

PATRON EMPOWERMENT TO USE LIBRARY GATEWAYS IN LID COUNTRIES:

THE CASE OF MEXICO

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ABSTRACT

Information skills empower academic users to take advantage of information resources available worldwide. Countries with less information development (LID) have a challenge to develop these skills among a population that has had limited contact with libraries. New technologies offer the possibility of helping libraries from LID countries to overcome the educational gap of their users. If academic libraries of LID countries take this opportunity, they will convert themselves into real gateways to international information, since their users will be enabled to transit the cyberworld with the proper searching skills. This topic will be discussed using Mexican academic libraries as a case study.

1. LIBRARIES AS INFORMATION GATEWAYS

Technological advances are reaffirming the role of libraries as gateways to the information resources of the world. Computer networks, telecommunications and more intelligent software have renewed the library role as an starting point to navigate the information oceans available on earth. Such changes are also taking place in some libraries of less developed countries with higher income and more open economies, such as Brazil, Chile, Thailand, Venezuela and Mexico. However, the technological leap of these countries poses special challenges to their libraries, which are also less information developed (LID) or at least with less even information development than their counterparts from wealthier economies.

LID countries have a contrasting development if libraries are taken as yardstick to measure their information development. Most countries, as in the case of Latin American nations, have limited public library systems, even among those with greater number of public libraries such as Mexico and Venezuela. These countries hardly meet the information needs of the urban population because of their limited budgets and the growing population demands.

School libraries, on the other hand, seem to have been forgotten in these nations. For example, most elementary schools lack a library in Mexico. There are about 121,715 elementary schools [10], but only about 5,000 have a library. In other words, only one out of 20 elementary schools has a library. Middle schools and high schools are almost in the same situation, most of them lack a library. Libraries become present in a student's life until he or she becomes an undergraduate. A student hardly uses any library during his or her first 12 years of schooling, that is 60% of the educational process, where young citizens develop reading and studying habits. This limited student exposure to library services seems to permeate student skills for the rest of his or her life [8].

Academic libraries, as part of the upper educational process, do exist at most universities, technological institutes and polytechnics in LID countries. Their libraries tend to be the best of the educational area, which are mostly financed by public taxes. Academic libraries lead the way to introduce networked information, and count as the best even if they are compared to special libraries. However, the academic library that is fortunate enough to leap forward in technological development faces a complex and daunting

task. It has the challenge to educate patrons to acquire skills of how to use printed sources to the steps of how to explore the new cyberworld, where the newest information sources are available. The challenge of educating users on how to access networked information in academic libraries from LID countries is the main topic in this paper. Mexico is used as a case study, a country which falls within the middle income range among national economies and also falls within the less information developed nations of the world. The term user education is used as a synonym of library instruction and information instruction, while the phrase library skills is used interchangeably with information skills and information literacy. The academic library is defined as a center serving any higher education institution, such as university, polytechnic and college for teachers; either public or private. Furthermore, all these institutions are referred as universities in this paper.

2. LID COUNTRIES' EDUCATION EFFORTS

Mexico devotes 4.1% of its gross national product (GNP) to public education, a percentage that is higher to the one of Brazil, but slightly smaller to the corresponding one of Chile and Venezuela [11]. Mexico's investment in education is seen as the means to leap forward in development, since education enables people to be literate, and therefore, to grasp knowledge by faster means, e.g. of information records (See table 1). Latin America and the Caribbean are regions where education is growing steadily. There are about 7,000 higher education institutions, attended by about 8 million students in the region. Mexico with the second largest economy in the region, has over 1.4 million students at 803 universities and other higher education institutions [10]. Progress in higher education has been important in the last twenty years compared to other LID countries. However, the number of students in relation to every 100,000 inhabitants is still low, there is one undergraduate per every 1,511 inhabitants [11].

In spite of the fact that education is favored as an investment by the Mexican government, it lacks enough resources to offer a sound instruction to the young population that attends elementary, middle and high schools. As stated, libraries are among the services that seldom receive enough funding, even though they, as knowledge reservoirs, are a must in the knowledge transmission role of educational institutions. Consequently, according to

Zamora “Many of these students come to universities with a limited middle school education” [13].

Table 1

A BRIEF PICTURE OF MEXICO	
95	million inhabitants
11 th	country in population size in the world
15 th	economy in the world
805	higher education institutions
1,350,000	higher education students
1,667	academic libraries
5,868	SNI researchers
155, 886	professors/lecturers

3. PATRON EMPOWERMENT

Mexican universities, like those from other LID countries, have better government funding than secondary education, or at least more freedom to manage their resources. Technological progress takes place at higher education institutions. They are expanding national computer networks, i.e. access to Internet, and some of them are creating highly technical information products like CD-ROMs or online databases, and are designing Internet web pages. Large libraries have Internet access, have teleconferencing available at their campus and some even have the facilities within their library premises. Most are acquiring state of the art systems, and others are in the process of making their catalogs available through Internet (See table 6). It is estimated, for example, that Mexico had the greatest growth in Internet nodes in Latin America in 1995 [1]. Although not all Mexican academic libraries are getting fully hooked to Internet or acquiring state of the art information resources, the larger ones are already part of the international community, transforming themselves into real gateways to the information world. h

Unfortunately, user education, that is patron information empowerment, lags behind the generation of information materials and networking advances of libraries. Local and remote electronic sources become part of academic library services, but it is assumed that they are poorly used by the academic

community [12], despite the fact that electronic sources attract more patron demand.

The transformation of the traditional Mexican academic library into the main exit to enter the ocean of information resources poses a new and greater challenge to libraries: to train users on how to benefit from networked information services. The library gateways to the information world offer the possibility of providing better services to the academic clientele, but the benefit and exploitation of these resources depend on the users' skills to locate, retrieve and use information.

The advent of networked information makes library instruction more complex, although some will say it may be easier because of the variety of instructional media available. However, previous library teaching tasks were to train users on how to use books, journals and library catalogs. Nowadays, libraries have to train customers in CD-ROM use, online database retrieval, Internet navigation, access to remote information providers and even train users in the use of word processors. At the average academic library from information/economic developed countries, librarians have, as the main duty, to instruct users on how to retrieve information. However, in a LID library, the staff also faces the challenge of teaching them how to do research. Undergraduate students usually have limited reading and writing skills and little motivation to attend a library because, his or her homework does not necessarily require information materials.

Normally, when Mexican students enter undergraduate studies, they are unable or poorly motivated to use a library which is seen as a reading room or a place to do homework, but seldom as a laboratory of ideas, an information center or a place where to do research. University students normally prefer books, and their demand focuses on textbooks, making reserve materials the most popular collection among other resources. Consequently, students tend to ignore journals and general collection materials. Professors' lectures become the main source of students' knowledge (See table 2).

Writing essays usually becomes a cut and paste procedure where citations, references and bibliographies are ignored by students, even though most undergraduates take a research methods course. It seems that research principles are quickly forgotten by students because essays are seldom required at other subjects, and when writing essays is part of the course

work, professors seldom require the application of research methodology, such as how to cite and how to prepare a bibliography. Consequently, the research methods course becomes an island in regard to the rest of the curriculum.

Table 2

STUDYING SKILLS OF STUDENTS
<ul style="list-style-type: none"> - Prefer textbooks, ignoring journals and general collection materials - Have limited reading and writing skills - Seldom write an essay as part of a course - Prepare essays using cut and paste procedures - Lack skills to cite and prepare bibliographies - Source of knowledge is professors' lecture

Students' library skills are limited due to the educational system whose lecturers, also called professors, are usually also information illiterate, too. Academic libraries in Mexico also face the task of training this older academic user group. Professors are graduates of previous generations where libraries were poorly valued or in many cases not available at all at higher education institutions. In addition, research instruction was seldom part of their education. At the present, there are 155,886 lecturers, but just 5,868 qualify as researchers by the Mexican National System of Researchers, a government organization that evaluates academic performance [10].

4. USER EDUCATION SURVEY

It is difficult to draw a picture of Mexican academic libraries since their size and organization differs greatly. To give an idea, on the top of the scale is the National University, with the largest academic library system (140 branches) and with some of the best organized libraries in Mexico and even in Latin America, along with the universities of Guadalajara and Nuevo Leon, that also have large and well organized library systems in the country. The three universities have a large student enrollment. In the first case 250,000 students and 180,000 and 90,000 in the second and third case. On a second tier, there are about 30 big libraries, for Mexican standards, that have important and well organized collections, followed by probably a similar number of libraries that are smaller, but with a fairly good organization and

above than average information services. At the bottom end, there are around 700 institutions, mostly teachers' colleges, that have libraries with limited collections, no professional librarians and lack a proper budget. Libraries from the first three tiers are analyzed in this paper, that is the large and medium sized institutions, leaving out the bottom end organizations.

Most academic libraries focus their efforts on organizing their materials and on increasing circulation of collections. User education is seldom part of a program [12]. The limited number of librarians make user instruction a forgotten task in most academic libraries.

Table 3

LIMITING USER EDUCATION FACTORS
Few libraries have formal user education programs
User education experiences have not been publicly shared
Literature or documented experiences are scarce
There has not been a national conference on user education (UE)
Reference librarians are just a few in the country
Few libraries have a reference department

Although most academic libraries are concerned about user education functions, library instruction has not been studied properly in Mexico. Few user education experiences have been documented or shared. So far, there has been only one regional conference devoted to this subject, but not one at the national level. The limited work done on this subject may be due to the small number of reference librarians, who are normally in charge of library instruction (See table 3).

One of the few papers on the subject published by Culebra in 1983 [5] studied academic libraries from Mexico City. The results, based on 32 institutions, showed that the majority of the libraries fell in two out of the four categories designed by the study: those who valued user instruction as important, but could not offer user education, except by some isolated activities; and those who have tried instructional activities but without a global plan. Among those few libraries who did offer some user education, talks and guided tours were the most common instructional techniques, while handbooks, bibliographies, and user guides were the favorite teaching materials. In conclusion, the study found limited user education efforts and confusion in the concepts of library literacy.

Verdugo conducted another study in four of universities in 1993, ten years later, and also found that there was some confusion in the concept of user education. He reported that library instruction was limited to library tours publication of flyers and to a less extent, library workshops. Another finding of the survey was that out of 155 university study programs only 4 had a library instruction credit course [12].

Along the methodology of the two previous studies, a non-random survey of seven questions was prepared for this paper to explore the current development of user education at academic libraries. Some UE aspects that could be regarded as important, such as number of reference librarians and provision of electronic services, were excluded to keep the questionnaire brief. The questionnaire was sent to Bibliomex, which is the most important Internet discussion list in Mexico. The survey was complemented with some telephone interviews to broaden the number of medium sized academic libraries.

The 29 Libraries that answered the questionnaire, in most cases by the university librarian, are at the top of library development in Mexico. They have the largest collections, are better staffed, lead in terms of information technology and have access to Internet. Their parent institutions serve almost 40% of the total number of higher education students in the country, that is over 560,412. To understand these figures, it has to be said that size of enrollment at Mexico's universities has great disparities. A few tens of institutions, less than a 100, cater for most of the national student demand, leaving out around 700 rather small universities, that register 25% of such student demand and whose collections and user services are basic. Among the surveyed cases, there were 23 government financed institutions and 6 private ones which gave a broad picture of both types of organizations (See table 4).

Most libraries (82%) answered to have user education activities. However, just over half (56%) declared to have a formal program, that is in written form. These results may show the lack of library instruction goals, methodology and perhaps no evaluation of library instructional efforts. The number of students instructed per library were in average 1,070. This probably means, that those users benefited by library education are newcomers to the university, since their served total average student

population was of 13,762. The survey did not explore who were the students taking part in education programs (See table 4).

Table 4

EXPLORATORY SURVEY RESULTS	
29	Total number of cases/libraries
560,412	Total student population served by the surveyed cases
82%	Libraries offer user education
56%	Institutions have a written UE program
1,070	Average number of users taking part in the program per semester
39%	Libraries that a UE program for lecturers
28%	Libraries that described what they offer to lecturers
1 /1,063	Number of librarians per students

An open question on materials and teaching techniques was asked to test respondents' knowledge on UE. The preferred teaching and promoting techniques were, in descending order, talks, showing of videos, flyers and guided tours (See table 5). More lasting instruction, such as library workshops were seldom mentioned. Credit courses or computer assisted courses, on the other hand, were definitely not mentioned; an instruction which is more in-depth. Most respondents showed confusion in what user education meant. Most identified library instruction as library guided tours and distribution of pamphlets. A finding that coincided with Verdugo and Culebra's studies [5, 12]. Another factor shown by this item was that libraries failed to mention any use of information technology to provide user education, such as delivery of training courses, using world wide web, use of intranets or Internet to reach a greater audience. None of them even hinted to have UE cooperation efforts with other libraries, although it was not asked by the questionnaire.

Library departments in charge of UE were usually public services, the university librarian and the reference department. Those reporting public services as the responsible of the UE activities may not have had a reference department, which were the majority. At an important number of institutions, most library departments who took part in UE programs. Finally, no libraries reported to have a user instruction department (See table 5).

An important fact was that nearly 40% of the libraries reported programs targeted to lecturers, a must in Mexico, since they usually lack basic information skills. However, just 39% of these centers described their programs for lecturers. It was difficult to interpret such lack of responsiveness, one could be that the second part of the question was time-consuming, since it was open. The second possibility could have been that librarians did not have clear the kind of library instruction provided to professors. The cases that described their user education for professors reported special information literacy courses and library participation in outside training academic programs organized by other university departments.

As one may guess, academic clientele at Mexican academic libraries are students, professors, researchers and administrative staff. Researchers are a group in themselves, because they are not considered lecturers, since they teach usually only one subject and some none at all. These users normally have good information skills. Lecturers could be considered the most important user group to target in library instruction at academic libraries. If lecturers learn the importance and usefulness of information records, they can become library use promoters in their classes, motivating greater student library use.

Table 5

SURVEY: TEACHING TECHNIQUES AND TOOLS
<ul style="list-style-type: none"> - Talks about services - Videos about library services - Distribution of brochures - Guided library tours - Departments in charge of UE activities in descending order: <ul style="list-style-type: none"> a) Public services, b) University librarian's office, c) Reference services - No library reported to have a bibliographic instruction department

The cases who took part in the survey face a user education challenge. The number of librarians is small in most academic libraries. 32% of the libraries reported to have no librarians at all. Those who did reply have an one librarian per an average of 2,206 students, a number that is small if user education is to be offered, on top of other library cores. It has to be stated that, libraries do hire professionals from other disciplines who do information work. Unfortunately, the questionnaire did not inquire about

the number of professionals from other disciplines. Library centers with no librarians face a daunting task in user education, since they may not have the proper professionals to teach library skills, not to mention to have the proper organization to provide information services, which is like having a hospital without general surgeons.

Although there is no survey available, it is estimated that few libraries have a reference department, a unit which is normally in charge of user education. This situation limits any library instruction program, since those library departments taking part may devote little time to this activity because it is not their primary function.

5. NATIONAL UE STRATEGIES

The challenge of providing information skills to the academic community of Mexico is complex. At the core of the problem is the higher educational system whose teaching methods are outdated, a subject not discussed in this paper. However, libraries do not have to wait until educational methods are changed to make a move to enable patrons to get benefits from information. According to the survey, Mexican libraries seem to lag behind in library education compared to their development in providing access to networked resources available worldwide.

If academic libraries aim to truly become gateways to international information resources, they have to exploit information technology based on computers and telecommunications to deliver library instruction, that is using the same medium which poses the new challenge in information services. Library user education could certainly achieve greater and perhaps better results relying on computer networks to provide student library instruction. Information technology can optimize library efforts, specially for those libraries with few or no librarians at all, since it is difficult to offer user education with a limited number of library specialists.

Table 6

TECHNOLOGICAL FACILITIES OF LIBRARIES	
Estimated data	
Libraries:	Facilities:
4	Teleconference equipment in their premises
20	Have teleconference facilities within their institutions
50	Have good and reliable Internet access
50	Use major library software systems
20	Offer Internet services for patrons
10	OPACs available on Internet

Libraries could also design interactive computer courses offered via Internet or delivered using CD-ROM technology. A national user education materials referral center could be created to promote experience sharing, which could also offer regional training workshops on how to cope with UE demand. Moreover, certain guidelines would have to be created on how to set up user education programs, credit courses, workshops for lecturers, electronic classrooms and how to take advantage of university computer laboratories for library instruction. Probably, the massive publication of brochures and library guides to distribute free or for a small charge to academic libraries could help them to instruct their users as well as to promote their services (See table 7). The same promotional literature could be included on web pages and be accessible at national level.

Table 7

POSSIBLE USER EDUCATION STRATEGIES
<ul style="list-style-type: none"> - Interactive computer courses offered via Internet / CD-ROM for users - Create a national user education materials referral center - Regional training workshops on how to cope with UE demand - Broadcasting of UE instructors workshops using teleconferencing facilities - Develop guidelines for library user education - Organize national meetings to share experiences - Prepare guidelines on how to prepare flyers and brochures - Produce brochures of national appeal to be sold to or copied by universities - Advice in preparing user education programs for lecturers - Guidelines on preparing credit library instruction courses - Guidelines on how to create electronic classrooms

Some the recommendations described could be materialized. The Department of State Universities and the State University Libraries Association (*Red Nacional de Bibliotecas de Instituciones de Educación Superior (RENABIES)*) have plans to encourage university libraries to offer information education to their patrons. One of the first activities was to support the University of Ciudad Juarez in its plans to organize a national meeting to exchange user education experiences. A national UE scheme is being worked on by these organizations to foster greater activity in the subject.

6. CONCLUSIONS

The transformation of the academic library into an information gateway to international resources poses new challenges to user education in libraries from nations with less information development, such is the case of Mexico. The survey showed that most libraries had UE activity and showed concern to formalize this role. However, libraries offered limited UE activities, which basically consist in giving talks, showing videos, distributing flyers and giving guided tours. Therefore, instruction is brief and lacks in-depth information training. The small number of librarians may have a relation to the kind of UE provided to patrons by Mexican academic libraries. The results of the survey were valid only for the studied population, that is 29 academic libraries. However, they are a good indicator of the library instruction received by 40% of the national student population, since the parent institutions of these libraries enroll nearly half of Mexico's higher education population.

Libraries could improve and expand their UE programs joining efforts and relying on the same networking technology that makes libraries a gateway to international information resources. Interactive computer courses could be created and delivered using Internet to the academic community at the national level. Coordination of cooperative efforts could be done at regional and even at national level with referral and training centers.

If Mexican libraries join efforts and decisively play a role in empowering their patrons to use information gateways, students and lecturers will develop the information skills required by the new learned society that is

rapidly evolving in the world. Similarly, libraries could become key players in building universities with a focus in learning rather than on teaching. If user education is part of daily academic work, Mexico is likely to have graduates who could take advantage of the world's information resources.

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CUESTIONARIO RAPIDO SOBRE FORMACION DE USUARIOS

Agradeceremos conteste las siguientes OCHO preguntas que le tomarán 10 minutos. Sus datos serán usados en un documento para IFLA que describirá el estado que guarda la formación de usuarios en bibliotecas universitarias. Los resultados podrá recibirlos si contesta el cuestionario. Su identificación se manejará confidencialmente.

Anote, por favor, el nombre de su *país*: _____ nombre de su biblioteca (opcional): _____ ¿Cuántas bibliotecas hay en su sistema universitario? _____

I. ¿Realiza su biblioteca actividades para la formación de usuarios en el uso de la información? SI ___ NO ___ Si su respuesta es negativa, pase a la pregunta VIII.

II. ¿*Tiene por escrito* dicho programa o algún documento que describa la formación de usuarios que ofrece? SI _____ NO _____
Si su respuesta fue positiva, por favor, enviar copia de su programa.

III. ¿En *promedio cuántos usuarios* participan en dicho programa al semestre?

IV. ¿Qué *técnicas o herramientas* usa en su programa de formación de usuarios? Anótelos en orden de importancia.

a. _____ b. _____
c. _____ d. _____
e. _____ f. _____

V. ¿Que área o áreas de la biblioteca *se encargan de operar* el programa?

VI. ¿Cuenta con algún programa/actividad para maestros? Si ___ No ___
Si la respuesta es positiva, por favor descríbalo(a).

VII. Anote por favor los siguientes datos aunque sea en forma aproximada:

Número de *bibliotecólogos* _____
Número de *alumnos inscritos* en su universidad/facultad _____ Especifique

VIII. Anote, por favor, cualquier comentario que desee hacer.

¡GRACIAS!

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