

ASIDIC newsletter

No. 52, Spring 1986

ASSOCIATION OF INFORMATION AND DISSEMINATION CENTERS

Spring Meeting Features Optical Disk Technology Changes to ASIDIC Constitution and By-Laws Approved

The Spring, 1986 ASIDIC meeting was held at the La Posada de Albuquerque Hotel, Albuquerque, NM, on March 23-25, 1986. It was an extremely successful meeting from all viewpoints: technical program, local arrangements, and attendance. The first morning's program featured speakers producing or developing databases on optical disks, CD-ROM's, etc.; the second day saw three users discussing their experiences with databases on optical disks. In a new departure for ASIDIC, a small exhibit area was set up, and vendors of optical disk products demonstrated their products. Program Chair was Jim Terragno (Pergamon Info-Line); the meeting concluded with a unanimous vote of thanks to him and the Program Committee for such a enjoyable, stimulating, and interesting meeting. A summary of the meeting presentations appears in this Newsletter.

Attendance was about 115; the Spring meeting thus surpassed the highly successful Fall 1985 Meeting in Boston. Attendees enjoyed a wide range of activities outside the meeting: hot air balloon rides, tours to Santa Fe, and a Mexican buffet dinner. Local hosts were Marjorie Hlava, ASIDIC President, and the Access Innovations staff; everything was done to ensure the comfort and enjoyment of the attendees.

Committee Reports

Finance: Income from the Boston meeting was over \$3,000, adding to ASIDIC's good financial position. Members are urged to pay their annual dues as early in the year as possible to maximize the interest earned on them. A Certificate of Deposit owned by ASIDIC has just been renewed.

Membership: ASIDIC now has 119 members. New members since the last Newsletter are listed below. Dave Grossman has resigned as Chair of the Membership Committee and has been replaced by Gloria Moline (Engineering Information).

Executive: A series of joint marketing seminars with NFAIS is being investigated. A guide for those who need to plan ASIDIC meetings is under development by Dan Wilde, Dave Grooms, and Marjorie Hlava. The Executive Committee would like to produce a brochure about ASIDIC. Anyone who has ideas should send them to Dan Wilde.

By-Laws Changed

The ASIDIC Constitution and By-Laws were changed and approved by the Membership; revised copies have been distributed. Some further changes are necessary; they will be presented and voted on at a future meeting.

Fall Meeting

The Fall 1986 meeting will be held at the Doral Hotel in New York City. Local host is Cathy Ferrere of IEEE. The topic will be "Beyond Online Retrieval: Value-Added Postprocessing." Speakers at the meeting will discuss such topics as what happens to search results after they are obtained on the terminal and how they can be processed into a form suitable for the client. Merging of commercially available output with that from in-house databases will also be covered.

Future Meetings

The Spring 1987 meeting will be at the Royal Sonesta Hotel, New Orleans, LA on April 4-6, 1987. The Fall 1987 meeting will be in Newport, RI, and the Spring 1988 meeting will be in San Antonio, TX.

President's Column

by Marjorie Hlava

The Albuquerque meeting is complete, and the membership has once again exceeded its own high expectations in the group. The papers presented, coupled with the exhibits of working optical technology, gave those present a good insight into the strengths and weaknesses of the technology and the market. My thanks to Jim Terragno of Pergamon Info-Line and his committee for an excellent program!

The program for the New York meeting is shaping up quickly under the guidance of Cathy Ferrere of IEEE. The topic "Beyond Online Retrieval: Value-Added Postprocessing" will cover what happens to the information gathered from online searches after it is taken off the terminal and before it is useful to the end user or client.

The Executive Committee met during the Albuquerque meeting (see summary above). The organization has a good financial standing. The Bylaws and Constitution are partially amended to reflect changes in our operating procedures over the last few years. The Planning Committee will be recommending final changes before the next meeting. We have formed an ad hoc committee to produce a guide for local hosts and program chairs. If you have any thoughts or suggestions, please send them to David Grooms.

I would like to thank two individuals in particular for their thoughtful help to ASIDIC. The continuation of smooth functioning year in and year out is due partially to our Secretariat, Jeanette Webb. The new dots on badges to identify first-time attendees and new members were very effective in Albuquerque. Thanks, Jeanette! Our Newsletter Editor, Don Hawkins, diligently gathers information and publishes this communication device like clockwork. We all

anticipate its arrival and appreciate this work. Thanks, Don!

See you in New York!

Book Reviews
by Helen Citron

ELECTRONIC PUBLISHING PLUS, Martin Greenberger (Ed.), White Plains, NY, Knowledge Industry, 1985.

This is the third book to come from the activities of the Washington Program. Others have dealt with the aftermath of the AT&T divestiture and some of the political implications of the new communications technologies. Now in various stages are manuscripts dealing with the wired cities phenomenon, economics of regulated telecommunications, the changing role of state regulatory agencies in the telephone field, and the way in which new technology drives communications policies.

The current activity has implications going well beyond the information and entertainment customarily associated with the media. The term "publishing" is too narrow in context to convey the full meaning of what is taking place. Therefore, throughout this book the term used, 'electronic publishing plus', includes not only the operations familiar to traditional publishing and broadcasting, but also the software, transactions and communications functions sprouting up throughout the new industry. It is suspected the "plus" may be the tail that wags the dog in future developments.

The book is divided into two parts of three sections each. Part I on the economics of electronic publishing plus treats first the consumer or demand side of the equation; second, the emerging industry; and third, the supplier side of the equation. Part II on matters of infrastructure deals successively with the questions of copyright, public regulatory issues and the meaning for the public interest and for the pivotal institutions of society.

SELECTIVITY IN INFORMATION SYSTEMS: Survival of the Fittest, Kenneth S. Warren (Ed.), New York, Praeger, 1985.

Recently a mathematical model of information transfer as a complex, interactive, cyclical ecological system has been developed. This book deals with many facets of that system. In this collection of essays, Warren describes the ecosystem of scientific communication. Larkin writes of the evolutionary limitation on man's capacity to deal with information overload and with the intersection of human capabilities with computer capabilities. Cole takes us to the beginning of the research system in the presumably competitive application for grants, and Bailer takes us to the end of the process in the presumably competitive process of publication. It appears that we cannot complacently sit back and assume that either of these processes are working optimally. Small discusses the crucial capacity of a small proportion of papers to survive over time, and Mosteller gives us some of the design and analytic aspects related to quality. Goffman provides several methods by which to establish quality journal collections; Bruer illustrates

the process of searching for quality information in a specific literature. Bleich describes an easily usable computer system for bibliographic retrieval which is highly selective. Stam concludes with the clear revelation that a high degree of selectivity functions at all levels of our system, including the preservation of large numbers of deteriorating books and journals.

New Members

ASIDIC welcomes the following new members:

Business Research Corporation
1660 Soldiers Field Rd.
Boston, MA 02135
Mr. Dana Ellingen

Aid Association for Lutherans
4321 N. Ballard Rd.
Appleton, WI 54919
Mr. Timothy J. Klaver

INPADOC
P. O. Box 163
Mollwaldplatz 4
Vienna, Austria
Mr. Gustav Rubitschka

Rand McNally Infomap
8255 N. Central Park
Skokie, IL 60076
Mr. David Grossman

Harker's Information Retrieval System
74 Glebe Point Rd.
Glebe, NSW 2037
Australia
Mr. James Harker-Mortlock

Telebase Systems Inc.
134 N. Narberth Ave.
Narberth, PA 19072
Ms. Lynne Neufeld

US Olympic Committee
Sports Medicine and Science Information Center
1750 E. Boulder St.
Colorado Springs, CO 80909
Ms. Mary Margaret Newson

Association for Information and Image Management
1100 Wayne Ave., Suite 1100
Silver Spring, MD 20910
Ms. Bettie A. Steiger

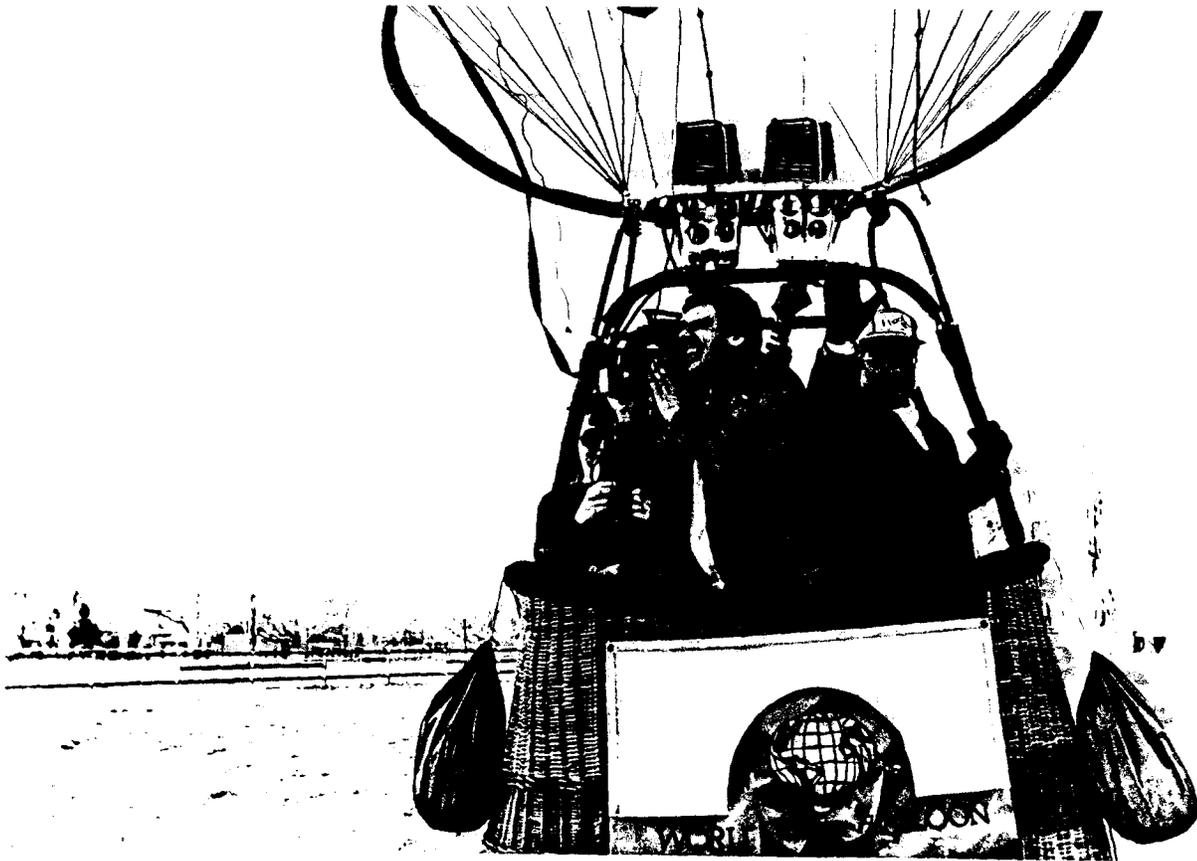
Arctic Institute of North America
University of Calgary
Calgary, Alberta T2N 1N4
Canada
Mr. C. Ross Goodwin

ASIDIC Picture Story

In this Newsletter, we are pleased to bring you another first-- pictures! Thanks to Barbara Auld for those from the Boston meeting, and to Tom Hogan for those of the intrepid balloonists in Albuquerque. (Contributions of pictures for future Newsletters are welcome.)



A jubilant lobster-eating team celebrates after their feast at the Fall 1985 meeting in Boston. Left to right are Dennis Auld (Data Courier), Taissa Kusma (American Mathematical Society), Marjorie Hlava (Access Innovations), David Grooms (Patent & Trademark Office), and Lois Granick (PsycINFO).



Liftoff! Balloonists in Albuquerque embark on an early morning flight. Left to right are Taissa Kusma (American Mathematical Society), Robert Moers (North American Philips Corp.), and Dan Wilde (NERAC).

SPRING MEETING SUMMARY

Morris Goldstein, Information Access Corp.

In 1982, Information Access Corp. (IAC) was in the microfilm business; that repairs and maintenance on readers were consuming too many resources. Alternatives were (1) replace the machines, (2) analyze and correct the repair problem, or (3) investigate new technology. IAC's philosophy was that the user should not worry about the technology or the medium for presenting the information, so they began to study the microfilm market and built a prototype laser system using a TRS-80 microcomputer, laser data storage, BRS's search software, and a satellite dish. The system was demonstrated at the ALA Conference in 1984 and then abandoned because the hardware costs were too high for the market.

IAC's study of the microfilm market found that the readers had low initial cost and required no user training. Users liked the scrolling features and cross references. Libraries liked the fixed cost (not usage-based) and the LC subject headings. Although the microfilm technology provided a good approach to information dissemination, only one user could use a reel at a time, there was no way to charge usage back to users, and there was no way to make hard copies of the data.

IAC also produces online databases; the positive aspects of them are that prints are easily made, crossfile searching is possible, and Boolean logic allows more powerful searches. The downside of online is that charging is usage-based, making it hard for libraries to estimate their costs, substantial training is required, simple errors can lead to disastrous results, the per search cost is high, and the database requires a costly inverted file. IAC therefore moved to an optical system, InfoTrac, which allows four workstations per disk player and is composed completely of off-the-shelf components. The system is sold as a package with maintenance, hardware, and software.

The InfoTrac system contains three years worth of information from over 900 of the top journals from IAC's databases. It uses a thesaurus, LC subject headings, and needs no inverted file. Scrolling is available, but Boolean logic is not because development would have taken a long time. Enhancements to InfoTrac include eight more databases, an automatic dialup facility to IAC's online databases, and the full text of such publications as the *Wall Street Journal*.

Results of initial trials of InfoTrac were overwhelmingly positive, especially in academic libraries. The trials showed that the information is the market; customers do not own the hardware and are usually unaware of the technology used. IAC is therefore able to change it as needed. An installation with standard IBM PC's, a four-terminal system, printer, and all supporting hardware costs \$16,000 for a year's subscription. Most academic libraries have this configuration. IAC has found that their document sales are growing because of InfoTrac.

IAC decided to use 12 inch disks rather than CD's because they did not want to wait for a CD installed base, they could get 7 day turnaround on production of the larger disks, and the 12" disks have larger capacity. They provide a locked cabinet for the hardware, plus security devices to prevent loss of the PC. Tests of InfoTrac are underway in corporate libraries.

Conclusions learned so far from the InfoTrac experience are:

- Optical disks will not replace online searching.
- It is important to understand markets and not overwhelm users with technology.
- In non-technical subjects, over 50% of the searches needed can be done on InfoTrac directly by end users.

Al Langer, Prentice Hall Information Network

Prentice-Hall maintains the PHINet database which delivers Federal tax information to tax professionals. It contains the full text of Federal tax regulations and can be accessed through Tymnet by any PC or terminal. Prentice-Hall was attracted to CD-ROM's as a medium for the PHINet database because:

- New technology has an appeal.
- The data are right for optical disks. They consist of large history files updated regularly. The files are structured and indexed, but are not changed between updates.
- There was a demand to search the historical file.
- The data is of high quality.
- Updates and current information are easily maintained online. Prentice-Hall therefore approached Reference Technology, Inc. to prepare the CD version of the database. They wanted every PHINet command to be available on the CD as well as all the searchable fields available in the online version. Since the disks were nearly filled by the database and since errors cannot be corrected on them, the searching software was placed on floppy disks.

The database was priced at \$2000-3000 for five years of data on a CD. Users can purchase a package containing the hardware if they wish, or they can use their own hardware. The advantages of this approach were:

- There is a fixed charge for information on the CD; the software is priced separately.
- The customer has the option to purchase updates.
- There is no fear of high connect time charges.

Prentice-Hall found that new customers were attracted to the CD technology, providing a new source of revenue. Some current

customers have also purchased the database on CD's, so their total income has grown. They plan to continue offering both the online and CD version of PHINet.

Fran Spigai, Database Services.

Databases can be produced on floppy disks as well as optical disks. A subset of *Microcomputer Index* was first offered on floppies at the Online '84 conference, using the KAWare search software. KAWare provides the following features in database production:

- Data can be compressed or encrypted.
- It has simple menus, scrolling, and Boolean logic.
- It is an integrated production system.
- Customized postprocessing (mailing labels, forms, etc.) is available.
- The database can be migrated later to a hard disk or CD-ROM.

Databases to be put on a floppy should be contained on two disks at most. They should be complete and updated no more frequently than monthly.

Advantages of floppy disk distribution of databases are:

- Production techniques are quick, standard, and cheap.
- MS-DOS is a *de-facto* operating system for many PC's, so the database will have wide appeal.
- It is easy to track sales and revenues.
- Stepping up to CD-ROM is easy. Floppies can be used in addition to CD's to reach a larger market.
- Floppies have fast physical disk access.

Producers and vendors contemplating putting databases on disks or marketing them should consider the following issues:

- Should the system be divided between a disk and online system. What should the system design be? How should the system be priced to avoid unwanted migration? What new opportunities for hybrid systems exist?
- Should optical disks be sold without the players?
- What value does the CD add to the product? How price-sensitive is the market? What is the cost of going to a CD? Can new markets be found for this new medium? What will CD's do to online markets? How can one compete and move quickly in the marketplace?

- What customer support is needed? Who will provide it?
- What standards will there be? Which should be used? Where will the new CD-I standard fit in?
- Library issues are: How can system use be charged back to users? What are the space considerations? How will queueing be handled? What is the copyright liability on a disk?

The market will only expand if new products or services enter it. New products include subsets of existing products, different value added products, or new pricing.

Bill Marovitz, BRS.

The CD-ROM position today resembles the Tower of Babel. There are no standards, it is difficult to get CD's produced regularly, and total confusion reigns. The position with online retrieval is mostly bibliographic databases searched through intermediaries, an arcane command structure, horizontal marketing, centralized databases, and no third party payment system. In the future we can expect to see:

- Searching by both intermediaries and end users.
- Integrated bibliographic and full-text databases (leading to increased file sizes).
- Online databases and hard-copy products existing contiguously.
- User friendly, less hostile software. Training might become less necessary if videotapes were produced, or audio cassettes for individual databases.
- Many sites of storage--hybrid systems. There is much unused PC capacity, but not much unused mainframe capacity. Archival databases on CD's will lower costs.
- Vertical storage targeted on key markets. CD's should be aimed at market niches.
- Some consolidation of larger hosts.
- Integration of online and local searching. End users should not have to care about the location of the database or the hardware.

Factors in the development of new marketplaces include new partners and joint ventures among data-rich organizations. There will have to be partial control of source data so that each organization's future is assured. New technology will bring in new customers and new sites.

BRS has operated in a hybrid searching mode for five years but has not brought any products to market. There is no technical problem in marketing products, but strong marketing and pricing problems remain. BRS could make CD's directly from subsets of the data they

have stored on their system. Players in this market are BRS, the CD-ROM production firms, database owners, sales agents, and integrated software producers. The final product could be a superfile on a subject combined on the same disk with the BRS search software which would retail for about \$10,000-\$20,000 per subscription (including quarterly updates). Reservations to this scenario all relate to marketing problems, not technical ones:

- What sets and subsets of databases will satisfy market needs?
- How will the absence of hardware, standards, and product offerings affect the market?
- How can BRS exploit the unused capacity of all the PC's on desks?
- How will data owners be compensated? How should the data be distributed? To what degree should the disks be charged for on an actuarial basis?

BRS is waiting and watching the market.

Roger Summit, Dialog Information Services.

Database producers and online services must consider not only the nature of optical media but also the complex marketing and business issues. The objective of CD-ROM is typically to increase long term profits for the information product. Whether it will do so is still unclear. Will CD-ROM attract new customers or will existing customers migrate to it? Will a substitute product result in substitute use? If so, will profits be higher? These and other questions are complex, interrelated, and unanswered at present.

The large number of online databases tends to favor continuing online use by intermediaries. End users engaged in varied or occasional projects often cannot predict the databases they need in advance. In contrast, intermediaries are much more likely to predict heavy use of CD-based databases. End user searching seems to be more suited to databases on CD's instead of online because there is no cost penalty for experimenting and learning through using the database once it has been purchased on a CD.

The following considerations can be used to help determine whether an information product better fits the new (CD) medium rather than the old (online) medium:

- Anticipated use. Purchase of a CD must be planned in advance; therefore, expected use must be heavy enough to justify the cost. Familiar products have greater appeal.
- Ready reference works. Reference materials are not ideally suited to online distribution because they are consulted frequently. CD's have no overhead associated with logging on, etc.; reference works are therefore attractive for the CD medium.

- Currency. With daily or even more frequent updating cycles, online information can be very current. CD's, in contrast, must be duplicated and physically delivered to the site where they are used. Updating costs are greater. Key items are often the most current; it is important that the searcher not miss them. Very current information, therefore, is not suitable for CD distribution unless it is augmented by an online database.
- Completeness. Searches often span several databases, but each CD typically contains only one database. It is not sensible to offer one database in CD format and others online.
- Database Size. Many popular databases are too large to fit on a single CD. It is not practical to divide a database among several CD's; these will have to be offered on larger disks, requiring several different types of hardware.

Online and CD databases each have unique strengths and weaknesses. A multimedia service should be able to take advantage of the strengths of both CD and online databases. Possibilities are:

- Local CD databases supplemented by the full complement of online databases from a major search service.
- A portion of a database or group of databases locally on CD's, with others remaining online. (Historical data could remain online with frequently consulted recent information on disk.)
- Heavily used databases on CD, lighter used ones online.
- Current information on CD, back issues online (or the reverse).

It appears that databases on CD's will cost less than those online. The hardware is owned by the user; large mainframes and telecommunications networks are no longer needed. CD's can be duplicated in quantity for \$10-\$15 each. Duplicating and selling CD subscriptions may be similar to selling books. However, mastering, and videotaping facilities are still needed to produce CD's; costs of these must be spread over the users. The size and elasticity of the CD market is not yet established. No one knows whether a large price reduction would bring a corresponding increase in information use and higher profits for producers.

What will happen to revenues when a fixed-priced CD version of a variably-priced online database is introduced? One likely effect will be that large volume users of the database will migrate to the CD version and save on connect time and royalty costs. Overall revenues from the database might therefore decline. If the disk is priced lower to attract smaller users, it will be a giveaway to large users; revenues will again decline. Online vendors are in the best position to analyze and make these pricing decisions.

What happens to outdated disks that are replaced by updated ones? There is the potential for a large secondary market developing.

Some database producers have not yet addressed this question.

Database producers must consider how to have their databases produced. There are many companies that could be termed "ROM Shops" offering to put information in CD format. These may not be the best choice for producers; online vendors may be better because they are in the position to work cooperatively to establish special products, help in marketing, aid in pricing decisions, etc. Online services may be able to offer a wider range of services than the ROM shops. They have a critical mass, extensive customer base, and well established customer support and training functions. A database producer offering a CD made in a ROM Shop may be without these functions; will customers be willing to do without them?

CD-ROM and other optical technologies are bringing the information industry to a new and interesting position. It is a time for careful strategic and product planning.

Donald Hawkins, AT&T Bell Laboratories

InfoTrac has been tested in the AT&T Bell Laboratories libraries at Murray Hill and Holmdel for several months. The system was easy to set up; everything was provided. Major setup problems were a tangle of wires at the back of the cabinet, a short cord on the monitor, and the inability to run the system on any PC other than an IBM.

Availability of InfoTrac was publicized by notices in local information bulletins, a picture in the *Bell Labs News*, signs in the library, and word of mouth. Users were asked to fill out a simple questionnaire after they had attempted to retrieve information. About 60 people responded during the first two months of the experiment.

Many users were extremely positive about InfoTrac; they found that it was fast and easy to use, and had a good user interface and screen design. The color-coded keys were also helpful. On the negative side, users were critical of the lack of technical information in the database, they uncovered several inconsistencies in indexing, and they strongly desired Boolean logic capability. They would have also liked to see a statement of coverage dates on the screen and would have liked to be able to scan and search a list of the journals in the database. Users at the Murray Hill location, where most of the basic research is done, found InfoTrac less useful than users at Holmdel, which is more development-oriented.

The experiment is continuing; it shows that InfoTrac is useful in a corporate setting, although addition of more technical information would greatly enhance the database. Many corporate users are used to online databases and systems and know Boolean logic; they would be heavy users of such a capability, which should be added to the system. The overall reaction to InfoTrac was positive; users liked the system, and little or no training was necessary.

Sandra Esquibel and Peggy Giltrow, New Mexico State Library.

The New Mexico State Library has experimented with two optical disk systems: Bibliofile and InfoTrac. Bibliofile contains MARC records; it was tried for a month by the librarians. They had a high hit rate on titles, but were disappointed by the lack of government reports. The system uses multiple disks; it would have been better if the information were contained on one or in a juke box arrangement. The librarians felt that Bibliofile is most useful in small public libraries that cannot afford to join OCLC or other networks.

InfoTrac was placed in the public reference area for 90 days. It was easy to use, and there were no equipment problems. Both end users and the staff were very excited about InfoTrac and enjoyed using it. The public was drawn to the system; as the word spread, people came into the library specifically to use it.

Users in this library would have also liked to see coverage dates displayed. They liked the printer (a HP Thinkjet) because it was fast and quiet. InfoTrac is very good for business and general information; it is not strong on the sciences. A few users commented on the lack of Boolean logic. The cross referencing facility stimulated creativity and helped broaden searches; it was more often used in this type of system than in a printed index.

Carol Hutchins, Indiana University.

InfoTrac was placed in the General Reference Department of the university library. A four-station configuration soon had to be expanded to eight because of heavy use. Publicity included a mailing to the faculty; the word soon spread, and users were extremely happy with the system. The large number of undergraduate users forced the library to establish a 15 minute limit on using the system to control queues. There were no negative comments from the library staff; they found the system very user-friendly. Boolean capability will be needed as the database grows. The system should let users know its limitations and its coverage.

The library has a severe lack of space; they are hoping that optical technology will ease it. Systems such as InfoTrac have great promise in the academic library setting; online systems suffer from slow response time, and usage-sensitive pricing. Front ends do not help this problem.

If the full text of journals were put on optical disks, many libraries would buy them. Heavily use scientific journals like *Physical Review* should be done first. Users need complete sets of journals.

Demonstrations

The following organizations demonstrated their products during the meeting:

- Knowledge Access
- Reference Technology
- Cambridge Scientific Abstracts
- SilverPlatter Information Group

Elsevier Science Publishers
North American Philips Corp.
Chemical Abstracts Service
Engineering Information
PsycINFO
Knowledge Set

Acknowledgements

The meeting closed with expressions of thanks and appreciation to Jim Terragno and the Program Committee for a stimulating and interesting technical program, and to the staff of Access Innovations, particularly Marjorie Hlava, Susan Reinke, and Sevie Taylor, for the superb accommodations.

I thank Roger Summit for making a copy of his talk available to me for the preparation of this newsletter.