

International Information and the Postmodern Academy

Introduction

The international collections in North American research libraries are unequalled anywhere else. Local holdings at some foreign libraries certainly surpass those in the United States, as do the printed colonial (and in some cases post-colonial) materials available in some former imperial powers. Overall, however, U.S. holdings are unique in their breadth and depth. Intense scholarly interest, ample funding, aggressive acquisitions programs, and repositories safe from war and civil strife have all played a role.

Today, however, our international collections are at a crossroads.¹ No library can continue to pursue comprehensive collections. On the other hand, North American research libraries have become interdependent to the extent that even the most localized initiatives serve scholars anywhere within the country. The ever easier communications of today's globalized world suggest that national boundaries may be less and less relevant as well; and, of course, libraries in other countries can often pursue their local materials more effectively than we can from here. Efforts to devise better means to identify and then gain access to remote resources therefore make perfect sense. Arrangements to share specialized staff may likewise permit cost-effective local operations that both rely upon and reinforce our interdependence.

Measures to improve bibliographic description and access, refine systems for document delivery, cultivate and then more rationally allocate specialized staff resources, and consolidate international partnerships comprise a full and pressing agenda. These measures are essential as we look toward research libraries' overall future, and also as we more specifically consider

scholarship that draws on materials from other parts of the world. But are they sufficient to ensure that our users enjoy enduring access to all of the resources they require? Furthermore, do today's emphases on electronics, access, specialization, and cooperation adequately and equitably serve all disciplines and world areas? Other issues, though they may seem narrow, have substantial practical implications as well. For instance, how do our ever more democratic (or populist) visions of a "shared commons" of information resources square with the reality of weak and strong institutions that are investing in this "commons" at very different levels and with very different goals?

This paper explores some of these issues from a North American perspective. It opens by summarizing our many accomplishments in international acquisitions and our promising future of intensifying interdependence. But the picture begins to cloud as we more closely examine "international information" as an analytical category, and dims even more as we consider what we aren't now covering. Patterns of collecting strength and weakness, emphasis and neglect, may in some cases both reflect and affect our more general response to contemporary scholarship. Does our practice favor materials that are primarily relevant to only one ideological and methodological camp? Are we adequately addressing the interests of emerging professional programs as well as longstanding area studies constituencies? Different clusters of research resources, broadly associated with specific academic disciplines, seem to behave in predictable ways. Analyzing these behaviors may suggest both the areas most urgently requiring our action and the most appropriate responses. The essay concludes with reflections on the potential scope, as well as limitations, of this alternate approach.

I. Some Stories of Success

The library community can point with pride to many international collecting successes. Our everyday operations are built around an acronym soup of cooperative agreements and consortial commitments. Moreover, our institutions are by now so fully immersed in an organizational context of mutual reliance that individual efforts to meet local or even personal ends inevitably serve the community as a whole. Formal cooperative activities often deliver extra benefits and added value, but almost any initiative related to acquisitions or access has a positive effect.

A number of examples, drawn primarily from the Latin American arena with which I'm most familiar, can suggest the current range of both cooperative programs and individual initiatives. Latin America, like any other region, is of course unique in its information output, structures for publishing and distribution, and scholarly agendas, and also in the nature and limitations of its cultural institutions.² External efforts that are both welcome and sensible in this area might thus prove unworkable, redundant, or obtrusive in other parts of the world.

The Latin Americanist Research Resources Project (LARRP) is one of several regional ventures subsumed within the Global Resources Program, which is in turn a joint initiative of the Association of American Universities and the Association of Research Libraries.³ LARRP's growing membership consists of forty-seven North American libraries (not all of them ARL members), plus five foreign partners. Many LARRP activities have been funded by external grants and participant contributions. These include a project to digitize printed source materials, another effort to create a major table-of-contents database for sparsely-held Latin American journals, and partnerships with Latin American institutions to index additional journals and to capture and preserve websites and web publications. LARRP's "distributed resources"

component, by contrast, is voluntary and entails no overhead costs. This effort also builds upon a long history of cooperative collection development. Specialized and separately negotiated acquisitions assignments are fulfilled through each library's commitment to redirect at least seven percent of its Latin American monographs budget to the target area. Overall redundancy is thereby reduced while the group as a whole acquires more unique titles. LARRP, by providing a renewed sense of purpose and achievement, has also carried the unexpected side benefit of re-energizing many participant libraries and librarians.

The Latin American Microform Project (LAMP) has taken a different approach.⁴ LAMP is a voluntary and self-sustaining consortium of forty-two libraries, administered through the Center for Research Libraries, whose activities are funded by member dues and occasional external grants. LAMP's members together determine the filming projects it will pursue, often in Latin America and typically in partnership with local repositories. Negative and positive microfilm are almost invariably deposited with the host institution, and the projects whenever possible seek to strengthen local microfilming capacity. LAMP's activities are based on pooled funds and shared decision-making. New LAMP acquisitions are deposited at CRL to ensure that they are freely available for loan.

LARRP and LAMP differ in finances, governance, and goals. On the other hand, both are cooperative efforts that are open to all. Both initiatives have necessarily accommodated the varying priorities of large and small institutions, and of libraries with broad-based acquisitions as well as narrow specializations. The collections consequences are not always clear. For example, LARRP's "distributed resources" assignments enhance targeted areas of local acquisitions for all participants. At small libraries, however, the resulting intake may fall well beneath the level already sustained by some larger members, resulting in an only nominal contribution to the community. A similar and recurring conversation within LAMP contrasts the merits of acquiring

expensive microfilm sets already held by some libraries with projects to film more esoteric materials that are new to all. (This particular debate has lost some of its intensity as more fluid arrangements for interlibrary loan have reduced the need to hold separate, “community” copies of expensive sets at loan-oriented repositories like CRL.)

It can take time and energy to reconcile the interests of disparate consortial partners. Another approach therefore builds cooperation around libraries that consider themselves peers from the start. The University of California at Berkeley and Stanford University, for instance, have for twenty years sustained formal arrangements, ratified by the library directors, to share their Latin American collecting responsibilities. The program from the first has also emphasized the fluid movement of both books and users between these close-by campuses. The arrangement ratcheted to a new level in 1998 by adding the Nettie Lee Benson Collection at the University of Texas, Austin.⁵ While the distances are suddenly large, the anticipated benefits will still in the first instance reflect intensive cooperation among plausible peers.

Other emerging consortia are based on geographic proximity. Voluntary regional groupings within the Latin Americanist library community cover the Northeast (LANE), South and Southeast (LASER), Midwest (MOLLAS), and California (Calafia). Calafia is more or less typical in maintaining its own website to provide general background as well as links to participant librarians, libraries, catalogs, and collections.⁶ The members normally meet twice a year, once within the region and again at a national conference. A great deal of business is conducted via e-mail. Collections cooperation is encouraged as well, in Calafia’s case through special plans that divide responsibilities for current acquisitions from northern and southern Mexico.

Some cooperative efforts are even less structured. ICCG, the Intensive Cuban Collecting Group, was an informal, voluntary effort of the late 1980s and early 1990s, particularly championed by Princeton's Peter Johnson, among North American libraries with significant Cuban holdings. (Strained international relations precluded Cuban participation.) These participants together generated lists of important journals and then confirmed North American holdings in both hardcopy and microfilm. Many participants also lent their holdings for filming, thereby enabling microfilm sets that were as complete as possible. The group declared success and disbanded after about five years of work.

ICCG was spontaneous, informal, and agile. Its sole purpose was to enhance overall access to critical research materials. Some narrower efforts, at times designed to support local programs—though typically with an eye to the broader community—, have been similarly effective. Four examples suggest some of the possibilities:

-The Library of Congress Office in Rio de Janeiro was established in order to support LC's acquisitions from Brazil and neighboring countries. Additional services, now available to paying participants, include subscription programs for Brazilian journals and for music CD-ROMs. The Rio Office has also broken new institutional ground through its program to seek out Brazilian ephemera, organize and film these materials, and then offer the "Brazil's Popular Groups" (BPG) microfilm for outside purchase. BPG holdings are by and large produced outside of the commercial publishing sphere by grassroots groups such as social movements, non-governmental organizations, political parties, and labor unions. The microfilm thus affords a unique means of capturing primary source materials from Latin America's largest country. Heavy demand for the film, broad support from the research library community, and secure sponsorship within LC all testify to its impact.

-The “Brazil’s Popular Groups” initiative owes a great deal to the energy and imagination of staff at the Rio Office. A somewhat similar project, which provided much of the model for BPG, is based at Princeton. Peter Johnson, Princeton’s longtime Bibliographer for Latin America, Spain, and Portugal, had by the early 1980s cultivated collecting agents in many of the Latin American nations then under military rule. These agents, who were chosen for their understanding of events, personal connections, and productivity, ferreted out opposition and clandestine materials that were shipped to Princeton to be organized, cataloged (at a collection level), and microfilmed. Many of the originals were retained, and the film was made available for purchase. (Peter Johnson himself initially served as Princeton’s sales agent, though a commercial distributor later took over this chore.⁷) Sales revenues have been returned to the program. Latin America’s redemocratization, while shifting the focus of grassroots activism, has also enlarged the scope of both debate and publication. The Princeton University Latin American Pamphlet Collection, like BPG, has become a mainstay for libraries seeking primary documentation on popular movements and social change. The Princeton example further shows how visionary individual efforts can expand the universe of research materials available to the community as a whole.

-Another individual effort, again based within a single institution, centers on Chilean acquisitions at the University of California at Berkeley. Berkeley’s Latin American bibliographer, Carlos Delgado, has devised a unique exchange relationship with Chile’s National Library which capitalizes on legal deposit provisions that require printers to provide multiple copies of their publications. While compliance is far from complete, the National Library is inundated with extra copies of the materials that printers do provide, among them many titles that never enter the commercial marketplace. Berkeley has therefore engineered an arrangement through which it purchases non-Chilean materials, selected by and for the National Library, in exchange for free access to the depository duplicates. This program has enabled Berkeley to

obtain more than 4,000 titles, of which about 1,900 are new to OCLC.⁸ A similar effort is also in place with Cuba's National Library. Not all North American libraries have acquisitions funds that can be used to purchase materials for other collections, and only a few Latin American repositories have so much to offer. These examples nonetheless exemplify the potential impact of efforts by a single bibliographer at a single institution.

-A final example of an individual's project with a broad general impact mixes new and old technologies. Karen Lindvall-Larson, Latin American Studies Librarian at the University of California, San Diego, has constructed a website on Latin American elections that provides chronologies, links to official election and campaign websites, reports, and voting results for an expanding group of countries.⁹ UCSD's collections cover the same ground as exhaustively as possible, and both the website and the hardcopy acquisitions are tied to the "distributed resources" initiative of the Latin Americanist Research Resources Project. Scholars and librarians from all over the world now rely on this resource.

While the list could go on and on, these examples are sufficient to demonstrate the general benefits of efforts ranging from formal, fee-based consortia to informal cooperative initiatives, and to individual projects as well.¹⁰ None of these initiatives, however, emerged in a vacuum. All have rather been enabled by broad contexts of support in which four elements particularly stand out: an accommodating institutional structure; shared standards and procedures; sufficient resources; and energetic champions. Each element merits additional comment.

Institutions. Latin Americanist librarians have, over the years, built up a reputation for effective cooperation. Most would agree that the field's premier professional organization, the Seminar on the Acquisition of Latin American Library Materials (SALALM) has played a critical

role.¹¹ SALALM has for about fifty years served as a vehicle for librarians, scholars, and booksellers to analyze and then address trends and needs in both research and publishing. Changing scholarly and instructional agendas, an evolving information marketplace subsuming ever more media and formats, shifts in library budgets and priorities, and dramatic transformations within the region itself have all been tracked through SALALM. The body likewise provides a channel both to propose and to publicize new initiatives. The Latin Americanist Research Resources Project, the Latin American Microform Project, and regional groups of Latin Americanist librarians all function in close organizational proximity to SALALM. Perhaps most important, SALALM has fostered the working relationships, friendships, and close collegiality that are indispensable in efforts that require interdependence and trust.

Other cooperative efforts rely on distinct institutional bases. SALALM has been important for the Latin Americanist Research Resources Project and the Latin American Microform Project, but the Association of Research Libraries and the Center for Research Libraries have respectively provided sponsorship and administrative support. The willingness and ability of the entire research library community to underwrite these central agencies, through separate fee assessments or general dues, is crucial. Similarly supportive institutional structures are associated with almost all enduring cooperative efforts, and also with individual efforts at the local level. Even such spontaneous initiatives as the Intensive Cuban Collecting Group relied on SALALM as the locus for its meetings and communications.

Standards. Most North American librarians take for granted that new cooperative efforts will conform to accepted standards and procedures. Bibliographic descriptions for hardcopy materials, for example, are expected to follow AACR-2 and the MARC format; standard protocols for interlibrary loan will be employed in initiatives to share resources. Cooperation tends to remain more hesitant in areas where common standards or “best practices” have not yet

emerged. Thus, for instance, distributed digital projects combining materials from different libraries still tend to be scarce.

Libraries within Latin America, with some notable exceptions, have lagged in embracing common standards. Formats for bibliographic records are frequently idiosyncratic, microfilming procedures are often ad hoc, and interlibrary loan relies on personal connections. In other world areas, perhaps particularly those in which non-Roman scripts come into play, the challenges are even greater. Increased standardization is in many cases a precondition for cooperation. Achieving common standards, however, requires leadership, organizational coherence, trust, and community resources. The process is seldom straightforward, and almost never merely mechanical.

Resources. Any effort to strengthen library collections or improve access to remote resources requires extra support. Even such low overhead activities as the “distributed resources” component of LARRP require central coordination and local tracking. And even such seemingly unobtrusive projects, if successful, will increase the number of unique titles that require original cataloging. Increased interlibrary loan traffic is likely as well. The costs, while delayed and to some extent hidden, are nonetheless quite real. Many cooperative efforts, of course, are based on direct cash outlays. Even “free” personal initiatives entail opportunity costs as specialists pursue one activity rather than something else.

Not all individuals, or institutions, will control sufficient resources to participate in cooperative efforts. In some very active fields, the array of projects and their associated demands may also be too broad to sustain a critical mass of participants in each and every one. Setting priorities is essential as consortia, participant institutions, and individual specialists make their choices.

Champions. All successful initiatives require champions with the energy, vision, autonomy, and means to develop and implement an agenda. Finding these individuals entails much more than casting about for knowledgeable specialists. Institutions must respond with support, or at least forbearance, if would-be leaders are to devote time and energy to cooperative activities. Provisions for travel and office expenses are essential. It's equally important to ensure that those engaged in off-site projects aren't penalized when it comes to promotion and review. Innovation and initiative require champions. Champions, in turn, only emerge from flexible and supportive institutions.

This section began with descriptions of Latin Americanist information initiatives that illustrate some of our options in the international sphere. Many other efforts could be added to the list, from Latin America and also from other parts of the world. These examples, however, don't explain how, or why, international collecting is different from mainstream acquisitions. It's easy to obtain trade imprints from places like England or Germany. It's at the same time difficult to collect, say, ethnic publications from the United States. Are we justified in lumping our international efforts into a special conceptual category?

Responses to this question can follow several different lines:

1. One approach focuses on the regional peculiarities of the information marketplace. Areas with highly developed booktrades typically produce timely and fairly complete national bibliographies, and also boast efficient distribution systems for their books and journals. Some materials will always escape the net, but most publications are easy to find. Generally speaking, this kind of accessibility characterizes market-based societies, such as the United States and Western Europe, in which cultural goods are treated as commodities. Both publication and

distribution are centrally controlled in most command economies, like the old Soviet Bloc or Cuba. Political and security mandates, however, can limit the availability of specific items even when the information universe is easy to apprehend. On the other hand, many countries with weaker markets, typically those labeled as “developing,” either can’t, don’t want, or don’t need to organize their cultural and knowledge output. The extraordinary acquisitions efforts that are only occasionally required in sophisticated publishing markets here become the norm. “International” collecting, when viewed from a marketplace perspective, particularly entails the labor- and skill-intensive efforts needed to build collections in areas with spontaneous booktrades and incipient systems of bibliographic control.

2. This response, while easy to grasp, is not entirely satisfying. For instance, the AAU-ARL “Global Resources Program” includes projects for Germany as well as South Asia, and for Japan as well as Latin America. What do we make of the developed world cases? Today’s fluid communications and often permeable national frontiers here come into play. Converging legal provisions, scholarly expectations, marketplace mechanics, and communications capabilities have created environments conducive to resource sharing. Many developed world “collecting” initiatives therefore focus on shared resources and document delivery. The underlying expectation, of course, is that each affiliated library holds materials that are unique. In this case, international cooperation differs from domestic agreements primarily in the need for arrangements that reflect a range of languages, legal structures, and cultural norms. One end point imagines international library connections that are tantamount to cross-cultural mergers.

3. The interpretations suggested so far view “international resources” in terms of their availability to and accessibility among libraries. These materials can also be described in terms of academic disciplines and scholarly communication. Some scholarly fields prescribe rigorous research methodologies, the results of which are conveyed through highly normalized reports.

Some of these fields are also effectively trans- (or non-) national: their practitioners participate in what amounts to a global conversation, often conducted in English, and typically mediated by individuals and institutions in the developed world. Scholarship in astronomy or mathematics, for instance, has little to do with a researcher's location. The disciplines themselves track and organize the information resources upon which they rely. Libraries may need to pursue foreign as well as domestic publications, but the materials are fairly easy to identify and obtain.

The situation is dramatically different in many other fields, including some sciences. Research in botany or geology, for instance, is often local, even though these disciplines also support laboratory studies and theoretical work. And scholarship in many fields of the social sciences and humanities is entirely diverse and dispersed. Discipline-based bibliographies and indexes may not effectively represent these materials, some of which will also fall outside of geographically-based publication registers. Scholarship that originates in the developed world is likely to be fairly well represented in compilations based on either geography or discipline, but both kinds of coverage are much spottier for items produced in more peripheral locations. And, of course, poorly tracked materials—zines, small-label records and CDs, niche newsletters, and on—pop up in even the tidiest milieux. The omnivorous scholarly appetite for all such expressions reinforces an expansive view that would find “international” resources in every corner of the world.

Professional programs in fields like law, business, public health, and public policy, are integral parts of North American universities. Many institutions, however, have traditionally supported these schools through library branches that focus almost exclusively on English-language materials from the United States. But these programs also require ever more international information. The associated efforts, including provisions to recruit or prepare

knowledgeable staff, are still getting off the ground. “International,” once again, is an almost ubiquitous concept.

4. A final approach to understanding “international” information within a globalized academy focuses on the validity of “globalism” as an analytical construct. Placid predictions of hybridity or even homogenization stand in vivid contrast to depictions of an enduring conflict among distinct and often hostile civilizations.¹² Mutually exclusive groupings, each characterized by a particular blend of ethnicity, religion, and culture, are in this view permanently vying for position. The West, while but one of several such civilizations, now boasts overarching economic and military power. All nations and societies, in consequence, participate to some degree in structures and processes that originated in the West, and also produce scholarship and other expressions that reflect Western disciplines, values, and concerns. These resources are by and large accessible to our libraries and scholars. Many other materials, however, reflect very different impulses. From a “civilizational” perspective, “international” collecting particularly focuses on often-elusive indigenous expressions from outside the West.

We began this section by describing some cooperative collecting successes from Latin America. The discussion moved on to a quick exploration of the elements necessary for success, and a longer reflection on exactly what we mean by “international” collections. Different responses reveal a variety of starting points and perspectives, which in turn suggest a range of practical consequences and alternatives. We now look more closely at these interrelated circumstances and challenges.

II. For Every Silver Lining a Cloud

Despite our collecting achievements, we're still missing a great many international research resources. Perhaps most obvious, materials budgets are limited and the world's information output continues to grow. Locally, but also together, we're acquiring a shrinking proportion of new publications.¹³ Other reasons trace back to libraries' overextended mandates and ever-expanding priorities. Shifts in local and remote demand also play a role, as do cost considerations, uncertain needs for duplicate copies, and the impact of preservation. Some cooperative responses seek to improve overall access to the resources that we already hold. This stance, however, often sidesteps questions of whether we have previously collected or now acquire the international materials required by all of our users. The relationship between academic agendas and resource accessibility poses some particularly sticky challenges.

The collecting mandates of academic libraries have evolved over time. All these repositories support instruction. Libraries in institutions concerned with research as well as teaching also pursue the scholarly record, though this goal has become more elusive with expanding output and increasing prices. The cost of scholarly journals, particularly in the sciences and technology, continues to rise more rapidly than either general inflation or monograph prices.¹⁴ Electronic products, many quite expensive, also convey new scholarship. Libraries, universities, and scholars themselves have responded by forming buyers' consortia and by sponsoring (still somewhat fitful) non-profit alternatives to commercial publications.¹⁵ In the end, however, library acquisitions often seem something of a zero-sum game. Despite often substantial infusions of new funds, there's rarely enough to go around. Keeping current with the scholarly record—just in English—typically squeezes other collecting areas, including international acquisitions.

More and more academic libraries are also expected to hold primary research resources. Scientists talk of huge sets of raw digital data. Humanists and social scientists often demand more traditional materials from categories that were formerly dismissed as “popular” or “non-scholarly.” We thus pursue comic books, dime novels, and popular music, as well as “serious” literature and dense analytical tomes. The demand is eclectic, intense, and immense.

The dynamics of higher education have added to the pressure. Fully credentialed scholars are dispersed among small as well as large institutions, and the need for library materials is correspondingly broad. Almost every college and university also offers courses that challenge learners to wrestle with primary sources, which are therefore sought by students as well as professors. We’re hard-pressed to respond.

Finally, our internationalized academies by their very nature affect library roles. International students and faculty seek materials that reflect their backgrounds and experiences. Professional programs ranging from business to law, public health to architecture, journalism to urban planning, require foreign materials as they prepare their students for a changing world. Our audience for global resources has become more and more diverse.

International collecting is also affected by expectations and procedures within our libraries. Costs, redundancy, staff support, and preservation are important both for individual institutions and for consortia:

-*Cost.* Materials from other countries vary wildly in price. Production costs, dealer mark-ups, and exchange rate fluctuations all enter in. Even seemingly inexpensive materials can lose some of their price appeal when the costs of specialized procedures (which still include transliteration for some non-Roman scripts) and staffs are factored in. These investments only

make sense when there's strong local demand. The popularity of pre-packaged microfilm sets like "Brazil's Popular Groups" or Princeton's Latin American pamphlets may hint at the unfulfillable collecting aspirations of many non-specialized libraries. Foreign acquisitions require special infrastructures that only a few libraries can sustain.

-Redundancy. Readily accessible information is a central library goal. Instantaneously accessible digital resources are increasingly common in the sciences, technology, and some professional fields. Contracts for access rarely accommodate resource sharing, so specific constituencies typically have to decide between paying for a subscription (sometimes as part of a consortium) or simply doing without. For their part, hardcopy materials remain central to a great deal of scholarship. These resources must be physically retrieved from library stacks or borrowed through interlibrary loan, and then consulted by one user at a time. We can't anticipate how many copies of a particular work will be needed in order to satisfy a nation's (or even a campus's) demand. Some titles may never be consulted, so a single and secure copy of record might suffice. In other cases, greater demand will warrant multiple holdings.¹⁶ Detailed analyses of interlibrary loan logs, including failed requests as well as successful transactions, might expand our understanding.

-Staff support. Libraries have gradually learned to acquire mainstream books and journals with smaller and smaller staffs, even though the same efficiencies rarely apply to more marginal materials. On the other hand, substantial specialized support is still essential in order to identify, contract for, mount, and maintain electronic resources. Maturing markets, better products, more refined pricing and service models, and our general movement toward an ubiquitous digital future suggest that things will eventually become easier. In the short term, staff support for all hardcopy acquisitions has tended to dwindle relative to that associated with the electronic arena.

-Preservation. Libraries are on fairly solid ground when it comes to reformatting or otherwise preserving printed materials. But non-print media pose greater challenges, and long-term prospects for the digital products whose acquisition and everyday use now absorb disproportionate staff energy are still rather bleak. (One proposed solution somewhat paradoxically calls for multiple, multi-institutional acquisitions of electronic resources as the basis for long-term preservation.) The hardcopy acquisitions that are often simple to acquire and preserve are losing ground relative to electronic materials which, perhaps, may not endure.¹⁷

For all our collecting triumphs, we're missing a great many research resources. Finite budgets and competing priorities limit our chances for substantially greater acquisitions. We therefore need to carefully examine our current solutions to make sure that they work well for all of our collections, students, and scholars.

Academic libraries have grappled with limited purchasing power and intensifying scholarly demand in several different ways. One approach focuses on better access to the materials we already hold. Persistent pockets of uncataloged materials, as well as cataloged books and serials not yet represented with on-line records, are now being processed.¹⁸ Libraries are also integrating descriptions of photograph collections, sound recordings, and other non-print resources within their catalogs. Emerging plans to describe Internet resources pursue much the same goal. OCLC and RLIN, our most comprehensive union catalogs, represent holdings at an expanding set of local and international repositories. Collection-rich institutions formerly on the fringes of cooperative networks are being encouraged to join.¹⁹ The universe of materials to which we enjoy bibliographic access has grown apace.

New protocols for interlibrary loan, including user-initiated procedures that minimize expensive staff interventions, are for their part facilitating document delivery. ARIEL and related technologies allow very rapid transfers of articles and other relatively brief documents. Groupings like the Berkeley-Stanford-Texas partnership mentioned above, or the “Borrow Direct” consortium in the Northeast, offer expedited delivery services to their participants.²⁰ An “information commons” is only plausible if all holdings are easy to consult both intellectually and physically, and we’re devoting a great deal of energy to this goal. Nonetheless, we still need to identify and acquire new materials. Better bibliographic and physical access to the research resources already in our collections, while essential, won’t meet all our needs.

The universe of source materials required to support today’s scholars, in other words, exceeds any repository’s (or consortium’s) collecting capacity. But our discussions of international resources and library dynamics have so far implied that scholarly demand is essentially undifferentiated both within fields and across the academic landscape. In fact, however, research agendas are sharply divergent. We therefore need to explore whether our collecting gaps are distributed equitably, or at least defensibly. Uncomfortably enough, it appears that certain areas of scholarship are routinely shortchanged.

Some academic fields are effectively global or transnational. While researchers in certain scientific and technological disciplines, for instance, may be scattered throughout the world, the sources for and products of their studies are easy to identify and acquire. The most urgent collections issues instead center on costs.

Collecting efforts in some other fields, most notably within the social sciences and humanities, interact more profoundly with diverging methodologies, ideologies, and agendas. One stream of international inquiry, variously characterized as developmentalist, hegemonic, or

imperial, focuses on the projection of Western technologies, economic structures, and political and social values to other parts of the world. Individual scholars may favor or oppose the process, or simply avoid direct judgment as they assess its impacts and consequences. But all these researchers in the first instance address the West's institutions and imprint. Professional programs in fields like business, law, or public policy, as they prepare students for "global" careers, embody a particularly instrumental perspective within this general stream.

A different academic perspective instead focuses on "otherness" in all its manifestations. Much traditional research in disciplines like history, anthropology, and literary criticism falls within this realm. More polemical analyses, often with strong political overtones, combine theory with empirical evidence in explorations that can be highly controversial. Some of these research projects, subsumed under such exotic labels as "subaltern studies" or "queer theory," seek to challenge supposedly stable categories like gender, race, ethnicity, and class—or geography and language, in order to expose the presumptions of power embedded in our everyday culture and institutions. The emphasis on the marginal, which includes non-Western societies and civilizations, particularly encourages international sources and perspectives. Scholarship that presumes to reinterpret Western culture and consciousness, of course, is as fully rooted within a Western ethos as more traditional studies. Both research sources and analytical processes nonetheless tend to differ from those of scholars more fully enmeshed in "Western" instrumentalism.

This broad-stroke characterization of diverging scholarly agendas only begins to suggest their political and ethical overtones. Tensions roil between the camps, and also within each one. The scholars here grouped under the "developmentalist" label, for instance, argue over priorities, methods, and goals. Can or should economic progress be distinguished from political freedom and social equality? Does development necessarily exacerbate inequalities among and within

nations, or strengthen Western hegemony?²¹ Are the abstract economic analyses associated with “rational choice theory” on one hand, or rigid ideological programs on the other, at all useful in the real world?

Controversy abounds within the other camp as well, again emphasizing the political implications of different approaches. Some, for instance, argue that those who would celebrate—or even simply describe—the “other” are inadvertently smoothing the way for homogenization and control.²² Greater understanding may enable us to better appreciate our common humanity, but does that understanding also portend a new round of domestication and subordination? Or does it rather create a basis for different groups, whatever their origin, to rally for self-determination and self-defense? Reducing the world to familiar terms may be simplistic, presumptuous, and morally wrong. Or not...

Academic libraries, like the academy itself, find themselves in the sometimes awkward position of supporting these opposed streams of study and discourse from institutions whose foundations are firmly within the “global” or “imperial” camp. The North American university, while certainly a vital source of inquiry, is also a center of power. Our libraries are parts of the package—though parts whose particular salvation may eventually lie in the physical and digital projection of holdings to audiences whose interpretive frameworks and ideological expectations are very different from our own.

Our immense international collections reflect the capabilities as well as the appetites of North America’s academic enterprise. But expanding output and increasingly diverse demand consistently outpace our resources: our coverage remains incomplete. It’s no surprise that we focus most successfully on formats to which we are accustomed and on the scholarly record that has traditionally comprised our collecting core. Newer scholarship, which deliberately

emphasizes the marginal, creates vastly broader demands. Partial responses can certainly be parsed as the kind of catch-up, heads-above-water effort typical of all acquisitions work. But the shortcomings particularly impinge upon the off-center and de-centering research agendas that challenge traditional scholarship. Our somewhat facile explanations can therefore sound simply like excuses for the status quo. A closer look at the needs may suggest some additional possibilities.

III. Scholarly Information and the Institutional Response: A Mosaic in the Making

Our discussion has highlighted strengths as well as shortcomings in our international collections. We have also alluded to some of the disciplinary and geographic variations in how information resources are produced and then made available. Libraries have been inventive in efforts to make their holdings fully known and readily accessible. Nonetheless, our collections are incomplete. Diverging scholarly agendas, academic ideologies, and collecting routines, moreover, may in some instances foster imbalances in the coverage that we do provide.

In order to enhance this information base, we first must look closely at what our collections are all about and how they behave. This section begins by delving into collections from a library perspective. It then assesses them from the viewpoint of scholarly needs, as aggregations of information resources associated with specific disciplines and fields. New analytical models may help us to more fully understand our current situation and also our best options for action.

Every academic library is embedded within and dependent upon its parent college or university. Local priorities necessarily frame each library's goals. Local aspirations, in the aggregate, also delineate the resources that we together provide. Characteristics common to all

libraries and library holdings inform our possibilities as well. The nature, browsability, and integrity of library collections; the costs and benefits of cooperation; and the elements that drive interlibrary loan all have an effect. Each of these considerations will become more salient as collecting consortia expand.

Library collections and their use. Library collections are conscious constructions of information resources in which the interplay among thematically related books, journals, and media materials invokes and activates a whole whose value is greater than the sum of the parts. Collections are most readily apprehended and exploited in the aggregate, even as their component titles are also accessible one at a time. Browsing has been a crucial element in enabling users to take full advantage of library collections. But traditional browsing becomes ever less feasible as local collections are fractured among on- and off-site repositories, and as virtual collections are assembled from dispersed resources. The utility and integrity of collections as meaningful constructions are thereby reduced. The impact can be particularly significant in fields for which current bibliographies, reviews, and citations are not readily available.

Finding a way to represent widely scattered materials as coherent collections is particularly daunting in cooperative contexts. We currently rely upon massive, undifferentiated bibliographic databases like OCLC and RLIN for intellectual access to our collective holdings. These files are now being further enriched (and complicated) as non-print and electronic resources join the mix. This expanding coverage of individual resources may, paradoxically, be obscuring our ability to discern collections. Discipline- or subject-specific bibliographies, guides, and conceptual maps might help, though matters of content, presentation, currency, and maintenance all demand attention. Electronic enhancements to existing bibliographic records, for example by combining limited page scans of each work with provisions for very flexible subject retrieval, might more directly restore a capacity similar to browsing in the stacks.

The costs and benefits of cooperation. Our understanding of collections and how they are used needs to stretch as we move toward local, and cooperative, holdings that are linked but dispersed. Cooperative efforts also raise issues of governance, funding, and sustainability. Fully participatory programs ensure that all voices are heard, but questions of process can crowd out substantive progress. Some institutions therefore prefer tightly efficient arrangements among a very few peers. Viable cooperative programs also require every participant to perceive advantages that at the very least offset the associated costs. The relevant actors are institutions, but also individuals. The rewards, advantages, and expenses can be intangible as well as explicit. And all these quantities may be differently valued by different actors. A part-time selector at a smaller institution, for instance, might more enthusiastically welcome the opportunity to participate—even modestly—in a new cooperative program than full-time colleagues already swamped with assignments. Any continuing endeavor, finally, will ebb and flow. Sustainability implies the capacity to adjust to shifting levels of energy and participation, as well as to changing political and technological frameworks.

Interlibrary loan. Academic libraries differ in terms of their missions, resources, and size. Their parent institutions likewise vary in their means and aspirations. Relatively few libraries have the mandate and the capacity to sustain substantial international collections. Our “international” scholars, however, are ever more numerous and dispersed. The demand for foreign materials therefore extends far beyond the collecting institutions. On-line union catalogs and improved arrangements for interlibrary loan, while essential, also have cross-cutting effects. On one hand, isolated scholars can more and more effectively draw upon the country’s collective resource base as we enlarge our “commons” of information resources. Meanwhile, universities compete for students and scholars, with easy access to information one element in the draw.

Libraries that have assembled strong collections need, at the least, to ensure that the holdings they acquire for their own students and scholars remain locally available.

The operations of interlibrary loan also have an effect. Most collecting consortia worry about acquiring and processing specific sets of material, but then take interlibrary loan for granted. Local ILL procedures, however, often mandate predetermined sequences for polling and requests. Disjunctures between the rosters of collecting consortia and preferred partners for interlibrary loan can make it difficult to evaluate cooperative programs. The wear and tear of interlibrary loan, finally, carries preservation consequences that are rarely recognized.

Libraries' collecting and collections, both local and cooperative, are conditioned by each repository's internal routines. Successful cooperation further involves the institutional contexts, standards, resources, and champions that were reviewed early in this essay. All these elements, however, are only activated as scholars go about their work. Different clusters of disciplines require different kinds of research resources. The scholarly record for different groups of fields likewise varies in terms of its production and dissemination. These characteristics help determine what libraries can do and also what they might attempt.

Librarians' analyses of scholarship and research resources have typically differentiated between the humanities, the social sciences, and science and technology, with the fine arts and professional fields like law or business shunted off to the side.²³ Each disciplinary grouping is customarily described in terms of its distinctive research methodologies and information sources:

-The humanities encompass the disciplines—literature, the classics, philosophy, sometimes history, sometimes the arts—that focus on the particularities of human experience, expression, and creativity. Research tends to be specific, models and methodologies rather

diffuse, and the role of synthesis and theory often secondary. Research sources include both the fruits of previous scholarship and the overall record of human expression.

-Scholarship in the social sciences, by contrast, seeks models that can be applied across the board. Methodologies are tight, and empirical research often complements the written record. Datasets and statistical compilations supplement more discursive forms of information.

-In many scientific fields, finally, laboratory work—whether the “laboratory” be the natural world or an experimental research facility—provides the data with which scholars attempt to establish laws, principles, and theories. Information moves quickly, and libraries are perhaps most useful as custodians for the scholarly record.

This depiction of the academic firmament is plausible and easy to understand. It’s also fairly simple to apply to library functions like acquisitions or reference. However, it may no longer reflect reality. Three fundamental shifts are changing the picture:

-Scholarship in almost all fields has become more interdisciplinary. Not only are specific sources consulted by unexpected users, but 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 “postmodern scholarship” adds more fluid approaches and concerns.

-Research resources are themselves ever less the exclusive province of discipline-based cliques. Many older academic libraries, Harvard is an example, still provide vestigial reading rooms for scholars in fields like philosophy, Sanskrit, or the classics.²⁴ Such fine-grained

differentiation makes less and less sense, partly because separately staffed facilities are so expensive, but much more because even very specialized resources are now consulted by researchers from many fields. This cross-fertilization is not limited to areas within, say, the humanities alone, in which classics scholars review archeological reports or literary analysts investigate musical forms. Classical scholars today also work with climatological data, and literary critics ponder psychoanalytic theory. Broad correlations between scholarly fields and specific sets of research resources certainly persist. Again, though, the lines have blurred.

-Scholars require information in a growing variety of formats. Librarians, among others, are 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 of libraries—museum collections are a good example—are also provoking more inclusive efforts to provide intellectual access across formats and institutions. As all these challenges command our attention, however, our earlier preoccupation with academic disciplines may be giving way.²⁵

The simple distinction between the humanities, social sciences, and sciences is losing some of its force. Different conceptual approaches to our collections and services may also allow new frameworks for thinking about how and where we should act. One possibility looks from a different angle at how academic fields utilize information and produce new scholarship. These patterns reflect each field's sociology of knowledge and ecology of information, as further informed by the information marketplace's role in mediating access to its research sources and products. The following exercise, heuristic rather than prescriptive, and tentative rather than assured, seeks to illustrate and also incite the close-grained discussions that might lead to nuanced practical plans.

Scholars and scholarly fields interact with information resources in different ways. One interpretive approach looks for clusters of disciplines whose information needs are in some ways similar. A provisional analysis suggests three broad categories:

1. *“Transnational” disciplines that rely on readily accessible and well-controlled information.* Fields like physics, mathematics, computer science, medicine, and (especially in times past) classics or papyrology, are characterized by globalized or transnational scholarship.²⁶ Information resources are consumed within well-defined but geographically diffuse academic communities. Scholarly societies are often important in organizing these fields, whose tightly defined methodologies by and large correspond to well-ordered research agendas. Research in some areas requires only modest support, though the equipment costs in fields like astronomy or high energy physics can be staggering.

Transnational disciplines, through their professional associations and other proxies, often track their own scholarly sources and research results. The information marketplace, however, is in some fields (though by no means all) commercially inspired, and narrow circles of publishers and distributors can unilaterally impose excessive prices. Concerns related to national or commercial security also keep some material out of reach. The cost and strategic value of information, rather than the geography of scholarship, the dispersion of sources, or the availability of bibliographic data, pose the greatest obstacles to access.

This panorama is nonetheless in flux. Scholars themselves are sponsoring low-cost communication channels like Paul Ginsparg’s “arXiv e-Print archive” for preprints in some scientific fields. Emerging alliances like SPARC are similarly attempting to counter profit-driven oligopolies, this time through non-commercial communitarian alternatives.²⁷ The potential impact is global, not least because students and scholars from less developed areas have simply

been priced out of some fields. The prevalence of digital information especially encourages efforts that deploy new technologies along with alternative models for dissemination. And, to repeat, the commercial ethos has never taken root in some transnational fields.

2. *“Internationalized” disciplines that rely upon both accessible and elusive information resources.* Some scientific fields, for instance biology or geology, draw in part upon field reports that may be produced by local agencies or even individual scholars. Inquiries in the social sciences, for example in economics or political science, may likewise rely on local data. The ensuing analyses and models sometimes result in new analytical schools or theoretical perspectives.²⁸ Researchers in fields like business or law may similarly utilize information initially produced for local practitioners. The studies based on these eclectic source materials can bear on matters of policy, politics, and commerce. Such inquiries, whether theoretical or practical, are thus tied to specific countries or regions despite their origins in “internationalized” academic disciplines.

Universities as well as research institutes, think tanks, advocacy groups, and corporations account for many of these studies. Geographic, methodological, and ideological divides sometimes undermine disciplinary coherence. Scholarly output is not necessarily under complete control, and research results are scattered among a multiplicity of sources.

Research materials generated off the beaten track in some cases offer new data and divergent interpretations. However, these materials can easily elude both bibliographic guides and library collections. Sources like legal compendia, trade directories, risk assessment newsletters, and polling data, by contrast, are issued for commercial ends and are therefore simple to find. The prices are often quite high, and the academic market emphatically peripheral.

Improved access to this variety of material hinges on several separate efforts. Consortia, whether based within disciplines or built around libraries, can play two roles. The first is to ensure better bibliographic control and fuller access for all relevant resources. The second looks toward new or alternative access to commercial resources in a realm where communitarian and non-commercial initiatives have by and large not taken hold.

3. *“Particularistic” disciplines that rely upon diffuse resources.* Research in many fields in the humanities and the arts, and also in some social sciences (some kinds of anthropology, for instance), is moving away from predictable methodologies and canonical sources. These often imaginative inquiries instead draw from the unruly torrent of human expression in all formats and media, in an extravagant diversity that is almost impossible to delineate or describe. Scholars in these disciplines are every bit as far-flung as their sources, approaches, and concerns. They tend to associate through large umbrella organizations, and also small and sometimes sectarian groups.

The huge range of potentially relevant information resources defies characterization. Two problematic segments nonetheless stand out. A vast array of research materials, while sometimes inexpensive, are difficult to identify and frequently hard to acquire. International resources figure prominently within this category, which also includes “unfamiliar” materials from the developed world. The arts, particularly as represented by the entertainment industry, are by contrast notorious for products that fuse creative expression with commercial ambition. Aggressive pricing and rigid controls on use are often the norm. Music and movies provide scholars with unique windows into aesthetic styles and social concerns, among many other topics, but access is mediated through a marketplace motivated by profit.

The ever-expanding demand for diffuse resources may most fruitfully be addressed through coordinated acquisitions. Figuring out what exists, and then either acquiring these resources or ensuring access from reliable peer repositories, pose significant challenges. Improved access to expensive and commercially controlled materials, by contrast, may require high-level lobbying and legal action in areas including fair use, piracy, and intellectual property.

This breakneck survey focuses on researchers' utilization of and access to different sorts of information. Its division between "transnational," "internationalized," and "particularistic" fields moves away from the traditional "humanities," "social science," "science" typology. Three elements seem particularly important in characterizing the interactions between researchers and information: research resources, or scholarly inputs; the scholarly record, or research results; and the process of identifying and then ensuring access to particular groupings of information.

Research resources. Academic fields can be categorized in terms of the ease with which their sources can be identified and then used. The disciplines we've characterized as "transnational" by and large utilize resources that are easy to find. "Internationalized" fields, whose inquiries have a stronger geographic dimension, rely on both common and less accessible materials. The latter are frequently produced within and reflective of specific localities. Scholars in "particularistic" disciplines, finally, depend almost entirely upon local materials. Mathematics might serve as a "type discipline" for the transnational category, petroleum geology as an "internationalized" discipline, and art history as a "particularistic" endeavor.

The scholarly record. It's tempting to assume that the products of research, the fruits of discipline-based scholarly inquiry, will conform to established patterns of scholarly communication and therefore be accessible in predictable ways. But many of these materials behave more like research sources themselves, fluctuating widely in cohesiveness, cost, and

availability. While only some academic libraries aspire to capture strong arrays of basic research sources, many more pursue the scholarly record. The associated complexities deserve particular attention.

Even in well-organized disciplines like astronomy or mathematics, research that's produced outside the developed world or disseminated in a non-European language may be pretty much lost. Scientific core publications, most commonly referred journals or on-line sources, are presumed to represent all significant scholarship through an orderly and self validating process. Those arguing that research from the margins never gets a fair hearing are only beginning to mount a response.²⁹ Research results that carry commercial or security value, including some doctoral dissertations, may also be deliberately suppressed.

The scholarly record in slower moving disciplines, while often favoring referred journals, manifests itself in monographs as well. Research results are widely dispersed in both "particularistic" and "internationalized" fields. Local scholars and institutions are often central, especially in disciplines whose entry costs for exotic equipment or large research teams are low. Literary commentaries, public policy analyses, legal essays, and the like thus appear in a huge variety of outlets.³⁰ Non-metropolitan scholars frequently hold unconventional or dissident positions. Identifying and providing access to their research is especially critical to ensure collections that represent a complete range of ideological and methodological perspectives.

The information marketplace. Identifying and acquiring different sets of information resources requires flexible infrastructures that can support many different approaches. The main obstacles are likely to vary from field to field.

High prices pose obvious barriers to access. Some resources, whatever the discipline, are intrinsically expensive to produce. The average cost of information resources also varies between fields. Systems of scholarly review and validation, publishing technologies, and institutional underpinnings (commercial publishers versus non-profit scholarly societies, for instance) all have an impact. The effects of monopolistic or oligopolistic distribution systems are particularly acute.

The information marketplace, however, entails much more than price. The manner in which resources are described and made available is also crucial. The fields that we have labeled “transnational” tend to draw upon and also produce information that is easy to identify and retrieve, whatever its price. The more idiosyncratic resources that underpin our “internationalized” and “particularistic” disciplines, by contrast, are often poorly described and difficult to obtain. Neither scholarly associations nor centralized bibliographic agencies can control all these materials. Where cultural products are not yet regarded as commodities, specialized vendors and other intermediaries are usually in short supply. Responsive marketing infrastructures may simply not exist.

All these elements, considered together for each discipline, will suggest both the general characteristics of its information resources and any significant obstacles to access. A few examples may illustrate the point. Computer science is a “transnational” field in which researchers are widely dispersed. Some research is based in results-oriented commercial firms and military labs, while other efforts instead reflect the more libertarian culture of many independent programmers and academics. Research results, at least those made public, tend to circulate quickly. Libraries can perhaps most effectively promote the flow of information by lobbying against punitive or overly restrictive legislation, such as prohibitions on certain kinds of reverse engineering and source code analysis.

International law, by contrast, is a professional discipline in which researchers rely on general texts, and also legal codes, cases, and commentaries. This “internationalized” field draws upon materials prepared for practicing lawyers, and most resources are priced and distributed for local legal constituencies. New scholarship appears in a known universe of professional journals. The greatest challenges facing libraries may center on identifying foreign materials and on devising acquisitions strategies for sources designed, priced, and marketed for a very different clientele.

The classics is a different kind of field that by now seems to straddle the line between our “transnational” and “internationalized” categories. Not so long ago, however, one would have envisioned a close-knit academic community devoted to working and reworking a known and readily available corpus of sources which had survived since Antiquity. The products of these inquiries were likewise finite, easily identified, and modestly priced. The field itself sponsored the bibliographies and guides that defined its sources, products, and frontiers. This quintessentially “transnational” endeavor has evolved toward broader inquiries that are informed by the archeological record and other kinds of recorded sources. Even though these materials are more diverse and more difficult to acquire, the classics still retains a good bit of its traditional “transnational” flavor. The challenges facing libraries also remain fairly mild.

Ethnomusicology, by contrast, lies at our spectrum’s “particularistic” extreme. Research is intensely local and draws upon myriad sources that include commentaries and printed works, but above all the music itself. These materials are often difficult to identify and acquire. Informed enthusiasts as well as academics produce research reports that frequently mix sociology, anthropology, history, and biography with explorations of musical form and style. The products of research, as well as the sources, are eclectic, poorly controlled, and difficult to track.

Library-scholar partnerships in both research institutions and producing areas seem essential in order to describe and then ensure access to these materials.³¹

These four examples, albeit depicted with a schematicism bordering on caricature, suggest some of the much greater variety displayed by all academic fields as they use, produce, and exchange information. Sources for scholarship range from the thoroughly controlled traditional universe of the classics; to computer scientists' research reports, programs, and data files; to ethnomusicology's dizzying local repertoires of performance and print. The behavior of the scholarly record likewise shifts from field to field. Legal studies, here and abroad, typically appear in a limited range of professional publications. Research results in the classics, until recently, were largely confined to readily accessible outlets that were well described by the field itself. And ethnomusicological studies once again crop up all over the place. The nature of the information marketplace—open or closed, expensive or affordable, efficient or incipient—likewise varies. The most promising library strategies to improve research and scholarly communication therefore diverge as well.

A complete matrix of discipline-specific collections and needs will reveal a smorgasbord of possibilities for action. Intensified collecting, whether local or cooperative, may in some cases merit pride of place. Measures to improve bibliographic description, expand document delivery, or explore other means of remote access will at other times prove central. Support for more organized information marketplaces, defined by either discipline or geography, may sometimes make sense. Buyers clubs, political activism, legal challenges, and grassroots initiatives may be options as well. While some measures might seem to apply across the board, “lowest common denominator” solutions carry the risk of displacing the narrower responses that might be most effective within particular areas.

We've up to now considered the intellectual firmament one scholarly field at a time. This approach suggests both the range of potential responses and the policies that make sense for each field on its own. Establishing priorities among all areas of inquiry, however, requires different analytical tools. Risk analysis may draw attention to situations in which the academic community faces permanent information loss. Cost-benefit assessments, by contrast, can indicate interventions that will accomplish a lot at minimal expense. Neither of these approaches, however, will necessarily alert us to the redistributive effects of new activities, or their implications for areas that may have been marginalized for academic, ideological, or commercial reasons. New kinds of information resources and services, for instance digital products, are often funded by reallocations of funds from more traditional activities. While neither intended nor expected, the results can further distort our already skewed patterns of disciplinary support.

The information objectives of libraries, whether taken individually or in concert, provide another lens through which to examine needs and evaluate responses. While every academic library engages with local instruction, the issues of curricular support are pretty much irrelevant to this essay. Many repositories also aspire to represent the scholarly record insofar as it corresponds to local teaching and research. Identifying these materials, and then finding the means to acquire them, can stretch even those libraries that limit their reach to scholarly monographs and English-language journals. The efforts that would guarantee collection balance by comprehensively covering scholarly output may in some areas lie beyond the grasp of any single institution. When it comes to the full range of research sources, partnerships and consortia are in most fields the only hope. These can be informal or even implicit, as when individual institutions build unique collections that then serve the community as a whole. (Princeton's Latin American pamphlets here come to mind.) Alliances can also include museums and other cultural agencies, scholarly associations, and foundations, among other groups and entities.

This essay has examined international resources in terms of library collections, scholarly information, and academic disciplines. In many fields, particularly those that we've labeled "internationalized" and "particularistic," both research sources and the scholarly record include a strong international component. These resources can be difficult to identify and acquire. However, strong collections of printed works, media materials, manuscripts, and archives do exist in many foreign countries. Our interests are well-served when these remote sources become more accessible.

International partnerships presume reciprocal responsibilities and benefits. While the pay-offs from international cooperation may seem obvious to us, the incentives for potential partners demand attention as well. Many foreign libraries have no hope of keeping current with information produced in other parts of the world, even when it concerns their own country or region. Paying for the expensive publications and databases essential for research in many "transnational" and "internationalized" fields is likewise out of the question. Overseas alliances can begin to lower the barriers.

While the mutual benefits of international cooperation may seem irresistible, the complications are legion.³² Cultural differences; disparities in size, resources, and ambitions; peculiarities of policymaking structures and programmatic continuity; and issues of dominance and dependence, all enter in. Divergent technical standards can further complicate cooperative initiatives.³³

Even familiar obstacles can take on different dimensions in the international arena. Any repository can be damaged by war, disaster, political intrusions, budget cuts, or inept leadership. The effects are particularly devastating where infrastructure is weak and resources are thin. The willful destruction of Sarajevo's national library comes to mind, as does the major earthquake in

El Salvador that almost destroyed the country's most important local collection. International boycotts of apartheid-era South Africa affected library programs as well as everything else; different groups now propose the same scenario for Israel (and Cuba, and Iraq, and ...). Labor actions and political disputes can have crippling effects: for example, student protests shut down Mexico's massive National University (UNAM), along with its flagship libraries, for the better part of a year during 1999/2000.

International cooperation, in other words, is desirable, unavoidable, and risky. Each member of a partnership or consortium brings specific strengths, possibilities, and weaknesses to the table. Preparations for a globalized information future need to assess the risks as well as the costs and benefits. Planned redundancy, where feasible, may suggest a solution. Reformatting programs, probably based on digital technologies as these processes become more manageable, may ultimately afford the best response.

IV. Conclusion

This essay announced itself as an exploration of the nature, role, and adequacy of the international information resources now available through North American research libraries. Our inquiry has in turn highlighted five loosely related questions:

1. What does "cooperation" mean in our current context of connected collections and interdependent repositories? Formal consortia and structured groupings certainly remain both viable and important. But more casual efforts, among them those reflecting the enthusiasms of individual scholars and librarians, likewise serve the community. Our understandings of possibility and accomplishment need to stretch. So do our measures to support and reward these initiatives.

2. What are “global” or “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. “International” materials may simply be those produced somewhere else, though we at times use the term to imply resources that are created and then circulate outside of the marketplace. These materials appear to be especially associated with non-Western civilizations.

3. How and where do our international collections call short? Academic libraries have always supported instruction. Many are also pursuing the record of scholarship. And some are gathering the primary sources upon which new studies can be based. Our scholars and their academic disciplines have become increasingly omnivorous, demanding all manner of resources in every imaginable format. The production of information resources likewise continues to grow, leaving our materials budgets ever further behind. No single library can hope to satisfy these expectations, and even collective responses may not be enough.

Nonetheless, we do better for some fields than for others. Academic fields in which the scholarly record and research sources are well-controlled, particularly disciplines that are “global” in nature, tend to be well served. Our coverage is weaker for disciplines characterized by eclectic scholarly demand for scattered and sometimes obscure source materials. Some of these apparently underserved fields, as they focus on the “other,” evince dissident ideologies and dissonant methodologies. Our collections imbalances are therefore fraught with political and ethical overtones: we can’t simply talk them away. On a less contentious level, our libraries are also only now awakening to the need for international resources to support professional programs.

4. Is the “collection” still a relevant concept? We’ve traditionally perceived library collections as coherent assemblages of carefully selected materials that reflect and address the information requirements of specific disciplines. Researchers, as they browse these holdings, can at once apprehend the whole and choose what they need. By now, however, on-site browsing is pretty much a thing of the past, due both to dispersed local holdings and to on-line union catalogs that describe a wealth of remote resources. Once-cohesive patterns of use, moreover, are giving way to cross- and interdisciplinary materials and methodologies. In the postmodern academy, cut-and-dried associations among scholarly disciplines, research methodologies, and information resources are no longer the norm. Today’s researchers in effect create their own collections as they identify and explore highly individualized arrays of materials that are both local and remote, concrete and virtual, and based in print, images, and sound.

5. How might we most useful characterize today’s scholarship and information resources? Libraries base their operations and services on mental models of their own mission and goals, and also of users and their needs. Our traditional map of the scholarly universe divides academic fields among the humanities, social sciences, and sciences, with the fine arts and professional programs pushed off to the side. This venerable model, however, appears ever less useful as postmodern scholarship and new information formats blur lines that once seemed clear.

Another approach instead focuses on the behavior of the information used by and produced within scholarly disciplines, and also the nature of the associated information marketplaces. “Transnational” disciplines transcend geography in their utilization and production of information which is generally easy to identify and (price permitting) obtain.

“Internationalized” fields, among them some sciences, some social sciences, and some professional disciplines, rely on universal or abstract information but also localized data and reports. Many “particularistic” disciplines, finally, draw first and foremost from concrete

expressions of localized creativity and concern. Both research resources and the scholarly record tend to be widely dispersed.

For libraries, the characteristics and capacities of different information markets are as important as the particularities of each field's research sources and scholarly record. In some fields and some countries, for example, the commodification of knowledge mandates library initiatives that specifically focus on markets and marketplace constraints. Consortial acquisitions and group licenses play the existing system for all it's worth. Unreasonable restrictions on use are another target for action. And efforts like SPARC aspire to create a new structure for scholarly communication. In other fields, however, scholars both rely upon and produce information that is scattered, poorly represented in bibliographies or guides, and often difficult to acquire. Cooperative programs for distributed acquisitions and international alliances may here comprise the most effective response.

Close, field-specific analyses are essential in determining information strategies for single institutions and also for the community as a whole. Joint programs also need to include risk assessments, cost-benefit analyses, and close attention to any unintended redistributive effects resulting from measures that in isolation make sense. The goal, after all, is to ensure broader access to information across all disciplines and fields.

This discussion has focused on scholarly fields and their needs for information resources. Many cooperative efforts for library collections, however, are based in geography. The connections should be kept clear. For its part, the typology of fields here suggested responds to shifting disciplinary boundaries and changing patterns of information production and use. Scholarly agendas will continue to evolve, and new information will continue to emerge. Our models must likewise continue to change.

Libraries play a critical role in determining which texts, and images and sounds, our scholars are able to consult as they exercise and expand their models, methodologies, and visions. We will most adequately support these agendas by ensuring access to the full scholarly record and to a wide range of research sources. Accomplishing these goals requires resources and will. It also requires a clear understanding of the dynamics of our work.

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Notes:

¹ The “crossroads” terminology particularly resonates with recent reports on the AAU/ARL “Global Resources Program.” See Deborah Jakubs, “The AAU/ARL Global Resources Program at a Crossroads: Achievements, Best Practices, New Challenges, and Next Steps” (prepared for the AAU/ARL Global Resources Program Advisory Board meeting of 14 January 2002, revised 26 September 2002), and Deborah Jakubs, “The AAU/ARL Global Resources Program: The View from a Crossroads,” presented at “The New Dynamics & Economics of Cooperative Collection Development” conference, Aberdeen Woods Conference Center, Atlanta, Georgia, Nov. 8-10, 2002.

² National variations in publishing patterns and bibliographic control are readily apparent. The similarly wide range of library capabilities may be less familiar. Within Latin America, for instance, national libraries in most instances are the beneficiaries of legal deposit and are also responsible for preparing national bibliographies. Both functions are carried out with varying degrees of thoroughness, timeliness, and success. See William Vernon Jackson, “Latin American National Libraries,” in David H. Stam, ed., *International Dictionary of Library Histories* (Chicago: Fitzroy Dearborn, 2001), p. 91-94, plus the entries for specific national libraries.

³ See <http://lanic.utexas.edu/project/arl>. (This and all subsequent URLs are valid as of 20 December, 2002.) Also see Dan Hazen, “The Latin Americanist Research Resources Project: A New Direction for Monographic Cooperation?” *ARL: A Bimonthly Newsletter of Research Library Issues and Actions* #191 (April, 1997), p. 1-6.

⁴ See the Latin American Microform Project website: <<http://www.crl.uchicago.edu/info/lamp.htm>>.

⁵ The text of both agreements is available on the “Calafia” website, under “Agreements”: <http://www-sul.stanford.edu/depts/hasrg/latinam/calafia/>.

⁶ See the Calafia website (cited immediately above).

⁷ This distributor is Scholarly Resources, Inc.

⁸ Some of these acquisitions simply have not yet become available through commercial channels. The final tally of unique titles is likely to be lower.

⁹ See <http://dodgson.ucsd.edu/las/index.html>.

¹⁰ Other examples of what might be labeled “implicit” cooperation include in-house microfilming, where bibliographic records in OCLC or RLIN alert other institutions preparing to reformat deteriorated materials to work that has already been done. The Harvard-based “Program for Latin American Libraries and Archives,” which provides small grants for preservation or access projects in research collections located within Latin America, is another example of an effort to improve the community’s access to scholarly resources. See Dan Hazen, “Archival Research and the Program for Latin American Libraries and Archives,” forthcoming in *Hispanic American Historical Review*.

¹¹ See the SALALM website <http://www.library.cornell.edu/colldev/salalmhome.html>. SALALM’s published record includes its annual *Working Papers* and its *Newsletter*.

¹² See, for example, Samuel P. Huntington, *The Clash of Civilizations and the Remaking of World Order* (New York: Simon and Schuster, 1996).

¹³ The decline is documented in Jutta Reed-Scott, *Scholarship, Research Libraries and Global Publishing: The result of a study funded by The Andrew W. Mellon Foundation* (Washington, DC: Association of Research Libraries, 1996). Also see figures in the *UNESCO Statistical Yearbook* (Paris: UNESCO, 1964-99) and successor compilations.

¹⁴ See especially the yearly updates on “Monograph and Serial Costs in ARL Libraries” in the annual *ARL Statistics*: <http://www.arl.org/stats/>.

¹⁵ For library consortia, see the ICOLC (International Coalition of Library Consortia) website: <http://www.library.yale.edu/consortia/>. For cooperative initiatives to develop new models for scholarly publishing, see <http://www.arl.org/sparc/>, <http://sparceurope.org>, and <http://www.figaro-europe.net>.

¹⁶ A classic and controversial study that suggested that [too] many acquisitions are never consulted is: Allen Kent et al., *Use of Library Materials: the University of Pittsburgh Study* (New York: M. Dekker, 1979).

¹⁷ The challenges of digital preservation are gradually becoming clear. See, for instance *The State of Digital Preservation: An International Perspective* (Conference Proceedings: Documentation Abstracts, Inc., Institutes for Information Science, Washington, D.C., April 24-25, 2002) (Washington, DC: Council on Library and Information Resources, July, 2002). Harvard’s “Library Digital Initiative” website: <<http://hul.harvard.edu/ldi>>, particularly in its “Technical Development” section, describes practical development measures that include a “digital repository service.” LOCKSS (“Lots of Copies Keeps Stuff Safe”), an approach pioneered at Stanford, relies on multiple, reciprocally validating copies for digital preservation.

¹⁸ The Andrew W. Mellon Foundation, for instance, recently awarded \$830,000 for retrospective conversion work at Cornell University.

¹⁹ Cooperative initiatives are often harder to launch in difficult financial times, when institutions focus in upon themselves, than when budgets are strong.

²⁰ “Borrow Direct” is an innovative cooperative effort based on user-initiated transactions and rapid turnaround times. See <http://www.library.upenn.edu/services/borrowing/borrowdirect.html>.

²¹ See, for example, Joseph E. Stiglitz, *Globalization and Its Discontents* (New York: W.W. Norton, 2002).

²² See Néstor García Canclini, *Hybrid Cultures: Strategies for Entering and Leaving Modernity* (translated by Christopher L. Chiappari and Silvia L. López, foreword by Renato Rosaldo) (Minneapolis, MN: University of Minnesota Press, 1995). Anouar Majid, “The Failure of Postcolonial Theory after 9/11,” *The Chronicle of Higher Education* (November 1, 2002), p. B11-12, is a brief recent contribution to the continuing debate over the limits of “hybridization” and essentialism.

²³ See, for example, the three studies prepared for the Research Libraries Group beginning in the late 1980s: *Information Needs in the Humanities: An Assessment* (Stanford, CA: The Research Libraries Group, 1988); *Information Needs in the Social Sciences: An Assessment* (Mountain View, CA: The Research Libraries Group, 1989); *Information Needs in the Sciences: An Assessment* (Mountain View, CA: The Research Libraries Group, 1991). Reference courses in library schools typically assume the same kind of division.

²⁴ Current acquisitions are processed for the general collections, and the once-exclusive special facilities by and large serve as departmental reading rooms.

²⁵ The tension between formats and disciplines is in some respects echoed in current discussions concerning institutional repositories. See Raym Crow, “The Case for Institutional Repositories: A SPARC Position Paper,” *ARL: A Bimonthly Report on Research Library Issues and Actions from ARL, CNI, and SPARC* #223 (August, 2002), p. 1-4. The full version is available at <http://www.arl.org/sparc/>.

²⁶ The results are sometimes biased in geographic terms, for instance as medical research emphasizes ailments afflicting affluent populations over those endemic in poorer, often tropical, parts of the world.

²⁷ For the “arXiv.org – e-Print archive” see <http://arxiv.org>. Also see Yale’s “Liblicense” site, <http://www.library.yale.edu/~llicense/index.shtml>, especially “National Site License Initiatives” and “Developing Nations Initiatives.” These responses, of course, all function within what many consider an untenable system of scholarly communication. Also see SPARC and the initiatives listed in footnote 14. “Institutional repositories” reflect a somewhat different model whose applicability across the full range of disciplines is not yet clear.

²⁸ For instance, dependency theory, bureaucratic patrimonialism, liberation theology—and magical realism and salsa—are some of Latin America’s theoretical and expressive contributions.

²⁹ See the “Scientific Electronic Library Online” (SciELO) website: <http://www.scielo.org> for one effort to capture and promote “southern” science. Juris Dilevko and Esther Atkinson, “Evaluating Academic Journals without Impact Factors for Collection Management Decisions,” *College & Research Libraries*, 63-6 (November, 2002), p. 562-577, suggests another approach.

³⁰ The “LAPTOC” component of the Latin Americanist Research Resources Project is for the first time providing table-of-contents access to a large number of hitherto neglected Latin American scholarly journals.

³¹ Another mechanism may be relevant as well. Some of our strongest research collections have been assembled by private collectors and then sold or donated to libraries. Florida International University, for example, has recently acquired a near-definitive collection of Cuban music, including sound recordings, from the 20th century. Few if any libraries could sustain this kind of comprehensive effort.

³² Dan Hazen, “Dancing with Elephants: International Cooperation in an Interdependent (But Unequal) World,” in *Creating New Strategies for Cooperative Collection Development: Papers from the Aberdeen Woods Conference* (ed. Milton T. Wolf and Marjorie E. Bloss) (New York: The Haworth Information Press, 2000), p. 185-213 (published simultaneously as *Collection Management* v. 24, nos. 1-2 and 3-4 [2000]).

³³ The German Resources Project, another effort affiliated with the Global Resources Program, has translated AACR-2 in order to ensure that German bibliographic records are completely compatible with those produced in the United States.

[Aberdeen]