

ASIDIC newsletter

No. 61, Fall 1990

ASSOCIATION OF INFORMATION AND DISSEMINATION CENTERS

Taissa Kusma Re-Elected ASIDIC President

Innovative Information Distribution Discussed At Fall Meeting

The historic city of Annapolis, MD was the setting for the Fall 1990 ASIDIC meeting. The technical program, entitled "Innovative Methods of Information Distribution," attracted some 70 attendees. Six speakers presented informative talks, which were followed by an exciting demonstration of a multimedia information application. Attendees then broke into small groups to continue discussion on the topics raised by the speakers. The technical program was coordinated and managed by Art Elias (BIOSIS); local arrangements were under the direction of Wally Finch (NTIS). At the conclusion of the meeting, both Art and Wally were given a resounding vote of thanks by attendees. As usual, summaries of the technical program appear in this Newsletter. The Monday evening activities included a Maryland crab feast at a waterfront hotel.

Elections

As usual at ASIDIC Fall Meetings, elections for officers were held. Two positions—President and Member-at-Large—were open, and both incumbents were eligible for reelection. The Nominating Committee, composed of Dennis Auld (PSYCIInfo), Bruce Keisel (BIOSIS), and Don Hawkins (AT&T), recommended that both incumbents be reelected, and their recommendation was unanimously accepted at the meeting. Taissa Kusma (American Mathematical Society) was reelected ASIDIC President, and Bill Bartenbach (Foundation Center) was reelected as Member-at-Large.

By-Laws Change

As reported previously, it has been recommended that the Secretary/Treasurer position be divided into two separate positions. The By-Laws Committee (Margie Hlava (Access Innovations), Harry Boyle (Chemical Abstracts Service), and Dan Wilde (NERAC)) and the Executive Committee have approved the change. A ballot will soon be sent to the Membership for a vote, as required by the ASIDIC Constitution; all members are urged to return it as soon as possible. A majority vote of the Membership is required for the change to become effective.

Committee Reports

Executive: Taissa Kusma reported on the Executive Committee meeting. Future meeting sites have been selected (see below). ASIDIC's bulk mailing permit has been renewed. Closer relationships will be

established with other information organizations, particularly ASIDIC's sister organization in Europe, EUSIDIC. Randy Marcinko (Dynamic Information) will be attending the next EUSIDIC meeting and will prepare a report for publication in the Newsletter. Meeting evaluation forms are being developed and will be used beginning at the next meeting.

Membership: Six new members have joined ASIDIC. Efforts to increase the membership are continuing.

Finance: Dan Jones (Newsbank) reported that there is a slight surplus in the ASIDIC budget.

Planning: Margie Hlava described the new charge of the Planning Committee. It will review the long-term goals of ASIDIC, how the organization can best serve the needs of the members, and what its role should be in the industry.

Spring Meeting

The Spring 1991 ASIDIC meeting will be held at the Catamaran Hotel on Mission Bay, San Diego, CA, on March 17-19, 1991. Local arrangements are being made by Miriam Chall (Sociological Abstracts), and the program will be chaired by Harry Boyle. The program will consider the forces acting on and shaping the information industry now and further on into the 1990s. It will include presentations on users' needs, legal issues, forces impacting on vendors or database producers (including CD-ROM producers), and technologies. This will be a very significant meeting with a lineup of industry leaders as speakers. If you use, establish, collect, index, abstract, publish, or distribute information of any kind in any form, this program is sure to help you understand and capitalize on the coming changes. San Diego is an ideal site for an ASIDIC meeting. With its beautiful setting, mild climate, and many famous attractions, it is sure to please. A special evening trip to the world renowned Wild Animal Park, a unit of the San Diego Zoo, is being planned for ASIDIC meeting attendees. Mark your calendars now and don't miss this stellar event!

Future Meetings

The Fall 1991 meeting will return to Boston on September 22-24, 1991 and will feature the ever popular ASIDIC lobster feast at the New England Aquarium. Dan Wilde assures us that the lobsters are even now being especially grown. Future sites under consideration are New Orleans for Spring 1992, Toronto or Portland for Fall 1992, Albuquerque or Tucson for Spring 1993, and Portland or Newport for Fall 1993.

President's Column

by Taissa Kusma

Another ASIDIC year began with our successful meeting in Annapolis. Those who were unable to attend missed a stimulating round of presentations and discussions on innovative methods of distributing information products. Many thanks to Art Elias of BIOSIS for preparing and presenting the excellent program, to Wally Finch of NTIS for arranging the pleasant social events (including a real Maryland Crab Feast on the waterfront), and to Don Hawkins of AT&T for his thorough review of the meeting. Our thanks also to Jeanette Webb for taking care of registrations and other ASIDIC affairs, and providing reassuring continuity from meeting to meeting.

You will shortly receive a ballot regarding the separation of the office of ASIDIC Secretary/Treasurer. This change, recommended by the Constitution/Bylaws Committee, was described in a letter to the membership in the spring and discussed at the ASIDIC business meeting in September. We believe the change will be a significant improvement. Before this amendment can be implemented, it has to be approved by the majority of the membership. Please cast your vote and return it to the Secretariat.

Plans for the March 17-19 meeting in San Diego began to crystallize in Annapolis, as the Executive and Program Committees 'took the pulse' of the attendees to discover what new issues were capturing their interest. They found not one hot topic, but rather a range of issues concerning the forces that are changing the information industry.

As we enter the last decade of the last century of this millennium(!), the information industry is becoming more complex. In the 1980s, we had a simple information triangle of producers, vendors and users, each with clearly defined roles. There were basically two delivery mechanisms: print and online. (To be sure, there were also the tape services, but these had lain dormant since the arrival of online.) We worried about such things as rising baud rates (and fixed the problem with hit charges) and downloading (ASIDIC

discussions persuaded this one to fade away). We pursued the elusive end users (they would do no more than nibble!).

The simple information triangle has been replaced by a more complex model resembling a spinning atom more than a rigid geometric figure. The information world has gone topsy-turvy, with the players crossing lines without hesitation. Producers and users are becoming vendors, online services are branching into CD-ROMs, and CD-ROM vendors are already talking about hybrid systems with hard disk storage. Online is going local in many places, and CD is going online on networks. The new buzzwords are broadband and superhighways.

These are exciting, sometimes scary developments. The rules of the game are changing. How does one play? Will all players survive? Can online, CD-ROMs, tapes, and print coexist harmoniously? This is a users' market with an expanding menu:

- Print: still going strong, next to high-tech electronic searchable models.
- Online: still the best buffet.
- Tapes, site loads, local online: combining the advantages of online and CD-ROM.
- CD-ROM: finally a medium the enduser can relate to—free and easy, but will it be short-lived? An early death was predicted; even as it grows and prospers, the CD is given at most a decade.

Will the successor be digital paper? Will LANs and UNIX[®] software give the CD a new lease on life? Will powerful network highways whisk our files into the world and out of our control? (Is this to be the monster of the 1990s?) As we navigate out of the '80s into the '90s with new opportunities and changing conditions, it is essential for us to stay informed and respond to new technology and a more sophisticated and demanding market.

At our next ASIDIC meeting, March 17-19 in San Diego, we will hear experts from different areas of the industry give their forecasts of what forces will drive the information industry in the next decade. Program Chair Harry Boyle of Chemical Abstracts Service is lining up not only a list of powerful and provocative speakers, but also a panel of top experts for a Tuesday morning discussion that you will not want to miss. We can be certain no one will leave early, even at the risk of missing a plane! For the Monday night social event, local host Miriam Chall of Sociological Abstracts will take us on a trip to the Wild Animal Park with entertainment by exotic birds! By March, everyone will be tired of winter and should welcome a trip to warm San Diego. We look forward to seeing all of you!

ASIDIC gives us a unique forum to which we can bring our problems as they arise and discuss them informally with our colleagues and invited experts. ASIDIC is small enough so that everyone's voice and opinion will be heard and everyone's need can be addressed. Our meetings, planned without long lead time, can address very current issues. The dues are most affordable, the company is good, the structure is informal and responsive to each of its members. Come and join us!

New Members

ASIDIC welcomes the following new members:

Association for Manufacturing Technology (NMBTA)
7901 Westpark Drive
McLean, VA 22102-4269
(703)-827-5222
Representative: Tracy L. Williams

Psychnet, Inc.
80 Topstone Rd.
Ridgefield, CT 06877
(203)-431-3700
Representative: Lee Konowe

Royal Bank of Canada
315 Front St., W.

Toronto, Ontario, Canada, H5V 3A4
(416)-974-6361
Representative: Cathy Kealey

Super Bureau, Inc.
2600 Garden Road, #224
Monterey, CA 93940
(800)-541-6821
Representative: Ned Fleming

University of California
Library Automation
300 Lakeside Drive
Oakland, CA 94612-3550
Representative: Clifford A. Lynch

Cornell University
Mathematics Department
White Hall
Ithaca, NY 14853-7901
(607)-255-4027
Representative: R. Keith Dennis

TECHNICAL PROGRAM SUMMARY

The Other CDs

John Gale, Information Workstation Group

The latest optical storage technology goes beyond CD-ROM and provides full motion, full screen video with user interaction. CD-ROMs have been in production since 1986; the family now includes CD-I (interactive), CD-ROM XA (extended architecture), and CD-X (which has now been merged into CD-I). Erasable CDs are still sometime in the future.

CD-ROM has been widely used for information dissemination, especially in academic environments. The features students like about CD-ROM are its fast response, Boolean capabilities, the ability to print search output, and the currency of the information. They do not like spending large amounts of time to learn the system, different interfaces for different products, slow printers or print software, and poor graphics.

To succeed in this market, new products are needed, not just retreads of products available in other forms. The initial moves will be made by software companies, not publishers; they will then carry over into the rest of the consumer and professional markets.

Full Text: Applications and Opportunities

John Hearty, American Chemical Society

Although full text databases have a future in the online information industry, they still have many growing pains. Four major changes in the online industry are:

- The explosion of databases. The number of databases has grown 600% over an eight year period, from 773 in 1982 to over 4500 today.
- Explosion of full text files. Full text files are the fastest growing area of online information; in the same eight year period, full text files grew 2000%, from about 200 in 1982 to 2750 now.
- Advances in hardware and software capabilities. In 1982, many vendors used Prime 750 computers which had only limited Boolean capability, sequential search, and no indexing. By 1986, IBM 3091 machines had arrived. They have an over 99% reliability and allow full indexing and Boolean searching.
- Alternative technologies for the "Information Age." These include databases on CD-ROM, floppy disks, as well as information transmission by fax and electronic mail.

The American Chemical Society (ACS) now has journals from six publishers online in full text. The major problems center on economic and behavioral areas. Full text files are complicated and expensive to maintain. Conversion from the publisher's tape to an online database is complex; a separate process for each database must usually be developed, so it is hard to mount a full text file quickly. Since every word is indexed, the indexes are grow rapidly and are larger than those for a typical abstract file—sometimes by as much as a factor of 3 or 4.

Behavioral problems with full text files center on the need to increase usage.

- There are no backfiles available. The average time span covered is five years, and full text files take a long time to build up.
- Breadth of coverage is lacking. Although there are over 2000 journals available online from thousands of suppliers, economic considerations preclude a broad coverage of subjects. Full text files are therefore less important to users until coverage increases.
- Online full text files are incomplete and lack pictures, tables, and graphics.
- Full text files tend to be isolated. Their biggest competition is from the traditional bibliographic databases. One goal is to integrate bibliographic and full text files.
- Full text files have not been well marketed. They can be a useful alternative to traditional document delivery processes. Many users do not know when they should use full text files.
- The potential market for full text files is smaller than for bibliographic databases. The largest use of full text files is by end users of online databases, and there are still not as many of them as intermediaries.

These problems are not insurmountable; solutions depend on technology, improved marketing, and use of full text files. Decreasing storage costs will help lower maintenance costs, as will text compression techniques. Conversion processes are being made easier by the growing use of SGML which allows standard conversion algorithms to be written.

Ways to change user behavior and increase the use of full text files include altering the perception of full text, adding tables and graphics, and developing integrated information systems providing a single source for all needs through the use of AI, concept searching, etc. Such techniques will help to end the isolation of full text and make systems easier and more friendly to use. Changing pricing algorithms to reduce dependence on connect time should also help to stimulate the use of full text databases.

ACS has been developing the concept of the *electronic journal* which will shorten publishing lag times. The technical components—fax, electronic mail, overnight delivery services, etc.—are all available today. Editorial components are still a major problem; new programs to allow easier tracking of manuscripts and acceleration of the reviewing process are still needed. The electronic journal shows promise in publishing; indications are that users will accept and read them.

Onsite, Online End Users

Helen Wiltse, Georgia Institute of Technology

Georgia Tech has mounted 16 online databases locally and has the NTIS file up in a test mode. Five years of data plus the current year are kept online. The system also contains the catalogs of the Georgia Tech and Georgia State University libraries. It uses the BRS Search software in native mode.

Usage is increasing rapidly and cannot be predicted. A major concern of the users is the cost; they will not pay a per-search cost, so flat rate search prices have been negotiated with the database producers. The university has trained over 12,000 students to search; they are one of the best marketing devices a database producer could have. Terminals are provided in all the libraries and are used for 75% of all searches. In Fiscal 1990, 1.3 million searches were done, using over 96,000 connect hours.

The impact of local online databases on the library has been enormous. Circulation and in-house usage of the collection is up, the help desk is heavily used, and training classes are filled. Documentation is kept simple, with one page for each database and one page detailing the logon procedures. Of all the campus services, the library has the best and the most documentation.

The system is regarded as a campus resource, so costs are treated as overhead, and users do not have to pay for use. The staff loads and maintains the databases, handles communications with the vendors, and conducts training and demonstrations. Many visitors want to see the system, so demonstrations take substantial time.

Users appreciate the vast amount of information available to them, but they tend to assume that if something is not online, it does not exist. Major user problems center around deciding which database to use and spelling terms correctly. There is never enough storage to make all the information requested by users available online. It would be useful to have an online encyclopedia and dictionary available and to run search strategies through the dictionary before using them online. Spelling errors, a major source of user frustration, would be eliminated.

Gateways and Networks: New Highways and Traffic Jams

Dan Prickett, Bell Atlantic

The online industry grew out of time sharing. It used to be so simple. We stored databases in large computers, sold users lines of print, documents, searches, etc., and offered access to data retrieval and manipulation. Then came some modest improvements: linking of hosts, movement of the databases to the users (on CD-ROMs, etc.), and easier to use interfaces. But we still require users to come to an information product through a terminal emulator. The center of the information universe is moving to the user's site and away from hosts and gateways. Users have a mass of computer power in their personal workspace.

Key changes in the environment include database technologies, mergers of information companies, and search/retrieval software packages. Automatic updating, information agents, and communications handling are leading to integration of applications with the services behind them. Consumer premises equipment and the media behind them are becoming integrated. Diverse devices, once separate units, are being combined into one (phone-fax etc.).

These developments are the keys to future directions of the information industry. Data will reside nearer to the user, machines will automatically communicate with machines, and there will be less real time interaction. These trends will lead to major benefits to the user, such as resource efficiency, closer ties between primary publishers and users, and less reliance on intermediaries.

Integrated Publication Applications

Charles Goldstein, National Library of Medicine

A major unmet information need of developing countries is online reference works. In such countries, reliable telecommunications links often do not exist, so information is delivered on CD-ROMs instead of by online bibliographic databases. Many practitioners in such environments do not have access to the research literature and depend on reference works such as handbooks, etc. Even in the U.S., practitioners are more likely to access reference works, in contrast to researchers who use the primary literature. Reference works are not surrogates for the research literature, but they complement it.

One example of a reference work is *Mendelian Inheritance in Man* (MIM), edited by Dr. Victor McKusik at Johns Hopkins University. The electronic version of MIM contains 16 megabytes of unindexed text and is updated nightly. Worldwide access is available through Telenet. Annotations of the data in MIM are sent to the editor for updates and can be included on a daily basis if desired. Updates since the last published edition of MIM are included in the online version.

With a published version or a CD-ROM version of a handbook, why go online? It is easier to locate an item of interest because the online version is full text searchable. It is current, and links to related information can be made.

The electronic version of MIM is useful, and its example is now being applied to other reference works. Objectives are the development of online authoring and editing, and hypertext links to support retrieval. An effort is underway to add SGML tags to speed publication.

Interactive Video: The Arcade Approach

Cathy Ferrere, U.S. Pharmacopeia

The U.S. Pharmacopeia (USP) was founded in 1820 by 11 doctors who were concerned with the uniformity of medicines. In 1844, USP published the first formulary of preparations for prescription drugs. Today, that formulary is in its 17th National edition. Yearly supplements appear, and the main volume is completely revised and updated every five years. About 3000 substances and dosages are covered. USP is unique because it is a private nonprofit corporation establishing legally enforceable national standards.

The USP convention today is composed of representatives from government agencies, pharmaceutical colleges, and state medical and pharmaceutical associations. Under its auspices, committees establish and revise drug standards which are published every two months in the Pharmacopeial Forum. A standards division also tests batches of drugs and sells them to the industry as reference standards. Since 1980, drug information for consumers has also been published by USP.

USP is investigating multimedia technology for presenting its information to consumers. Issues spurring this effort are:

- Increasing needs for patient counseling. Consumers want more information on the drugs they take and their side effects. Many people do not comply with doctors' recommendations; over 30% of prescriptions written are not refilled.
- Illiteracy. With 26% of native-born Americans unable to read, visual means of communicating information become important. Such people are comfortable with video media.

- Educational value. Studies have shown that information retention is higher if more than one sense is reached. Multimedia technology uses both visual and auditory methods of communication. Comprehension is also improved if the information can be customized for the user. Current multimedia technology makes customization easy.

With these considerations in mind, Auburn University collaborated with USP to produce an interactive video presentation of the USP Drug Information manual on the subject of diabetes. A market test was conducted, and it was found that pharmacists were willing to devote floor space for this non-revenue purpose. Suitable arrangements (headphones, cubicles, etc.) were made to ensure viewers' privacy. The system contains information on diabetes detection and treatment. Diabetes was chosen because it is the most widespread disease in the U.S. requiring consumer information and education. Over 5,000 subjects are available from which short four minute presentations can be customized. After the presentations relevant to a particular user are chosen, they can be downloaded to a videotape which can be taken away by the user and reviewed as desired.

Demonstration

Following her presentation, Cathy Ferrere (USP) and Bill Felkey (Auburn University) demonstrated the USP diabetes information system. The information is stored on a laser videodisk, which is combined with speech on an audio CD. The system is controlled by a PC, and all user input is entered by touching the screen; no keyboard interaction is required. One user option provides for viewing either actual photographs or schematic drawings, thus accommodating persons sensitive to photographs of blood or injections.

About 20,000 records of speech were examined for the system; when redundancies were eliminated, 6,000 speech clips were left and were stored on the CD. The laser disk is capable of holding 108,000 pictures, but only half that number are used to optimize retrieval times. Using this system, diabetes patients can take an active role in their health care education.

This demonstration was a highlight of the meeting and shows how today's technology can be to consumer information needs. The system is described in further detail in the handout that was distributed at the meeting; a copy is attached to this Newsletter.

ASIDIC Full Members

Organization	Representative
Access Innovations, Inc.	Ms. Marjorie M. K. Hlava
American Institute of Physics	Ms. Stacie Bradford
American Mathematical Society	Ms. Taissa T. Kusma
American Psychological Association	Mr. Dennis Auld
American Society of Hospital Pharmacists	Dr. Dwight R. Tousignaut
Aspen Systems Corporation	Mr. Richard Valdez
AT&T	Dr. Donald T. Hawkins
Aubergine Information Services	Ms. Reva Basch
BIOSIS	Ms. Maureen Kelly
Canadian Center for Occupational Health & Safety	Mr. James R. Brownridge
Canada Institute for Scientific and Technical Information	Mr. Edward Kipp
Chemical Abstracts Service	Ms. Patricia S. Wilson
Defense Technical Information Center	Mr. Kurt Molholm
Department of Defense	Ms. Karen S. Hitcho
Department of Energy	
Office of Scientific and Technical Info.	Mr. William L. Buchanan
DIALOG Information Services, Inc.	Dr. Roger K. Summit
Dynamic Information	Mr. Randy Marcinko
Engineering Information, Inc.	Mr. Eric Johnson
Exxon Research & Engineering Company	Ms. Elizabeth H. Soled
Fachinformationszentrum	
Energie, Physik, Mathematik GMBH	Dr. W. Rittberger
The Foundation Center	Mr. Bill Bartenbach
Georgia Institute of Technology Library	Ms. Helen C. Wiltse
IFI/Plenum Data Corporation	Mr. Harry Allcock
Information Access Company	Mr. Morris Goldstein
Information Express	Mr. Bruce Antelman
Information Sources, Inc.	Ms. Ruth K. Koolish
IBM Corporation	Dr. Scott I. Kostenbauder
INSPEC/IEE	Mr. Jim Ashling
Institute of Paper Science & Technology	Mr. Robert G. Patterson
Lawrence Livermore National Lab	Mr. Leonard Fisher
Materials Information	
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Maxwell Online, Inc.	Ms. Kay Pool
McNeil Consumer Products Company	Ms. Helen J. Hohman
NASA Industrial Application Center	
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National Library of Medicine	Ms. Lois Ann Colianni
National Technical Information Services	Mr. Walter Finch
NERAC, Inc.	Dr. Daniel U. Wilde
Newsbank, Inc.	Mr. Daniel S. Jones
Newsnet, Inc.	Mr. Andrew S. Elston
NIOSH	Ms. Vivian Morgan
NMTBA	Ms. Tracy Williams
OCLC Library	Ms. Ann T. Dodson
Philip Morris U.S.A.	Mr. Murray D. Rosenberg
Predicasts, Inc.	Mr. Paul Owen
Psychmet, Inc.	Dr. Lee Konowe
Public Affairs Information Service	Ms. Barbara Preschel
Royal Bank of Canada	Ms. Cathy Kealey

Science & Technical Information Ctr.	Dr. Tao-Hsing Ma
Sociological Abstracts, Inc.	Ms. Miriam Chall
Sport Information Resource Centre-Canada	Mr. Gilles Chiasson
Super Bureau, Inc.	Mr. Ned Fleming
Technical Centre for Agricultural & Rural Co-Operation	Mr. Andries Dusink
Thomson & Thomson	Ms. Anthea P. Gotto
U. S. Patent & Trademark Office	Mr. David Grooms
University of California	Mr. Clifford A. Lynch
Library Automation	Mr. John Yelverton
University of Georgia Libraries	
University of Tulsa	Dr. John L. Dowgray
Petroleum Abstracts	Mr. Richard Wood
University Microfilms International	(Vacant)
UMI/Data Courier, Inc.	Ms. Donna Willmann
VU/TEXT Information Services	

ASIDIC Associate Members

Organization	Representative
Atlantic Research Corporation	Ms. Suzanne Levitas
Bedford Advisors, Inc.	Mr. John C. Harned
Canadian International Development Agency	Ms. Nicole Sansfacon
C. A. B. International	Ms. Elaine Cook
Caruso Associates	Mr. Nicholas Caruso
Cornell University	
Mathematics Department	Mr. R. Keith Dennis
Database Services International	Ms. Fran Spigai
Elsevier Science Publishers	Mrs. L. H. Van der Weide
ERIC Processing & Reference Facility	Mr. Ted Brandhorst
German National Research Center for Computer Science	Dr. Hans G. Klaus
Inforonics, Inc.	Mr. Lawrence F. Buckland
International Development Research Center Library—Canada	Ms. Valerie Monkhouse
International Labour Office	Ms. Kate Wild
Japan Association for International Chemical Information (JAICI)	Dr. Soichi Tokizane
Moline Biotechnology Resources	Mrs. Gloria Moline
Rand McNally—TDM, Inc.	Mr. David G. Grossman
Research Publications, Inc.	Mr. Herbert Landau
R. J. Reynolds Tobacco Company	Dr. Randy D. Ralph
South Africa Medical Research Council	
Institute for Biomedical Communications	Dr. S. F. Rossouw
U. S. Pharmacopeial Convention, Inc.	Ms. Cathy M. Ferrere
Xerox Corporation	Mr. Leslie A. Krieger

ABOUT YOUR DIABETES™

USP DI Visualized™ An Interactive Video Program for the Patient

What would improve most patient information products?

Most of the patient information products available today have significant problems communicating their message to the patient. The use of complicated medical terminology that is difficult for patients to understand creates learning barriers. Additionally, patients must usually sort through a mass of information and decide what is relevant and useful for their condition. Patients are frequently passive participants, however, and may not receive the information they need.

A new technology is now available that gives diabetes educators, physicians, pharmacists, and other health care professionals a powerful tool for communicating with their patients. This technology combines the speed and decision making strengths of a computer with the full motion image display and memory capacity of a LaserDisc and CD ROM. A touch screen monitor replaces the computer keyboard and helps remove the apprehension many patients feel toward using a computer. Today's interactive video technology can be programmed to present an instructional series over 30 hours long without changing a single disc! Imagine the possibilities.

USP DI VISUALIZED, ABOUT YOUR DIABETES is one possibility. An innovative concept in patient education developed by the United States Pharmacopeial Convention, Inc. (USP) in cooperation with the American Diabetes Association (ADA), under contract to Auburn University, the *ABOUT YOUR DIABETES* program contains over three hours of educational material with the capacity for interaction by the patient.

UPLOAD

The *ABOUT YOUR DIABETES* interactive program resolves many of the problems encountered with traditional patient information products. The LaserDisc allows the selection of only the information that is relevant for each individual patient. Thousands of versions are possible from the information choices available. The patient or health care provider performs an "upload" procedure allowing the laser to select appropriate visuals and narration. Entering patient demographics, including age, sex, race, diabetes type, insulin, dose, and self-monitoring method, results in a customized education program unique to the individual patient. Thus, male patients will not have to review pregnancy and breast feeding warnings, nor will female patients have to review symptoms of an enlarged prostate. A full "upload" takes two minutes; however, this time can be significantly decreased by automation and a preselection process.

PHYSICAL SETTING

The *ABOUT YOUR DIABETES* program can function equally well in either the inpatient or ambulatory setting. Earphone capability solves most privacy concerns. A special enclosure is available to allow single viewer access and provide additional privacy. Typical settings where the product will be placed include: hospital rooms, education centers and clinics, community pharmacies, HMO's and physician offices. The *ABOUT YOUR DIABETES* program will complement and extend the provider's role in patient counseling.

FEATURES AND BENEFITS

The ability of LaserDisc and CD ROM players to move instantly from one place to another within the program yields many benefits. The most significant is the capability of customization to the individual. Additionally, the speed and flexibility of this technology allows patients to skip ahead to other topics or replay a section at their own pace. The health care provider receives a complete report on the patient's use and comprehension of the material viewed.

Other features and benefits include:

- Multi-lingual, multi-subject capability.
- Information output in print and custom VHS videotape formats.
- Full motion video examples demonstrating proper procedures and patient specific medication information such as instructions on drawing accurate doses of insulin into a syringe, use of pumps, monitoring devices, etc.
- Confidentiality through private patient access codes.
- Interim patient comprehension checks.
- Patient actively controls access and sequence.
- Generates a report for the provider on the patient session and provides documentation for medical records and liability protection.
- Automatic user activity logs record data for product upgrades.
- Can be tailored to specific formulary selection.
- Menu driven, frequently prompts patient.
- Visual symbols (icons) aid low literacy patients.

ABOUT THE PROGRAM DEVELOPERS

The United States Pharmacopeial Convention, Inc. (USP) is the nonprofit, nongovernmental organization that establishes the official standards of strength, quality, and purity for drugs in the United States. The USP publishes the drug standards in the United States Pharmacopeia (USP) and the National Formulary (NF). The USP also maintains a vast database of drug use information for both health care professionals and consumers, which is published in several volumes as USP DI. The drug information portions of the *ABOUT YOUR DIABETES* program are based on the information found in the *USP DI*.

The American Diabetes Association (ADA) is supervising the diabetes management portion of the *ABOUT YOUR DIABETES* program. The ADA is the leading voluntary health organization supporting diabetes research and education. Important activities include the development of standards of care for the diabetes community, and producing a large number of professional and patient education publications.

The Auburn University School of Pharmacy conducts research and development for USP, focusing on the development of interactive video systems stemming from the *USP DI* database.

SUMMARY

USP DI VISUALIZED, ABOUT YOUR DIABETES, will provide progressive organizations with state-of-the art education technology to meet their objectives of providing information and education to patients. The program will be revised regularly in response to the development of new drugs and devices, new concepts in diabetes management, feedback from patients and health professionals, and the availability of new technologies.

Questions regarding the informational content of the program should be directed to: Keith W. Johnson, Drug Information Division, The United States Pharmacopeial Convention, Inc. at (301) 881-0666. Questions regarding the technology and design of the software should be directed to Bill G. Felkey at Auburn University at (205) 844-8360.