activities, to preserve hundreds of thousands of primary legal publications, such as statutes, codes, gazettes, treaties, court reporters, legislative journals, and so forth, and to make those types of materials available to CRL libraries electronically. The CRL-LLMC partnership leveraged the resources and expertise of the over 500 combined library members of the two consortia. CRL and LLMC continue to work together to identify important, at-risk primary sources in the fields of international law, government, and politics; to provide digital access to those volumes; and to archive those materials in print form. A joint CRL-LLMC committee guides identification of the collections to be digitized, which are drawn from CRL holdings and from those of other important repositories.

As a benefit of the partnership researchers at all CRL libraries have access to the online LLMC-Digital database of legal and government-related materials from all world regions, content which offers rich and growing potential for interdisciplinary research. In addition the libraries are relieved of their responsibility for storing the print versions of those materials, assured that print copies will be available from the LLMC archive.

**Focus Area 3: The History and Economics of Agriculture**

In 2011, CRL was awarded a two-year Institute of Museum and Library Services (IMLS) National Leadership program grant to establish a model for cooperative, coordinated management of physical collections in two major fields of research. The project, entitled “Cooperative Print Archiving by Discipline: Developing an Infrastructure to Sustain Scholarly Resources,” focuses on the fields of Law and Agriculture and is to build a sustainable and scalable plan for cooperative management of legacy print materials in these areas at the local, state, regional, and national levels.

The project in Law was described above, and is well launched. The primary goal of the Agriculture project is to develop the infrastructure to support the cooperative archiving of agricultural publications on a national level. Here CRL is working with two U.S. organizations active in the field of agricultural collections: the United States Agricultural Information Network (USAIN) and the Agriculture Network
Information Center (AgNIC). USAIN is an organization that provides a forum for discussion of agricultural issues and takes a leadership role in the formation of U.S. national information policy as related to agriculture. AgNIC is an alliance of U.S. and Latin American universities, libraries and research centers dedicated to enhancing collective information and services for researchers and others seeking agricultural information over the Internet.

The partnership has two primary objectives:

1. Sustaining consensus-based, cooperative archiving of primary serial collections in the field of agriculture, defined broadly;
2. Expanding electronic access to digital and print resources from all world regions to support agricultural research.

CRL is playing a supporting role in the program. CRL is assembling an information base that will assist collection managers and development officers assess holdings, condition of material, terms of archiving and service and availability of materials of concern. Also to be developed are templates for terms of service, standards for levels of preservation, business models for archives and other tools to support cooperative archiving.

CRL has also begun to work with USAIN and AgNIC leadership to support an ongoing program in the field of agricultural collections. CRL is allocating base funds and resources to support the archiving and digitization of agricultural collections by U.S. and Canadian libraries, and will endeavor to attract new funds and resources to significantly enhance that support.

Focus Area 4: History of Science, Technology and Engineering

A third strategic partnership was formed earlier this year between CRL and the Linda Hall Library of Science, Engineering and Technology (Linda Hall). The purpose of this partnership is to preserve and develop historical research collections in the fields of science, technology and engineering. The partnership will build upon the rich holdings of print serials in those fields assembled by CRL and Linda Hall during the past six decades. Together, these holdings constitute a premier historical library of global science. CRL and Linda Hall are combining human, technical and financial resources to further develop these collections, actively promote their visibility and use, and preserve them for future generations of scholars and researchers.
Beginning July 1, 2012 the combined CRL and Linda Hall STE print serials became available electronically to CRL libraries in the United States, Canada, and Hong Kong through on-demand digitization and document delivery service. The collections covered by the CRL-Linda Hall partnership include current and back issues of over 50,000 journal titles acquired and maintained by CRL and Linda Hall over the years. These include print serials from Elsevier, Wiley, Springer, and other publishers; historical serials published by learned and scientific societies and associations in Europe, Asia, and the US; foreign serials in the fields of Physics, Chemistry, and Engineering received through the Library of Congress Cooperative Acquisition Program; engineering specifications, technical reports, standards and other publications of U.S. and foreign government agencies; and other retrospective serials held by CRL and Linda Hall. RapidILL is the platform for free document delivery of the collections to all CRL libraries.

The Linda Hall Library will henceforth be the locus for maintaining, developing and providing access to the collections. The partnership not only provides CRL libraries access to a vastly enlarged collection of historical scientific materials, but assures the archiving of the combined CRL and Linda Hall materials in the extensive secure, climate controlled collection facility maintained by the Linda Hall Library, which has been designated a Global Resources Center by CRL.

The Global Resources Forum

In all of these areas, it seemed to us, there was a lack of data available to support the orderly transition of North American libraries from print to digital collections. This transition would entail coordinated, strategic action by the region’s research libraries, to preserve legacy print collections in a responsible way, and to exploit new digital resources and technology effectively. The knowledge base needed for such rational action was absent.

CRL therefore began in 2010 to put in place a larger program of support for library and consortia decision-making on collection management and investment, the Global Resources Forum. The Global Resources Forum (GRF) took its inspiration from CRL’s longstanding cooperative collection-building programs, and applies the successful template for those area studies programs to the broader sphere of humanities and social science resources. Like the Area Microform and Global Resources projects, GRF
activities leverage for the common good the formidable pool of expertise and knowledge of traditional and digital collections that exists among CRL’s extensive community.

GRF is a set of resources and activities that support collection-related decision-making and investment by individual libraries and library consortia. GRF online analysis and data resources support, and are in turn supported by, virtual and in-person events wherein collection and information specialists from leading North American research libraries pool their knowledge and expertise and share collection investment information and practices. GRF combines online resources such as data and analysis with virtual and in-person events. Online resources include assessments of digital repositories, where CRL shares the findings of its audits of repositories like Portico, HathiTrust, and others. They also include analysis of major commercial and open access databases of primary source collections in areas of CRL interest, providing critical information upon which CRL libraries can base their acquisition decisions.

In some instances the databases evaluated are digital versions of collections that CRL holds in microform or in print, and thus offer CRL the added benefit of eventually replacing microfilm and hard copy delivery with electronic access.

CRL’s Global Resources roundtables, held periodically at various host libraries, are venues for representatives of CRL libraries to explore the challenges of preserving and collecting new forms of scholarly evidence as diverse as electronic news, human rights documentation, and water data, and develop strategies for collective action to meet those challenges.

We also began to place additional emphasis on supporting the quest for new strategies for preserving digital content, in particular large databases and major types of commercial digital content. In April 2010 CRL undertook a study of electronic news production for the Library of Congress Office of Strategic Initiatives. The study was an initial attempt to map the “lifecycle” of news content and information published in newspapers and online; and to clarify the relationship between the news content produced for those two major distribution channels. The study grew out of a workshop convened by the Library of Congress National Digital Information Infrastructure and Preservation Program (NDIIPP) in September

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1 For an overview of the Global Resources Forum, see: [http://www.crl.edu/node/7238](http://www.crl.edu/node/7238)
2009 to explore possible strategies for collecting and preserving digital news on a national basis. Prompted by the workshop discussions CRL proposed to examine, analyze, and document the flow of news information, content, and data for four major newspapers, from production and sourcing, through editing and processing, to distribution to end users.\(^2\) CRL also undertook a study of the uses and utility of electronic evidence of human rights violations, supported by funding from the John D. and Catherine T. MacArthur Foundation.

**New Infrastructure for Preservation**

The economic downturn of 2007-2008 caused widespread cancellation of capital projects for collections storage building and expansion at many U.S. universities. In addition, public libraries in Detroit, Denver, Boston, and other major cities have been hard pressed to continue to fulfill their roles as regional repositories of government publications. With the economic downturn a deadly combination of aggressive publisher pricing and reduced library budgets began to force many academic libraries to forego continuation of print journal subscriptions.

In July 2009, CRL convened representatives of the major North American consortia and other interested organizations, including JSTOR, Ithaka, and OCLC Research, to discuss current print archiving efforts and challenges that undermined those efforts. Attendees at the CRL forum cited the unavailability of adequately detailed information on local print holdings and the lack of community consensus on standards for print archiving as the major barriers to effective and coordinated archiving on a national scale. What also became clear was that there were duplication of efforts and little uniformity of practice from one archiving initiative to the next. One reason for this, forum participants agreed, was the scarcity of opportunities for the sharing of information and best practices.

It was clear that a useful role for CRL would be to support the various print archiving and collection sharing efforts that had begun to emerge at the state, regional and national levels. The most effective way to provide such support was to promote the availability and sharing of information about current and emerging archiving efforts, their holdings, practices, and relative costs and benefits. We have since continued to convene library and consortium leaders in semi-annual forums and periodic webinars on the subject, and in early 2011 CRL enlisted the California Digital Library to develop a database in which

CRL could aggregate and analyze data on the serial holdings of print archives, and on the conditions under which those holdings are maintained.

CRL and the California Digital Library recently released the Print Archives Preservation Registry (PAPR). (The PAPR system is now available on the Web at http://papr.crl.edu.) The registry is designed to support archiving and management of serial collections by providing detailed information about titles, holdings, and terms and conditions of the major print archiving programs. PAPR now includes a searchable database, tab-delimited reports for download and the simultaneous display of title and holdings information from multiple print archiving programs.

The database was developed with support from the Andrew W. Mellon Foundation. The initial phase of the development of the registry focused on developing a data analysis system for WEST and on using the standards developed by the OCLC print archives disclosure pilot project to transmit data via the MARC field 583. The next phase will address additional functional, data and user needs.
The Future

Today, CRL continues its evolution from a central repository of primary source collections developed by a community of research libraries to an organization that enables those constituent libraries to acquire and develop local and shared collection resources in a rational and informed manner. CRL’s core mission remains the same as in 1949: CRL people and resources still support advanced research and teaching in the humanities, sciences and social sciences by ensuring continued access to the source materials critical to those disciplines. But the means it now employs are different from those it adopted sixty-two years ago, as the world has changed radically.

Today CRL is concentrating its efforts on the primary materials of research, rather than on current scholarly journals. This is because we believe that the scholarly literature is not likely to disappear, even without CRL’s efforts. That is not the case with primary sources. They require active and constant minding, and few research libraries today are able to devote significant resources to them. The time when the largest U.S. and Canadian research libraries were able to collect comprehensively is now past. In its November 2009 Report of the Task Force on University Libraries, Harvard University acknowledged the need to limit ambitions.

Scholarship and research materials are growing at an increasing pace in an expanding number of disciplines and formats. A single institution cannot capture, document, and make accessible the world’s record of scholarship, and Harvard is no exception. . . . Understanding that a single institution cannot afford the space and funding to collect and maintain the entirety of the world’s scholarship, careful, strategic decisions must be made about how the University should maintain Harvard’s premiere library collection status. No single institution can bear the burden of acquiring the entire world’s informational output.

To ensure the survival of primary source collections, CRL is pursuing a course different than that of most individual libraries, a strategy that seems counterintuitive in today’s “just in time” world: a strategy not based solely on the level of current interest and demand. Nothing is more certain to destroy critical historical, cultural and scientific evidence than measuring its value in terms of immediate usefulness. CRL’s strategy, rather, looks toward the future. We believe that if repositories like CRL do not act on behalf of future generations of researchers and stakeholders, they have abdicated their responsibility as stewards of knowledge.
Today libraries of all sizes subscribe to this idea, and are shouldering the burden of stewardship through their participation in CRL. In the past decade CRL has grown from 197 libraries to 267. The ranks have grown substantially since 1949 when the ten founding CRL libraries decided to pool their resources and aspirations. At the advanced age of 62 years CRL, we believe, is just getting started.