The marketing environment for CD-ROM (compact disk-read only memory) technologies is very competitive. The three vendors currently delivering the ERIC database on CD-ROM frequently enhance their products, and search capabilities, fees,
and hardware requirements are becoming more consistent. This digest will describe these products, present information for comparison, and discuss new developments. No attempt is made to recommend any one product.

ADVANTAGES OF CD-ROM USE

The mass storage capability of CD-ROM enables libraries and information centers to offer in-house access to large databases formerly available only in print or online. A compact disk can hold over 660 megabytes of data, or the equivalent of 330,000 typewritten pages. The entire ERIC database, with its 25 years of citations and indexes, fits on as few as two compact disks. Because CD-ROM databases are available on a set-fee subscription basis, and because CD-ROM systems are self-contained microcomputer-based workstations, institutions can directly predict and control the costs of offering database access without the mainframe connect or communication costs of online services. In fact, the more a CD-ROM is searched, the lower the cost is per search. CD-ROM systems are designed to be "end user friendly." Searchers are able to obtain information directly, and, without the pressure of mounting charges, they are free to experiment and browse.

DISADVANTAGES OF CD-ROM USE

A frequently cited disadvantage of CD-ROM databases is the quarterly update policy. At the end of an update period, the most recent three months’ information is missing, which may necessitate supplementing the CD-ROM search with an online search. This shortcoming may be seen as less critical for ERIC than for more time-sensitive databases. Another common complaint about CD-ROM systems has been their inability to support more than one user at a time or to manage more than one disk. Recent technological improvements do allow multiple user access, remote access, and multiple disk management. SilverPlatter, for example, markets a networking platform for their (and other vendors’) CD-ROMs.

Other drawbacks to offering CD-ROM searching, as discussed in the literature, are management issues. These include the need to train staff and allow them ample time to train users and respond to CD-ROM related inquiries; the need to devote prime floorspace to CD-ROM workstations; and the need to establish a new budget line for something which does not fall clearly into either services or materials categories.

ERIC CD-ROM SYSTEMS

CD-ROM products by DIALOG, OCLC, and SilverPlatter all offer the entire ERIC database, comprised of records from CURRENT INDEX TO JOURNALS IN EDUCATION (CIJE) and RESOURCES IN EDUCATION (RIE) from 1966 to the
present. In addition, the search software packages all provide:
* menu driven operations;
* context-sensitive help screens (accessible at any point during search);
* default free-text searching (automatic searching of entire record);
* index field qualification (specific searching by author, title, etc.);
* browsable index display;
* single-keystroke copying of search terms from index to search statement;
* right-hand truncation (searching from partial terms);
* Boolean logic (AND, OR, NOT operators);
* proximity and range searching (searching for terms near one another or for records from a certain time span, etc.);
* options for forming, modifying, or combining search strategies;
* search results summarized on screen;
* options for tracking and saving search strategies;
* flexible display and print formats;
* downloading of results to hard or floppy disk;
* printing all or selected results; and
* user support, including print documentation and toll-free hotline.

The brief descriptions that follow concentrate primarily on differences among the three ERIC CD-ROM products.

**DIALOG ONDISC ERIC**

OnDisc ERIC contains the entire ERIC database, RIE and CIJE combined, on two compact disks. The OnDisc package includes communications software that allows the user to transfer to the DIALOG online file to continue a search in the most recent portion of the database. This feature also facilitates access to DIALOG databases that complement ERIC.

A second distinctive feature of OnDisc is its two search modes: Command Search for those trained in DIALOG online command language, and Easy Menu Search for novice
or occasional users. Command Search is virtually identical to DIALOG online searching and gives the user the greatest possible control over search statements and output. Easy Menu Search walks users through a series of well-designed steps from selecting the search field to downloading and printing the resulting records. Search jargon is eliminated, and the user selects menu options rather than entering memorized search commands or prefixes. In both modes, more than 20 separate field indexes can be searched, and a nearly complete THESAURUS OF ERIC DESCRIPTORS, showing broader terms, narrower terms, related terms, and postings, can be browsed. OnDisc also allows the user to define and save any display format.

OCLC SEARCH CD450

OCLC’s Search CD450 offers ERIC on three disks or packaged with Education Library, a fourth disk containing OCLC Online Union Catalog records for education materials. Search CD450 includes a System Administration Module that allows the host institution a high degree of control over workstation function.

The OCLC search screen is divided into three areas: the query box, the results box, and the record display area. The search history is shown in the query box, and the user can select, edit, and reuse any past query statement. Search CD450 offers 18 searchable fields and six more restrictor fields. Seven of the searchable fields can be browsed in separate indexes. Although there is no true THESAURUS, there is an index of descriptors that includes numbers of postings. Search statements are constructed and entered directly by the searcher, using prefixes, Boolean terms, proximity operators, and words pulled from previously displayed records. Records are automatically displayed in a brief format. The user can then request one of four other display formats and/or mark individual records for later downloading and printing.

SILVERPLATTER ERIC

This vendor fits the ERIC database, RIE and CIJE combined, on three CD-ROMs. The subscriber can choose to receive only an annual update to the current disk for a savings over the quarterly update fee. SilverPlatter is very active in the CD-ROM market, with over 40 titles available. SilverPlatter markets Daisychain, a system to manage multiple disks at a single workstation, and MultiPlatter, a networking platform that manages access to multiple disks by multiple users. The basic configuration links up to 20 separate workstations and offers features such as usage statistics and remote access capabilities. SilverPlatter is also the first CD-ROM vendor offering a Macintosh version of ERIC.

In SilverPlatter’s IBM version, most system commands are executed through the function keys. Twenty-six fields can be specified for searching or limiting search results. A single browsable index includes all THESAURUS terms as well as words, bound phrases, and names from the author, title, journal title, identifier, and abstract fields. This listing does not identify the field for each entry. The SilverPlatter user enters
queries directly, using field prefixes, Boolean terms, and proximity operators. Terms can also be selected from displayed records. When displaying and printing records, the user can both define the format and select specific records. The IBM version offers onscreen tutorials for the beginner.

MacSPIRS, SilverPlatter's Macintosh version, gives the user similar search and display capabilities with the familiar Macintosh graphic format. Options are always displayed at the bottom of the screen, described in pull-down menus, or explained in special displays. These features serve to guide the novice or occasional user more fully than does the IBM version. MacSPIRS offers the same browsable index and searching and limiting by the same 26 fields. A special feature is the clipboard, in which the user can save text from a search to use in another computer application.

RECENT DEVELOPMENTS AND FUTURE DIRECTIONS

As noted earlier, one important development for CD-ROM systems is the move to multiple user access of multiple disks. This is primarily accomplished through network technology. Networking CD-ROMs requires a combination of software and hardware, including (1) a local area network operating system (e.g. Novell Netware, 3Com LANtastic, IBM PC LAN); (2) a network cabling system (e.g. Ethernet, IBM Token Ring); (3) an enclosed "tower" able to house multiple CD-ROM drives; (4) a microcomputer fileserver; (5) microcomputer workstations; and (6) special network software that manages shared access to CD-ROM drives over the network. In addition to the SilverPlatter turnkey system noted earlier, major vendors providing CD-ROM network components include CBIS, Meridian Data, and Online Computer Systems (Rutherford, 1990). Other CD-ROM improvements that will improve access to ERIC include CD-ROM "jukeboxes"--systems that provide automated access to a collection of multiple CD-ROMs and remote dial-up capability. Jukeboxes differ from the network solution noted in the previous paragraph in that the CD-ROMs in the jukebox are stored offline and placed in a drive only when requested. This permits storage of large numbers of CD-ROMs and facilitates archiving. In the future, jukeboxes are likely to be included in the overall CD-ROM network configuration. Remote dial-up access permits users to connect through modems and telephone lines. This is particularly useful for after-hours use of library resources.

Another important future development will be the availability of part or all of the ERIC database in full-text format. To date, a number of major information industry firms are considering full-text ERIC products in various forms.

REFERENCES AND OTHER READINGS
Nicholls, Paul; Han, Isaac; Stafford, Karen; & Whitridge, Katherine. (1990, March). A framework for evaluating CD-ROM retrieval software. The Laserdisk Professional, 3(2), 41-46. EJ 408 926.


FOR FURTHER INFORMATION

DIALOG ONDISC:

DIALOG Information Services, Inc.

3460 Hillview Ave.
Palo Alto, CA 94304

800-3 DIALOG (800-334-2564); 415-858-3785

OCLC SEARCH CD450

OCLC Online Computer Library Center, Inc.

6565 Frantz Road

Dublin, OH 43017-0702
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