

Library and Information Resources for International Education

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Introduction

This paper analyzes contemporary needs for international information among students and scholars in the United States, as manifest through the collections and services of academic libraries. The initial section describes today's context of burgeoning international interests and intensifying pressures upon our libraries. The essay then turns to current trends, opportunities, and challenges in six broad areas that were previously examined in 1997. Budgets, collection building, research and teaching needs, access to information, electronic resources and digital initiatives, and library staffing are separately described and assessed, as are cooperative efforts to address these challenges. The paper follows by considering areas in which external funds, including those provided by Title VI and other federal programs, have been or could be helpful for libraries engaged with international education. The opportunities associated with expanded cooperation and with technological change appear especially promising. The paper concludes with a brief speculation on what an ideal system for access to international information might entail.

The Context

Libraries are unique among Title VI/Fulbright-Hays program areas in that they support the entire system of international education. “Internationalization,” in turn, today permeates all areas of higher education. Undergraduate curricula have been expanded and redesigned to emphasize a global perspective. International MBA programs, law schools that incorporate a broader comparative focus, and medical training attuned to our increasingly global environment similarly attest to this ongoing impulse. Distance education includes international content and also crosses international frontiers. Exchange programs and international students are ever more common. In society as a whole, we see people, ideas, capital, and goods moving freely throughout the world. Our country’s recent preoccupations with terrorism and “homeland security,” albeit in a more somber tone, again reinforce the need for international information.

These trends and circumstances were already becoming apparent in 1997. A session at that year’s conference on *International Education in the New Global Era*, held at the University of California, Los Angeles, specifically addressed “Library Collections and Access: Supporting Global Expertise” by systematically examining the obstacles that we face in building and making accessible the strong collections of foreign information resources that are needed to support and sustain global expertise.¹ These difficulties covered the full range of acquiring, cataloging, preserving, and sharing international materials. The discussion drew particularly on a broad-gauged survey of

¹ Deborah Jakubs and David Magier, “Library Collections and Access: Supporting Global Expertise,” in *International Education in the New Global Era*, ed. By John N. Hawkins, Carlos Manuel Haro, Miriam A. Kazanjian, Gilbert W. Merckx, and David Wiley (Los Angeles: International Studies and Overseas Programs, UCLA, 1998), pp. 175-186.

area librarians who offered their perspectives on the key challenges facing academic libraries in the international arena.

Now, five years later, the need to understand the dynamics of libraries in a rapidly changing fiscal and information environment has become even more compelling. Our libraries sustain international teaching and research. Their health directly affects the quality of these activities. This essay therefore revisits the challenges identified in 1997 in order to see what has changed and what remains the same. What, today, are the principal obstacles to providing our students and scholars with foreign information and research? What additional and previously unforeseen developments have enhanced or complicated our access to international information? How are changes in the nature and direction of scholarship affecting libraries? What is the impact of new technologies?

The following responses to these and other questions draw upon a variety of sources. Representatives from the institutions that participate in the area studies projects of the Center for Research Libraries (CRL) comprise one substantial group that encompasses the forty institutional members of the Cooperative Africana Microform Project (CAMP) for Africa, twenty-four libraries concerned with the Middle East, forty-two for Latin America, thirty-one for South Asia, twenty-nine for the Slavic countries and Eastern Europe, and twenty-two for Southeast Asia.² Several listservs for area-specific library groups have hosted online discussions around the information needs of “their” scholars and students. Informal interviews were conducted at a November 2002 conference on *The New Dynamics and Economics of Cooperative Collection Development*, organized by CRL and co-sponsored by the Association of Research Libraries (ARL). Similar conversations have been held at other meetings and

conferences. These contributions, plus discussions with colleagues and data available in the professional literature and the Internet, inform the following observations.

All academic libraries are challenged by increasingly diverse priorities and mandates that exceed their means. Today's complex information environment is characterized by distinct and only occasionally overlapping systems of print publications and electronic resources. The balance between analog and digital varies widely from field to field. Some disciplines, for instance chemistry or high energy physics, rely primarily on information that is produced, communicated, and consumed through electronic means. The information required by scholars and students concerned with area studies as traditionally understood, by contrast, encompasses a more eclectic mix of electronic resources and print materials. Libraries are under tremendous pressure as they strive to sustain user access to both these systems for producing and consuming information. Even before the latest round of recession-induced cuts, collections budgets and service models were stretched very thin. Some analysts argue that today's print/digital dilemmas are merely transitional, and that things will improve as the electronic (inevitably) crowds out everything else. So far, however, there is no compelling evidence to support this view.

These pressures notwithstanding, librarians also revel in the emerging technologies that support entirely new modes for locating, consulting, combining, and manipulating information. New institutional partnerships among librarians and scholars, libraries and academic programs, libraries and other cultural institutions, and libraries both domestic and international, are likewise taking shape. Other shifts are at once homely and profound. Electronic journals and books, for instance, can be read at a desk

² The corresponding projects are listed in footnote #10.

or in a dorm. Ubiquitous access reduces the need for trips to the library—while, perhaps, also altering the symbolic and conceptual significance of these typically monumental spaces. Rare and unique materials have been digitized and then disseminated among groups, for example K-12 students, which would never set foot in the owning library. The hundreds of library catalogs now available on the web have raised our students' and scholars' awareness of what exists to consult. Enhanced access carries benefits for all.

The following example may suggest the reach and appeal of materials that are now available through the internet. The Latin Americanist Research Resources Project (LARRP), part of the Association of American Universities and Association of Research Libraries "Global Resources Program," has made several electronic resources available through the Latin American Network Information Center (LANIC) at the University of Texas. (See <http://lanic.utexas.edu>.) The offerings include a searchable table-of-contents database (LAPTOC) that covers about eight hundred otherwise unindexed journals from all parts of Latin America, and also digitized presidential messages from Argentina and Mexico. The LARRP site currently receives more than one million hits per month from dozens of countries. Users from Argentina and Mexico, presumably unable to find local copies of their own presidential messages, comprise an especially gratifying clientele.

Students and scholars rely on a mix of local hardcopy holdings, books and journals that are described in bibliographic databases and readily available from other repositories, and online resources available regardless of location. This very diversity, however, raises fundamental questions about the meanings of both "library" and "collection." Librarians and campus administrators, too, find it increasingly difficult to evaluate libraries and their effectiveness as simple tallies of local collection size lose

relevance. All research libraries are struggling to make sense of these conceptual shifts. Their operational responses play out in programs and services, funding priorities, decisions on where to house library materials, and arrangements on how to support both on-site and remote users.

Another example may again prove revealing. The Association of Research Libraries annually collects statistical data that are used to rank North American research libraries on the basis of a formula that incorporates such variables as collection size, number of volumes added, number of serial subscriptions, materials budget, staff size, etc. These rankings are used to compare institutions and also as ammunition for local library funding requests, for example to keep up with self-selected peers. The increasing availability of electronic resources, however, calls into question institutional rankings that privilege the size of local print collections. ARL is working to build electronic resources into its formula, but the current system for comparison is in the meantime provoking both tension and potentially counterproductive consequences. Some maintain, for instance, that the continuing bias toward hardcopy holdings discourages some libraries from weeding their collections and thereby exacerbates overcrowding in the stacks, encourages the retention of outdated holdings, and even leads to unnecessary building projects.

U.S. researchers and their overseas colleagues are accustomed to intellectual collaboration: the scholarly community is for the most part already global. Explicit cross-national cooperation among libraries remains less frequent, though ever easier communications are facilitating new inter-institutional relationships. Researchers benefit as resources that previously could only be consulted on-site become available at a

distance. New international standards for more sophisticated systems of interlibrary loan and easier, quicker document delivery have been particularly important.

The overall context for research libraries, thus, is in the first instance characterized by unremitting and intensifying pressure. The world's publishing output continues to expand, and electronic resources further stretch limited library budgets. New technologies to create, disseminate, and use information affect all library operations, as they also suggest new opportunities for both local and cooperative action. The following section focuses more narrowly on trends in six specific areas of library activity as they relate to international information resources and international studies. Each of these topics was also analyzed during the 1997 conference at UCLA. We now turn to budgets, collection building, research and teaching needs, intellectual access, electronic resources and digital initiatives, and the demographics of library staffs.

The Challenges of International Information

Budgets

Library budgets are under heavy pressure. All the constraints identified in 1997 remain in place. More is being published, throughout the world, in print as well as online. Astronomical price increases for scientific and technical journals, many of which are produced by commercial oligopolies, continue unabated. Between 1986 and 2001, the unit cost of monographs within research libraries rose 68%. Serials costs rose 215%.³ Meanwhile, serial subscriptions dropped by five percent, and monograph acquisitions by nine percent. Libraries have responded to user demand and also new offerings by

³ See Appendix I for a graphic representation of these trends, which are further detailed in the charts and statistics on the ARL website: <http://www.arl.org/stats/arlstat/>.

shifting their priorities toward providing more and more electronic access. The proportion of library budgets consumed by annual payments for access to electronic databases, e-journals, and e-books — that is, for materials that the library never actually owns — continues to rise.

Many libraries now spend twenty percent of their materials budgets on electronic resources. The effects of instant and ubiquitous availability are overwhelmingly positive for some constituencies, though perhaps less congenial within fields that continue to rely on printed books and journals. Moreover, digital resources are often funded by reallocations within materials budgets. Disciplines requiring hardcopy materials may therefore find themselves “taxed” to support other fields. Most area studies, unfortunately, fall within this category.

Both the absolute and the relative portions of library budgets that support foreign acquisitions have tended to drop.⁴ Inflation-adjusted materials budgets, now in general decline, were for the most part static even before the current recession. Ever-fluctuating exchange rates afford sporadic windfalls and occasional crises, the latter sometimes associated with collection gaps that can never be filled, within a broader trend toward diminishing purchasing power. The number, nature, and magnitude of demands on our repositories have also increased since 1997. External support for area studies collections, for instance through grants to Title VI National Resource Centers, has made a substantial difference. Such support nonetheless falls short of the need.

⁴ Several library groups associated with specific world regions are assembling statistics on budgets and acquisitions. The Seminar on the Acquisition of Latin American Library Materials, SALALM, publishes statistics in each December issue of the *SALALM Newsletter*, and is currently preparing longitudinal

Collection Building

The “crisis in foreign acquisitions,” identified in a set of detailed studies published in 1996 as *Scholarship, Research Libraries, and Global Publishing*, remains very much alive.⁵ Despite unrivaled collecting achievements, our libraries still lack a great many of the resources needed for area studies research and teaching. Simply staying current with the scholarly record, just in English, typically squeezes other collecting areas — including, perhaps especially, international acquisitions.

The Association of American Universities/Association of Research Libraries Global Resources Program was established, to a significant degree, to redress this collection decline.⁶ The Program and its constituent projects initially envisioned that we could capture a larger percentage of the world’s books and journals through a centrally coordinated “federation” of institutions, each participating in a rational grid of assignments for collecting and cataloging. Yet the Program and most of its regional projects (for Africa, Germany, Japan, Latin America, South Asia, and Southeast Asia) have since moved away from this kind of approach. The Global Resources Program’s most substantial achievements by and large now reflect different emphases and a new direction.

The shift to some degree reflects such time-worn obstacles to cooperative collection development as conflicting local and national priorities, faculty pressure to expand local holdings, and librarians’ reluctance to cancel journals and rely on remote

analyses. The Council on East Asian Libraries, CEAL, likewise offers statistics on its website: <http://www2.lib.ku.edu/ceal/stat/>.

⁵ Jutta Reed-Scott, Washington, DC: Association of Research Libraries.

⁶ See “The AAU/ARL Global Resources Program: Both Macrocosm and Microcosm,” in *ARL Bimonthly Report*, No. 206, special issue on global resources (October 1999); *Library Hi Tech*, special theme issue on global resources projects, Vol. 18, No. 3 (2000); and the Global Resources Program website <http://www.arl.org/collect/grp/index.html>.

access. In more general terms, centralized models to organize access to international information no longer (and perhaps never did) match the realities of publishing, scholarship, or library operations. Enhanced document delivery, smoothly functioning international partnerships, capacity-building in underdeveloped countries, and consortial deals to ensure access to expensive electronic products, have instead come to the fore. The Global Resources Program has thus moved beyond a model based on local collecting and dated technologies to focus instead upon new and technically-enhanced cooperative activities.

This changing context also brings us back to the question of what constitutes a “collection.” Is it print or digital? Is it local or remote, domestic or foreign, a physical reality or a virtual construct? However we respond, our central challenge is to ensure that scholars and students working in international studies can find and then utilize the resources they need. Rapid electronic delivery of information, vital partnerships with foreign institutions, and a growing awareness of our collecting limitations have together undermined our earlier preoccupation with physically capturing all research resources somewhere within this country.

Another way to explore the same general issue focuses on the meaning of “international” resources. Today’s information marketplace makes it easy to identify and acquire at least some materials from every corner of the globe. At the same time, even affluent countries with fully developed bibliographic and marketing structures generate resources that remain beyond our reach. Community-based ethnic newspapers in the United States, for instance, can be notoriously difficult to identify and collect. “International” materials may simply be those produced somewhere else. At times,

however, the term seems to suggest resources that are created and then circulate outside the marketplace. Our special efforts may therefore be most fruitfully directed toward resources which, while sought by our students and scholars, are difficult to locate and acquire.

In sum: our ability to build international library collections continues to lag behind scholarly demand. Efforts to rationalize and expand acquisitions remain crucial and continue to evolve. Cooperation built around shared resources, domestic and international partnerships, and digital communications and technologies is increasingly central. Specific solutions will nonetheless vary among geographic regions, scholarly disciplines, and information formats.

Research and Teaching

The universe of source materials required to support today's scholars exceeds any repository's collecting capacity. Scholarship is omnivorous. Scholarly demand is at the same time highly differentiated both within fields and across the academic landscape. Within the realm of area studies, Title VI National Resource Centers have been established for every region of the world. The associated scholars have a welter of needs and priorities. Moreover, the areas upon which they focus vary widely in terms of their information output, their structures for publishing and distribution, and the nature of their cultural institutions. Area-specific concerns are likewise emerging from such "new" quarters as professional schools and in fields including law, public health, and business.

International researchers and educators thus seek resources that run the gamut from political party platforms from Peru to Japanese comic books, from water quality

analysis from the states of India to newspapers from Jerusalem. The roster includes writings by women, maps, films, foreign dissertations, new literary criticism, geological surveys and soil maps, historical newspapers, legal codes, social science journal articles, city directories, digital photos, public health statistics, and on and on....

Merely sorting out scholars' expressed demands is a daunting endeavor. Moreover, a 1996 survey of Title VI Center directors indicated that area scholars often become aware of what they are *not* able to find only after their work has begun. Librarians are trained to anticipate these needs, and can frequently find the missing information or direct researchers to the most promising sources. Communications between libraries and faculty also help both groups to remain aware of trends in research, teaching, and publishing. But we still fall short.

Moreover, we cannot simply assume that existing linkages between librarians and scholars — which seem especially effective in traditional area studies programs — will persist. Scholarship in almost all fields has become more interdisciplinary. Even the primordial distinction among the humanities, social sciences, and sciences is losing some of its force. Specific sources are consulted by unexpected users, and research models and methodologies are routinely borrowed as well. The lines between fields are ever less distinct, and once-simple assumptions concerning research issues and methodologies have come into question. Traditional disciplines and their boundaries are by no means irrelevant, but new scholarship adds more fluid approaches and concerns.

Cross-regional topics are similarly capturing our scholars' attention: epidemic disease or human rights are as likely to be examined from a global perspective as a national or regional framework. Librarians, among others, are also struggling to

understand and then bridge the chasms between print and non-print media, and between analog and digital information. Scholarly uses of artifacts produced and held outside libraries – museum collections, for example – are also provoking more inclusive efforts to provide intellectual access across formats and institutions.

As suggested above, finally, students and scholars in fields not typically associated with the linguistic, humanistic, and social scientific preoccupations of traditional area studies are coming to the fore. Physical scientists seek technical publications from other parts of the world. Botanists, geologists, and other natural scientists continue to rely on local surveys and studies. Architects, physicians, lawyers, and businesspeople all seek an ever expanding array of international resources. Many of these users are “new” to our area librarians and their collections.

Scholarly agendas evolve. Libraries must be flexible enough to accommodate these changes, while also respecting the local collections whose integrity and coherence reflect years of careful and sustained effort. This flexibility, however, is limited by programmatic shifts. Budget pressures, especially those associated with scholarly journals in science and technology and with electronic products, likewise constrain our possibilities. Our practical limitations, as well as conceptual challenges, may lead us toward a collective consensus around providing access to the record of scholarship from all world areas and in all fields, complemented with selective coverage of the unconstrained range of recorded human expression. Such a model, of course, presumes overseas commitments to ensure access to the resources not acquired within the United States.

Access

“Access,” for librarians, has several connotations. One meaning centers on identifying the materials that might be relevant to a particular project or task. A second relates to the process of verifying where to find some specific item, be it a book listed in a bibliography, a journal article, or an electronic file. A third meaning centers on confirming how actually to consult the resource. The following discussion particularly focuses on bibliographic control, the process of cataloging or indexing information resources. Good bibliographic control is essential in ensuring easy access to all materials, not just international publications. If a researcher does not know whether and where a work exists, he or she cannot take advantage of it.

One persistent concern among librarians who specialize in foreign publications, voiced in 1997 and still very much present, is the need to index journals published in the vernacular. The *Bibliography of Asian Studies*, for example, has considered reducing its coverage for South Asian titles. A great many other publications, from all over the world, are not indexed at all. Another continuing challenge centers on the intractable over-representation of foreign language materials in library cataloging backlogs. Finding and funding staff with the requisite language skills is part of the problem. But our backlogs include materials in Japanese and Spanish as well as more exotic tongues, suggesting that a short supply of native speakers is not always the issue.

These international backlogs are likely to expand. Worldwide publishing continues to grow, and collection development specialists continue to seek ever more unique or near-unique materials in order to “expand the commons,” differentiate their collections from those in other libraries, and meet the ever more diverse needs of their

faculty and students. Processing units, however, find efficiencies in working with materials for which cataloging records are already available. Items that require original cataloging often are left to “age” in the backlog. Sparsely-held foreign-language materials tend to be disproportionately delayed.

Some booksellers now offer MARC (machine-readable) cataloging records along with their books. These data are preliminary, and human intervention is still essential to complete the cataloging process. Nonetheless, vendor records can at once facilitate user access and jump-start the processing sequence. Emerging arrangements for cooperative cataloging, for instance, the Program for Latin American Cataloging, may likewise provide some relief.⁷ The overseas expansion of major library consortia and bibliographic databases may help as well. The problem nonetheless remains.

The delayed access associated with cataloging backlogs in the first instance reflects staffing arrangements and workflow decisions. For publications in non-Roman scripts, our slow progress in devising means for machine-based character representation is also important. The Unicode standard has emerged during the last decade as a fundamental building block for international exchanges of digital information. The underlying concept is to create a single, universal character set that incorporates all the world’s scripts. Unique codes for each symbol will thus replace the Babel-like multiplicity of incompatible character sets that has heretofore prevailed. Most older character sets were also limited in the number of symbols they could contain, preventing them from representing such character-rich languages as Chinese.

The earliest version of the Unicode standard (1.0) was published in 1991, but it has only now begun to be utilized on a broad scale. Within the library realm, the MARC

21 specifications for bibliographic records support the use of Unicode. Many companies that produce library system software have also, at last, begun to fully incorporate Unicode into their software. The complete implementation of this standard in computer systems and applications will be crucial for the area studies community, by enabling information in multiple scripts to be easily displayed, searched, and exchanged.⁸

A final element associated with access concerns intellectual property and copyright. U.S. students and scholars enjoy rather liberal provisions for the “fair use — interlibrary loan, limited photocopying, and the like — of books and journals that are protected by copyright. However, recent extensions of copyright durations sharply lengthen the waiting period before information resources, films and sound recordings as well as books, enter the public domain. Other countries, moreover, have their own laws for intellectual property. Most offer no local equivalent to our “fair use,” making some international arrangements for document delivery extremely tricky.

The intellectual property situation is even more difficult in the digital realm, where licenses typically establish the terms and conditions of use. These private contracts supersede all statutory provisions associated with fair use, often in ways that complicate scholarship and constrain information exchange. Even something as straightforward as developing standard templates for electronic licenses has proved time-consuming and complex.

⁷ See the PLAC website: <<http://www.lib.byu.edu/plac>>.

⁸ Unicode information provided by Laura Tull, Systems Librarian, The Ohio State University Libraries.

Electronic Resources and Digital Initiatives

Scholars increasingly rely on electronic resources, a broad category that includes print and other analog materials that have been converted to digital formats, as well as resources that were “born digital.” The electronic arena has been transformed since 1997. Many academic libraries now subscribe to thousands of electronic journals. A growing number have also launched their own “digital library” programs in order to purchase, or prepare for themselves, electronic versions of materials that were formerly available only in print or on microfilm.

As of 1997, most electronic products were still English-language resources, with only a few geared to international studies. That situation has begun to change, more quickly for some regions than for others. Area studies scholars and librarians have also taken the lead in creating their own digital products, for instance through such exemplary efforts as the Digital South Asia Library (discussed below).

Digital access to a wide array of external resources, while effective and desirable, is also expensive. Not only are the costs high, but for many products they recur every year. For instance, vendors may charge annual “platform fees” for continued access to what in the analog world would have been one-time purchases. The licenses that define usage arrangements can require time-consuming, painstaking, and sometimes dispiriting negotiations. Research libraries are also deeply concerned over long-term preservation of the electronic resources to which they as a rule only purchase access rights. Publishers may be unable or unwilling to fulfill this archiving function, while at the same time refusing to allow third parties to take it on. Continuing discussion and debate are only

gradually suggesting solutions. Finally, the marketplace for electronic products — even in the developed world — remains immature.

Library Staffing and the Grey Revolution

The library profession is aging, and area librarians are true to the norm.⁹ The consequences of too few potential replacements are already becoming apparent. Unfilled vacancies of course can reflect funding cuts or changing priorities as well as inadequate candidate supplies; cause-and-effect relations are difficult to establish. Nonetheless, thin candidate pools for area librarian positions certainly affect the panorama.

On the other hand, new modes of professional preparation have also emerged. The Mellon-funded post-doctoral training programs that recently concluded at Duke University (for Latin Americanists) and Indiana University (for Slavic and African Studies librarians) are promising examples. Many libraries are also re-examining their requirements that candidates for specialist positions, in collection development and also fields such as rare book librarianship or automated systems work, hold a master's degree from a program accredited by the American Library Association. Alternative paths into library work must continue to be explored.

Professionals who are proficient in foreign languages are particularly important for collection development and for cataloging. But limited budgets and conflicting priorities can crowd out language specialists at even the largest institutions. Some libraries are “outsourcing” their foreign-language cataloging, particularly for less common languages, rather than hiring local staff. Cost savings are sometimes in play,

⁹ See Stanley J. Wilder, *The Age Demographics of Academic Librarians: A Profession Apart* (Washington, DC: Association of Research Libraries, 1995). Wilder includes an analysis of subject specialists.

though the lack of specialized personnel with specific language skills may enter in as well. The Library of Congress is also coordinating programs for cooperative cataloging, so far with little apparent impact on the vernacular-language challenges encountered by many research libraries. Smaller scale efforts to share cataloging expertise among several libraries might help.

The Cooperative Response

The preceding discussion reveals a problematic panorama for international information. Budget constraints, burgeoning user demand, staffing shortages, and other daunting challenges all affect collections, operations, and services. Only a few areas, for instance the increasing availability of relevant digital information, seem to offer much promise. The performance and the potential of new cooperative programs may likewise provide grounds for optimism.

The AAU/ARL Global Resources Program, mentioned above, is an inherently cooperative venture jointly sponsored by the Association of American Universities and the Association of Research Libraries. This Program came into being because university presidents and provosts were at once convinced of the ongoing need to provide comprehensive foreign-language research collections within the United States, and concerned that our collective efforts to do so were proving unsuccessful. Six regional projects have taken shape, each with its own (collaborative) approach to enhancing our access to international materials. Two projects have received federal funding through the Technological Innovation and Cooperation for Foreign Information Access (TICFIA)

program of Title VI. Both provide good examples of new approaches to connecting students and scholars with the information they need.

The Digital South Asia Library (DSAL) [<http://dsal.uchicago.edu>] and the closely related Digital Dictionaries of South Asia project (DDSA) originated with support from the Global Resources Program. These projects have since expanded their activities, diversified their funding base, and developed a fruitful administrative relationship with the Center for Research Libraries. External funding has included two grants from the U.S. Department of Education. DSAL provides access to several categories of material:

- **Books and Journals** – Twelve digitized books are now available, with fourteen more in the queue. One journal is now available through a JSTOR-like service, and three more titles are being prepared for the same type of delivery and use.
- **Dictionaries** – Five full-text lexical databases are now online, and ten more files are nearly ready for delivery. Five dictionaries are at the data-entry stage, and negotiations for copyright permissions are underway for another ten. A Pashto dictionary has been moved to the front of the queue since Afghanistan became an area of international concern.
- **Bibliographies** – 174,000 bibliographic entries are now available in seven databases. Three other bibliographies are awaiting processing, and three periodical indexes are also in the queue.
- **Images** – Five major collections of historical photographs are in various stages of development. Access to the photos will be ensured through separate databases.
- **Statistics** – The *Statistical Abstracts relating to British India* are available as page images, and also as data in Excel spreadsheets.

- **Maps** – A database of all *Survey of India* maps held by the British Library’s Oriental and India Office Collections is now being developed, to be followed by selective digitization of the maps themselves.

DSAL’s recent TICFIA grant will, over the next three years, enable several additional initiatives. The project plans to forge a new library federation for sustainable and innovative digital projects in cooperation with foreign libraries that focus on South Asian studies. It will create on-line information about contemporary and historical South Asia across the social sciences, humanities, and sciences. It also expects to provide bibliographic access to resources now only available overseas. The project will develop a web interface to simplify area-specific searching and resource discovery, and then share the programming and code. It will fully embrace Unicode in representing non-Roman scripts. Finally, the project will engage questions of South Asia’s cultural patrimony while supporting a “new library movement” on the subcontinent.

The Latin Americanist Research Resources Project (LARRP)

[<http://lanic.utexas.edu/project/arl>] includes several cooperative activities, each aimed at expanding the range of materials available to students and scholars. These project components include:

- **LAPTOC (Latin American Periodicals Table of Contents).** LAPTOC, long the centerpiece of the Latin American project, is a searchable database of tables of contents from about eight hundred journals published throughout Latin America. The more than 220,000 articles thus represented are for the most part indexed nowhere else. The Project’s forty-seven member institutions have each committed to maintaining journal subscriptions and providing expedited document delivery for the

titles they index. LAPTOC's web database affords free, worldwide access to the tables of contents information, including keyword searching.

- **Distributed Resources.** This project component seeks to strengthen our collective coverage of monographs published within Latin America through a voluntary arrangement. Twenty-eight participants have agreed to reallocate at least seven percent of their monographic funds to self-selected areas of local emphasis. The deepened collections that result enhance our overall coverage of non-core materials from the entire region. Distributed Resources participants are also expected to provide prompt cataloging and to make most materials available for interlibrary loan. The aggregate reallocations currently exceed \$200,000 per year.
- **Presidential Messages.** LARRP has prepared more than 75,000 digital page images for presidential messages from both Argentina and Mexico, which are accessed by about six hundred users per day. This project component is complemented by the joint effort of the Latin American Microform Project and the Center for Research Libraries to digitize Brazilian documents.
- **Latin American Partnerships.** Funding from the Department of Education's TICFIA program has underwritten a cooperative initiative whereby several Latin American libraries are contributing tables of contents for local journals to the LAPTOC database. Bolivia's Biblioteca Inca and Guatemala's Centro de Investigaciones Regionales de Mesoamérica (CIRMA) were the first two Latin American partners. Libraries in Puerto Rico, Trinidad, and Argentina have since followed suit.

- **Latin American Open Archives Portal.** This very new endeavor will address the need for improved control of and access to Latin America's "grey literature" on the web. Many reports, working papers, discussion documents, manifestos, and other materials are now produced in electronic format by research institutes, non-governmental organizations, and popular groups. These resources are poorly publicized, fall outside commercial channels, and are almost never archived for permanent retention. TICFIA funding will support new collaborations with several key Latin American institutions, beginning with the Facultad Latinoamericana de Ciencias Sociales (FLACSO) in Santiago, Chile and CIRMA in Guatemala. Training in the Open Archives Initiative and its Metadata Harvesting Protocol will be the first step in an effort that will expand over time.

The South Asian and Latin American projects exemplify the new, technologically informed cooperative means through which scholarly needs for international information are now being addressed. Many of the resources they encompass cannot be "collected" in a traditional sense due to their scarcity, fragility, cost, or evanescence. Both projects also demonstrate the value of partnerships with libraries and other institutions located outside the United States.

The German Resources Project [<http://grp.lib.msu.edu/>], another initiative sponsored by the Global Resources Program, provides a compelling example of active collaboration between librarians in North America and Germany. Its Partnerships Program, one of several Project activities, matches individuals from German research libraries, which tend to specialize in specific geographic or thematic areas, with U.S. and Canadian counterparts. Collections information, reference questions, and materials (not

limited to German studies) are all being shared among international constituencies of users and librarians. (See: [<http://www.library.northwestern.edu/grp/>].)

The Chicago-based *Center for Research Libraries* [<http://www.crl.edu>] supports another cooperative approach to foreign materials through its six area studies microform projects. Each region-specific initiative focuses on purchasing, or preparing, reformatted versions of scarce or endangered research materials.¹⁰ Microfilm remains the medium of choice, though some digital projects have been pursued as well. Funds are generated through member dues and occasional grants. Materials thus acquired include publications of Russia's right-wing extremist press, reports from the British India Company, the "Nunca Mais" records of secret military proceedings against political dissidents in Brazil, and documents of South Africa's African National Congress and Namibia's South West Africa People's Organization (SWAPO). These microfilms, plus many thousands more, are housed at and made available for scholarly use through the Center for Research Libraries.

CRL has more recently embarked on a Mellon-funded project to develop effective methodologies for the systematic and sustainable preservation of web-based political resources. This effort will focus on web materials — reports, manifestos, constitutions, declarations, and official statements — produced by political groups and non-governmental organizations in Latin America, sub-Saharan Africa, Southeast Asia, and Western Europe. The planning effort will draw upon computer experts, subject

¹⁰ The area microform projects and their dates of establishment are: Cooperative Africana Microform Project (CAMP), 1963; Latin American Microform Project (LAMP), 1975; Middle East Microform Project (MEMP), 1987; Slavic and East European Microform Project (SEEMP), 1996; South Asia Microform Project (SAMP), 1967; Southeast Asia Microform Project (SEAM), 1970.

specialists, and area scholars at several institutions, while also building on activities already underway at the Library of Congress and the Internet Archive.

The Library of Congress boasts a solid array of overseas offices and wide programmatic responsibilities to citizens as well as the Congress. About two-thirds of its print holdings are in languages other than English. Its Overseas Division [<http://www.loc.gov/acq/ovop>] maintains offices in Cairo, Jakarta, Islamabad, Nairobi, New Delhi, and Rio de Janeiro that acquire, catalog, preserve, and in some cases distribute more widely resources that are difficult to obtain through normal commercial channels. The various Cooperative Acquisitions Programs especially facilitate other libraries' acquisitions of foreign publications.

The Library of Congress has developed an extensive array of digital projects to support international and area studies. Its "Global Gateway" portal [<http://international.loc.gov/intldl/intldlhome.html>] leads researchers to sources of information on all the nations of the world, as well as descriptions of the Library's twenty-one reading rooms. The Global Gateway's digital links include:

- **Portals to the World:** Links to electronic resources concerning every nation, selected by specialists from the Library of Congress;
- **Research Guides and Databases:** Country studies, foreign legal sources, specialized library catalogs, and digitized books and journals;
- **International Cybercasts:** Videos of public programs concerning international issues;
- **Digitized Global Treasures:** Selected items of cultural or historic importance from the Library's international collections.

The Library of Congress also pursues collaborative projects both nationally and internationally. The bilingual (English-Russian) "Meeting of Frontiers" multimedia digital library, for example, is the joint undertaking of numerous Russian libraries, the

Library of Congress, the University of Alaska, and Germany's Goettingen State and University Library.

Many other cooperative ventures, involving numerous institutions, are similarly enhancing our access to international materials. The increasing interconnectedness of North American libraries, extending as well to more and more repositories beyond our frontiers, also means that hardcopy materials and digital resources originating in almost any institution are intellectually and, increasingly, physically available to the community as a whole. These networks, while implicit rather than overt, complement and in some senses outweigh formal cooperative programs. Both approaches offer great promise in improving our access to foreign materials.

The Realities and Promise of External Support

Academic libraries necessarily respond to needs defined within their home institutions. Cooperative programs, too, reflect participant priorities — which may or may not address broader needs. Results-driven funding can also discourage experiments and innovation, for which extraordinary support may be essential. And the pressures faced by libraries too often push international resources to the margin. External funding, from the government and other sources, is critical in filling the gaps.

Existing Sources of Support

The Technological Innovation and Cooperation for Foreign Information Access (TICFIA) program, created as Section 606 under Title VI of the Higher Education Act, is today the most visible federal program that focuses on libraries and international

materials. The first set of three-year grants, covering the period 1999 to 2002, addressed a variety of world areas.¹¹ Second-round grants, just now getting underway, are at once more sophisticated and more diverse. TICFIA has been important in stimulating innovative projects that bring new international resources to light — and to scholars. It has also fostered partnerships among the librarians and faculty members who are creating and then carrying out these activities. Many TICFIA projects offer models that might be applied more broadly, and meetings among the grantees have encouraged them to share “best practices.” Wider publicity would help.

National Resource Centers, also funded through Title VI of the Higher Education Act, are competitively selected on the basis of lengthy applications that describe institutional strengths, program plans, and emerging capabilities. Library support for international research figures prominently in the applications, and many grantees build funds for the library into their award budgets. The centers for some world areas are moving toward coordinated requests for cooperative library projects. Other library initiatives might be separately funded, as suggested below.

Additional federal support. The National Endowment for the Humanities, the National Science Foundation, the Institute for Museum and Library Services, and the Fund for the Improvement of Postsecondary Education (FIPSE) — among federal programs — fund library projects. All can encompass international resources, and a few specifically target international activities. Some programs, including several well-funded technological initiatives within the National Science Foundation, are not widely known.

¹¹ See Appendix II for a list of TICFIA grants. Fuller descriptions are available at <<http://www.crl.edu/info/ticfia/>>.

A tightly focused undertaking to identify, analyze, and publicize all these opportunities would be well worth the effort.

The private sector. No description of international studies or foreign information resources can overlook the very substantial contributions of foundations and other private sector agencies. The Andrew W. Mellon Foundation has played an especially important role as catalyst and sponsor for innovative library and information programs. Other agencies, domestic and foreign, have been important as well. For example, Japan Foundation support for the “National Coordinating Committee” has facilitated a number of cooperative initiatives. Again, a complete list would be useful.

New Possibilities for Action

The 1997 report offered several suggestions for new or revived federal initiatives to assist our libraries in providing access to foreign information. Other possibilities have since emerged. These ideas, among them a few that may not now be feasible, include the following.

Reauthorization of Title II-C. The U.S. Congress established the "Strengthening Research Library Resources Program," Title II-C, through its enactment of the Higher Education Act of 1965 (P.L. 94-482). This program continued until its termination in October, 1994. The initial Act cited the following concern:¹²

the expansion in the scope of educational research programs and the rapid increase in the worldwide production of recorded knowledge have placed unprecedented demands upon major research libraries, requiring programs and services that strain the capabilities of cooperative action and are beyond the financial competence of individual or collective library budgets.

¹² As cited in *Retrospective Conversion: International Context*:
<http://www.ukoln.ac.uk/services/papers/bl/blri053/chapter2.html>.

This description of the problems facing research libraries resonates with the findings in Jutta Reed-Scott's 1996 publication, *Scholarship, Research Libraries, and Global Publishing*. Both the AAU/ARL Global Resources Program and TICFIA respond to the same problems and needs. The pressures described in the original legislation continue to strain libraries' programmatic capacities and financial resources, and to limit their capacity for innovation.

Reauthorizing Title II-C would have a major effect. While TICFIA is significantly improving our access to international information, it focuses on technologically informed projects in cooperative settings. A reinstated Title II-C could also encompass activities involving domestic resources in support of international studies, hardcopy materials, and a full range of library operations and services.¹³

Web Map of Area Collections. September 11 dramatized our limited ability to identify either language specialists or experts knowledgeable about the history, politics, and economies of many world regions. One possible response, under discussion by the Council of National Resource Center Directors, is a web-based list of specialists that might in the first instance reflect the expertise within the Centers themselves. A related initiative would create a web map of library collections, to provide detailed information on specialized international holdings throughout the United States. These data would

¹³ The authors wish to acknowledge the assistance of James Nye, NRC director and director of the South Asia Collection, University of Chicago, for information on Title II-C, including the following citations: Streit, Samuel Allen. *The Higher Education Act, Title II-C Program: Strengthening Research Library Resources: a ten year profile and an assessment of the program's effects upon the nation's scholarship*. Washington, DC: Association of Research Libraries, 1991; Studdiford, A. *Historical Review of Projects Funded Under Title II-C of the Higher Education Act of 1965: Strengthening Library Resources, 1978-1981*. Bridgewater, NJ: the author, 1982; United States. Office of Educational Research and Improvement. Library Programs. *Strengthening Research Library Resources Program: Abstracts of funded projects 1991: Title II-C, Higher Education Act*. Washington, DC: Library Programs, Office of Educational Research and Improvement, U.S. Department of Education, 1994.

most effectively be gathered automatically, perhaps through on-the-fly tallies of country- or area-specific subject headings within library catalogs.¹⁴

Infrastructure Development. The interplay between marketplace economics and technological innovation often bypasses library concerns. The market for Unicode-compliant library systems, for example, was until recently small enough for systems vendors to ignore. Software to organize web pages and electronic resources, along the lines of current efforts by the Digital South Asia Library, may seem similarly marginal. Support to develop broadly applicable tools and resources, not necessarily linked to specific materials or world areas, might serve the community well.

Library Data from the Department of Education. Area librarians in institutions with Title VI centers argue that their support from NRC grants has gradually diminished. In 1982, the Department of Education's Ann Schneider produced a paper on "Libraries of Title VI Centers: Some Impressions and Some Questions," and compiled a very useful table that details average library holdings, institutional expenditures on libraries, and Title VI grant funds devoted to library support, by world region, over time.¹⁵ Her data show that the average Title VI center was devoting 15.9% of its 1981-82 grant funds to library staff and acquisitions, a percentage that had dropped from 21.2% in 1973-74 and 17.7% in 1979-80. Her analysis of the differences in library support by world area serves as a valuable discussion point that could well be revived and revisited today. She also suggests that a "minimum standard" be established for library support within all NRCs, an idea that might be provocative, but is worth considering. Updated

¹⁴ We already use similar techniques to determine, for example, collections whose holdings of a given author are particularly strong.

figures such as those provided in 1982 on the percentage of NRC grant funds going to support libraries, and the nature of that support (acquisitions, travel, staff, etc.) would be extremely useful to us today, and it is hoped that the Department of Education staff will facilitate the collection of such data.

Direct Support for Libraries. In response to the just-mentioned decline in Title VI support reaching libraries, participants in the 1997 conference recommended a program of direct federal funding for area studies collections. TICFIA, by facilitating access to foreign materials, has partially addressed this recommendation. A competitive program for cooperative library projects would be welcome as well. These projects, which might include both national and international partners, could focus on acquisitions, cataloging, indexing, document delivery, electronic resources, or preservation.

Training for Area Studies Librarians. Area specialist librarians with strong language skills are in short supply. The Mellon Foundation has funded some innovative and successful post-doctoral programs, all of them now complete. Federal funding for collection development and cataloging internships, at the Library of Congress or perhaps other libraries, might help to address this problem. Collaborative initiatives to underwrite a senior fellows program, or to offer specialized workshops to develop area studies skills among practicing librarians, might be considered as well.

Council of National Resource Center Librarians. A special forum for area librarians associated with National Resource Centers would facilitate discussions of interregional issues, new initiatives, and best practices. Cross-regional scholarship is on

¹⁵ Ann I. Schneider, *Libraries of Title VI Centers: Some Impressions and Some Questions*, unpublished paper, April 1982; and *Library Resources of Title VI Centers (Data from 1981-82 Applications)*, March 1982. Personal communication with author.

the rise, and our scholars and students more and more require information resources from multiple world areas. The proposed Council could address these and similar needs.

Conclusion

Libraries form part of the core infrastructure for international education. Meeting the nation's goals for international research and teaching will continue to require dependable access to the broadest possible range of foreign information resources. The impending reauthorization of the Higher Education Act affords an opportunity to reassess and also to reaffirm this critical role.

The current moment is one of both opportunity and challenge for our international programs. Research libraries also face issues of their own. As we have seen, new technologies have changed how scholars conduct research, the topics they choose, and the way they disseminate their results. These technologies have also changed how libraries work, what they acquire, and how they project both analog and digital information to user constituencies that are new as well as known. Libraries face huge challenges in balancing needs, adjusting priorities, and managing limited financial resources in the face of these burgeoning opportunities and demands.

External support, particularly when channeled through targeted programs based on shared understandings of priorities and needs, has substantially enhanced libraries' ability to sustain international research and teaching. Funds for the traditional activities of acquiring, processing, and preserving hardcopy materials remain essential. Support for programs to create or provide access to electronic resources is crucial as well. Efforts that foster the organizational, technological, and legal infrastructure for new cooperative

initiatives reflect needs and possibilities that lie beyond most institutions' mandates and capabilities. Finally, access to globalized scholarship and information resources will benefit from consortia and cooperative initiatives that are international in both design and execution. New sources of support will facilitate all these activities.

Postscript: Imagining The Ideal

This paper has assessed library and information resources for international education with the analytical categories previously employed in 1997. The approach has allowed us to highlight areas of progress, stagnation, and transformation, while also keeping us grounded in realistic possibilities and aspirations. Before closing, however, we also wish to block out a less fettered vision of what an "ideal" future might include.

Research libraries share the ultimate mandate and goal of ensuring that scholars and students, and also the public at large, enjoy timely and effective access to all recorded expressions of human thought and creativity. The following assumptions reflect the realities that necessarily inform even "ideal" plans for action:

- The world's production of information resources in both print and electronic form will continue to grow.
- No single institution, or country, can now or will in the future be able to comprehensively collect or capture this output.
- Standards, systems, and procedures to exchange bibliographic information and to support document delivery will continue to improve, enabling ever quicker, cheaper, and more efficient transactions across large distances and national frontiers.

- The realm of information resources utilized by students, scholars, and citizens will continue to move beyond the categories traditionally associated with libraries, to include many more materials, such as museum holdings, films and videos, and other cultural artifacts in a full range of physical and virtual formats.
- Academic libraries have traditionally sought to provide comprehensive access to, and also to preserve, the record of scholarship. They have likewise provided access to and preserved a representative range of all recorded human expression. These categories of resources, together, comprise raw material for new scholarship.

North America's research libraries collectively contain an immensely rich accumulation of printed materials. Comprehensive bibliographic access to these holdings, however, remains elusive. Some pockets of materials have not been cataloged at all, and many bibliographic records remain in manual format. The continuing challenges of incorporating records for materials in non-Roman scripts within our library catalogs further complicates the goal of universal bibliographic control. In an ideal world, all library holdings within this country — and beyond — would be fully cataloged, with all the records available through both local online catalogs and shared databases such as OCLC's WorldCat or RLIN.

Catalog records, however, only represent the materials that our libraries have acquired. For all their strengths, America's repositories cannot hope to capture the world's burgeoning output of new publications. They likewise lack many materials from the past. Comprehensive access to the full range of materials, for every audience and from every corner of the world, requires a different approach. Bibliographic control is again a starting point.

Rigorous systems for bibliographic control, to a considerable degree associated with the marketplace and its needs, characterize much of the industrialized world. Even here, the systems and standards needed to afford seamless information about non-print resources — images, music, film, museum objects, and the like — are only now emerging. Many developing societies, however, do not necessarily perceive cultural and intellectual expressions as commercial goods. Both marketing and institutional infrastructures tend to be thin. Information resources and cultural artifacts often remain relatively difficult to either identify or acquire.

We must therefore complement our efforts to describe all local library (and related) holdings, and to expand our acquisitions, with measures to enhance access to and ensure preservation of materials held outside the United States. Four complementary approaches, phrased here in terms of print materials but ultimately applicable to the full range of recorded expression, might be invoked:

- Countries with organized structures to identify, collect, catalog, and preserve their publications — most obviously other industrial and post-industrial nations — should be encouraged to adopt the standards and mechanisms that will permit transparent international exchanges of both bibliographic information and information resources. These capacities are already in place for some countries and areas, but the connections need to deepen and expand.
- Many countries, particularly in the developing world, lack reliable mechanisms to create national bibliographies or to capture local publications. Bibliographic standards are unknown in some countries. Libraries in these nations need to develop capacities to participate in the international bibliographic community,

whether by adopting existing standards or, perhaps, by helping to devise new modes and models.

- Preservation is a pressing issue for libraries throughout the world. Many out-of-the-way libraries and archives hold unique collections of local newspapers, pamphlets, and other publications intended for limited audiences. Many of these materials are at risk. Domestic and international reformatting projects, through microfilming and also digitizing, are essential. So are more inclusive efforts to upgrade storage conditions, train staffs, clean and rehouse collections, and otherwise ensure ongoing preservation and access.
- Materials of particular importance or at particular risk, wherever held, may merit special reformatting programs. Cross-cutting considerations of long-term preservation (provided through microfilm) and universal access (associated with digital products) continue to mandate case-by-case decisions. Issues of intellectual property, cultural patrimony, and potential institutional income must be addressed as well. Over time, broad-based access to international information originally produced in analog formats, both here and abroad, may be most effectively achieved through comprehensive reformatting programs. The equity issues implicit in the wealth of international materials held only in our repositories may also be partially addressed as reformatted surrogates become more generally available. Global collaborations are essential.

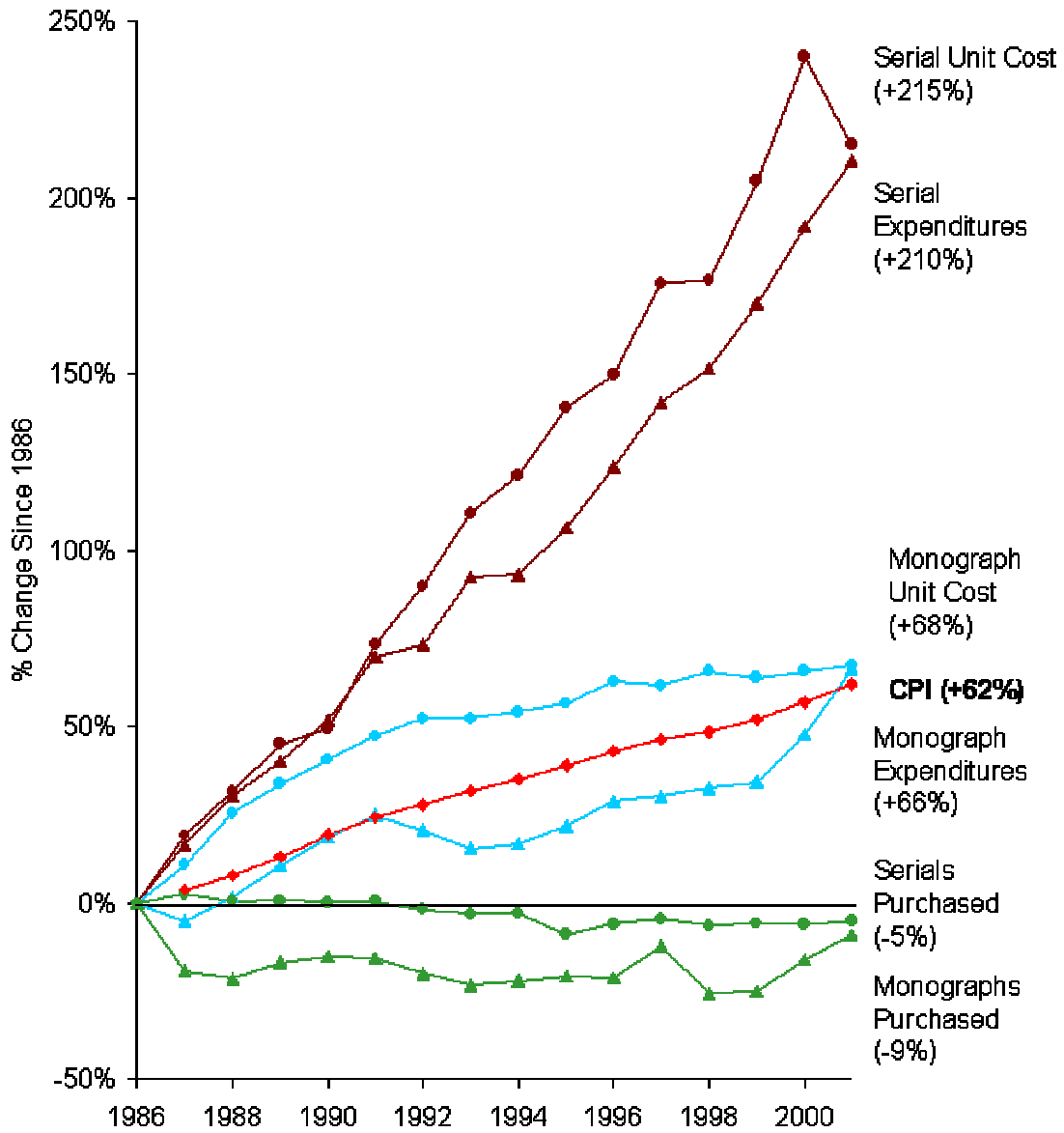
Programs to digitize analog materials are immensely appealing. Digital enthusiasms, however, can easily outrun local capabilities. Collaborative efforts may help to ensure products that conform to standards and comply with legal restrictions. Such initiatives can further serve to train technicians and build local capacity.

Many of the same caveats apply to resources that are created in the digital realm. The legal, technical, and financial challenges of using and preserving these materials here come to the fore. Vast amounts of digital data have already been lost, and our progress in both understanding the issues and devising secure responses remains slow. International partnerships to develop standards and technical capacities, and also to identify endangered digital resources, are increasingly essential.

Only some of the information resources needed to support international scholarship and education in the United States can, or should, be held within this country. Comprehensive domestic coverage of the scholarly record merely continues a traditional but unattainable aspiration of research libraries. Representative local holdings of a broader range of human expression is appropriate as well, perhaps with special attention to resources whose retention in places of origin may be uncertain due to political, economic, or institutional uncertainties. As in the past, a great deal of acquisitions and access can only occur in the areas of origin — implying ever more concerted partnerships to ensure success. A fully global view of the information world, respectful of each country's local and national heritage, is essential to ensure that humanity's record is preserved and made available to all.

Appendix I

Monograph and Serial Costs
in ARL Libraries, 1986-2001



Source: *ARL Statistics 2000-01*, Association of Research Libraries, Washington, D.C.

Appendix II
Program for
Technological Innovation and Cooperation for Foreign Information Access
Projects Funded, 1999-2005

FY2002 Funding: \$1,700,000

FY2001 Funding: \$1,337,918

Average Size of Awards, FY2002: \$170,000

Grants, 1999-2002

Accessing African Scholarly Journals

American Overseas Digital Library

Central Eurasian Information Resource

The Digital Asia Library

The Digital South Asia Library

Latin Americanist Research Resources Project

Providing Web-Based Bilingual Access to Chinese Business Education Materials

Russian Periodical Index Digital Project

Grants, 2002-2005

Access Indonesia

An English-Language Website on Development in Japan in On-Line Journalism and
Information/Communication Technologies

Germans from Russia: The Tiraspol Consistory Records

Mining Hidden Gems: Building Latin American Open Archives Portal for Scholars

OACIS for the Middle East: Online Access to Consolidated Information on Serials

Portal to Asian Internet Resources (PAIR)

Sources of Authentic Materials for Less Commonly Taught Languages

South African Collaborative Film and Video Project

South Asian Information Access: A Federated Program to Expand the Resources for
Understanding the Subcontinent

The Tibetan and Himalayan Digital Library and Information Community: A
Technological Model for the Nexus of Information and Community in the
Academic Study of Other Cultures