RESOURCE SHARING

IN RESEARCH LIBRARIES OF LATIN AMERICA

by

JESUS LAU, Ph.D.
Director of Information Resources
Universidad Autónoma de Ciudad Juárez
Av. López Mateos 20
32310 Cd. Juárez, Chih.
México

Tel. 52(16)11-31-67
Fax 52(16)11-31-68
Fax 52(16)16-21-11
Internet JLAU@LEO.UACJ.MX

ABSTRACT

Research and academic libraries are the most developed information centers in Latin America. Their parent organizations are usually universities, government, and to a less extent private companies. Their library collections are therefore among the best. However, due to several factors, library collaboration and cooperation is limited, especially due to poor telecommunication links. Collections built by research and academic libraries evolve in isolation from one another, a factor that reduces their international cooperation potential. However, new information technologies and the integration of regional and national computer networks, together with their connection to Internet, have a great potential for increasing communication and cooperation among libraries in Latin America as well as improving ties with their North American counterparts.

1. SIMILARITIES OF LATIN AMERICA

Few regions of the world have many things in common as Latin America (LA): language, religion and history. These similarities have fostered libraries with several common resemblances in the region. However, despite this fact, it is difficult to generalize conclusions about libraries to the whole continent. There are 20 countries considered as having a Latin American culture with 450 million people, 170 million inhabitants more than Canada and the United States together [16]. Income per capita varies from $400 to $3,000, figures which are lower than the higher North American average income of $21,000 [1]. A ratio of 25% of the 18-23 year old population attend higher education, compared to the 67% ratio in Northern America. Scientific and technical manpower is nearly 5 million against 33 million in Canada and the US [16]. These figures give an idea of the potential demand for research libraries and countries' economic capability to meet such information demand in the region. (See table 1).

Table 1

BASIC STATISTICS OF LATIN AMERICA* [16]		
SUBJECT	LATIN AMERICA	NORTHERN AMERICA
Countries	20	2
Population	454	280 millions
GNP per capita	$400-3,000	$21,200 [1]
Television receivers	74	223 millions
University enrollment ratio	25%	67%
Higher educat. expenditure	$106	$1,242 per capita
Scientific/technical manpower	4.7	33 millions

* Statistics are from different years, 1987-92

The differences in size, population, economy and politics give libraries from each country their own characteristics (See table 1). Differences are as numerous as similarities. Latin American nations can be grouped in four library tiers. There are the big countries of Brazil and Mexico which have around 60% of the collections in the region [17], followed by the medium sized countries of Argentina, Chile, Colombia and Venezuela, which share, in general, the same library developments with those of Mexico and Brazil.

At the bottom end are the smaller countries which can be divided in two groups: those with healthy economies like Costa Rica and Uruguay, which have libraries with good development, and those nations with the smallest economies like Nicaragua, Haiti, Honduras and El Salvador, where academic/special libraries barely exist (See table 2).

Table 2

DEMOGRAPHICS OF SELECTED LA NATIONS - 1991* [1]			
COUNTRY	POPULATION (US$ billions)	GDP (Millions)	INCOME PER CAPITA (US$ dollars)
Brazil	156	414	2,940
Mexico	90	283	3,030
Argentina	33	114	2,790
Colombia	33	42	1,260
Chile	14	31	2,160
Venezuela	20	51	2,730
Costa Rica	3	6	1,850
Uruguay	3	9	2,840
Bolivia	6	5	650
Nicaragua	4	7	460

* Statistics are rounded.

The descriptions provided in this paper pertain to the Spanish/Portuguese speaking countries, excluding the English speaking countries of the Caribbean, as well as Puerto Rico because of their different library history. The term research libraries is used in its broadest meaning to include special libraries, university or academic libraries, and information centers. It must be said that most research libraries belong to higher education institutions. Few libraries are run by government and private organizations.

Most of the conclusions in this paper are subjective because statistics and information on Latin American libraries are scarce. Infobila, the Latin American Librarianship Database, was accessed, but few relevant records were retrieved. Consequently, data were complemented with interviews conducted to librarians who have had international experience in the region.

2. A GENERAL LIBRARY PICTURE

Library service quality tends to coincide with the economic and social well being of Latin American countries. Therefore, nations with an overall greater library development are Argentina, Brazil, Cuba, Costa Rica, Chile, Colombia, Mexico and Venezuela with the exception of Cuba, their library progress corresponds to their higher income levels. In Cuba, progress has been achieved due to strong government backing with a socialist political system (See table 2). The size of the territory also plays an important role.

This is because collections tend to be larger and information resources, even if they are scarce, complement each other, such is the case of those located in Brazil and Mexico. Costa Rica, a small nation with barely three million inhabitants, has a well organized library system, but even the largest libraries are small if compared with average Mexican or Brazilian ones.

Although general library development evolves with certain similarity in the region, each Latin nation has a different information infrastructure. For example, Argentina is a country with well organized university libraries, but their budgets have decreased in recent years due to government economic austerity programs [4]. Brazil, with the largest territory and the largest population in the region, has some of the best research libraries, the most advanced library education system, and the greatest number of librarians in the region [3], but still lacks an adequate public library service. On the other hand, Cuba has well organized academic libraries, but lacks foreign materials and is now undergoing even a greater hardship since the end of the Cold War.

Table 3

LA LIBRARY MAP [3,6,17]		
SUBJECT	LATIN AMERICA (Thousands)	NORTHERN AMERICA (Thousands)
Academic libraries	6,600	3,483* (US only)
Holdings	47,000	718,503 (US only)
Book titles published	42,000	106,000
Newsprint consumption (KG)	4	45 per capita

*Includes only academic libraries and data are from
 different years, 1987-1992.

Chile is another country with good library organization. It has worked hard to rebuild library collections which were confiscated by the Pinochet regime because of political content of books. Colombia leads the region in library computer networks and good national library coordination [3]. Mexico has achieved increased improvement of academic libraries due to an excellent government funding program. Some Mexican university libraries are leaders in Latin America because of their automation and production of CD-ROM databases. Finally, Venezuela, has also good research libraries and an excellent national public library system (See table 4).

The fact that these countries are on the leading edge of LA library development, does not mean that all their research libraries are excellent or good. Within each country there are striking differences. One can find a library with well-developed collections and the latest information technology, but on the

other extreme there may be libraries that lack up-to-date collections and even proper furniture.

The nations with greater library development in the region tend to be the hosts of international organizations. For example, the Unesco Regional Office in Caracas, Venezuela; the Pan American Health Organization (PAHO) in Sao Paulo, Brazil; and other United Nations programs located in other of the most library advanced LA countries. These organizations foster further local library development and cooperation plans, due to the attention that these international organizations attract from host governments [9].

Table 4

COUNTRIES WITH GREATER LIBRARY DEVELOPMENT
Argentina -- Organized libraries, limited budgets
Brazil -- Large collections, good library education
Cuba -- Organized but with poor foreign materials
Costa Rica -- The best among the small countries
Chile -- Libraries adjust to democracy
Colombia -- A leader in computer networks
Mexico -- Good consortia, special government funds
Venezuela -- Some excellent university/special libraries

3. COOPERATION

Library cooperation is limited, despite the region's information resemblances and their common culture. There are about 21 information systems and networks mentioned in the **Infolac Bulletin**'s issues published by the Unesco's regional program to foster cooperation in information activities between 1989 and 1992 [8]. This cooperation outcome has been basically oriented to the exchange of experiences, creation of libraries' holdings databases, bibliographic reference tools, such as directories, bibliographies and the organization of regional training programs [9]. However, few of the cooperation activities yield pragmatic results in terms of shared acquisition programs or interlibrary lending.

Interlending. Libraries usually provide limited interlibrary loan service, and when done, it is carried out with centers of the same type or field. For example, energy libraries tend to cooperate with libraries of similar collections especially if they are located in the same geographical area. Some countries like Brazil, México and Argentina have national library centers that provide document delivery. On the other hand, interlending is seldom carried out beyond national borders in Latin America [4,15].

Factors that inhibit national and international lending are: small collections, scarce union catalogs, inward looking library policies, limited personal contact between librarians in the region, a very important factor in Latin culture, and, above all, slow and unreliable postal services [4,13,15]. Though faxes have greatly improved communication, their use is expensive, specially when data is transmitted within LA. The availability of parcel services has also made an important contribution to the exchange of printed material, but their cost is, again, rather expensive for the average research library. The cost of UPS, DHL or Federal Express delivery is sometimes higher than the price of the book shipped (See table 5). However, some ILL efforts have succeeded like the partnership initiated by the University of Texas at El Paso and some other American library members of Amigos, the regional OCLC subnet, with some Mexican libraries mostly from Mexico City. The project was started in 1988 with a successful outcome [14]. This partnership has greatly benefitted Mexican libraries.

Private document supply is not common and there are no collections devoted exclusively for lending. Libraries rely on foreign document suppliers such as the British Library document service. Some libraries in bigger cities offer their patrons document supply by hiring a person to xerox materials from local libraries.

Acquisitions. If interlending is limited, shared acquisitions programs are more difficult to set up. There are hardly any regional cooperative collection development programs and the ones that do exist are in shared serial acquisitions. Monograph cooperative collection development is troublesome since simply buying LA books is difficult, if they are from an outside publishing house which may lack a subsidiary in the country. The region needs more local LA "books in print" type reference tools. The best publications are "Books in Print" in Spanish published in Puerto Rico, and the catalog edited by the International Book Fair of Guadalajara, Mexico. Nevertheless, they still only include part of the total Latin American publishing output.

Table 5

COLLECTION DEVELOPMENT AND INTERLENDING BARRIERS
Postal costs are expensive Faxes have improved library communication Parcel services have made easier book delivery,   but are expensive Libraries tend to keep to themselves Few union catalogs Acquisition of other Latin countries' titles is difficult

4. INTERNET COOPERATION POTENTIAL

Communication is rapidly improving in the region with the privatization of government telecommunication companies and the arrival of North American and European corporations. Cellular telephone systems have sprang up in the whole region, providing newer communication services. This telecommunication progress has paved the way for universities to integrate their computer networks to Internet. However, the recent and growing number of institutions connecting their networks to Internet still has an intangible effect on library cooperation. For example, there are more than 35 Mexican universities linked to Internet, but just five have a library catalog accessible via such network. ITESM, the private largest private university in Latin America, with 26 branches, has only two campus library catalogs uploaded on Internet, despite the fact that it has one of the best telecommunication facilities in the region [10]. So far, Internet is basically used by libraries for e-mail and access to remote commercial databases. However, it is expected that library expertise to use Internet for cooperation activities will increase rapidly.

Libraries in the region have to develop a computer culture and improve their computer facilities to fully use Internet resources. Training is greatly needed in navigating through the Internet maze of information resources and its network tools like Gopher, Wide Area Information Server, World Wide Web, and Mosaic. Other skills needed to improve among many are how to use e-mail, and file transfer. A greater command of these skills will enable librarians to offer Internet resources to patrons and demand better networking computer facilities to their parent institutions.

Academic organizations that are likely to lead computer library connectivity to the outside world will be the so-called national universities which are institutions located in the capital of the countries, the larger state universities, private university libraries, and special libraries sponsored by the national councils of science and technology or similar government councils. Some universities have already created Gophers in Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, Mexico, Peru and Venezuela [11,13].

Libraries with Internet links can potentially access a wide range of vendor information services, for example, document delivery services and Dialog databases. However they are unable to access the same type of services at home, and sometimes, not even in the former paper conventional formats. This trend is not new, international commercial online databases have been accessed via switch packed networks for several years, but seldom the local or

national data banks.

Even though some countries have several nodes to Internet, they lack a proper national data highway. This factor limits academic communication at a national level. It is easier and cheaper for universities to connect themselves to Internet, than to set up a direct link to their national counterparts by using a private telephone line, a microwave dish or fiber optic cables. Internet has made connectivity easier among Latin American universities, making this medium almost free to libraries.

National backbone computer networks are a must in Latin America. However, their growth and expansion are limited by telephone infra-structure. Satellite and fiber optic lines are growing fast, but they are still limited as well as the economic resources to invest in computer/telecommunication. On top of these factors, an information culture has to evolve -- something which requires time to develop.

5. CD-ROM TECHNOLOGY

The advent of CD-ROM technology has enabled LA libraries to exchange information since it does not require use of telecommunications. The Mexican University of Colima, which has the largest CD publishing output in the region, has produced 10 titles with bibliographic information of more than one country. Chile, Cuba, Costa Rica, Colombia, Nicaragua, Peru and Venezuela are among the countries that have published databases of common subject holdings. The nation with the greatest output besides Mexico is Brazil. The Pan American Health Organization located in Sao Paulo has also produced some titles for the whole continent. However, a list of LA production of CD-ROM'S edited in the region is needed to identify the region's digital information recording activity.

Besides the increased CD-ROM production, some countries are already working in building electronic libraries, especially in the larger ones, like Brazil and Mexico, but literature on this subject is not available yet. The University of Colima in Mexico has just opened a new library which is completely automated. It has an online catalog and networked CD-ROM servers accessed through 150 PC's, or via the campus network terminals. UNAM, the largest Mexican university, has a shared catalog for its more than 170 departmental libraries using fiber optic cable in the main campus and satellite/microwave communication for remote locations.

6. OCLC AND LATIN AMERICA

Access to the outside information world in Latin America has been through larger commercial databases and through the participation in collective databases sponsored by the United Nations organizations, such as "Agris", the Food and Agriculture Organization's database and "INIS", the International Nuclear Agency Information System. However, the region has had a low profile in OCLC shared cataloging services. This fact is due to small budgets, currency exchange rates, devaluations, and inflation. Another factor that still makes OCLC cataloging services less relevant to the region is the limited coverage of LA social sciences and humanities books, because about 50% of library holdings are assumed to be in these fields which in turn are mostly in Spanish, if Mexican statistics are taken as an indicator. Publications that tend to be in English are pure and applied science titles.

Table 6

ACCESS LIMITATIONS TO OCLC SERVICES
Limited budget Currency exchange rates Problems with devaluations Poor telecommunication infrastructure Originally few Spanish OCLC titles' records

On the other hand, libraries have developed certain regional cataloging capability to rely on LA products to process their collections, such as is the case in Mexico with LIBRUNAM, produced by the National University of Mexico and El Colegio de Mexico holdings' CD-ROM. These cataloging tools are complemented with foreign telecommunication-free publications such as CD-MARC of the US Library of Congress.

However, there is a potential for the bigger libraries to benefit from OCLC resource sharing and new reference services. They have bigger budgets and look North for their foreign library materials and services. If there were a list with the best libraries in the world, like the largest companies in the world's list of the Fortune Magazine, it would include some research libraries of Latin America. These are the centers that could contribute and benefit from the broad range of OCLC services. The number of potential libraries is around 14%, in other words about 900 of the total estimated number of research libraries, if one takes into account libraries that use Dialog information services[17]. According to the former Dialog representative for Latin America, the countries with most online information demand and use of Internet gateways are, in order of their demand: Brazil, Mexico, Argentina, Venezuela, Chile, and Costa Rica [15].

Marketing of OCLC products is needed in the region. Librarians

know that this is the largest non-profit library corporation in the world, but they lack information about OCLC service development and what this organization can exactly do for them and their patrons. OCLC does not take part in local conferences and meetings. Most of the information about OCLC received in the region is through academic literature. Some foreign library vendors like Sweets, Ebsco and Faxon have Spanish speaking representatives that promote and give door to door assistance in regard to their services, something similar can be done by OCLC. This organization, OCLC, can take advantage of Internet, since this is an open door to Latin America. The new open market economy policies make the region an easier library market. Products probably more relevant are those based in CD-ROM media and full-text serial databases.

Table 7

OCLC's POTENTIAL IN LATIN AMERICA
Libraries look north Most science and reference works are imported from the US Each country has a certain target libraries LA has opened the door to the information world OCLC is a model to follow CD-ROM, document services and full text databases have a   potential

7. CONCLUSIONS

Latin America expands in thousands of miles from Mexico's Northern border to Patagonia in the Southern most tip of Chile. LA librarians share a similar culture. They always feel among pals when they meet colleagues from other countries of the region. However, distance makes communication expensive and difficult. Phone calls, faxes, parcel services and travel are expensive. As a result, Latin America has had limited success in building shared collections and in interlending. The region's success has been in the creation of bibliographic databases and compilation of reference publications. CD-ROM technology has proven to be useful for information exchange. There are some compact disks edited in the region that include collections of more than one nation's libraries.

The advent of new telecommunication services, and the increased international connectivity of networks are also making library cooperation and communication easier and cheaper such as in the case of Internet. This super network is playing an outstanding communication contribution to the region's best research libraries. They now have access to the world's digital community.

However, research libraries have to learn how to use the information wealth available in the Internet maze and have to learn how to organize information resources for Internet users, for example, uploading their online public catalogs.

Information development is not even in the Latin continent. The countries with higher library development are Argentina, Brazil, Cuba, Costa Rica, Chile, Colombia, Mexico and Venezuela. However, within each country there is a polarized library development. It can be estimated that about 14% of the research libraries, out of the 6,600 estimated centers, have a leading development [17].

OCLC has a role to play in the region as well as other international information providers do. However, OCLC has to market its services to LA, where librarians know the existence of this macro network, but lack information to track their service development.

Latin American research libraries have a great potential advantage over other parts of the world, because they share a similar culture. However, this characteristic can only become a library advantage if they learn how to fully use Internet to communicate, share library collections, and offer special services to their patrons as well as the international community.

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[17] **Note**: Number of libraries and volumes in the region were
estimated using values from countries of similar development for
those that lacked figures. Sources were the 1994 Unesco
Statistical Yearbook and the papers of Zamora and Hurtado (See
references). See appendix.

APPENDIX

ESTIMATED ACADEMIC LIBRARIES AND VOLUMES OF LATIN AMERICA**

COUNTRY	LIBRARIES	VOLUMES THOUSANDS	COUNTRIES' VALUES USED FOR ESTIMATIONS
Argentina	63*	3,271*	Mexico
Bolivia	90*	107*	Guatemala
Brazil(f)	2,500	15,322*	Mexico
Chile	178	5,669	
Colombia(h)	210	3,361	
Costa Rica	51	633	
Cuba	85	2,465	
Dominican Republic	150	305*	El Salvador
El Salvador	805	220	
Ecuador	128	531	
Guatemala	15	133	
Haiti	10*	93*	Guatemala
Honduras	107*	219*	El Salvador
Mexico	1,500	8,347	
Nicaragua	31	281	
Panama	42*	247*	Mexico
Paraguay	64	879*	Costa Rica
Peru	376*	3,300*	Mexico
Uruguay	4	622*	Costa Rica
Venezuela	246	2,023*	Mexico
ESTIMATED TOTAL	6,655	46,878	

****NOTE**: These statistics should be taken with care and used only as indicators. Number of libraries and volumes corresponds in general to special and higher education centers, except for a few that belong only to the academic category.

*Missing statistics were estimated using values from countries of similar economic development. Sources were the 1994 **Unesco Statistical Yearbook** and the papers of Fernández (f) and Hurtado (h) (See references). Figures are from different years, 1987–1992.

DIFUSION CIENTIFICA...

Interlending to LA by the British Library

Demand is lower because research is limited
Electronic libraries are emerging, i.e. Colima, Ciudad Juárez,
    CICH, Cuba

National computer networks are in being stablished
ITESM has 26 campuses with libraries connected by Internet
  but they do not use it for interlibrary loan
Internet is used for email basically
Lack Internet culture
FOMES workS to support libraries

ELECTRONIC LIBRARIES

New technologies enable libraries to cooperate
Cooperative databases (infobila, fishing)
International organizations played an important role

Consultar
    Directorio de internet
    Anuario de la Unesco, ver cuadro
    Almanaque/Banco Mundial
    Lista de Molly Molloy
    Hablar con Rosa María, Enzo, Molly, Cesar Caballero, Alvaro,
        Lourdes Feria
        Federico Turnbull
    Accesar Internet: Luis Felipe
    Siglas de IFLA
    Populatin of Costa Rica
    Fortune Magazine
    Boletín INFOLAC, ponsla2
    Contar listas de discussión de Molly

Compilar
    Lista CD's with LA coverage

Leer todo el trabajo para detectar datos necesarios

Revisar fotocopias CUIB

List of LA CD's
Nombre de sweets.

Mexico

Guatemala

Honduras

El Salvador

Nicaragua

Costa Rica

Panama

Venezuela

Colombia

Ecuador

Peru

Brasil

Bolivia

Argentina

Paraguay

Uruguay

Chile

Guyana Francesa

Haiti

Cuba

Dominicana

Martinica

Saint Pierre y Miquelon