

95-01967

AR ✓

## **UTILIZING ADVANCED INFORMATION TECHNOLOGY TO IMPROVE INFORMATION ACCESS IN THIRD WORLD LIBRARIES**

**By Isabel Olivera R.**

**Abstract:** A pilot project to demonstrate the validity of two hypotheses was conducted between 1991 and 1993. They involved two recent technological development: the compact disk read-only memory (CD-ROM) and the telefacsimile (telefax) machine, both of which can support effective inter-library cooperation and networking.

This was possible through a joint venture between a developed country library and a developing-country one.

Important results were obtained: significant progress in bibliographic access and document delivery, better information services, and fostering of institutional support for other projects such as integral automation and purchase of equipment and other resources.

A less tangible but not less significant achievement was the involvement of Library staff in a new challenge, that of working with larger resources and contributing to an expanded more visible service.

### **Introduction**

The title of this article is the same as that of the proposal for a demonstration project in Peru, which was a joint venture dream of two libraries. One in the College of Business Administration of Pennsylvania State University, USA and the other one in the Escuela de Administración de Negocios para Graduados, ESAN, Peru, the first business school established in Iberoamerica in the sixties.

These two institutions have a long standing exchange, relation-ship which includes an exchange programme for librarians, exchange of publications and a common interest in international activities.

The proposal aimed to demonstrate, through a Pilot Project, the validity of the following hypothesis:

Two technological developments, the Compact Disk-Read Only Memory (CD-ROM) and the telefacsimile (TELEFAX) machine can support effective interlibrary cooperation and networking, both within third world regions and between third world countries and the United States.

The goals proposed were the following:

- To determine the effects of the CD-ROM and Telefax technologies on information - seeking behaviour of South American students and researchers.
- To demonstrate that the long-standing difficulties which South American libraries have had established networking relationships, can be overcome with the use of these technologies.
- To determine the usefulness of CD-ROM technology in the Latin American context.

It was a very ambitious project for a three one-year stage period that should benefit other select social science libraries in Peru.

Three CDs were selected: The Business Periodical Index, the Social Sciences Index and the ABI Inform. PSU Library offered document delivery support via telefax.

An investment of US\$ 100,000.00 was estimated to cover the cost of workstations, fax equipment, CDs subscriptions, telephone lines, staffing, supplies and other expenses. Both institutions looked for financial support for almost two years, without success.

This failure was a new challenge for both co-investigators on the project, Bruce Bonta (USA/PSU) and Isabel Olivera R. (PERU/ESAN). As an alternative they decided to work in another dimension, trying to carry out a least a Mini-Pilot Project.

Bruce Bonta obtained support from his Library for the document delivery to ESAN via telefax free of charge and a three-year subscription to ABI-Inform as an UMI donation (US\$ 15,000).

In Perú, Isabel Olivera R. obtained a computer and a telefax machine. The information center already had a direct telephone line which was allocated to the telefax. It was possible to obtain a CD-ROM drive through a larger project, ESAN-World Bank.

Now that we have this reference tool in operation and we are at the end of the pilot project, we would like to comment on the results of the application of this technology.

### **Chronology of the Pilot Project**

**May - November 1991**

ABI on Disk and Proquest software was received in May. Software installation was easy but it was not possible to use it until September because of technical problems with the equipment. It was necessary to switch from a NCR microcomputer which was in use, to a micro Data General 286. UMI Technical Support provided valuable assistance in this first stage.

We also had problems with the transmission by fax, since our Sanyo equipment was not very modern.

It was in September when we started with the structured introduction to the use of ABI. At the beginning this was done with groups (professors, students, clients) and later on a one-to-one instruction basis.

Using ABI was not difficult for the staff because they were familiar with data base use. They were helped by qualified personnel of our Computer Center, ESAN/DATA, to install the data base and also wherever there was a computer system crash.

**November 91 - April 92**

Document delivery in this period was done by mail because it was not possible to obtain a better fax machine. But the worst problem was the delay in receiving the material by mail from PSU (It took about 25 days).

**April - November 92**

Direct end users access started as a result of one-to-one instruction.

The Librarian to whom this project was assigned developed a User's guide in Spanish which was very useful.

Document delivery from PSU improved because we started using a mail box in Miami which operates as a courier service.

Another problem we had to face in this period was related to printing. The equipment did not operate very well because of its being obsolete (a IBM Pro Printer XL).

November 92 - April 93

We received Proquest v. 2.5, 2.42, 4.00 and 4.1 and the disks. The software greatly improved the use of the data base which benefited users. The workstation was set up in the Reference Area, open to users 13 hours daily from Monday to Friday and 7 hours every Saturday.

We still have one workstation and customers used the equipment in turns.

Average time of use was 45 minutes per search. Users saved their searches on a diskette which they could take with them.

During this period we noticed that document delivery was still slow and as we only obtained 64% of the articles requested, we started thinking of looking for a second institution as another article supplier.

May - July 93

As we had obtained other CD's in 1992, some of them donated by their publishers, we decided to assess them all in terms of use. We confirmed that ABI Inform continues to be the most useful reference tool for our users.

From 1100 articles retrieved from ABI, ESAN had 39% (431 articles) and we requested 61% (669) (see graph in Appendix).

From 1000 articles retrieved from ABI, ESAN had 38% (376 articles) and we requested 62% (624) (see graph in Appendix).

### **Comments**

The report of this project aims to be a testimony not only of the faith and effort of a group of institutions to develop a joint venture, but also to demonstrate the usefulness of a CD-ROM Date Base of research and teaching purposes in a business school in a developing country.

ESAN is still the only institution in Peru that has ABI-Inform Data Base. We still subscribe to the Research Edition for 1994 and we are sure that it should have a more intensive use.

Access to this reference tool has had a great significance on the introduction of new technology and has encouraged institutional support for other projects such as the automation of our bibliographic data base (1963-1993), now included in ESAN's LAN and, what is more, it has been a open door to information at an international level.

To assess the usefulness of ABI, we first designed a questionnaire which not many users answered. Therefore we decided to conduct interviews with different kinds of customers: students, faculty and external users, allowing them to evaluate the

accessibility to this data base. In all cases we found 100% acceptance and satisfaction.

Although we have only requested 669 articles so far, we feel that ABI has been exploited effectively since we have a good number of articles in our collection. In total we have received almost 3,303 photocopies from PSU.

As an immediate result of having ABI-Inform there were innumerable requests for the original documents referred to in the data base. Most of the sources were not at our Center, therefore PSU support was very important.

All this time we have been using our own periodicals collection, collections from other libraries in the country and from PSU Library. The documents supplied are classified and well used. The benefits for customers have been faster and more sophisticated searchers, and the inexistent barriers to obtain the documents.

The impact on the staff, was an increased workload and the provision of permanent assistance to users. Staff members were very well motivated since they were the first users group.

Good results and the use of new technology have changed the structure of our information services.

### **The Last Year of the Project**

During 1993 we extended the use of ABI to other groups of customers. For that purpose we signed agreements with our library network. The material we could not obtain from PSU or local libraries were requested through other sources, in which case customers paid for the service.

Since access on line is too expensive, CD's offer the best solution to the information gap in developing countries. Therefore we thought that this experience had to be made known, particularly to colleges and other institutions. In order to achieve this, we organized several meetings with potential users. Results have to be measured in 1994.

The graphs in the appendix illustrate the use of ABI - Inform from June 91 to December 1993.

### **Conclusion**

When the pilot project was set up in 1991, our Center had scarce resources. On 1993 we had:

- A CD-ROM Workstation
- Several Personal Computer based bibliographic workstations
- Access to wider data bases
- A Telefax machine Sanyo Sanfax 100
- A Mail Box in Miami
- A LAN
- A telematic network
- Access to Internet

And in synthesis, a promising future for our information services, but the most important thing: we have changed their structure.

ABI - Inform in ESAN/CENDOC has been the key event of the past three years, it is a successful project that will also enable Information Services to open a new retrieval and re-packing services for our faculty members and business community customers. Those services showed provide useful information and save their time.

For 1994, we will be using a computer faxcard, improving our printing resources and having more alternatives to obtain the material we need, through other academic contacts and accessing Internet.

We have to expand our workstation number or optimize the use of ESAN's LAN keeping CDs in a remote server.

This network will allow for a longer number of users, lessen problems of security and it will solve the problem of having just one workstation.

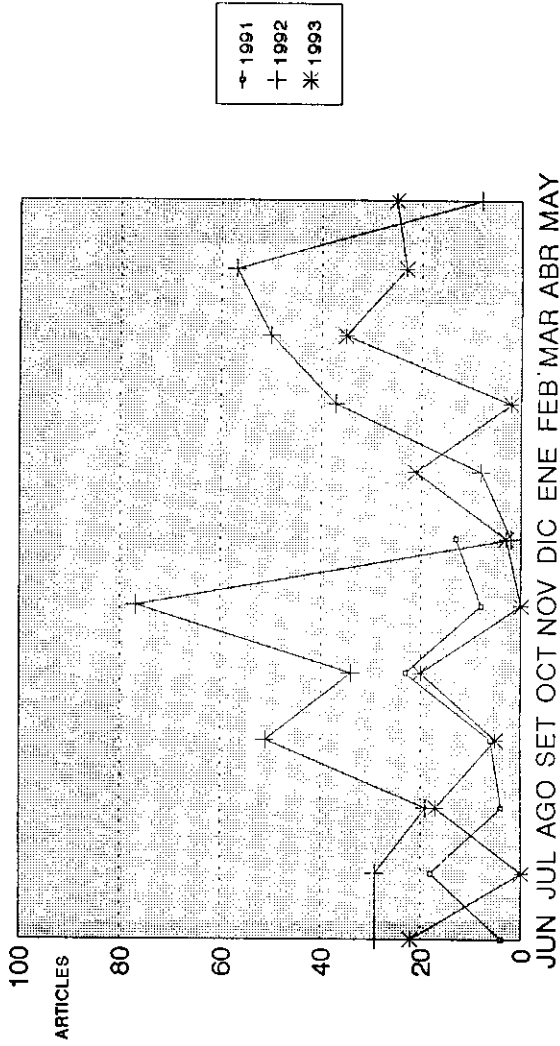
A less tangible but no less significant, important achievement was involving library staff in a new challenge, opening doors to large resources and contributing to an expanded and more visible service.

The implementation of the project remained an important impulse of automation for long a critical element in ESAN/CENDOC operations, and the opportunity of having other products and services presented to a large group of colleges in the country.

Isabel Olivera R.  
Escuela de Administración de Negocios para  
Graduados  
Casilla Postal 1846  
Lima 100 Peru

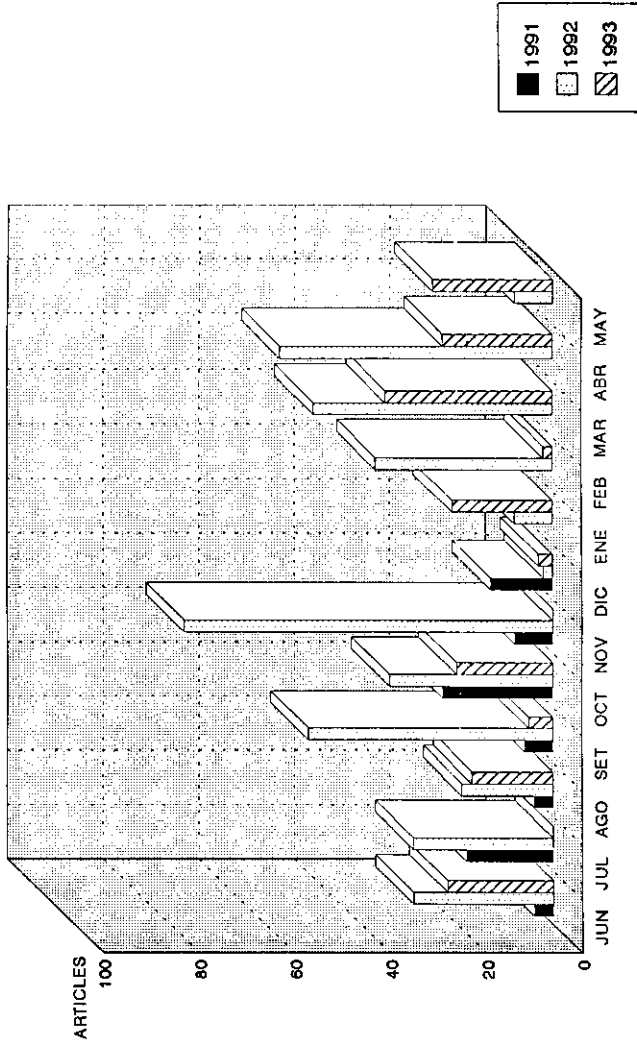
# ARTICLES REQUESTED FROM PENNSTATE

June 1991 to December 93



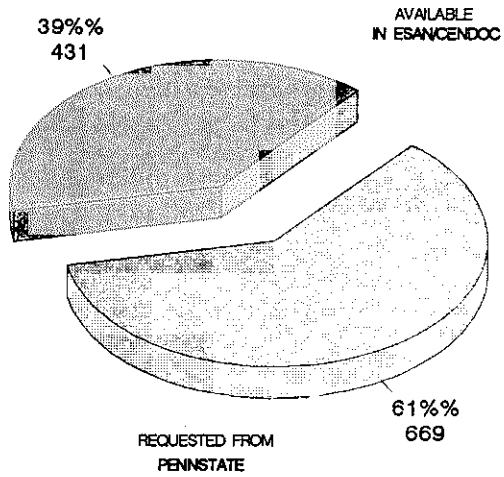
DIPE-SII/MLP/GRAF/4/5.2.94

# ARTICLES REQUESTED FROM PENNSTATE June 1991 to December 93



DIPE-SII/MLP/GRAF4/5-2-94

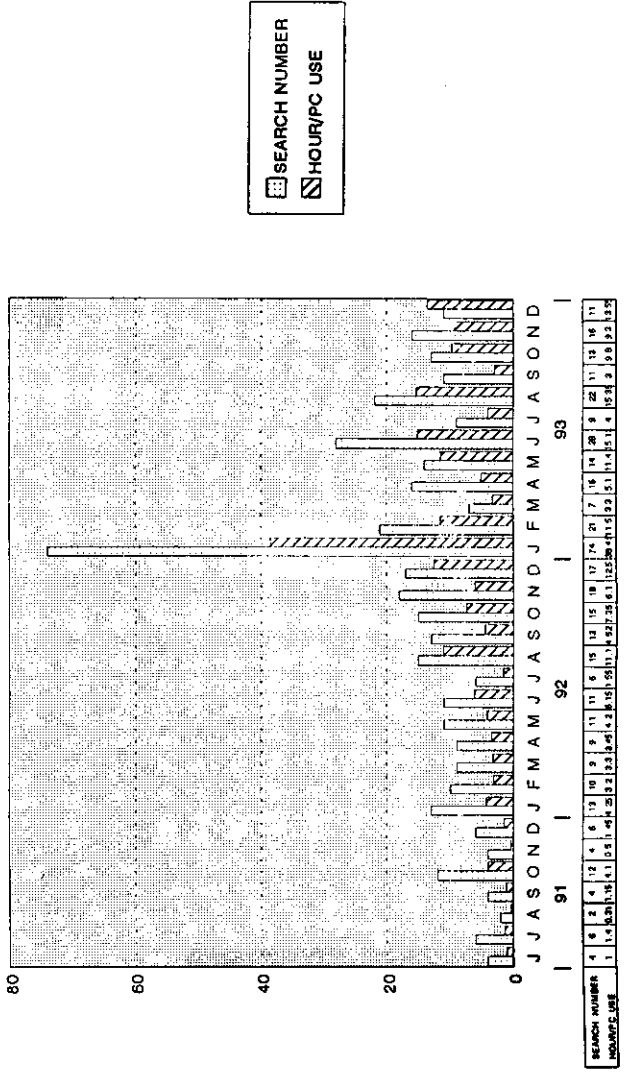
1100 ABI/INFORM ARTICLES RETRIVED  
June 1991 to December 1993



DIPE-SII/G2/5-4-94

# CD-ROM ABI/INFORM SEARCHES

JUNE 91 - DECEMBER 93



DIPE-SII/GRAF11/5-4-94