Recent Technological Trends in Serials Publishing:

The Impact of New Technology on Libraries

Dan Tonkery

Paper presented at the UK Serials Group Annual Conference, Leeds, March 28-31, 1988.

The modern library in today's high technology society is faced with many options in building and maintaining the collection. The selection process has become more difficult as libraries are faced with continued increased output from the publishers, while at the same time library budgets are not able to keep up with the demands of their students and faculty. We are faced with limited funding for acquisitions; therefore, one must carefully determine what is needed in the library in print form, in microform, and in electronic form including both online and some of the new technology-based products such as information products on CD-ROM.

The users demand for fast and comprehensive information requires that the library look to many of the non traditional sources of information. In this paper I shall look at the technological trends in serials publishing which offer practical alternatives for the public service staff and review some of the benefits from using technology to reduce the processing cost of periodical management.

Perhaps the most significant technological achievement of this century has been the development of the personal computer. The power and flexibility provided to an individual locally opens the door to many different applications. One recent achievement that has captured the interest of the publishing industry is the development of CD-ROM technology, a technology that was first applied to the music and entertainment industry which offers a mass storage device that can be connected to the personal computer for local control and usage.

The CD-ROM or Compact Disc Read Only Memory device is a laser driven device that represents the marriage of many different technologies. When connected to a personal computer, one has an unsurpassed potential for a large low cost information system. With a storage capacity of 600 million bytes of data on one disc and the power of the personal computer, a publisher can distribute the equivalent of 200,000 pages of information or 1,200 microfiche. To put the storage potential in context, if one were transmitting information at 1200 baud down a telephone line it would take 46 days to transmit one CD-ROM disc.

The CD-ROM system offers the publisher a new medium on which to develop products. It offers high capacity and low cost, easy distribution to the customer, rapid random access to the full 600 megabytes of data, and a standard interface to the personal computer. Publishers have begun to repackage existing published products, to develop new information services, and to replace existing products. The potential for library type information products is almost unlimited.

Some of the CD-ROM applications that are in the marketplace are in database distribution, software distribution, periodical publishing, legal information publishing, and in image publishing. Some of the common library type products include local online catalogues, the full Library of Congress MARC database, many abstracting and indexing tools such as *Medline* on disc, *ERIC*, *Dissertation Abstracts*, and many of the H.W. Wilson's publications.

In order to take advantage of the new technology, the library purchases the CD-ROM system from a publisher or database supplier. The system includes the CD-ROM player, specialized retrieval software, an operating manual and the database on one or more disks. The library usually supplies the personal computer. An ideal computer system would be the IBM AT or an AT class of machine from a close manufacturer with 30 or 40 megabytes of storage. The CD-ROM player comes with a card that is easily inserted into the personal computer and a cable for making the final connection. The card usually will

Dan Tonkery *is Chief Executive Officer of Readmore Publications Inc., New York.*

support up to four CD-ROM players which is like having 2.5 gigabytes at your command.

For example, the entire Library of Congress MARC data and associated indexes could be resident on your local computer for catalogue card production. The Library Corporation from Washington, DC., markets such a system that is used for cataloguing and catalogue card production by over 1,000 libraries throughout the world. The cost for the entire Library of Congress MARC database and one player is less than $3,000 U.S. Dollars.

On this same equipment one can play other CD-ROM discs from other publishers for other products such as any of those from H.W. Wilson (New York). Wilson has such titles as *Readers Guide to Periodical Literature, Humanities Index, Applied Science & Technology Index* as well as other discs for many of their printed indexes. Most of the products that are available will play on the popular CD-ROM players such as those manufactured by Philips, Sony and Hitachi.

Each database that is available comes with specialized search and retrieval software that is unique to the publisher or may be database specific. At the present time there is no one retrieval software that is used by each of the publishers or systems providers. In purchasing different systems for the public access or reference use, one must remember that each database is different and they may require specialized training.

The other major CD-ROM database applications for libraries are serials publications such as directories, and abstracting/indexing tools that are available in print and have now been repackaged such as *Medline* which is the electronic form of *Index Medicus*. The majority of CD-ROM applications for libraries are available in the business, medical, and scientific areas. A library can reduce the complex online searching and the high telecommunications cost by subscribing to such databases as *Medline, ERIC, Books in Print, PsycLit, Dissertation Abstracts, Newspaper Abstracts, ABI/INFORM* and many others from companies such as Silver Platter, Bowker, and UMI.

The conversion or repackaging of the major indexing and abstracting services to the CD-ROM format is well underway in many countries especially in the fields of science, technology, and medicine. The reference room or public service staff will soon see a new wave of information products such as replacements for many directories, dictionaries, standard reference works, and many of the traditional abstracting and indexing tools will be offered in CD-ROM format. CD-ROM technology as applied to serials publishing is a major technological advance.

The next advance that is already under development will combine both text and graphics with sound. Already there are demonstrations of adding sound to CD-ROM products. The next generation of products will be based on the CD-I standard which stands for Compact Disc Interactive. Added sound, motion, and high quality graphics will certainly add a new dimension to the public service offered in our libraries.

At this time I would like to offer some thought concerning the impact on our libraries of this new technology. From my comments you may have already been thinking of some of the challenges facing us in the coming years. For example, the library will require more space in the public access area that is reserved for a personal computer environment. The library should have many personal computers for the users and that will require some form of work station with computer, CD-ROM player, and printer. A laboratory space with some supervision will be required. Many libraries should be planning on remodeling their reading rooms to accommodate this.

In addition to the space considerations, there is a requirement for staff to work and support this equipment. Staff to service this type of material are different to those required to pull material for binding of serials.

The library will require new skills for their staff to handle the personal computer and new information products. There must be a shifting of resources from our traditional printed products to pay for this material. Library budgets are already overtaxed and find it difficult to maintain their collections. Some diversion of resources will be necessary to accommodate this new source of information. The gains are significant and worth the expenditure.

In addition to new formats and new products such as the CD-ROM, the library can take advantage of the technological advances made possible by the personal computer which can be used in the local library to reduce the labour cost involved in the processing of journals and periodicals. With the personal computer and special serials check-in software, a library can check-in and process an estimated 150 journal

issues an hour, thus eliminating most of the manual posting, claiming and routing functions that are often associated with periodical or serials processing. Orders and claims for missing items can be sent electronically to the serials vendor thus saving valuable time. Readmore offers their REMO system which is a microcomputer-based serials processing system as one of the examples of using technology to reduce the staff time in processing journals.

In conclusion, new technology is influencing the way publishers distribute information and the way libraries process material in the library. These improved services offer significant benefits to our students, researchers, faculty, and other library users. We as librarians should accept the challenge to provide the best service possible to our clientele. The publishing community is providing a new and challenging product. It is up to us as librarians to use our creativity and energy to effectively utilize this opportunity.

Well, I'll be bound!

Bound to keep the shelves tidy
– With journals collectively bound for easier shelving and use.

Bound to save space
– Due to removal of unwanted advertisement pages.

Bound to improve indexing
– By the inclusion of contents and index pages in each volume.

Bound to prolong life
– When protected from damage by quality covers and bindings.

Bound to give a good impression
– Many colours and styles available to suit individual needs, or to match already bound volumes.

Bound to save money
– Compared with the total cost of most publishers bound edition services.

Dunn & Wilson and B. Riley & Co. both offer the same excellent standard of workmanship with free collection and delivery and a four week service. Contact your nearest office for details using the coupon below, (or a photocopy if you want to keep your journal intact).

DUNN & WILSON
Bellevue Bindery, Glasgow Road, Camelon, Falkirk FK1 4HP.
Telephone: (0324) 21591.

B Riley & Co Ltd
Red Doles Lane, Leeds Road, Huddersfield HD2 1YE.
Telephone: (0484) 534323.

London Office,
Pegasus House, 116-120 Golden Lane, London EC1Y 0UD. Tel: 01-251 2551.

Please send me more details of your binding services

NAME: _____

TITLE/POSITION: _____

LIBRARY: _____

ADDRESS: _____