CD-ROM DATABASES: WHERE WE ARE

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INTRODUCTION

WHY CD-ROM?

One CD-ROM stores the same amount of data as:

- 275,000 pages of text
- 1,500 5 1/4" floppy disks
- 1,200 microfiche
- 46 days of data transmission at 1200 baud
- 10 standard 9-track magnetic tapes

CD Romes for information and data storage were first demonstrated in 1984 and were available for purchase in 1985. The timing of the entry of this technology onto the market was exactly right. Personal Computer use was becoming widespread and low cost ways were being sought to store large volumes of data which could be distributed to many users. When the Population Information Program conducted training at sites they found CD-Rom players already in place in every situation from large research institutions in Delhi to small family planning clinics in Thailand (Anon).

The advantages of CD-Rom storage of information to both developed and developing countries are numerous. The primary advantage is access to information formerly not easily available. It is impossible for many libraries to acquire all the literature published in hard copy. Full-text and large bibliographic sets on CD-Rom may be a cost-effective, compact way to obtain much information for these libraries.

There is also an advantage for countries where expensive and/or unreliable telecommunications limit accessibility to online database searching. CD-ROM databases are a dependable way of accessing information. In countries with poor
economic conditions the costs of using CD-ROM searching are know versus the fluctuating costs of online searching.

For these reasons many agencies, such as FAO and the Technical Center for Agriculture and Rural Cooperation of the Netherlands, have invested in developing CD-ROM databases and providing CD-ROM technology in developing countries. For the same reasons agencies in developed countries are developing CD-ROM databases.

THE CURRENT SITUATION

Europe

Patrick Gibbons of Pergamon Compact solution estimates that Europe is 18 months behind the united States in implementation of CD-ROM technology (Nelson, 1990a). In 1987 it was estimated that only 10% of the libraries were using CD-ROM. Sixty percent of those not using CD-ROM thought it too expensive for consideration. In 1988 there were 25,200 CD-Rom workstations in place and it is estimated that by 1992 that will rise to 284,000 (Rosen).

In 1988 there were no CD-ROM databasesproduced in France. By the end of 1989, 14 had been developed. European governments and The European Community (EC) are involved with development of CD-Rom products. The EC backs projects involving two or three countries and prefers that one of the countries be a developing country. (Motley, 1989a).

This trend is mirrored throughout Europe, with Italy taking the lead with over 40% of all CD-ROMs installed in Europe being in Italy (Nelson, 1990b). This is not surprising considering the telecommunications difficulties in Italy. A regional science library catalog has been developed in Milan. In the United Kingdom, the Adonis project of the British National Library will provide full-text of 200+ medical journals on CD-ROM (Motley, 1989b). It will be installed in an 240 disk jukebox. The National catalogs of Belgium, France, Germany and the United Kingdom are being issued on CD-ROM. In Sweden, BTJ, a private company, plans to install 1,700 CDs in 1990 to proved access to library catalogs (Hardy).

Scandinavia

All of the Scandinavian countries are involved with CD-ROM production, except Iceland, which uses the technology but has not yet produced any CD-ROMs (Heimburger). Currently most products are reference works such as maps, census data, dictionaries, etc. There is much cooperative work and testing going on in these countries. The Karolinska Institute Library is one of the test sites for the
ADONIS project. In Finland the Finnish CD-ROM Support group has been formed to promote the use and applications of CD-ROMs in Finland.

Asia

China introduced CD-ROM technology in 1987. Cambridge Scientific Abstracts sent two specialists to help with the installation and testing of two databases, *Aquatic Sciences and Fisheries Abstracts* (ASFA) and *Life Sciences* at the Scientific and Technical Information Institute of Oceanography. In the next two years over 20 universities installed CD-ROM systems (Yan & Lin).

Despite China's early entry into the CD-ROM field, a survey in 1989 of 30 members of an AIT training class representing 10 Asian and four African countries showed none had used CD-ROMs and 42% were not even aware of the technology! In addition, 80% had no training in online searching. However, most libraries in China at that time had PCs (Pagell).

Japan has had CD-ROM products available since 1985, when the *Technical Dictionary/CD* was introduced. By 1987 four products, including *Japanese Men of Science/CD* were being produced (Miura). Japan has had to overcome the obstacle of a large number of mainframe databases which are incompatible with the IBM software currently used in most CD-ROM databases (Motley, 1989a).

Third World

The main advantages of CD-ROM databases to Third World countries is that they eliminate the need for to use the often unreliable telecommunications systems and can be reasonably produced and distributed. Many libraries in developing countries lack basic core collections (All). CD-Roms may offer a solution to this problem also. Full-text collections can be easily assembled on CD-ROM. There is an a movement to distribute CD-ROM databases to the Third World. Several projects are being developed. Cornell University, Mann Library, is identifying significant works in agriculture (Olsen). It is currently planned to issue this as full-text database including books and journals, with UMI doing the CD-ROM development and marketing.

The number of PCs installed in developing countries is increasing (Olsen). Along with this products are being developed specifically for developing countries. *Food Agriculture and Science* is an example. The accompanying aids for this Agricultural library are produced in English, French and Spanish. It is currently being provided free to developing countries and is available for purchase to others (Motley 1989b).

Canada

In 1988, when a survey was conducted by the CD-ROM Interest Group, it
was relatively new. Only 25% of the 376 libraries surveyed had CD-ROMs, but most of the 87.1%) had their systems for more than 18 months. One interested finding in that study was the CD-ROM systems 'sold themselves' and the amount of publicity and training given to them was not critical to their success (Fox). This study will be updated in 1990.

The Canadian government is also becoming involved in the production of CD-ROMs. The Canadian Centre for Occupational Health and Safety was one of the early producers of CD-ROM databases (Aboytungs). Waves, a fisheries and aquatic sciences bibliographic database will be released this year. Early in the conference we heard from Audrey Conroy on the ways that standards were established for this database.

Australia and New Zealand

Australia and New Zealand traditionally have been quick to adopt new technologies. CD-Rom is no exception. Currently there are few titles produced locally in New Zealand. However, recently the Ministry of Trade has become interested in producing a CD-ROM product. This may be the beginnings of a move for the government to start issuing CD-ROMs. In Australia, the government has become involved in producing CD-ROM databases for internal use and several commercial publishers are producing discs of local interest. In the past several years over 1,200 CD-ROM drives have been sold in Australia (Traub).

FUTURE NEEDS

The majority of CD-ROM products are being produced in the United States. It is essential that librarians become involved with the development of new products and the revision of existing products. Librarians have an expertise in searching and a knowledge of the information needs of the users, both in the United States and, through meetings such as this, in other countries.

For CD-Roms to become widely used in the future there are several needs that must be met. Among these needs are:

1. Easy to learn Interfaces. Currently the plethora of types of software used for searching can be confusing to experience searchers. In order for databases to be usable in countries with various languages and levels of computer knowledge, the searching software must be easily understood.

2. Trouble-free installation. An entire specialty seems to be developing--that of installing CD-ROM software and getting it to run. We need to develop software that can be loaded by someone with little or no computer training.
3. Standards that foster low-cost, transportable products. For this medium to be effective it must be affordable to all nations, and easily used across languages and by information professionals with varying levels of training and computer literacy.

Because the United State government is a major producer of CD-ROMS and because our requests to people in Europe, Asia and Australia to present brought no response, today we'll be looking at CD-ROM databases in the United States.

REFERENCES


