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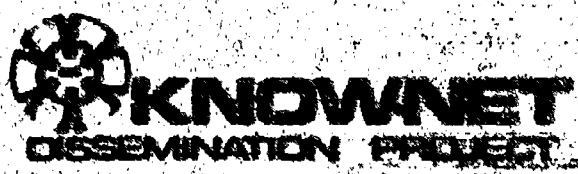
ABSTRACT

Designed to help educators locate the most up-to-date research and information available for decision making, this handbook summarizes a vast collection of current educational, technical, and sociological information in computer databases. As online information systems multiply and become more consumer-oriented, and as microcomputers and modems become more prevalent in schools, a need has arisen for updated information about searching sources and the searching experiences of individual schools. The five parts of the handbook cover respectively: (1) information sources including "encyclopedic databases" and their vendors (Dialog and BRS), information utilities, and electronic mail and bulletin boards; (2) equipment needed and preparing to search; (3) training for the encyclopedics, assistance with the utilities, and software for searching; (4) management concerns including start up budgets, promotion and service, and recordkeeping and reporting; and (5) searching with students. Numerous appendices include information on databases from BRS and Dialog; lists of sample files available on the Source, CompuServe, and Dow Jones News/Retrieval; ERIC ordering information and forms; information on database access and on journal collections; and examples of a search log and of search request and search evaluation forms. (TAC)

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RESEARCH GOES TO SCHOOL II

HOW TO GO ON-LINE TO THE DATABASES

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TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

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RESEARCH GOES TO SCHOOL II

How to go On-line to the Information Databases

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RESEARCH GOES TO SCHOOL II

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INTRODUCTION



ACCESS TO INFORMATION

Access to information is widely recognized as a key determiner of whether or not a person or group of people will be able to move ahead toward personal and professional goals. In the school setting this means that:

Teachers and administrators with access to a wide range of relevant information will be able to identify and make improvements in school programs.

Students who are taught to identify, find and use information will be able to move ahead toward their own intellectual goals.

There are fresh and exciting new opportunities for teaching students to access a broad array of information sources and find answers to their questions about the world.

It is now possible to base every educational decision on current knowledge and tested methods.

For these reasons, it seems essential that the vast collections of current educational, technical and socially significant information available in computer databases be brought to the attention of school staff. Furthermore, all necessary assistance must be given them in learning to use this information effectively.

On-line searching of information databases allows the user to:

- o locate current information
- o scan a vast amount of information quickly
- o identify the source of specific information easily

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**KNOW-NET
PROJECT:
PROVIDING
ACCESS**

From 1980 to the present time, the KNOW-NET* Dissemination Project at the Superintendent of Public Instruction's office has provided Washington teachers, administrators and others with free computer searches of educational research databases as well as other kinds of information. The project has also provided school staffs with assistance in applying this kind of information to the improvement of instruction and the advancing of educational equity. The project goals have been 1) to increase the use of educational research by school staffs and 2) to increase educational equity by providing equal access to research information and its use in school settings.

**EQUAL
ACCESS
EMPHASIS**

**INFORMATION
SOURCES
USED**

KNOW-NET has provided information from such databases as Educational Resources Information Center (ERIC), Exceptional Child Education Resources, PsychInfo, Resources in Vocational Information, Resources in Computer Education and a host of others marketed by the Dialog and Bibliographic Retrieval Services (BRS) systems. Information has also been provided from the Washington Library Network and more recently from educational files, called ED-LINE and Technet, on The Source telecommunications network.

**RECENT
ADDITIONS
OF ON-LINE
TECHNOLOGY**

To this array of computerized information sources were added the individual professional resources of program staff at the Superintendent of Public Instruction, the Northwest Regional Exchange at the Northwest Regional Educational Laboratory, the State Facilitator's office (National Diffusion Network) and individuals in school districts and Educational Service Districts (ESDs) across the state. Most recently, the project has subscribed to the HI-NET database of the Highline School District, which provides inservice information, upcoming conference and event information and a who's who of consultants coming into the state. The project is also exploring the use of the Washington Occupational Information System (WOIS). Finally, the project has begun to make use of SPIBB, the statewide electronic bulletin board/electronic mail system which runs on the state data processing system. The Knowledge Network of Washington is becoming a reality.

**OTHER STATE
SEARCHING
ACTIVITIES**

At the same time, individual educators have subscribed to commercial research services such as the San Mateo Educational Resource Center (SMERC) and Educational Research Service (ERS). Some 240 school districts have belonged to a state cooperative, School Information and Research Service (SIRS) which provides both national and in-state resource information, largely for administrators, and conducts several research projects of its own each year. Colleges

*Knowledge Network of Washington

and universities have long provided faculty and graduate students with searches at low or no cost. Two ESDs have provided special access to searching services at low cost--for members of a SMERC cooperative in ESD 112 and to individual teachers in ESD 123. All ESDs refer school staffs to KNOW-NET as well.



**SCHOOL-
LEVEL
SEARCHING**

Since 1980, the growing numbers of microcomputers in schools, the development of easy-to-use modems and less expensive access to databases have made it possible for school personnel with the proper training to conduct searches themselves, using local equipment and telephones. The KNOW-NET Project therefore made training in searching databases a priority from 1983 on, especially for those school personnel who serve as "linkers" between schools and the project. This training provides an opportunity to learn and practice the necessary procedures and skills for accessing relevant databases and searching their contents. It enables local searchers to find answers to a wide variety of questions for school improvement, questions such as:

What are the most effective ways to teach critical thinking?

What are effective ways to move students from easy fiction reading to more sophisticated material?

What are the successful programs in improving organizational communications?

Is there a successful way to involve the community in school budget planning?

Are there good models for teaching study skills in the middle schools?

**FIRST
KNOW-NET
HANDBOOK**

KNOW-NET published a handbook for "linkers" in the fall of 1983. This handbook explained the purpose of KNOW-NET and discussed the components of the linking process, what educators could expect from a search and what ways could be used to evaluate, organize and present information acquired

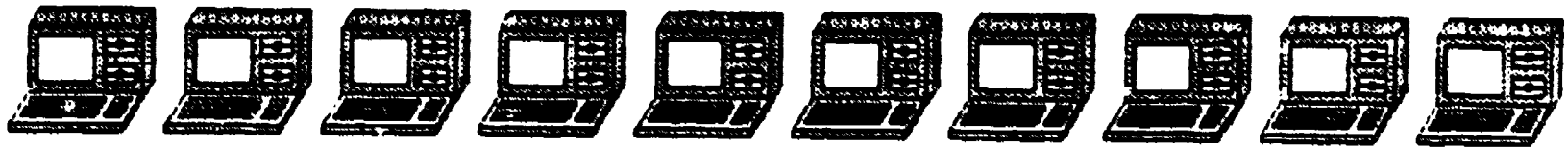
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by searching. A short section provided facts and figures for those wishing to set up their own school or district search services, using a local telephone, microcomputer, modem and bare-bones collection of journals and searching tools.



**THIS
HANDBOOK**

As interest has grown, as on-line information systems have multiplied and become more consumer-oriented, and as microcomputers and modems have become more readily available in schools, the need has arisen for a second KNOW-NET handbook with updated information about searching sources and methods of individual school searching, describing what is now available and how best to work with it. This handbook, *Research Goes to School II*, has been prepared in response to that need. The handbook discusses sources and searching methods appropriate for school staffs working on school improvement of many kinds. It also presents those networks and databases which students could profitably use in learning the research skills so necessary to their future functioning in the information age.



INFORMATION SOURCES

THE ENCYCLOPEDIC DATABASES

The encyclopedic databases, such as ERIC or Sociological Abstracts, provide information in great depth on a wealth of subjects. They are searched by fairly complex strategies, using key words and specially constructed phrases. These databases are generally of greatest use to professionals or specialists in a wide variety of fields. Those such as Exceptional Child Education Resources or Resources in Computer Education, along with ERIC, are of particular interest to educators. Medlars-on-Line or Harvard Business Review On-line are of primary interest to other specialists, but in some circumstances they will contain information of use to educators as well. Students at the high school level may find information for reports and papers in the encyclopedic databases on occasion, although the information may be too specialized for their use, both conceptually and in terms of vocabulary used. A new database, ABSTRAX*, may be of interest to students, however. ABSTRAX contains summaries of articles from 225 common magazines. High school students in an experimental project in Pennsylvania made the most of three other databases**: Magazine Index, Biography Master Index and National Newsletter Index.

The encyclopedic databases are compiled by organizations in the speciality area. For example, the ERIC database is compiled by 16 education clearinghouses which make up the ERIC system, along with the National Institute of Education. These organizations are responsible for the contents of the database, the abstracting of documents for inclusion in the database and updating of the information contained. Database vendors collect these databases by contract with the organizations who prepare them. The vendors then computerize the files and

*Available on BRS

**Available on Dialog

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market access to them via telephone lines. Two major database vendors of interest to educators are Dialog and Bibliographic Retrieval Services (BRS). Each of these vendors markets a package of 80-100 databases, including those mentioned above. Access is sold by subscription, which provides all of the databases on-line to your computer terminal at so much per hour of use. (See Appendix, pages 29-33 for listing of databases available from Dialog and BRS.)

The on-line charge includes the use of special telephone communications networks which reduce the cost of telephone time. The most common of these communications networks are Telenet, Tymnet and Uninet, each of which has access points or "nodes" in most major cities. (See Appendix page 34 for Telenet, Tymnet and Uninet node locations in Washington.) In some cases it is cost-effective to call BRS or Dialog direct.



Dialog Information Services
3460 Hillview Ave.
Palo Alto, CA 94304
(415) 858-2700

Cost: No initial installation fee;
Per hour charges vary depending
on database (for instance, ERIC:
\$25 per hour, Magazine Index:
\$84 per hour). Discounts for
high volume use.

Knowledge Index Plan: \$35 start-up
fee; \$25 per hour. (Reduced
number of databases.)
(800) 227-5510.

Off-line prints: From 10¢ to 25¢
per print, depending on database.

Publications: "Guide to Dialog
Searching" \$40

Individual database documentation
\$5 each.

BRS
1200 Route 7
Latham, NY 12110
(518) 783-1161

Cost: Subscription is from \$30/hr
for 25 hrs/yr to \$16/hr for 240
hrs/yr.

Open Access Plan: \$50 for initial
fee and \$35/hr. (plus royalties
for certain databases; no royalty
for ERIC).

"BRS After Dark": \$75 start-up
fee; from \$6.00 - \$20.00 per
hour, depending on database;
6:00 p.m. to 4:00 a.m. and
weekends. (800) 833-4707.

Off-line printing is 18 cents per
page plus \$1.00 mailing charge.

Publications: System reference
guide: \$18.

Individual database documentation:
\$3.30 each.

Some other specialty database vendors of interest to educators include SpecialNet, which provides a special education database produced by the National Association of State Directors of Special Education to disseminate federal news; NewsNet, which provides the text of newsletters in 40 general subject categories; and Orbit, which markets access to over 70 scientific and technological databases.

SpecialNet
1201 16th Street NW, Suite 610 E.
Washington, D.C. 20036
(202) 822-7933

Cost: Subscription \$200/yr; \$15
per hour daytime; \$7 per hour
evening; \$4 per hour night.

NewsNet
945 Haverford Road
Bryn Mawr, PA 19010
(215) 527-8030

Cost: Subscription \$25 per hour
(300 baud, daytime); \$15 monthly
minimum.

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Orbit
System Development Corp.
2500 Colorado Ave.
Santa Monica, CA 90406
(800) 421-7229

Cost: \$115 start-up cost including
\$35 - \$160 per hour, depending on
database.

Also of interest are Education Daily, a constantly updated source of education news, which can be subscribed to through SpecialNet for \$399 per year plus on-line charges, and several on-line encyclopedias:

Encyclopedia Britannica:
(Direct Telephone access)
Mead Data Central's Nexis
933 Springboro Pike
P.O. Box 933
Dayton, OH 45401
(513) 859-1611
(800) 227-4908

Kusmaul Enclyopedia:
(Available through the Delphi information utility)
General Videotex Corp.
3 Blackstone Street
Cambridge, MA 01803
(617) 491-3393

Grolier's Academic American
(Available through BRS and through CompuServe information utility.
See page 9.)

New direct-access specialty databases appear every day. One recent arrival is free (you pay only for the phone call): Searchmart Software Library, with information about available products by topic. Direct telephone access by calling (305) 845-6466 or (305) 84-LOGON.

The Washington Library network's "Search Only" service will allow you to determine the location of specific materials or of materials on specific topics which may be housed in academic, technical or public libraries in the Pacific Northwest and certain other states. These materials may then be ordered through the public library system or interlibrary loan. Although this process is somewhat slow, the WLN is nevertheless a resource of considerable value to educators.



THE INFORMATION UTILITIES

A second major category of on-line information service is the information utility, which provides short, current files on a wide range of subjects and is usually searched by selecting menu items and entering dates and short keywords. These files contain information of general interest, from world weather to games to stock market reports.

The best known information utilities of interest to educators, students and general audiences, are The Source, CompuServe, and Dow Jones.

THE SOURCE, produced by The Source Telecomputing Corporation, 1616 Anderson Road, McLean, VA 22102. (800-336-3366). \$49.95 initial installation (fee reduced or waived during promotions); minimum of \$10 per month. \$20.75 per hour 7:00 a.m. to 6:00 p.m.; \$7.75 per hour 6:00 p.m. to midnight (300 baud).

COMPUSERVE INFORMATION SERVICE, provided by CompuServe, 5000 Arlington Center Blvd., P.O. Box 20212, Columbus, OH 43220. (800-848-8199). \$39.95 initial installation. \$22.50 per hour from 6:00 p.m. to 8:00 p.m.; \$6 per hour evenings and weekends (300 baud).

DOW JONES NEWS/RETRIEVAL, produced by Dow Jones News/Retrieval Service, P.O. Box 300, Princeton, NJ 08540. (800-257-5114). \$75.00 initial password fee (waived with purchase of certain software). Hourly rates from 90¢ to \$1.20 per minute during prime time, 15¢ to 90¢ per minute after 6:00 p.m. local time.

The Appendix, pages 35-39 lists some of the databases available on each of these utilities. New files are added constantly. Of special interest to educators on The Source are specialty files provided and maintained by national associations in educational fields. An additional fee is charged for access to these files. ED-LINE, which is managed by the National School Public Relations Association, contains regularly updated information on management ideas, general education news, federal education news, legal briefs related to education, new educational research results, and classroom ideas. It also provides a number of information exchanges in special areas such as rural schools. TECH-NET, managed by The Association for Educational Communications and Technology, provides updates on educational technology, materials reviews, schedules of events and conferences and information exchanges with the experts in technology.

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Of interest to students as well as educators is the UPI news wire on The Source, which may be searched by such key terms as topic, date, byline and state, or may be browsed through from latest headline backward in time or from some specified date forward in time.

CompuServe carries the Educational Products Information Exchange Institute (EPIE) On-Line (for an additional fee) providing educational reviews of materials and equipment, a directory of over 5000 micro-computer programs for schools, and newsletters for "educational consumers." CompuServe also carries Grolier's Academic American Encyclopedia and The Washington Post Business Edition.

In addition to many different financial reports, Dow Jones News/Retrieval carries abstracted articles from the Wall Street Journal as well as the Academic American Encyclopedia, world news and weather reports.

Within the State of Washington, the Seattle Shuttle is an information utility beginning to offer some of the same services at much less expensive rates.

SHUTTLE, produced by the Shuttle Corporation, 2569 152nd Ave. NE, Redmond, WA 98052. (206-882-3447). \$25 start-up cost; \$5.00 per^o month service charge and \$3.00 per hour on-line charge.

The Shuttle offers AP news service in 75 categories, NOAA weather service, movie reviews and various regional information services including an educational information file managed through Educational Service District 121. A free demonstration of the system can be accessed by calling direct, (206) 885-4636.

ALANET is produced by the American Library Association. ALANET services include access to the UMI Article Clearinghouse (which provides full text copies of magazine articles and United Press International (UPI) news stories.

ALANET, American Library Association, 50 East Huron St., Chicago, IL 60611 (312-944-6780). \$90.00 annual fee, paid in advance; \$30.00 per connect hour, 8:00 a.m. to 6:00 p.m.; \$22.00 per connect hour evenings and weekends.

ELECTRONIC MAIL

The information utilities also provide information services beyond just the access to databases. These additional services are "electronic mail" and "bulletin board" services. Electronic mail enables

the user to send messages to one or more individuals on the system. Bulletin boards provide information on a special topic or topics and may or may not permit interaction between those accessing the board. People contribute their information to the interactive bulletin boards by typing in messages on their computer terminals and sending them on-line. These messages are then "posted" on-line for others to see and respond to.

Some of the larger exchanges of this sort are the on-line teleconferencing services, which may use a system like PARTICIPATE on The Source and permit the collection and display of more information from more users. One system which provides only on-line public teleconferencing is the Electronic Information Exchange System (EIES). (Because even its capacity is limited, membership in this system is subject to approval by the system management.) (See Appendix, pages 40-43 for a concise report on electronic mail by staff of the Northwest Regional Educational Laboratory.)

By using the directory of electronic mail systems on one of the information utilities, a subscriber can also build his or her own directory of people with whom to correspond electronically for the exchange of information. CompuServe has already established some such Special Interest Groups or SIGS, with special interests ranging from education to science fiction writing. The Source's subscriber list may be searched by key words or terms to produce similar "mailing" lists.

BRS now provides its subscribers with MCI Mail, an electronic mail service which also provides printed copy and fast delivery of your letter to non-subscribers of your choice (for a fee).

ED-LINE and TECHNET have teleconferencing systems built into their services. "Ed Exchange" on ED-LINE allows users to post and respond to views and information on certain pre-determined topics which are changed periodically. TECHNET has a similar service called "Practitioner Information Exchange." The Shuttle also has several bulletin boards and provides electronic mail service.

There are hundreds of single bulletin boards around the country, accessible by a direct phone call. Both The Source and CompuServe provide on-line listings of free bulletin boards (you pay for the phone call), listed by telephone area code. Listings are also available by calling the People's Message System in Santee, California at (619) 561-7277. How much useful information is available on any of these bulletin boards can be ascertained by calling a few.

The HI-NET Regional Database centered in the Highline School District in this state provides information on resource people, programs and inservice/staff developmental activities, primarily in Western Washington. Subscribers can both access information posted by other program providers and list announcements of their own events, scheduled speakers and workshops for others to read about. A HI-NET subscription costs \$200 per year and is managed by the State Facilitator's office at 15675 Ambaum Blvd. SW, Seattle, WA 98166, (206) 433-2453.

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Finally, Washington State educators who have access to the All-in-One system in school districts belonging to the Northwest Regional Data-processing Cooperative (ESD 189) can communicate with each other, and with ESDs and SPI staff, via the electronic mail component of that system. KNOW-NET has been posting regular news and research briefs of current interest on the All-in-One system since the spring of 1984.

For Further Reading:

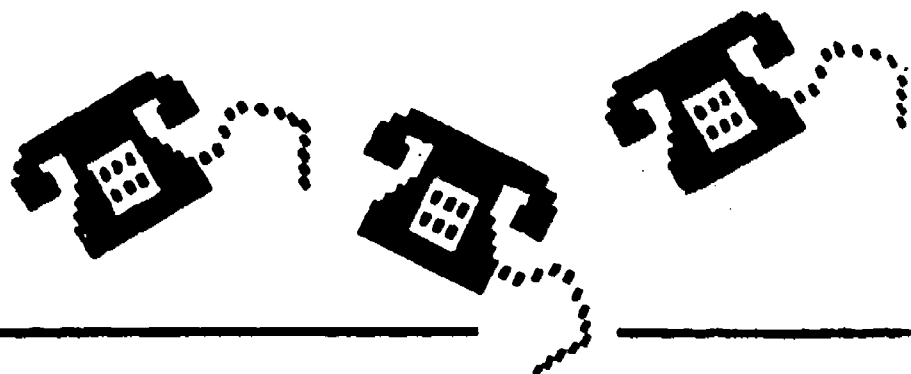
Link-up, Communications, and the Small Computer (Journal), 6531 Cambridge St., Minneapolis, MN 55426. Monthly, \$23.95 per year.

Glossbrenner, Alfred, The Complete Handbook of Personal Computer Communications, St. Martin's Press, New York, NY 10010, 1983. \$14.95.

"Communiques" column, InfoWorld (Journal), 375 Cochituate Road, Box 837, Framingham, MA 01701-9987. Weekly, \$31.00 per year.



GOING ON-LINE



EQUIPMENT YOU'LL NEED

Almost any computer terminal or microcomputer which has been configured to act as a terminal can be used to go on-line. The necessary components are the terminal or computer, a telephone line capable of long-distance transmission, an external or internal modem, software and/or a "communications interface" in the form of built-in components or a card which is inserted in a slot in the microcomputer.

Your best source of assistance in determining the capability of your equipment will come from the computer authority closest to you--a building or district computer specialist, the vendor from which equipment is purchased, or the computer specialist at the regional computer center/Educational Service District. These computer specialists are:

Educational Service District	Computer Specialist(s)
101, Spokane	Al Bell, Mike Maxon (509) 456-7683, Ext. 31
105, Yakima	Dick Nodlinski Ann Black (509) 575-2885
112, Vancouver	Jon Nelson, Judy Howard (206) 574-3215
113, Olympia	Dick Barnhart (206) 754-1683
114, Bremerton	Fred Achberger (206) 479-0994
121, Seattle	George Luginbill (206) 242-9400

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Educational Service District

123, Pasco

171, Wenatchee

189, Mt. Vernon

Also: St. Martin's College, Lacey

Computer Specialist(s)

Joe Heuther
(509) 547-8441

Myrna Jensen
(509) 663-8741

Sue Hubler, Larry Burtness
(206) 424-9573

Pat McIntyre
(206) 491-4700, Ext. 240

The market for communications packages, both hardware and software, is becoming increasingly competitive and opportunities for selecting various methods of access are growing. Vendors are anxious to sell; ask them to find what you need and demonstrate to you how it works.

Your equipment must be configured to meet certain technical requirements, and again your closest computer authority or vendor can assist you. Communications software generally gives you choices of parameters that come up on the screen when you boot the software disk. Interface cards commonly used in microcomputer communications have switches to be set before inserting them in the computer. You can manage each of these operations yourself, using the following information:

**For accessing databases
via Dialog or BRS:**

Baud rate: 300 or 1200*
Parity: Off, None or Zero (0)
Duplex: Half or Full**
Data Length: 7 data bits and 1 stop bit

*If you wish to use 1200 or higher baud rate (the rate at which the information is transmitted) you should be aware that many database vendors and information utilities charge a higher fee for the faster transmission. You may also have to use a different telephone number to access the system at 1200 baud than at 300 baud.

**KNOW-NET staff uses half duplex with either the Apple Super Serial card or the Hayes Micromodem II. This is the parameter which most commonly needs to be changed if transmission is not going well. If the letters you type on the keyboard appear double on the screen or printer, or if what you type does not appear at all, change the duplex from full to half or half to full. (Note: Very often when you type in a password, it will not appear on the screen. This is a protective measure built into the program and no cause for alarm.)

If you have difficulty with transmission or receiving other on-line communications (as from The Source, CompuServe, Shuttle, etc.) after setting your equipment parameters in this way, try varying the settings systematically, one at a time, or call the customer service number you received with your subscription and ask for assistance. (When all else fails, read the equipment, software and information utility manuals.)

PREPARING TO SEARCH THE ENCYCLOPEDIAS

Searching on-line is just one part of a total reference program. The question you must ask yourself is, "Is going on-line the most efficient and effective method to find the information?" (If your purpose is to browse through a database, you should realize that this is an expensive use of on-line time.) If the answer is "Yes", then ask yourself "Which database (a collection of information accessible by computer) should I search?"

Often the searcher begins with a question that is too general. It is important to be as specific as possible so that the necessary "key words" and "descriptors" can be defined and used.

The following four examples show questions of a general nature followed by an example of the same question (or request) refined and narrowed to facilitate a more satisfactory search logic.

THE QUESTION

- I. "I would like information on parental involvement."

Refine--Redefine--Narrow It--Be Specific

I would like information on how parents can be involved with the schools in helping children become learners. I am interested in students in grades 1-6. I would like this information which is fairly recent (83-84). KEY WORDS FOR THIS SEARCH MIGHT BE: parental involvement, schools, learning, elementary education, and (83-84) year.

- II. "I would like information on writing across the curriculum."

Refine--Redefine--Narrow It--Be Specific

I want information on how writing is integrated into the basic subject areas of the curriculum for grades 3-6. Interested in information available from the last three years. KEY WORDS FOR THIS SEARCH MIGHT BE: writing, curriculum, basic-education, intermediate-education, (83, 84, 85) year.

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III. "What should I do to have a good school community program?"

Refine--Redefine--Narrow It--Be Specific

I want models of school community programs implemented within the last three years at the secondary level. KEY WORDS FOR THIS SEARCH MIGHT BE: models, school-community programs, secondary-education, (83, 84, 85) year.

IV. "What is there on CAI?"

Refine--Redefine--Narrow It--Be Specific

I want information on what has been written on CAI in social studies for high school students in the past three years. KEY WORDS FOR THIS SEARCH MIGHT BE: CAI, social-studies, secondary-education, (83, 84, 85) year.

HOW TO BEGIN

- Write down your search strategy on paper after you have determined what "key words" and "descriptors" you will use.
- Use the Thesaurus (for ERIC descriptors).
- Check out the ways you can search for materials on various data bases--by date? by descriptors? by source of origin? by title? by author? by language?

Ask Yourself. . . .What do I want to know? What do I need to know?

- What would be the title of the perfect answer to my question?
- What are some related words under which I might search?
- How am I going to use the information? for a comparative analysis? for research? for a paper? for a report? for developing policy? for state-of-the-art information?
- What type of information do I want? curriculum guides? general articles? research? models?
- What is the most appropriate source(database) to find this information?
- Should I be going on-line for the information? is there a more direct approach? (an index, a specific book, a personal call)
- Would it be more efficient to go directly to my school librarian or my public librarian or a subject area specialist?

RESOURCES:

BRS Introductory Training Course Syllabus. BRS. 58 pages.

BRS Training Workbook, prepared by Sara D. Knapp. BRS, 1981. 159 pages.

Thesaurus of ERIC Descriptors, edited by James E. Houston. Oryx Press, 1984. 614 pages.

For additional searching tools and a recommended collection of professional journals, see Appendix, pages 44-45.

GETTING THE HARD COPY

Hard copies can be obtained in the following ways:

- You can make one copy of the abstracts by printing on-line (this can become fairly expensive because of the time on-line).
- You can order full documents from individual databases (see Appendix pages 46-47 for ERIC order forms).
- You can have a hard copy sent from the vendor (this is the usual procedure and is fairly inexpensive).
- You can download to disk--easy and inexpensive, but many vendors will not give you permission to do this as they do not control the copyright*. (Be sure to check with your vendor before downloading.)
- For journal articles, check with your local public, college or university library.

PREPARING TO SEARCH THE UTILITIES

The utilities are generally searchable by menu. Directions given when you sign on to individual files will indicate if they are searchable by key word, date or by other means such as title or author. "Dialog for Data," Forbes Magazine, and "Touring an Information Wonderland," Classroom Computer Learning, in Appendix, pages 48-52, will give you a more detailed description of what you may see and do when you sign on to one of the utilities.

*Copyright:

Special care must be taken not to violate copyright when working with material retrieved from databases and utilities. Generally, material found on-line may be printed off (single copy) at the time it is retrieved by the search. A single printed/photocopied copy of the material may be sent to a person for whom the search was conducted. Generally, the material retrieved on-line may NOT be saved on disk ("electronically reproduced"), and definitely may NOT be transferred to another disk or on-line to other users without written permission of the vendor and the individual database manager.

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Searching the utilities cost-effectively is largely a matter of a) learning the contents of files which interest you and b) devising the quickest way to reach those files. Browsing through The Source demo (see Appendix, page 53) and/or reading the command guide of the utility you wish to use will give you an idea of what to look at, your first time on-line. Once you have a nodding acquaintance with the file contents, there are various other ways to cut your on-line time, depending on the utility.

For example, teachers and administrators will have a special interest in EDLINE and TECHNET on The Source. Printing off the menus of these files and, in EDLINE's case, the list of "fast commands" (which allow you to bypass EDLINE's menu) will help you to decide what you will want to look at first, second, etc., the next time you go on-line. Your efficiency will improve with practice.

MAKING THE CALL



Telephone access to the major databases and utilities is generally made less expensive by placing the call through one of the telecommunications networks, Telenet, Tymnet or Uninet*, whose per hour cost is only \$8.00-\$10.00. (This charge is included in your billing from the database vendor or information utility.) You will want to select the network which has a number as close to your work site as possible, as your work telephone will have to bear the cost of any long distance charges to the network number. (See Appendix, page 34 for a list of these numbers in Washington State. Note: The Source does not use Tymnet and many do not use Uninet. Dialog will be installing its own network, Dialnet, in 1985. Dialnet will cost only \$6 per hour.)

*Uninet: BRS only

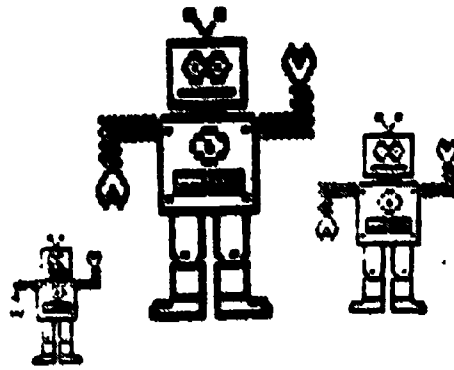
When you have dialed the number, you will hear it ring and then you will hear the computer "scream" indicating that you are connected. If you are using an external, "acoustic coupler" modem, this is the time to put the telephone cradle in the modem. With the most recently developed internal modems and software, this process is automatically taken care of for you once you have typed in the telephone number on the computer keyboard.

Each of the telecommunications networks has its own sign-on procedures. These are generally explained in the manuals accompanying your subscription to each service. In Appendix, page 34 we have included directions for signing on to each of the networks to access BRS. The article on page 48 of the Appendix, called "Dialing for Data," reprinted with the permission of Forbes Magazine, takes you through a sample log-on and mini-search of Dow Jones News/Retrieval.



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HELP



TRAINING FOR ENCYCLOPEDIAS

Several types of training are available for those who would like to become effective users of the encyclopedic databases. Dialog and BRS both offer on-site training at costs from \$75 to \$175 per person. In both cases, trainees get free time on the system for trying out the commands and searching strategies. A self-instruction manual is also available from BRS.

Each of these vendors also offers a more simplified, easy-to-use access to fewer databases, in the form of special subscriptions, called "Knowledge Index" on Dialog and "BRS After Dark." The amount of information available via these simplified systems, and the opportunities to refine the search, are curtailed accordingly.

The KNOW-NET Project staff offer beginning training in the use of the BRS system, at no cost to participants, with some hands-on experience available at the time of training. See Appendix, page 54 for the current Dialog training schedules.

Dialog also offers a series of on-line tutorials to classes of students learning on-line searching techniques, for \$15 per hour. These special training and practice files include "ONTAP ERIC," "ONTAP MAGAZINE INDEX," and "ONTAP DIALINDEX," which is the on-line directory to Dialog ONTAP databases.

ASSISTANCE WITH UTILITIES

As the utilities are menu-driven, little training is needed to find information files on them. The user simply selects choices from the menus offered until the desired file is reached. The most useful

commands are those which allow the user to exit a file, return to a previous menu or break into a scrolling display of information. These commands and others are all explained in the manuals accompanying your subscription and in special "help" files on each of the systems. (See also the articles in the Appendix, pages 48-52.)

Assistance with saving time on-line is usually most welcome, as the menu path through the various files is time-consuming and therefore expensive. Such assistance is offered by most of the utilities' manuals, which give instructions about building and saving short, simple programs in your own file that will allow you to by-pass menus when you sign on the system, and go directly to the files you will most often use. A commonly written program is one which sends you directly to your electronic mailbox when you sign on, to see if you have messages waiting. Or you may construct your own customized menu and save it on the system, so that when you sign on, you immediately are presented with your most common choices on a customized menu.

Other good tips for saving time and money can be found in such users' publications as Link-Up magazine (see page 12), whose recent articles suggested such useful behaviors as always having a notebook and pen at hand when browsing the utilities to jot down things you learn, other users' electronic mail "addresses," etc.



Special software is coming on the market which combines communications capability with searching assistance. Using this software makes it considerably easier to search for and retrieve information, while spending as little time as possible actually on-line. Some of this software, like "Search Helper" for the Apple, restricts the user to a small number of databases (in this case five), while a more comprehensive program, like "In-Search," for the IBM PC (for use with Dialog), provides access to all the databases on the system and has other helpful features such as scrolling the information identified by the search and storing it in the machine's buffer for later study after going off-line, without having to order and wait for off-line prints--or pay on-line charges for the time you need to study and select the documents you may want.

"Ominiterm 2," also for use with the IBM PC, has many similar features and allows the user to access many different on-line databases and work with the information they contain. A program called "SourceLink" is marketed to assist subscribers to wend their way through The Source's labyrinth of menus and services quickly and effectively.

MANAGING YOUR INFORMATION SERVICE



SUGGESTED START-UP BUDGETS

Following are several budget arrangements that you might make to set up an information service using either BRS or Dialog. Plans A and B would require about \$800; Plan C or D would be possible if you were able to budget about \$1,200. Please refer back to page 7 for a description of the various payment plans for BRS and Dialog.

Plan A

Subscription to BRS (Open Access)	
(\$50 start up, to be spent	
over 3 months @ \$35 per hour	
10 hrs. @ \$35 per hour	\$ 350.00
Fund for off-line prints	350.00
ERIC Thesaurus	45.00
BRS System Reference Guide	18.00
BRS Training (how to search) and workbook	15.00
(Training provided by KNOW-NET at no charge)	
	<hr/>
	\$ 778.00

(Plus long distance charges to nearest Tymnet or Telenet or Uninet number)

Plan B

Subscription to Dialog	
(Per hour costs depending on	
database--e.g., ERIC: \$25 per hour)	
10 hrs. @ \$25 per hour	\$ 250.00
Fund for off-line prints	350.00
ERIC Thesaurus	45.00
Dialog training (how to search)	
1½ days @ \$145 per person*	145.00
Guide to Dialog Searching	50.00
	<hr/>
	\$ 840.00

*See Appendix, page 54

Plan C

Subscription to BRS, 25-hour minimum	
25 hrs @ \$30 per hour	\$ 750.00
Fund for off-line prints	450.00
ERIC Thesaurus	45.00
BRS System Reference Guide	18.00
BRS training (how to search) and workbook	15.00
(Training provided by KNOW-NET at no charge)	<u>15.00</u>
	\$1,278.00

Plan B

Subscription to Dialog	
25 hrs. @ \$25 per hour	\$ 625.00
Fund for off-line prints	450.00
ERIC Thesaurus	45.00
Dialog training (how to search)	
1½ days @ \$145 per person	145.00
Guide to Dialog Searching	50.00
	<u>50.00</u>
	\$1,315.00

*See Appendix, page 54

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PROMOTION AND SERVICE

Once you have the means for searching the information databases, the success of your information service to others will depend heavily on your promotion efforts and the degree to which your service is easy for your information "clients" to use.

Promotion of the service at the building or district level is most often accomplished by presentation at staff meetings and by word of mouth from satisfied users. A key ingredient is making sure that users understand what will actually happen when they make an information request. A suggested presentation agenda, based on KNOW-NET staff's promotion experience, is:

1. Introduction: rationale for using database information (see Appendix, page 55).
2. Demonstration of an on-line search.
3. Demonstration and explanation of search results: what you get back.
4. Opportunity for those present to request a search.

You may also wish to refer administrators to the article "Tips for Principals: How to Find and Use Information Effectively," from the NASSP Bulletin, in the Appendix, pages 56-57.

An easy-to-use information service is one in which:

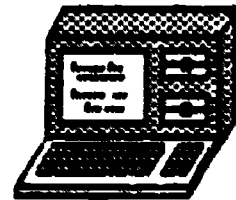
1. Procedures for requesting service are clear (see Appendix, page 48 for the search request form used by KNOW-NET).
2. Users know that to expect (format of results, turnaround time, etc.)
3. Information obtained is in a format which can be applied by the user (see Appendix pages 46-47 for forms which can be returned with the search results to help users obtain full copies of documents and articles).

The Appendix, page 59 also contains a form which may be used to collect users' evaluation of your searches, to assist you in improving your service.

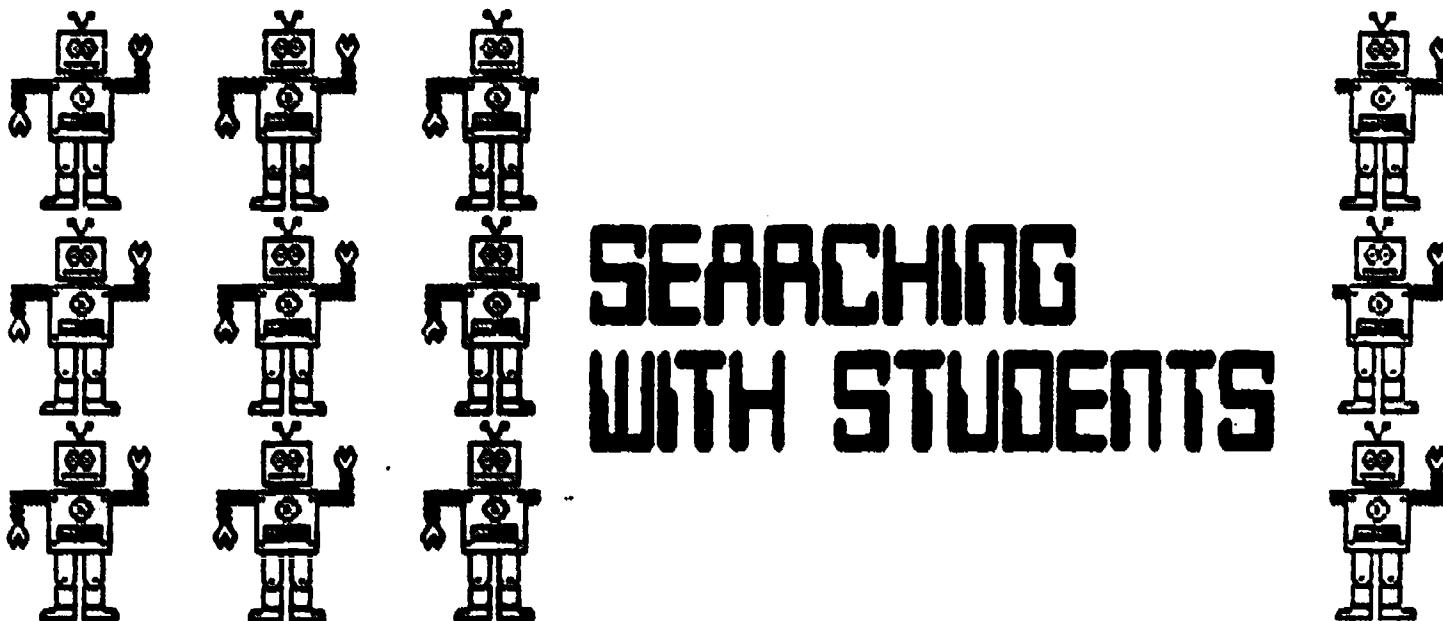
After the initial use of your service, colleagues may tend to forget that it is available, what with the press of their daily duties and emergencies. You may wish to add some outreach activities to your service, providing information in areas you know people are interested in, even if they have not specifically ordered a search. In this way, you will demonstrate the relevance of the information available and show your co-workers just how valuable their access to these databases is.

RECORD-KEEPING AND REPORTING

With a new information service, accurate record-keeping and reporting will allow you to provide the kind of data that the provider of your funding will want to have, in order to assess the program's success and make decisions about re-funding. Appendix, page 60 contains a suggested form for logging search requests. Data in the categories suggested (search topic, requester, turnaround time, cost, database used, etc.) should be reported regularly to your funding source. (KNOW-NET reports quarterly; your supervisor may prefer a monthly progress report.) You will also be able to learn from reviewing your log about patterns of use (who uses what kinds of information) and gaps in your coverage of your colleagues' information needs.



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SEARCHING WITH STUDENTS

A number of pilot programs enabling students to search the on-line databases have met with success in the last several years. School Media Quarterly, reported in the fall, 1977 issue, page 37, that three high schools participated in a project whereby students prepared information requests for the district media specialist, who then ran the searches for them, often with the students looking on. Journal articles were the most frequently used resource in that project. An article in the March, 1984, issue of Information Today, page 1, related the experiences of high school students in New Jersey and Pennsylvania, who were funded to search Dow Jones News/Retrieval and Dialog themselves for individual and class research projects. Although budget was recognized as a significant factor, teachers associated with these projects believed the usefulness of these tools for students was demonstrated in these cases. South Eugene, Oregon High School students in a Futures class participated last year in electronic teleconferencing with various experts their teacher located for them on The Source. (See story in Electronic Learning, September 1984, page 31, or contact Tom Layton, South Eugene High School, 400 E. 19th Ave., Eugene, OR 97401.)

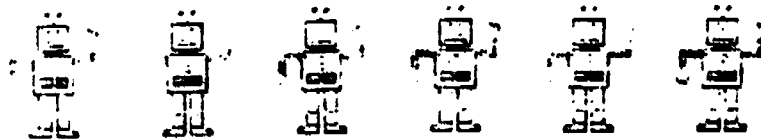
In our own state, Olympic High School in Central Kitsap School District, Walla Walla High School, Tumwater High School and others are experimenting with student searching.

Searching on-line with students is part of a total information-gathering and research curriculum which may be taught by the school library media specialist or by interested teachers working with the library media specialist. The objective of such a curriculum is to teach students to become knowledgeable users of information. The instructional activities should acquaint students with the full range of reference materials and networks available to them.

The most important factor in teaching students to use on-line searching as an information-gathering tool is the teacher's own knowledge of the database contents. What questions can be most successfully answered by an on-line search and what questions do not call for this approach? (No use sending a student to search ERIC for Senator Kennedy's home address or Washington State's divorce statistics.)

The library media specialist can be a valuable consultant to the teacher because he or she is trained in the use of information resources and is accustomed to working with students to help them find the answers to their questions. The library media specialist can help the teacher to learn about and access databases prior to teaching students about them, and to decide when going on-line is the best thing to do. The library media budget may also provide the subscription to BRS, Dialog or one of the information utilities as well as the telephone, modem and computer or terminal to be used. Of course, the library media specialist will often be the teacher in this area and should have a systematic plan for instruction.

Both library media specialists and other teachers who will be working with student researchers are urged to take advantage of KNOW-NET training programs and materials. (The KNOW-NET number is 206-753-6723, SCAN 234-6723.) An increasing number of library media specialists in Washington are familiar with KNOW-NET, the databases and searching, and can assist you in using this handbook. KNOW-NET may be able to put you in touch with an experienced person nearby.



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A beginning program for student searching might work best as follows:

What the teacher (and/or library media specialist) will do

What students will do

Consult with library media specialists on the selection of database(s), equipment and environment for teaching students to conduct a search.

Become familiar with the contents of databases to be used.

Learn basic techniques for going on-line and searching.

Become familiar with available searching tools. (Thesaurus)

Work with students to narrow topics, refine research questions, specify information needed.

Coach and monitor searching activities of students.

Teach students how to evaluate and select relevant information; how to adapt topic to information that is presented by the search.

Teach students ways to communicate that information.

Select a topic; learn to narrow and specify.

Learn searching procedures for the specific search in question; run the search.

Learn selection procedures; select information (from search results) to be used; obtain full documents as necessary.

Prepare report, paper, etc. using information received.

As familiarity with searching increases, teachers may wish to work with the library media specialist to teach students more generic searching techniques and develop policies for more independent student use of the computer and database subscription(s).



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APPENDIX



DIALOG DATABASES OF SPECIAL INTEREST TO EDUCATORS

- ART BIBLIOGRAPHIES MODERN, 1974-present, 75,400 records quarterly updates
(ABC-Clio, Inc., Santa Barbara, CA)
- BIOGRAPHY MASTER INDEX, 2,000,000 indexed name entries, periodical updates
(Gale Research Company, Detroit, MI)
- BIOSIS PREVIEWS, 1969-present, 4,214,000 records monthly updates (Bio-
sciences Information Service, Philadelphia, PA)
- BOOK REVIEW INDEX, 1969-present, 1,257,000 records (Gale Research Company,
Detroit, MI)
- CHILD ABUSE AND NEGLECT, 1965-present, 13,800 citations, semi-annual
updates (National Center for Child Abuse and Neglect, Children's
Bureau, U.S. Department of Health, Education and Welfare, Washington,
D.C.)
- CIS, 1970-present, 178,000 records, monthly updates (Congressional Informa-
tion Service, Inc., Washington, D.C.)
- COMPUTER DATABASE, 1983-present, 56,000 records, biweekly updates (Manage-
ment Contents, Inc., Northbrook, IL) (journals, newsletters,
proceedings)
- CONFERENCE PAPERS INDEX, 1973-present, 1,061,000 records, monthly updates
(Cambridge Scientific Abstracts, Washington, D.C.)
- CONGRESSIONAL RECORD ABSTRACTS, 1981-present, 205,000 records, weekly
updates (Capitol Services, Inc., Washington, D.C.)
- DISSERTATION ABSTRACTS ONLINE, 1861-present, 845,000 citations, monthly
updates (Xerox University Microfilms, Ann Arbor, D.C.)
- DOE ENERGY, 1974-present, 1,267,000 records, biweekly updates (U.S. Dept.
of Energy)
- ENCYCLOPEDIA OF ASSOCIATIONS, current year, 17,600 records, annual updates
(Gale Research Company, Detroit, MI)
- ENERGYLINE, 1971-present, 51,500 citations, bimonthly updates (Environment
Information Center, Inc., New York, NY)
- ENVIROLINE, 1971-present, 110,000 citations, monthly updates (Environment
Information Center, Inc., New York, NY)
- ENVIRONMENTAL BIBLIOGRAPHY, 1973-present, 254,000 records, bimonthly
updates. (Environmental Studies Institute, Santa Barbara, CA)

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ERIC, 1966-present, 527,000 citations, monthly updates (National Institute of Education, Washington, D.C., and ERIC Processing and Reference Facility, Bethesda, MD)

EXCEPTIONAL CHILD EDUCATION RESOURCES, 1966-present, 54,500 citations, bi-monthly updates (The Council for Exceptional Children, Reston, VA)

FEDERAL INDEX, October 1976-present, 223,550 citations, monthly updates (Capitol Services Inc., Washington, D.C.)

FOUNDATION DIRECTORY, Current year's data, 3,595 listings, seminannual updates (The Foundation Center, New York, NY)

FOUNDATION GRANTS INDEX, January 1973-present, 179,000 records bimonthly updates (The Foundation Center, New York, NY)

GRANTS DATABASE, Current, 2,200 records, monthly updates (Oryx Press, Phoenix, AZ)

MAGAZINE INDEX, 1959-1970, 1973-present, 1,468,000 citations, monthly updates (Information Access Corporation, Menlo Park, CA)

MEDLINE, 1966-present, 4,415,000 records, monthly updates (U.S. National Library of Medicine, Bethesda, MD)

MENTAL HEALTH ABSTRACTS, 1969-present, 452,000 records, monthly updates (National Clearinghouse for Mental Health Information, (NCMH), National Institute of Mental Health, Rockville, MD)

MICROCOMPUTER INDEX, January 1981-present, 21,600 records, monthly updates of magazine articles and other literature (Microcomputer Information Services, Santa Clara, CA)

NATIONAL FOUNDATIONS, current year, 21,000 records, annual updates (The Foundation Center, New York, NY)

NATIONAL NEWSPAPER INDEX, 1979-present, 807,500 records, monthly updates (Information Access Corporation, Menlo Park, CA)

NEWSEARCH, current month only, daily updates (Information Access Corporation, Los Altos, CA)

AV ONLINE (Formerly NICEM), current edition, 403,000 records, irregular updates (National Information Center for Educational Media, Access Innovations, Inc., Albuquerque, NM)

NICSEM/NIMIS, 1978 edition, 39,107 records (National Information Center for Special Educational Materials, Los Angeles, CA)

NTIS, 1964-present, 1,053,000 citations, biweekly updates (National Technical Information Services, NTIS, U.S. Department of Commerce, Springfield, VA)

ONTAP ERIC, special training and practice file.

PAIS INTERNATIONAL, Bulletin: 1976-present, monthly updates, Foreign Language Index: 1972-present, 221,500 citations, quarterly updates (PAIS, Inc., New York, NY)

PSYCINFO (Formerly PSYCHOLOGICAL ABSTRACTS), 1967-present, 456,500 citations, monthly updates (American Psychological Association, Washington, D.C.)

SCISEARCH, January 1974-present, 5,568,000 citations monthly update. (Institute for Scientific Information, Philadelphia, PA)

SOCIAL SCISEARCH, 1972-present, 1,364,000 records, monthly updates (The Institute for Scientific Information, Philadelphia, PA)

SOCIOLOGICAL ABSTRACTS, 1963-present, 104,507 citations, quarterly updates (Sociological Abstracts, Inc., San Diego, CA)

MENU - THE INTERNATIONAL SOFTWARE DATABASE, current offerings, 15,000 records representing over 55,000 different software packages, monthly updates (International Software Database Corporation, Fort Collins, CO)

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DATABASES AVAILABLE August, 1984



1200 RT 7
LATHAM NEW YORK
12110
(518) 783-1161
TWX 710 444 4985 LATM

Each of the over 80 files available on BRS is structured for maximum searching efficiency on the most sophisticated and flexible retrieval system on the market, BRS/SEARCH.

Selected for quality and wide appeal, the files cover a multi-disciplinary range of topics including business, the life and physical sciences, social sciences, and humanities. BRS also produces several unique and important databases which are highlighted in the list below.

DATABASE	LABEL	PRODUCER	DESCRIPTION
SCIENCES/MEDICINE			
AGRICOLA	CAIN*	National Agricultural Library (NAL)	Agriculture
AMERICAN CHEMICAL SOCIETY PRIMARY JOURNAL DATABASE	CPTX*	American Chemical Society	Chemistry, full-text coverage
AMERICAN MEN AND WOMEN OF SCIENCE	MWSC*	R. R. Bowler	Directory of scientists
BIOSIS PREVIEWS (AND BACKFILE)	BIOL (BIOS)	BioSciences Information Service	Biological sciences
CA SEARCH (AND BACKFILE)	CHEM (CHEB)*	Chemical Abstracts Service	Chemistry
CA SEARCH TRAINING COMPENDEX	CAST*	Chemical Abstracts Service	Chemistry
COMPREHENSIVE CORE MEDICAL LIBRARY	CCML*	Engineering Information, Inc. Several major medical publishers	Engineering Full-text of medical textbooks and journals
DISC	DISC*	BRS	Microcomputing literature
EXCERPTA MEDICA	EMED*	Excerpta Medica	Biomedicine and health
HEALTH AUDIO-VISUAL ONLINE CATALOG	HAVC*	Northeastern Ohio Universities	Audiovisual materials in medicine
HEALTH PLANNING AND ADMINISTRATION	HLTH*	National Library of Medicine (NLM)	Health economics, administration and planning
INSPEC (AND BACKFILE)	INSP* (INSB*)	Institute of Electrical Engineers, London, England	Engineering, physics, and computer science
INTERNATIONAL PHARMACEUTICAL ABSTRACTS	IPAB*	American Society of Hospital Pharmacists	Pharmaceutical and drug-related information
IRCS MEDICAL SCIENCE DATABASE	IRCS	IRCS Medical Science	Full-text biomedical research
KIRK-OTHMER ENCYCLOPEDIA OF CHEMICAL TECHNOLOGY	KIRK*	John Wiley & Sons, Inc.	Chemical technology, full-text coverage
MATHFILE*	MATH*	American Mathematical Society	Mathematics
MEDLARS-ON-LINE (MEDLINE AND BACKFILES)	MESH* (MS78)* (MS74)* (MS70)*	National Library of Medicine (NLM)	Medicine, nursing, dentistry
NTIS	NTIS*	National Technical Information Service	Government reports, all areas
ONLINE MICROCOMPUTER SOFTWARE GUIDE AND DIRECTORY	SOFT*	Online, Inc.	Microcomputer software and information
POLLUTION ABSTRACTS	POLL*	Cambridge Scientific Abstracts	Pollution
PRE-MED	PREM*	BRS	Current clinical medicine
ROBOTICS INFORMATION	ROBOT*	Cincinnati Milacron Industries, Inc.	Robotics
SUPERINDEX	SUPE*	Superindex, Inc.	Science, medicine, technology, and engineering
BUSINESS/FINANCIAL			
ABI INFORM	INFO*	Data Courier, Inc.	Business
FINTEL FINANCIAL TIMES OF LONDON	FNTL*	Information Industries, Inc.	Business
HARFAX INDUSTRY DATA SOURCES	HARF*	Harfax Database Publishing	Industry data
HARVARD BUSINESS REVIEW/ONLINE	HBRO*	John Wiley and Sons (electronic publisher)	Business and management
IHS VENDOR INFORMATION	VEND*	Information Handling Services	Vendor product information
INDEX TO FROST & SULLIVAN MARKET RESEARCH REPORTS	FSIS*	Frost & Sullivan, Inc.	Market research information
INDUSTRY AND INTERNATIONAL STANDARDS	STDS	Information Handling Services	Engineering standards
MANAGEMENT CONTENTS	MGMT*	Management Contents, Inc.	Business
MILITARY AND FEDERAL SPECIFICATIONS AND STANDARDS	MLSS*	Information Handling Services	Military and federal specifications and standards
PATDATA	PATS*	BRS	All patents registered through U.S. Patent Office
PREDICASTS ANNUAL REPORTS	PTSA*	Predicasts, Inc.	Company-specific business and economic information
ABSTRACTS	PTSP*	Predicasts, Inc.	Business and economics
PREDICASTS: PROMT/ F&S INDEX/HISTORICAL ANNUAL TIME SERIES/ FORECASTS (AND BACKFILE)	PTSI* PTSH* PTSF* (PTSBI)*		
VOLUNTARY STANDARDS INFORMATION NETWORK	VSIN	Information Handling Services	Voluntary standards

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DATABASE	LABEL	PRODUCER	DESCRIPTION
REFERENCE			
ABSTRAX 400	A400	Information Sources, Ltd.	Abstracts of popular periodical literature
ACADEMIC AMERICAN ENCYCLOPEDIA DATABASE	AAED*	Grolier Electronic Publishing, Inc.	Multi-disciplinary encyclopedia
BOOKS IN PRINT	BBIP*	R.R. Bowker	U.S. books in print
BOOKSINFO	BOOK*	Brodart, Inc.	800 000 books in print
CALIFORNIA UNIC N LIST OF PERIODICALS	CULP*	California Library Authority for Systems and Services (CLASS)	California periodicals holdings
DISSERTATION ABSTRACTS ONLINE	DISS*	University Microfilms	Multi-disciplinary
GPO MONTHLY CATALOG	GPCM*	U.S. Government Printing Office	Government publications
IRS PUBLICATIONS	IRSP*	Internal Revenue Service	Full-text of IRS tax information publications
NATIONAL COLLEGE DATABANK*	PETE*	Peterson's Guides, Inc.	College and university profiles
ULRICH'S INTERNATIONAL	ULRI*	R.R. Bowker	Directory of periodicals

EDUCATION			
BILINGUAL EDUCATION	BEBA*	National Clearinghouse for Bilingual Education	Bilingual/bicultural education
BIBLIOGRAPHIC ABSTRACTS			
EDUCATIONAL TESTING	ETSF*	Educational Testing Service	Education testing materials
SERVICE TEST COLLECTION			
ERIC	ERIC*	National Institute of Education	Education
EXCEPTIONAL CHILD	ECER*	Council for Exceptional Children	Exceptional child education
EDUCATION RESOURCES			
ONTARIO EDUCATION	ONED	Ontario Ministry of Education	Educational research, reports, and curriculum guidelines
RESOURCES INFORMATION DATABASE			
RESOURCE ORGANIZATIONS AND MEETINGS FOR EDUCATORS	ROME	National Center for Research in Vocational Education	Profiles and activities of educational groups
RESOURCES IN COMPUTER EDUCATION	RICE	Northwest Regional Educational Laboratory	Computer applications in education
RESOURCES IN VOCATIONAL EDUCATION	RIVE	National Center for Research in Vocational Education	Vocational Education
SCHOOL PRACTICES INFORMATION FILE	SPIF*	BRS Education Service Group	School practices
TEXAS EDUCATION COMPUTER COOPERATIVE	TECC*	Texas Education Computer Cooperative	Evaluations of educational software
VOCATIONAL EDUCATION CURRICULUM MATERIALS	VECM	National Center for Research in Vocational Education	Vocational curriculum materials

SOCIAL SCIENCES/HUMANITIES			
ABLEDATA	ABLE	National Rehabilitation Information Center	Rehabilitation products for the disabled
ALCOHOL USE/ABUSE	HAZE*	University of Minnesota College of Pharmacy	Alcoholism
CATALYST RESOURCES FOR WOMEN	CRFW	Catalyst Library	Current information on women and career
DRUGINFO	DRSC*	University of Minnesota College of Pharmacy	Drug abuse
FAMILY RESOURCES	NCFR*	National Council on Family Relations	Marriage and family literature
LANGUAGE AND LANGUAGE BEHAVIOR ABSTRACTS	LLBA*	Sociological Abstracts	Language and linguistics
MENTAL MEASUREMENTS YEARBOOK	MMYD*	Buros Institute Mental Measurements	Standardized testing materials
NARIC	NRIC*	National Rehabilitation Information Center	Rehabilitation literature
NIMH	NCMH*	National Institute of Mental Health	Mental health and related information
PUBLIC AFFAIRS INFORMATION SERVICE	PAIS*	Public Affairs Information Service	All social sciences
PSYCINFO	PSYC*	American Psychological Association	Psychology
RELIGION INDEX	RELI*	American Theological Library Association	Religion
SOCIAL SCIENCE CITATION INDEX (AND BACKFILE)	SSCI*	Institute for Scientific Information	Social science
SOCIOLOGICAL ABSTRACTS	(SSCB)* SOCA*	Sociological Abstracts	Sociology and related disciplines

BRS SPECIAL FILES			
BRS BULLETIN ONLINE	BULL*	BRS	BRS BULLETIN online
CROSS	CROSS*	BRS	Cross-file searching
FILE	FILE*	BRS	BRS database directory
MESSAGES	MSGS*	BRS	Electronic message switching
NEWS	NEWS*	BRS	System update file
TERM	TERM*	BRS	Social science thesauri

These database are available to library schools via the BRS Educational Online Training Program.

KNOW-NET Project

State Telenet, Tymnet, and Uninet Numbers

How to Access BRS

City	TYMNET (800-336-0149)	TELENET (800-336-0437)
AUBURN		206/939-9982
BELLEVUE		206/939-9982 (1200 baud) 206/447-9012 206/625-9612 (1200 baud)
ENUMCLAW	206/825-7720	
LONGVIEW		206/577-5835
OLYMPIA	206/438-2772	
RICHLAND	509/375-3367 509/375-3367 (1200 baud)	
SEATTLE	206/285-0109 206/289-7141 (2400 baud)	206/447-9012 206/625-9612 (1200 baud)
SPOKANE	509/747-4105 509/747-4105 (1200 baud)	509/455-4071 509/455-4071 (1200 baud)
TACOMA	206/272-1503	206/627-1791 206/627-1791 (1200 baud)
VANCOUVER	206/693-0371	
WENATCHEE		509/663-6227 509/663-6227 (1200 baud)
YAKIMA	509/453-1591	

 PORTLAND 503/295-3028
 503/295-0310

UNINET (Customer Service: 1-800-821-5340)

SEATTLE 206/627-8778

On Telenet:

How to Access BRS

- Type: (return) (If asks for terminal type, hit return.
 ; (return) If will not accept, call BRS (1-800-
 (Comes up "Telenet....") 833-4707) and ask for the terminal
 (Comes up "@" C 31520BR identifier for your type of equipment.)
 (Comes up "BRS connected....")
 (Asks for password)

On Tymnet:

- Type: (Comes up "Please type your terminal identifier") A (do not return)
 (Comes up "Please log in") Control H BRS
 (Comes up + ... or may not. If it does, hit return)
 (Asks for password)

On Uninet:

(Comes up "L?" or a few other characters) Return
 (Comes up "service:") BRS _____ ; A Return
 (your id#)
 (Connects to BRS and asks for password)

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Partial List of Files on The Source, 1984-85

SourceMail
United Press International
Washington Post
Scripps-Howard News Service
Bulletin (Day's latest news and commentary)
Bylines (Political columnists; popular columnists)
Associated Press Business/Finance News
U.S. News Washington Press
Movie Reviews
Television Reviews
Northwest/Pacific Regional Education News

ED-LINE (National School Public Relations Association)

Files on ED-LINE include:

AASA (American Association of School Administrators ON-LINE)
AASB (Alabama Association School Boards main menu)
ALERT (Federal Alert)
AM (Late AM news headlines from EDUCATION USA NEWSLINE)
ARKANSAS (Arkansas Department of Education main menu)
CLASSROOM (Classroom Ideas)
CCSSO (Council of Chief State School Officers main menu)
CCL (Computer Classroom Learning Software Picks)
DIRECTORY (ED-LINE Voluntary Director)
EDTECH (Educational Technology Line)
EXCELLENCE (Excellence in Education)
EXCHANGE (Ed-Exchange (user bulletin board))
FACTS (Useful Facts and Figures)
GALLUP (1984 Gallup Poll of the Public's Attitudes Toward the Public Schools)
IOWA (Iowa Newline)
KANSAS (Kansas Association of School Boards main menu)
LEGAL (Legal Briefs)
MAIL (SOURCEMAIL)
NAEP (National Assessment for Educational Progress)
NASBE (National Association of State Boards of Education main menu)
NATIONAL (National Networks main menu)
NEWS (EDUCATION USA NEWSLINE menu)
NEWSLINE (EDUCATION USA NEWSLINE menu)
NIE (National Institute of Education)
OHIO (Ohio School Boards Association main menu)
PA (Pennsylvania Today main menu)
PL (Pennsylvania Today main menu)
PM (Latest PM NEWSLINE headlines)
PR (School PR Line: The NSPRA Network)
PRNETWORK (Directory of NSPRA Members on ED-LINE)
RESEARCH (What's New in Research)
STATE (State networks main menu)
UPI (United Press International wire service)
USA (EDUCATION USA NEWSLINE)
TECHNET (Association for Communications and Technology main menu)
WASB (Wisconsin Association School Boards main menu)

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(The Source, cont'd)

TECHNET

TechNet Main Menu

1. Calendar of Events (conferences, etc.)
2. Bibliographic Citations
3. AECT Information Line
4. News and Tips from TechNet
5. In the Media (what's new)
6. Journal Content Summaries
7. Technology Facts and Figures
8. Resources and Services
9. Telecommunications and Education
10. Job Opportunities
11. For and about Kids
12. SOFTIE, too!
13. Practitioner Information Exchange
14. TechNet Subscribers
15. NICEM

A Sample of the Files on CompuServe, as of September 1, 1984:

AAMSI Communications
AP Videotex, Business
AP Videotex, Politics
AP Videotex, Weather
AP Videotex, World News
Academic Amer. Ency.
Adult Education: The College Board
Agri-Commodities
Alternative Educ. Svcs.
American Ski Association
Apple User Group SIG
Atlases: TravelVision
Auto performance tests: Popular Science, Autos
Aviation Rules & Reg.
Aviation Weather
Bank-at-Home: Banking Services
The Business Wire
Wash. Post, Business
Canadian News: CP Business Info. Wire
Children's Games
Citizen's Band Simulator
Classic Quotes
Classified Ads: Stl Post-Disp., Autos
College Press Service
Comp-U-Store
Computer Industry News: Direct Connection, The
Computer Resume Bank
Computing Across America
Computing Tutorials
Cooking: Electronic Gourmet
Democratic Forum
Department of State
ECOM
Email
EMI Flight Planning
Edutech
Educational Research Sig.
Election '84
Employment Opportunities: Alternative Educ. Svcs.
Entertainment: Hollywood Hotline
Federal Gov't News: Wash. Post, Gov't News
Fedwatch Newsletter
Financial Wire: Wash. Post, Financial
Money Market Services
NOAA Weather Wire
Games
Government Publications
Green Sheets: Standard & Poor's
Pan Am Travel Guide
Home Management

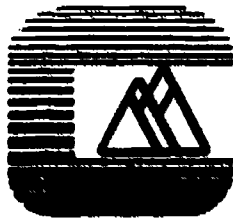
InfoWorld
Internal Revenue Services
Investments
Issues, Legal: Legal Forum
Literary SIG
Military Vets Forum
Music Information Service
Parenting & Family Life
Primetime Radio Classics
Quick Quote
Quick Reference List
Road maps: TravelVision
Services for Handicapped
Social Security Admin.
Sports News
Tax laws: Stevens Business Reports
Trivia Test
Veterinarians Forum
West Coast Travel
Worldwide Exchange

I011L8.00

Partial List of Databases offered by Dow Jones News/Retrieval

Dow Jones News
Free-text News Search
Economic News and Forecasst
Wall Street Journal Highlights
Current Quotes (stocks)
Historical Quotes (stocks)
Dow Jones Averages
Dictionary of Investment Terms
Academic American Encyclopedia
Dow Jones Menu
Movie Reviews
UPI World Report
Electronic Shopping
Stoek Symbols
Sports Report
Wall \$treet Transcripts
National Weather Report
Data on Public Companies
Corporate Earnings Estimator
Rankings of Corp.'s & Industries
Japanese Economic Information
Media General Financial Services
Money Market Services Forecast
Official Airline Guide
Merrill Lynch Research Service
Customer Service
MCI Electronic Mail

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Computer
Technology
Program

Reports to Decision Makers

Electronic Mail

by Jim Pollard & Don Holznagel

As a decision maker, you know that the world is different this year from what it was last year; that change has become exponential; and that you have little chance of keeping up. During the first years of this decade, popular enthusiasm and anxiety were focused on the effect of the microcomputer on life in general and on the schools in particular. This year, the topic to discuss is electronic communications. Some of you are not comfortable, even in a social setting, without an "electronic address" to share or a hot tip on a new "bulletin board." This report looks at a small portion of the world of electronic communications, intending to help you to decide whether to exchange time and money for a piece of that world.

It might be helpful to begin with an overview of the environment. The term electronic communications covers virtually every form of interaction between computers. It includes the transfer of data between main frame (i.e. big) computers and the transfer of gossip between hobbyists using microcomputers. It includes the sending and receiving of mail electronically; the long distance use of one computer by several terminals; the posting of news on specialized "bulletin boards"; and the searching and reading of huge stores of information known as data bases. It even includes the raiding and plundering of secret computer files, but that topic is already well-covered in print and film.

The issues that you will need to address as a decision maker are (1) just what are electronic communications, (2) how will they help me teach, administer or survive, and (3) what will it cost in time and money. These are the issues with which this report deals.

WHAT'S ELECTRONIC MAIL?

Let's begin with electronic correspondence. If you already have a good concept of how mail works, you have electronic mail nearly mastered. Using a typical electronic mail system, you can send letters, memos and messages to anyone who uses the same electronic mail system. Unlike the usual mail, the letters arrive at their destination immediately. All the addressee needs to do to read the letter you sent is to "sign on" to the system (a process which usually involves a password to protect confidentiality) and to read the letter.

Most of the options which are available with the post office are also available with electronic mail. These options include registered mail, bulk mail, and express mail. Your letter can even be delayed intentionally until the date that you want it to arrive. An important feature of electronic mail is the ability to send one letter to a list of addressees. A letter to fifty of you:

continued



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closest colleagues takes the same amount of time to mail as a letter to one of them. Most systems will store frequently used address lists for you, and some will even transfer your letter to mailgrams or even regular mail if some of the people on the list are not connected to the system.

Perhaps the greatest advantage to electronic mail is the informal, telegraphic style of writing which is customary. Suppose you need information from a principal in Middletown, Indiana, in planning your next year's budget. Your original letter would be very much like a letter you would send through regular mail. The response, however, would contain only the minimal information necessary... "It would cost us \$13,007 for three of those." Your reply to the principal might be a simple "Thanks." By regular mail, standard practice would require constructing at least two paragraphs of text for each of the latter two messages, not because two paragraphs were necessary, but because that's what would look best on a printed page. If for no other reason than this telegraphic style of communicating, electronic mail should win your heart.

WHAT'S A BULLETIN BOARD?

While you are using electronic mail, you will probably have an opportunity to use another type of electronic communication, bulletin boards. This form of communication is exactly parallel to the actual bulletin board you might find in a school or laundromat. You post notices on the board or read those that are already posted. Keep in mind that everybody who uses the system will be able to read what you have posted.

As electronic mail systems grow, the bulletin boards tend to be split into specialized boards, so finding what someone has to say about, for example effective reading programs, might require looking on the Reading bulletin board. These boards are a good way to look for the answer to a particular

problem you are having. Simply post a message indicating that you need help with that problem and ask what solutions others have found. Respondents may either post their solution or send their reply to your electronic mailbox.

CONFERENCE BY COMPUTER?

A final option you will be offered by many electronic mail systems is to chat with other folks using the system at that particular moment. This can be arranged in advance among several of your colleagues, resulting in a computer conference. You'll have to work out the rules of etiquette at the beginning of the conference since participants tend to either interrupt each other or sit silently at their terminals.

WHAT ABOUT HOOKING UP?

Getting hooked up with an electronic mail system requires some equipment, some software and an electronic mail system to hook to. The equipment is:

a microcomputer (or a terminal; if you already have a terminal, that's all the equipment you need) -- \$100 to \$2500

a modem (the gizmo which connects your computer to the telephone) \$60 to \$250

an interface and cable (to connect your computer to the modem--some modems connect directly to the computer so you may be able to do without this) \$100 to \$150

The software is needed in order to convince your computer that it is a terminal. It can be either a dumb terminal--one which sends and receives information; or a smart terminal--one which does what a dumb terminal does but also saves information it receives on a disk and sends out files which have been stored on disk. In general, smart terminals are better than dumb terminals. The software should cost you less than \$100

So, with the equipment in place, with whom can you communicate? You can communicate with anyone who uses the same electronic mail system that you use. You, of course want to use the same system as the one used by those colleagues you want to communicate with. Your options include:

The Source--This is a general purpose system which has electronic mail, bulletin boards and news on hundreds of subjects. With the source you can check the stock market, make an airline reservation, read the newspaper and, incidentally, keep abreast of what is happening in education. News on education is supplied through Ed-line, a bulletin board service which is operated by the Council of Chief State School Officers. If much of your communication will be with state level educators through out the country, this is the system to choose. (The Source Telephone: 800/323-1717).

SpecialNet--The National Association of State Directors of Special Education started this service a couple of years ago as a mechanism for their members to communicate and to receive the latest federal news on Special Ed. Since its beginning, the membership has broadened to include hundreds of school district and even building level administrators. SpecialNet's specialized bulletin boards are well managed and informative. Many states have started subnetworks on SpecialNet for school districts to communicate among themselves. (SpecialNet Telephone: 202/822-7933).

Compuserve--This system is very much like The Source--in fact they are in direct competition. The National School Boards Association chose Compuserve as the system that they would use communicating among themselves. An attraction of Compuserve is a relatively low cost to educators who use the system. (Compuserve Telephone: 800/848-8119).

DIALCOM--Is an electronic mail system which is operated by a corporation which specializes in computer time rental. The cost is low. It is not widely used by local educators but it is used by the Federal Department of Education and National Institute of Education. (DIALCOM Telephone: 301/588-1572).

Local networks--It may be that there is a local group of educators who communicate among themselves on their own system. The people in Alaska use their own system, the Alaska Electronic Mail Service, which connects communities which spend much of the year not connected. Other states use their own computers or use an existing system like SpecialNet. A call to your State Department of Education should help you locate any local system in your state.

Each electronic mail system will charge a membership fee and will bill for the actual amount of time you spend using the system in a month. The best advice is to check with colleagues concerning which system they use and approximately what they pay each month to use it. Expect to pay somewhere around \$500 per year for moderate use of an electronic mail and bulletin board system.

Unfortunately, there is yet another charge you will face in using electronic mail--the telephone. Assuming that the computer which houses the electronic mail system is not in your town, there will be costs to rent the telephone lines. The costs are lower than you might expect thanks to companies which rent the lines at a lower rate because they handle a large volume of traffic. If you are in a medium to large city, you can share in their savings by dialing a local number and having your call included in the volume. Even if you are not in a city served by one of these companies, it is probably less expensive to make a toll call to the nearest city which is served than to make a direct call. The major companies providing this service are Uninet, Telenet and Tymnet.

The initial impression of the usefulness of electronic mail may bring visions of the glory days of CB radio, where thousands of users hit the airwaves to discuss, primarily, their CB radios. It is true that some networks specialize in exchanges among computer hobbyists, so you will have to shop carefully if you want to avoid trading tips on playing Zork with a high school student in Beowawe, NV.

The best bet for deciding on which electronic mail system to use is to find some of your colleagues already using one. Even if they are not totally delighted with the system they are using, you should give that system serious consideration. Without someone to mail things to, you won't find electronic mail particularly useful. If you are pioneering in your area, you might get some help from a professional association in your field. It is to everyone's advantage to be using the same system.

As with many aspects of the information age, the number of options can be bewildering. If the rapid change in the way we communicate is depressing you, there is one final option available through electronic mail. Dr. Del Dobyns, a clinical psychologist, offers small group sessions on Monday evenings. Just dial up CompuServe and sign on to the group.

If you have any questions about Electronic Mail, please call Jim Pollard at (503) 248-6800 Ext: 542 or leave a message for AEC043 on The Source.

This work is published by the Northwest Regional Educational Laboratory, a private nonprofit corporation. The work contained herein has been developed pursuant to a contract from the National Institute of Education. The opinions expressed in this publication do not necessarily reflect the position of the Institute and no official endorsement by the Institute should be inferred.

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Jim Pollard & Don Holznel, authors.

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Current Index to Journals in Education (ERIC)	Oryx Press 2214 North Central at Encanto Phoenix, Arizona 85004	\$125.00 annually
ERIC THESAURUS	Oryx Press 2214 North Central at Encanto Phoenix, Arizona 85004	45.00
Resources in Education (ERIC)	Superintendent of Documents U.S. Government Printing Office Washington, D.C. 20402	95.00 annually
Washington Library Network Resource Directory (subscription)	Washington State Library, A1-11 Olympia, WA 98504	150.00 per year

PROFESSIONAL JOURNALS

<u>TITLE</u>	<u>Published</u>	<u>Cost Per Year*</u>
AMERICAN SCHOOL BOARD JOURNAL	Monthly	\$ 32.00
AMERICAN SECONDARY EDUCATION	Quarterly	15.00
CHILDHOOD EDUCATION	5/yr.	32.00
CLASSROOM COMPUTER NEWS	9/yr.	19.95
COMPUTING TEACHER	Monthly	21.50
CREATIVE COMPUTING	Monthly	24.97
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EPIEGRAM: EQUIPMENT	Oct.-June	40.00
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Date _____

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Dialing for data

Using an on-line database is a relatively simple procedure—if you know exactly what you want and where to find it. Looking up AT&T's five-year sales and earnings history, for example, takes only minutes. The information is on several services, including Lockheed's Dialog, Mead Data Central and The Source. Here's how we got it from Dow Jones:

1. We connect our computer terminal to a telephone and make a local call to a packet switching network, in this case Telenet.

2. Telenet answers and asks what equipment we are using, to provide a clearer signal. We punch in the code "A8," signifying Digital Equipment Corp.'s Decwriter III, a so-called dumb terminal.

3. On flashes the symbol "a," Telenet's way of telling us to name a database vendor. We answer with the "address" for the Dow Jones News Retrieval service in Princeton, N.J.

4. Telenet tells us we are connected with Dow Jones.

5. We are now communicating with an IBM mainframe computer at Dow Jones that asks which of the company's several services we want. We answer: "DJNS," the product that carries corporate financial data.

6. DJ asks for our paid-subscriber password. Since this also tells the

we would like to access. We enter "DSCLO," for a specific bank of computers containing SEC reports compiled by Disclosure Inc.

8. After logging on with Disclosure, DJ asks what company we are interested in. "T," we reply, using stock symbol code, and DJ affirms that we want AT&T. DJ's computer is now ready to "read" the proper section of its database disks. (Like a researcher referring to an index, the computer need not search the entire file.)

9. DJ now asks what part of the file we are interested in. It offers 15 choices. We request number six.

10. Instantly the computer reads that section of the database and prints out the information.

11. We disconnect from the database, vendor, Telenet and local phone lines.

Doing all this took two minutes on-line, probably the minimum time for any database request. Our bill came to roughly \$8.55. About \$4.20 goes to Dow Jones for computer time. Another \$4 goes to Disclosure Inc. for the information. Telenet gets 25 cents, and 10 cents goes to New York Telephone for the local call.

If you have followed this example, you probably now appreciate two things about on-line databases: Using them efficiently isn't easy, and it can be expensive.—J.B.

```

1  Telenet
2  Telenet
3  A8
4  000 000 CONNECTED
5  WHAT SERVICE PLEASE????
6  ENTER PASSWORD
   DOW JONES NEWS/RETRIEVAL
   COPYRIGHT (C) 1983
   DOW JONES & COMPANY, INC.
   ALL RIGHTS RESERVED.

   ENTER QUERY
   //DSCLO
   DISCLOSURE II
   COPYRIGHT (C) 1983
   DISCLOSURE INC.

7  TO CONTINUE, ENTER COMPANY STOCK
   SYMBOL AND PRESS RETURN
   COMPANY NAME: AMERICAN TELEPHONE & TELEGRAPH CO

8  ENTER FOR
   1  CORPORATE PROFILE
   2  BALANCE SHEETS FOR 2 YEARS
   3  INCOME STATEMENTS FOR 3 YEARS
   4  STATE INC STATEMENTS (CUR FY)
   5  LINE OF BUSINESS DATA
   6  5 YR SUMMARY DATA (REVS. INCOME,
      EPP)
   7  FULL FINANCIAL DATA (2 THRU 6)
   8  OFFICERS AND DIRECTORS
   9  OWNERSHIP AND SUBSIDIARIES
  10 OTHER CORPORATE EVENTS
  11 MANAGEMENT DISCUSSION
  12 CORPORATE RECORD (1 THRU 10)
  13 FULL CORPORATE RECORD (1 THRU 11)
  14 2 YR LIST OF REPORTS IN FILE
      WITH THE DEC
  99 NOW TO ORDER FULL TEXT OF SEC
      REPORTS

10
   FIVE YEAR SUMMARY
   SALES      NET INCOME      EPS
1981  59,229,000.000  4,888,000.000  0.55
1980  51,752,000.000  4,058,000.000  0.17
1979  48,183,000.000  3,659,000.000  0.01
1978  41,748,000.000  3,282,000.000  1.75
1977  37,003,000.000  2,448,000.000  0.84
   EISC

11 LOG ON: 10 13 LOG OFF: 10 15 EASTERN TIME
   MARCH 17, 1983 09: 07 DISCONNECTED

```

computer whom to bill, the word is blanked out by the computer.

7. DJ's copyright notice appears, and the vendor asks what database

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TOURING AN INFORMATIONAL WONDERLAND

By William Martin

An online data-base system can connect your classroom with the world and can help you take the first step toward creating a global classroom.

Do your students have trouble keeping up with current events in social studies class? Have you or your students spent hours looking for an answer to a student's science question, only to give up the search for lack of time or resources? In this too-much-information-too-little-time world, online data-base searching may be an answer to your and your students' information needs. Via special telephone circuits, your computer can be used to access the memory of mini- and mainframe computers throughout the world. The process extends the power of the micro far beyond the capacity of its internal design and beyond your school's own software library.

Data-base search services can be used to provide information for any curriculum. Historical or current information about almost any topic can be accessed from data bases of national newspapers, the Associated Press, online encyclopedias and other sources. Such information can be used to generate ideas for an English project, provide facts for a social studies class or supply technical information for a science experiment. Since using data-base search services is relatively easy, students will need only minimal instruction to be able to access a wealth of information.

Online data-base searching is a service sold to users in the United States and Canada through commercial organizations. The three big general data services are CompuServe, the Source and Dow Jones (see the box following this article for subscription information). In addition, there are several large specialized information systems, such as Lockheed's Dialog, the Bibliographic Retrieval Service and the New York Times Information Service. In fact, the number of these services seems to grow daily: more than 300 are available at the present time.

Sampling the Service

Let's take a tour through the memory banks of CompuServe's data-base service to see what kinds of information and services are available, what form they take and how they might be used in your classroom.

To gain access to the service, the student dials CompuServe's number directly or—in those areas of the country that do not have CompuServe's dial-direct facilities—dials a local telephone number that connects her to a large telecommunications network or electronic exchange (Telenet and Tymnet are the most common). Once in this network, the user indicates the kind of

ILLUSTRATION BY CHRIS MORTENSEN

AN INFORMATIONAL WONDERLAND

(continued from page 12)

computer or terminal she will be using.

When students dial the local phone number for Telenet, the following message appears on the screen:

Computer Display

```
TELENET 508 12A
TERMINAL -01
M C 202202
202 202 CONNECTED
USER ID: 70007.354 (PASSWORD)

COMPU SERVE INFORMATION
SERVICE 10:25 EDT TUESDAY
1 JAN 84
```

Comments

The user is now connected to the Telenet exchange. The user types in the code for the terminal she is using—in this case, 01.

To tell Telenet to access CompuServe, the student types C202202.

The connection has been made.

When she sees the prompt USER ID, the student types in the class account number and secret password.

When this message appears on the screen, CompuServe's doors are open.

```
COMPU SERVE PAGE HOM-70
EDUCATION
$ 1 GROLIER'S ACADEMIC
  AMERICAN ENCYCLOPEDIA
  2 THE COLLEGE BOARD
  3 THE MULTIPLE CHOICE
  4 CLARKE SCHOOL FOR THE DEAF
LAST MENU PAGE.
11
```

The \$ indicates that there is an additional hourly fee for use of the encyclopedia.

```
GROLIER PAGE AAE-1
THE ELECTRONIC EDITION OF
GROLIER'S ACADEMIC AMERICAN
ENCYCLOPEDIA
COPYRIGHT (C) 1983
ARJETA PUBLISHING COMPANY
1 ELECTRONIC ENCYCLOPEDIA
2 AAE USER'S GUIDE
3 PRODUCT INFORMATION
4 GROLIER TALK-BACK
$ = $8.00/HOUR SURCHARGE
11
```

We'll use 1—the ELECTRONIC ENCYCLOPEDIA.

Example 1: Searching the Encyclopedia

CompuServe is heavily menu-driven, a feature that is a plus for beginners. The exclamation point at the beginning of some lines is a prompt from the CompuServe computer asking the user for a menu choice. To give you an idea of the scope of CompuServe's available services, here is a presentation of some of its major submenus. Some of the output will be shortened since the system puts out considerably more data than is necessary for demonstration purposes.

Suppose a student is searching for information about drugs for a health lesson. To see what he can find out about drug abuse, he can look in the online encyclopedia:

```
COMPU SERVE PAGE CIS-1
COMPU SERVE INFORMATION
SERVICE
1 HOME SERVICES
2 BUSINESS & FINANCIAL
3 PERSONAL COMPUTING
4 SERVICES FOR
  PROFESSIONALS
5 USER INFORMATION
6 INDEX
ENTER YOUR SELECTION NUMBER OR
H FOR MORE INFORMATION
```

This is the main menu for CompuServe. Since the Student wants the HOME SERVICES submenu, he types 1 after the exclamation point appears on the screen.

```
COMPU SERVE PAGE HOM-1
HOME SERVICES
1 NEWS/WEATHER/SPORTS
2 REFERENCE LIBRARY
3 COMMUNICATIONS
4 HOME SHOPPING/BANKING
5 GROUPS AND CLUBS
6 GAMES AND
  ENTERTAINMENT
7 EDUCATION
8 HOME MANAGEMENT
9 TRAVEL
LAST MENU PAGE KEY DIGIT OR H
FOR PREVIOUS MENU
11
```

Both the EDUCATION data base and the REFERENCE LIBRARY can be used to access the encyclopedia. We'll type in 7 to enter through the EDUCATION menu. (Remember this menu, we'll return to it later.)

LAST MENU PAGE means this is the end of the HOME SERVICES submenu.

```
GROLIER PAGE AAE-100
WELCOME TO
GROLIER'S ACADEMIC AMERICAN
ENCYCLOPEDIA
TO SEARCH FOR AN ARTICLE IN THE
ACADEMIC AMERICAN, JUST KEY IN
THE ARTICLE TITLE.
FOR FURTHER INFORMATION ON
HOW TO USE THE ENCYCLOPEDIA
ENTER GO 110 TO ACCESS THE
ACADEMIC AMERICAN USER'S GUIDE
KEY ENTER TO BEGIN SEARCH
SEARCH TERM: DRUG ABUSE
```

```
GROLIER PAGE AAE-46656
DRUG ABUSE
THE TERM DRUG ABUSE REFERS TO
THE CONSUMPTION OF DRUGS FOR
REASONS OTHER THAN MEDICAL
TREATMENT OR IN QUANTITIES THAT
EXCEED THE REQUIREMENTS OF
SUCH TREATMENT HABITUAL AND
LONG-TERM DRUG ABUSE MAY
RESULT IN PHYSICAL ADDICTION
```

Here is the ELECTRONIC ENCYCLOPEDIA's information about drug abuse. We'll bypass the rest of the text on this menu and a submenu that would provide further details.

```
BIBLIOGRAPHY BLUDWORTH
EDWARD, THREE HUNDRED MOST
ABUSED DRUGS. 3D ED (1976)
BURT, MARVIN R. DRUG ABUSE, ITS
NATURAL HISTORY
```

The encyclopedia even provides a bibliography for further research.

Example 2: Grow a Garden With a Data-Base System

There are other CompuServe data bases (many of which are available without the surcharge) that teachers and students can search to find ideas or to prepare for a class project. Let's look at the REFERENCE LIBRARY, which we can get to through the HOME SERVICES menu. (As stu-

dents become familiar with the system and the locations of often-used menus, they can use the GO command to jump directly to a particular page in the data base. The HOME SERVICES menu is on page HOM-1.) By typing GO HOM-1 and selecting item 2 from the menu, the screen displays:

```

COMPUERVE          PAGE HOM-20
REFERENCE LIBRARY
1 ACADEMIC AMER
  ENCYCLOPEDIA
2 INFORMATION ON DEMAND
3 U.S. GOVERNMENT
  PUBLICATIONS
4 FAMILY
5 FASHION
6 GARDENING
7 GOLF
8 DEVELOPMENT
9 SCIENCE
10 SATIRE
11 SEXUALITY
12 WINE
13
  
```

Let's look at a data base that will offer some how-to information: GARDENING.

```

VICTORY GARDEN    PAGE VIC-1
THE VICTORY GARDEN
  BY TED BATUTIS
1 VEGETABLES
2 HOUSEPLANTS
6 GARDEN QUIZ
7 QUESTIONS? COMMENTS?
LAST MENU PAGE...
12
  
```

Suppose students need some assistance in preparing for a class in plant growing. They would select HOUSEPLANTS from the menu.

```

VICTORY GARDEN    PAGE VIC-605
HOUSEPLANTS
1 TROUBLE-SHOOTING
2 PROPAGATION
3 LIGHT
4 WATERING & FERTILIZING
5 SOIL & CONTAINERS
6 FORCING
7 INDIVIDUAL PLANTS
8 MORE INFORMATION
LAST MENU PAGE...
12
  
```

Perhaps they want to try to get some plants growing. They select PROPAGATION.

```

VICTORY GARDEN    PAGE VIC-607
1 BY SEEDS
2 BY CUTTING & LAYERING
LAST MENU PAGE...
12
  
```

```

VICTORY GARDEN    PAGE VIC-665
CUTTINGS
CUTTINGS ARE PIECES OF THE PLANT, USUALLY WITH AT LEAST ONE LEAF ATTACHED, THAT ARE ROOTED AND TRANSPLANTED FOR MANY PLANTS. THIS IS A QUICK METHOD FOR OBTAINING LARGE HEALTHY PLANTS
  
```

The information the file provides should give students enough information to get started on their propagation project.

Example 3: News Now

Perhaps your journalism students need a source of current news. They can access the news/weather/sports data base through the HOME SERVICES menu, item 2. To do

that, they would type GO HOM 10 and jump directly to that data base. Immediately, they have news-wire services similar to those available to newspapers and to radio and television stations.

```

COMPUERVE          PAGE HOM-10
NEWS/WEATHER/SPORTS
NEWS SERVICES
1 THE WASHINGTON POST ($)
2 ST LOUIS POST-DISPATCH
3 AP VIEWDATA WIRE
4 NOAA WEATHER WIRE
5 OFFICIAL PGA TOUR GUIDE
6 HOLLYWOOD HOTLINE ($)
$ INDICATES SURCHARGED SERVICE
LAST MENU PAGE...
13
  
```

These are the news resources available through CompuServe.

```

AP VIEWDATA        PAGE APV-1
ASSOCIATED PRESS NEWS
HIGHLIGHTS
1 LATEST NEWS—UPDATE HOURLY
2 WEATHER
3 NATIONAL
4 WASHINGTON
5 WORLD
6 POLITICAL
7 ENTERTAINMENT
8 BUSINESS NEWS
9 WALL STREET
10 DOW JONES AVG
11 FEATURE NEWS
12 HISTORY LOOK
13
  
```

The highlights section gives an overview of the news activity of that day.

```

AP VIEWDATA        PAGE APV-1085
3 FIVE MISSING IN TEXAS ROBBERY
4 VESSEL BURNS TO WATER LINE
5 BURNED BOY COMES HOME
6 9 FOOT PYTHON RECAPTURED
7 CONCORDE TO LAND AT CANAVERAL
8 'CASTRATION' SUBJECT RELEASED
9 CONDEMNED DOG GETS REPRIEVE
10 NUCLEAR SECRETS RETRIEVED
INPUT A NUMBER OR KEY
ENTER FOR MORE CHOICES
17
  
```

Once the desired area of news is selected (in this case, national news), headlines of the most current AP national stories appear. Selecting the Concorde story, we key in 7 to display that article.

```

AP VIEWDATA        PAGE APV-1199
AP 09/24 09 38 EDT V0841
CONCORDE TO LAND AT CANAVERAL
KENNEDY SPACE CENTER, FLA (AP)—A FRENCH SUPERSONIC CONCORDE JETLINER CARRYING OFFICIALS OF THE EUROPEAN SPACE AGENCY WILL TOUCH DOWN NEXT MONTH ON THE SHUTTLE LANDING STRIP HERE, OFFICIALS SAY
  
```

Example 4: Using Data Bases To Connect People

One of the most unique features of data-base search services like CompuServe are their files for professional interest groups. Returning to the HOME SERVICES menu, let's look under GROUPS AND CLUBS and see what the

AN INFORMATIONAL WONDERLAND

(continued)

SPECIAL INTEREST GROUP file for educators looks like:

COMPU SERVE PAGE HOM-1
HOME SERVICES

- 1 NEWS/WEATHER/SPORTS
- 2 REFERENCE LIBRARY
- 3 COMMUNICATIONS
- 4 HOME SHOPPING/BANKING
- 5 GROUPS AND CLUBS
- 6 GAMES
- 7 EDUCATION
- 8 HOME MANAGEMENT
- 9 TRAVEL
- 10 ENTERTAINMENT

LAST MENU PAGE...
15

To access GROUPS AND CLUBS, we type in 5.

COMPU SERVE PAGE HOM-60
GROUPS AND CLUBS

- 1 CBERS
- 2 HAMNET
- 3 NETWITS
- 4 ORCH 80
- 5 SPORTS
- 6 COOKING
- 7 GOLF
- 8 SPACE
- 9 ISSUES
- 10 LITERARY
- 11 EDUCATORS
- 12 ARCADE
- 13 GAMES
- 14 FAMILY MATTERS
- 15 GOOD EARTH
- 16 WORK-A-HOME
- 17 MUSIC
- 18 FOOD BUYLINE
- 19 INSTRUCTIONS
- 20 DESCRIPTIONS

INPUT A NUMBER OR KEY
ENTER FOR MORE CHOICES
111

To see the EDUCATORS group, we type in 11

COMPU SERVE PAGE HOM-137
WELCOME TO THE
EDUCATORS' SIG, V. 1A(54)
NAME CTUSA WEST 70007.354
LAST ON: 25-SEP-83 16:31:16
HIGH MSG# 2674
YOU ARE USER NUMBER 6282
SYSTEM CONTAINS MESSAGES
2843 TO 3140

ENTER BLANK LINE FOR
MENU: THE EDUCATORS' SIG
FUNCTION MENU:

- 1 (L) LEAVE A MESSAGE
- 2 (R) READ MESSAGES
- 3 (RN) READ NEW MESSAGES
- 5 (B) READ BULLETINS
- 6 (CO) ONLINE CONFERENCE
- 9 (OP) CHANGE YOUR SIG
OPTIONS
- 10 (E) EXIT FROM SIG

A SIG is a special interest group providing an electronic bulletin board for users. It allows users—in this case, educators—to exchange ideas and information with their colleagues around the country. The CompuServe ID number can be used as a mailbox address for electronic mail.

These are the options available to SIG users. Sub-command options provide interest-group headings in such areas as curriculum, programming, management and so on.

One of the most helpful functions in the special interest group submenu is number 6, online conferencing. This option allows two classes in different parts of the country to dial CompuServe simultaneously and to communicate with each other online. Using this service, students quickly learn to establish conventions for determining whose turn it is to type in a message and when a person has finished typing. If two users type simultaneously, their words will be intertwined.

Students can use online conferencing to demonstrate programs to one another. They can work together to solve problems, exchange activities and information, tell jokes and carry on conversations. In the process, they will learn much about the medium itself.

The classroom possibilities using online data-base search services are limitless. This overview is just a small sample of what's possible with one system. CompuServe and other services like it offer schools, no matter how rural or isolated they are, access to the latest information about innumerable topics—a first step in creating the global classroom.

William Martin is a teacher at Wenatchee Community College in Washington.

WHAT YOU NEED TO ACCESS A DATA BASE

In addition to a microcomputer, online data-base systems require that you have a modem (from \$70 to \$400) to transmit and receive data via telephone lines. You may also need a software program to control the modem (\$50-\$200) if it isn't already built into the system. Disk drives are optional, but they are a must if you wish to store information for later review. Finally, you must have a subscription to the data-base service. (You can buy a subscription kit for most major data-base search services at local computer stores.)

A subscription to CompuServe costs \$20.00 to \$40.00 per year. This fee usually includes one to five hours of tryout time after which the user pays hourly for the connection time. The phone charges vary from \$12.50 to \$30.00 per hour for prime-time access, or \$6.00 to \$8.00 per hour for evenings and weekends.

The Source sells for about \$100 per year but may be available free from modem vendors. Day rates are \$20.75 per hour; evening and weekend rates are \$7.75 per hour.

Although CompuServe has a "homier" feel to it and the Source seems to have more business- and hobbyist-oriented services, the two data bases are actually very similar. Dow Jones subscription cost: \$75.00) is perhaps most valuable as a business information service, providing stock and commodity data that is no more than 90 seconds old. ■

The Source/Shuttle Demonstration Instructions

Source Demo - Telenet only

**Return
Return**

(Terminal=) DI Return (or simply Return)

C 30147

(Connected) ID STCDMO DEALER (Return)

**Seattle Shuttle Demo -
Call (206) 885-4636**

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INFORMATION SERVICES, INC.
 3460 Hillview Avenue/Palo Alto, CA 94304
 (415) 858-2700 TELEX 334499

TRAINING SCHEDULE
Oregon/Washington
January - March 1985

DIALOG is pleased to announce the following training seminars in Portland, Oregon and Seattle, Washington:

PORTLAND OR

Search Strategy	Thu, Jan 17, 1985; 8:30 am - 12 noon
System Seminar	Thu, Jan 17, 1985; 1 - 4:30 pm
	Fri, Jan 18, 1985; 8:30 am - 4:30 pm

SEATTLE WA

System Seminar	Mon, Jan 21, 1985; 1 - 4:30 pm
	Tue, Jan 22, 1985; 8:30 am - 4:30 pm
Biosciences	Wed, Jan 23, 1985; 9 am - 12:30 pm
System Seminar	Tue, Feb 26, 1985; 1 - 4:30 pm
	Wed, Feb 27, 1985; 8:30 am - 4:30 pm
Search Strategy	Mon, Mar 18, 1985; 1:30 - 5 pm
System Seminar	Tue, Mar 19, 1985; 1 - 4:30 pm
	Wed, Mar 20, 1985; 8:30 am - 4:30 pm

SEMINAR LOCATIONS:

PORTLAND OR

GOOD SAMARITAN HOSPITAL
 Conference Room A-2
 1015 NW 22nd Ave
 Portland OR 97210

SEATTLE WA

UNIVERSITY OF WASHINGTON
 Odegaard Undergraduate Library
 Room 320
 Seattle WA 98195

For immediate confirmation, call **TRAINING REGISTRATION** 7 am - 3 pm Pacific Time:
800-227-6282

Please have your USER NUMBER available when calling.

SYSTEM SEMINAR

The 1-1/2 day **SYSTEM SEMINAR** is designed for the beginning DIALOG searcher, requiring no prior online experience. The **SYSTEM SEMINAR** covers all the DIALOG features from the basic commands through special features such as SEARCH.SAVE and DIALINDEX. Search strategy formulation and problem analysis are stressed. A combination of lecture, visual aides, and hands-on practice are utilized. This seminar (or equivalent training) is the prerequisite for all advanced courses. Registration is \$145. Lunch is included on the full day.

(12 MLA/CEA Credits)*

RATIONALE: WHY USE RESEARCH?

Computers for the home and school. . .computer literacy in K through 12 curriculum. . .new jobs in data processing and information services. . . microfiche, data banks and teleconferencing. . .these are not ideas for the future any more. These are the tools of today, waiting for us to use them now.

Now we can bring great stores of knowledge about learning, teaching and managing education to bear on the problems we encounter on the job in schools. It is now possible to base every educational decision on the best, most up-to-date research and information available, through computer searching of databases, "manual" searching of materials, and telephone searching of "people networks."

What do you need to know as an educator right now? Classroom management? Strategies for parent involvement? Evaluation of computer software? Full-day, half-day kindergarten? There are 246 reports, documents or journal articles on classroom management filed since 1980 in the ERIC database alone. There are 941 on parent involvement, 134 on evaluation of computer software and 20 on a topic as specific as the relative merits of full or half-day kindergarten. Just scanning the abstracts of these materials would give you an idea of what to look at in more depth to find the best current data on which to base your decisions.

Perhaps you need to know if someone has developed a module on time management for high school students. A recent search of ERIC and of educational publishers found only two, neither addressing the need precisely. What does this search tell you? You should proceed with your own development project--you have a first!

Maybe you want to know who in our own state is finding ways to generate funds for microcomputers. You can access person-to-person networks and directories of practitioners, if you have a telephone and the number to call. If you have a telephone and a microcomputer, by adding a modem and acquiring the proper training, you can begin to access other information and selected databases, both for professional use and for use by your students.

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JAN 19 1984

How To Find and Use Information Effectively

School principals constantly have to make decisions, and most of them make these decisions on the basis of information from many different sources—school and district records; conversations with colleagues, teachers, and students; past experience and observation; the opinions of parent and citizen groups; and media reports.

But, if the experts are right, administrators can make even better use of available information. In an interview for this *Tips for Principals*, one experienced research specialist put it this way: "So much information is readily available, it's crazy that principals don't make better use of it."

Finding the 'Few Good Things'

For most school administrators, the two primary constraints to gathering and using more information are usually time and human resources, according to *Information for Decision Making*, published by the California Dept. of Education.

If you don't have much time in which to make a decision, the report noted, you are likely to draw on only the experts, advisers, and resources that are close at hand.

In addition, when you go outside your usual circle—to an educational data base, for example—the problem you may confront is not lack of information, but too much information. Experts say the dilemma confronting decisionmakers in most fields today is how to *narrow* the surfeit of information available to the few good things needed for intelligent decision making.

How do you find and then "narrow" information? Who can help you? Here are some suggestions from Jean Holbrook, director of the San Mateo Educational Resources Center, and others:

1. Before pursuing specific pieces of information, take the time to think through the problem. State it as concisely as possible.
2. Talk to a colleague about it. This will help you clarify both the problem and your information needs.
3. State in writing how you intend to use the information (e.g., to develop a staff development program in the teaching of writing for all secondary teachers). Specify what type of information you are seeking (e.g., policy statements, curriculum guidelines).

4. List the synonyms that could be used to describe what you want.

5. Determine whether you want "a few good pieces of information" or an exhaustive search.

6. Figure out who can help you. Solicit their help. Specify what you need to know, rather than what you think is the most likely source of that information. Your own school or district library is a good place to start. Some other possible sources are regional education services, local colleges and universities, the state education agency, and professional organizations.

7. If you are going to do it yourself, determine the most appropriate source. ERIC, for example, is not the place to look for the description of a local project or a recent magazine article. (There is usually a three to six-month lag between the time something is published and when it shows up in ERIC.)

8. Anticipate your information needs. Create your own mini-search center by:

- a. Keeping some basic information documents on hand.
 - b. Filing the names and telephone numbers of persons who are particularly knowledgeable about specific subjects.
 - c. Copying and filing noteworthy articles and other documents immediately after you read them. (Another idea here is to copy and file under appropriate headings the contents pages of the publications you read regularly.)
9. Make your ongoing information needs known to your secretary, assistants, the librarian.
10. Take a librarian or "information retrieval specialist" to lunch. Spend the time asking questions and listening, not talking.

ERIC: The Mega-Source

The most comprehensive source of information available on educational topics is the federally funded ERIC system. Its collection of approximately 500,000 documents is accessible to educators at an estimated 3,300 locations nationwide, including colleges, private search agencies, state education departments, and intermediate education units.

More organizations are now willing to put full documents (rather than abstracts) into the system and to allow users to obtain microfiche copies.

In addition, ERIC has funded the creation of a "Practice File." Its purpose is to find and add to ERIC 1,200 of the practical kinds of documents that are of most value to administrators and teachers.

What kinds of documents? Included are curriculum ideas, articles citing the pros and cons of alternative solutions to educational problems, and policy statements from major organizations. All of these materials should be available through the regular ERIC system by spring 1984 in either microfiche or hard copy, according to Katherine Clay, the project director.

As part of the project, new sources of information are being identified, and it will be up to the 16 ERIC Clearinghouses to stay in contact with these organizations.

For principals who want to use ERIC most efficiently, the best approach is to use an intermediary—a person or agency with sophisticated knowledge of the system.

Probably the best agency in the country to do this is the San Mateo Educational Resources Center (SMERC). Under statewide contracts, it serves all educators in the states of Alaska, Florida, Hawaii, and the Virgin Islands. In addition, it has contracts to serve parts of Arizona, California, Oregon, and Washington.

Other educators may contract with SMERC on an individual basis for one of the various types of search services it offers. For example, for approximately \$75, you can submit a question to SMERC, and a trained research specialist will look for the answer (drawing on ERIC and other data bases as well as its own supplemental files), analyze the documents contained in a computerized printout, and forward the best of these to you in microfiche or paper form. You may also select additional documents from the printout, and request copies from SMERC.

(For more information, contact Jean Holbrook, Director, SMERC, 333 Main St., Redwood City, CA 94063; (415) 363-5450.)

Another alternative is to contact the ERIC Clearinghouse that deals with the information you need. The clearinghouses are obligated to respond to mail and phone requests for information, as well as to walk-in visitors.

Among the subject areas covered by the clearinghouses are: educational management; handicapped and gifted children; information resources; language and linguistics; reading and communication skills; rural education and small schools; science, mathematics, and environmental education; social studies; tests, measurement, and evaluation; and urban education.

Use a Micro?

Some principals may want to use a microcomputer to access ERIC and other data bases. This is both easy and difficult, according to Charles Hoover, the head of the ERIC system.

"You can learn to get in and out of the system easily, and to at least find out how many documents there are in the system pertaining to your interest," Hoover says.

"But," he added, "I don't think that the average principal can tap the system as efficiently with a micro as he or she can by using an intermediary." Why? To find the best things—to do the narrowing that yields the best information—you have to have sophisticated knowledge of ERIC, that is, be well acquainted with its indexing system, thesaurus, and search strategies. In other words, you have to know the right "descriptors" (or terms) and how to manipulate them to get what you want.

Another consideration for the principal who is interested in using a micro to find information through a data base service is the amount of time needed to learn the system and to keep updated on changes in its operation.

As one resource specialist commented, "At this point, a 10-year-old could get 10,000 documents out of the system, but finding the 10 or so that could aid a principal in decision making takes an expert."

Checklist: Using Information for Decision Making

1. Have I broken down the situation into its component parts so I know which issues need further information to enhance their resolution?
2. Is this a decision for which I should gather information beyond what I already know?
3. Have I considered all the possible sources of information that may be useful?
4. Have I considered all potentially useful information collection procedures (e.g., review of existing records, interviews, formal or informal observations, testing, questionnaires)?
5. Have I considered carefully the relevance, consistency, and cost of information I have or intend to gather?
6. Have I considered how to weight the various pieces of information in making a decision?
7. Do I understand the information sufficiently to explain it to others?
8. Have I considered how to disseminate information about my decision to those who need to know?

Adapted from *Information for Decision Making*.

by Shirley Boes Neill



KNOWNET DISSEMINATION PROJECT

Request No. _____
Date Rec'd. _____
Date Completed _____

School District: _____

Tom Belev, Asst. Superintendent Jean Newman, Project Director
Division of Instructional (206) 753-6723
Programs and Services
Jean Nieman, Director
Programs, Resources & Technology

TO: Nancy Motomatsu, Supervisor, Learning Resources, 753-2858 SCAN 234-2858

WHO is requesting information?

WHERE can I contact you?

WHAT do you need to know?

Please describe, IN YOUR OWN WORDS, what information you need. Define any terms that may have a special meaning to you.

Please indicate any material you've already found useful on this subject.

- a.
- b.

Contact Person: Is other material available in the school library?

Check Level:

- | | |
|--|--------------------------------------|
| <input type="checkbox"/> Pre K | <input type="checkbox"/> High School |
| <input type="checkbox"/> Kindergarten | <input type="checkbox"/> Adults |
| <input type="checkbox"/> Elementary | <input type="checkbox"/> Special Ed. |
| <input type="checkbox"/> Middle/Jr. High | |

Special Considerations:

Form SPI N-881B (3/81)

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DR FRANK B BROWLLET
STATE SUPERINTENDENT
OF PUBLIC INSTRUCTION
OLYMPIA, WA 98504



SEARCH EVALUATION FORM

Please take a minute to tell us what you think about the information/
material you received. Your comments will help us improve future service.

1. To what extent was the information relevant to the subject of your search request? very relevant generally relevant
 little relevant off the subject completely
2. Was the information you received up-to-date? very current
 current enough not current enough to be useful
3. How did you use the information? in the classroom in program planning
 in inservice planning in administrative planning
 for personal improvement other (describe)
4. Did the information arrive when you needed it? much ahead of when needed
 arrived on date requested too late to be useful
5. Comments: _____

SEARCH LOG

DATE		Requester	Search Topic	Database Used	Logic	Cost
IN	OUT					

- 09 -



SPI

— DR. FRANK B. BROUILLET —

Superintendent of Public Instruction

Old Capitol Building, FG-11, Olympia, WA 98504

1PB/004/00