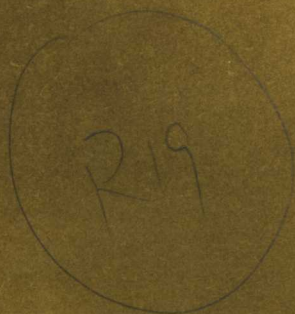


Public Access CD-ROMs in Libraries: Case Studies

edited by
Linda Stewart
Katherine S. Chiang
Bill Coons



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Libraries: Case Studies***

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Westport • London

Library of Congress Cataloging-in-Publication Data

Stewart, Linda, 1950 -

Public Access CD-ROMs in libraries : case studies / Linda Stewart,
Katherine S. Chiang, Bill Coons.

p. cm. -- (Supplements to Computers in libraries ; 17)

Includes bibliographical references.

ISBN 0-88736-516-7 (alk. paper) : \$

1. Reference services (Libraries) -- Automation -- Case studies.
2. Optical disks -- Library applications -- Case studies.
3. Information retrieval -- Case studies. 4. Data base searching -
- Case studies. 5. End-user computing -- Case studies. 6. CD-ROM -
- Case studies. I. Chiang, Katherine S. II. Coons, Bill. III. Title.
IV. Series.

Z711. S83 1990

89-49459

025.5'24--dc20

CIP

British Library Cataloguing in Publication Data

Stewart, Linda 1950 -

Public access CD-ROMs in libraries : case studies

(Supplements to computers in libraries ; 17).

1. Libraries. Applications of computer systems. Read only memory.

Compact discs

I. Title II. Chiang, Katherine S. III. Coons, Bill IV. Series

025.00285456

ISBN 0-88736-516-7

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Meckler Corporation, 11 Ferry Lane West, Westport, CT 06880.
Meckler Ltd., Grosvenor Gardens House, Grosvenor Gardens,
London SW1W 0BS, U.K.

Printed on acid free paper.

Printed and bound in the United States of America.

To whom, or what, shall this book be dedicated?

Individually, Bill would like to recognize his mom — for her guidance, support, love, and courage; Kathy acknowledges her family; and Linda would like to thank her husband, Ed, for his cooperation, understanding, and willingness to listen.

Collectively, this book requires a dedication which transcends the lives and hopes of the editors.

It was, after all, written with thirty-six other individuals. So it is to them, and the spirits of cooperation, professional growth, and better service, that this book is ultimately dedicated.

Introduction

CD-ROM combines massive storage space, small size, and durability with the capability for random access, inexpensive duplication and mass distribution. Large databases can be held locally, without the need for mainframe computers, and local access obviates the need to pay telecommunications costs or any other time-based use charges. CD-ROM reference tools, in particular, have changed the library's public image.

The educational level of the public has evolved to the level of their wanting a more active role in the selection and retrieval of the information they will use. CD-ROM reference tools, which become more cost-effective the more they are used, are ideally suited for exploration by the public. It is now the responsibility of libraries to provide the access and the necessary assistance.

The story of how libraries have reacted to CD-ROMs is recorded in the archives of our profession. The first articles on CD-ROM concentrated on explanations of the technology and paeans to its potential. Articles by CD-ROM producers and, later, product reviews, dominated the early literature. Librarians relied on a combination of their own ingenuity and policies established for other media to make decisions regarding CD-ROM implementation. We also made site visits to neighboring libraries and telephone calls to distant ones. The first case studies were published in diverse journals, sometimes too late to help the early innovator.

Now literature on CD-ROM applications in libraries is consolidating. Specialized journals, such as *Laserdisk Professional*, *CD-ROM Librarian* and *CD-ROM EndUser*, compile articles of interest, while monographs have been written to explain various facets of the technology and to serve as manuals. One book, *CD-ROM and Other Optical Information Systems* (Eaton, MacDonald and Saule, 1989), specializes in the public services implications of CD-ROM technology.

Several bibliographies on the subject of CD-ROMs have been published, for example:

- Elshami, Ahmed M. 1988. *CD-ROM: An Annotated Bibliography*. Englewood, Colorado: Libraries Unlimited.
- Motley, Susan A. 1989. "Optical Disc Technology and Libraries: A Review of the 1988 Literature." *CD-ROM Librarian* 4(5): 8,10,12,14-30.
- Fox, Edward A. 1989. "Optical Disks and CD-ROM: Publishing and Access." *Annual Review of Information Science and Technology* 23:85-124.

The goal of this book is to present case studies of libraries which have installed CD-ROM workstations in public access areas. We have provided this compilation of examples as a source of ideas. The primary audience is librarians planning to purchase CD-ROMs or manage their use by the public. This volume should serve as an aid to planning and decision-making.

We solicited contributions from various types of libraries and information centers, contacting public, academic, school and special libraries. Our aim was to concentrate on libraries offering access to commercially produced databases, both bibliographic and non-bibliographic; therefore, we have not included sites offering only public access catalogs or locally produced databases. Several institutions offer these resources in addition to commercial products, and their chapters discuss the types of CD-ROMs provided.

We have included libraries which have only one workstation as well as those having entire information retrieval centers housing their CD-ROMs. We were also interested in unusual or innovative services, workstations in non-traditional locations, fee-based access, training programs for staff or patrons, and networking arrangements.

Finally, since we were interested in hearing from libraries which had not been described in the mainstream media sources, we employed several methods of seeking contributors. We compiled a list of sites we had learned about through both published and non-published sources (such as ERIC documents and NLM reports) and contacted libraries of different types. We called other libraries looking for verbal recommendations and issued a public call for contributions. As a result, this collection contains case studies from such diverse and unpublicized sites as the University of Milan and the Union-Endicott School District, as well as such well-known sites as Texas A & M University and Vanderbilt University.

The first chapter presents an overview of our contributors' experiences in implementing CD-ROMs for public use. This chapter is also meant to serve as a finding aid so that readers interested in a particular issue can determine which libraries are working on that issue and read those case studies first. The body of the book is devoted to the case studies themselves, grouped into two parts. The first part presents case studies grouped into sections by type of library:

- Academic
- Medical and Health Sciences
- School
- Public

The second part presents sections which profile libraries dealing with particular aspects of implementation:

- Separate Facilities
- Charging User Fees
- Networking
- Remote Access
- When CDs are not enough: Magnetic Tapes plus CDs

Those libraries which could be logically placed in more than one section have been placed in the appropriate "implementation" section, with a cross reference from the "type of library" section.

The authors whose manuscripts comprise this book of case studies represent the strength of this work. It has been their energy, dedication and interest, guided by the suggestions, advice and experience of the editors, which have made this work possible. Thanks to the proofreading by our colleague, Susan Szasz, there are not as many errors as there might have been in this book.

We hope that our readers will discover personally and professionally useful information from within these case studies, and learn and apply to their institutions the experiences and suggestions of individual authors. While CD-ROM may prove to be a transitional medium and not a permanent solution to information storage, access and retrieval issues, it has unquestionable potential and definite value. It is in the spirit of demonstrating this potential and sharing its value that we share this book of CD-ROM case studies with you.

Linda Stewart, Katherine Chiang and Bill Coons
Ithaca, New York
November 1989

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1

An Overview of Public Access Issues

Linda Stewart

This overview chapter highlights issues introduced in the case studies in an attempt to summarize the common or unique approaches of each of these institutions. The following sections include a review of the goals and roles of CD-ROM, funding and selection, access issues, staff support and training, user awareness, evaluation, impact, problems and future plans. The chapter ends with a brief description of each library, its collections, and CD-ROM products.

Goals and Roles

A number of the goals mentioned by the authors in this book relate to the effect CDs will have on their users. A common aim is to offer expanded service—improved search capabilities at no cost (Auburn, Chapter 5). In some cases, CDs, because of their one-time subscription costs which encourage unlimited searching, are seen as a way of introducing patrons to end-user searching (Boston, Chapter 19; Vanderbilt, Chapter 3; UCLA, Chapter 21). Library staff in the Union-Endicott School District (Chapter 11) want students to learn skills they will need after high school and to be impressed by the library as a place to seek information later in life. Rutgers University at Newark has adopted a new undergraduate curriculum with an interdisciplinary orientation emphasizing problem-solving and the research process (Chapter 17). Its staff sees CDs as a way of encouraging students to use library resources in this program. Howard County Public Library (Chapter 18) had the specific service goal of developing a network so that users could access all databases from any workstation and several users could access one database simultaneously.

Other libraries have goals relating to staff. Brock University (Chapter 2) sees the DIALOG OnDisc products as a medium for training staff in DIALOG online searching. The Schuyler-Chemung-Tioga BOCES School Library Systems Library (Chapter 12) has as one goal informing school library media specialists of advances in educational media; for them, collecting CD-ROMs is a way of promoting teacher awareness, emulating online systems for training purposes, and providing holdings information for interlibrary loan use.

Libraries often use CD-ROM products to maximize otherwise limited facilities. The Hereford Branch of the Baltimore County Library (Chapter 13) is small and geographically isolated. CD-ROM reference tools preclude the need for multiple printed volumes, and references obtained from CD databases can be submitted to the parent library and the full articles sent by telefacsimile. The Carnegie Mellon Libraries, with limited collections in subjects outside the University's expertise, use CD-ROM databases to make patrons aware of materials not held locally (Chapter 22).

Some libraries see exploration of the technology as a goal in itself. For Oregon State University, this is part of the University's research mission, and CD-ROM is a library research project (Chapter 15). The Library for the Department of Information Science at the University of Milan shares this view (Chapter 7), which is particularly appropriate since the Library's primary clientele are computer science students. The medical and health sciences libraries tested MEDLINE products as part of a collective research/evaluation project designed by the National Library of Medicine (Chapters 8, 9, 10, 21).

Several authors describe the roles their CD-ROM products are expected to play and how they fit in with the libraries' other electronic information services. Mann (Chapter 6) sees CDs as part of the product mix eventually leading to the establishment of an "electronic library." Boston (Chapter 19) and Texas (Chapter 14) see them as an extension of existing end-user programs. The Broome-Delaware-Tioga BOCES (Chapter 12) considers them as a next step after their videodisc awareness program. Many libraries have access to electronic information by multiple means. CDs at Carnegie Mellon (Chapter 22) co-exist with the LIS system of locally mounted files—public access catalog, reference tools and bibliographic databases—to which patrons have dial-up access. Libraries in the Union-Endicott School District (Chapter 11) provide access to hard-disk-resident databases, remote online databases and satellite-based databases (offered through a local cable company), as well as CDs. Medical and health sciences libraries often have several ways of accessing MEDLINE.

Funding and Selection

Funding

CD-ROM products are usually much more expensive than similar print products—in some cases, costing over \$10,000 per year per disk. A variety of funding mechanisms has been employed for their procurement. St. Louis (Chapter 8) and Oregon State (Chapter 15) use their general acquisitions budget. Boston purchased monograph counterparts such as the Oxford English Dictionary and Books in Print out of its book fund, and paid for others from its Computer Search Service budget (Chapter 19). Auburn (Chapter 5) and Vanderbilt (Chapter 3) changed funding sources over time; Vanderbilt used grant funding to start the service, and now charges subscription costs to departmental library budgets. Auburn funded subscriptions from the reference serials fund during the first year and from the general serials budget thereafter. Brock (Chapter 2) supplemented other sources with money saved by canceling some print indexes duplicated by CD-

ROM. Three libraries mentioned receiving additional funding from students—Kent (Chapter 16) directly by assessing user fees, Utah (Chapter 9) by using monies obtained by a tuition surcharge designed to fund the University's computing program, and Erindale (Chapter 4) from a student vote to pledge \$10.00 per year per student to support the library.

Non-library sources are also used for funding. School libraries (Schuyler-Chemung-Tioga BOCES, Chapter 12, and Swift Current Comprehensive, Chapter 20) received money from the state or province, as did the Hereford Branch of the Baltimore County Public Library (Chapter 13), which also received some Title I money under the federal Library Services and Construction Act. Texas received a gift of \$100,000 from an alumnus who was impressed by student response to InfoTrac (Chapter 14). Carnegie Mellon (Chapter 22) received a grant from the Pew Memorial Trust, and Howard County (Chapter 18) sought and obtained two corporate grants.

Selection

The selection process involves finding out about available products and applying criteria to determine which products to acquire. Milan (Chapter 7), like other libraries, learns about possible CDs from directories, optical information magazines, promotional materials and product demonstrations. Vanderbilt (Chapter 3) was in the fortunate position of beta-testing three versions of the ERIC database and was able to compare products. The medical and health sciences libraries were given different versions of MEDLINE, and so were able to test and compare them as a group. Kent (Chapter 16) has an in-house trial of each product considered for purchase. Staff there have a practice of returning each product to the publisher before making a final decision so they are not overly influenced by having the product in-hand.

Libraries have a variety of written and unwritten selection criteria, some related to policies in force for other formats. Carnegie Mellon (Chapter 22) added a section for optical disks to its selection policy for electronic media, because the optimal mix of remote online, locally mounted, and compact disk files had to be considered. At Auburn (Chapter 5) staff selecting CD-ROMs must submit the same justification form used for requesting periodicals in print format.

Libraries may add specific selection criteria to the nearly universal requirements of appropriate subject matter and high quality. Brock (Chapter 2) looks at online statistics to determine which databases are most likely to be used. An effort is also made both to support disciplines which rely heavily on online searching and to attract other disciplines to the advantages of computerized searching. Erindale and Rutgers-Newark (Chapters 4 and 17) select easy-to-use databases likely to appeal to undergraduates.

Mann (Chapter 6) looks for search software similar in capability to BRS and DIALOG remote access databases. Libraries with networks, such as Howard County and Rutgers-Newark (Chapters 18 and 17), have special requirements. CD-ROMs must be licensed for networking, they must not require too much memory relative to other products and software residing on the network, and they must be compatible with the network hardware and software.

Access

Patrons

Libraries generally target their CD-ROM services to a particular audience. Sometimes they also restrict CD access to specific user groups. Public libraries, of course, have a mandate to serve the general public. At Howard County (Chapter 18) access to CDs is unrestricted, although librarians often conduct a reference interview with patrons in order to determine whether a CD-ROM product is likely to answer their questions. School libraries are designed for a more specific group; patrons in the Union-Endicott School District (Chapter 11) include students at one high school, one middle school and six elementary schools. The two School Library Systems Libraries (Chapter 12), on the other hand, have as patrons library media staff from individual schools and the occasional teacher or administrator. Within individual schools, access is variable. Sometimes only the librarian searches databases; sometimes the workstations are located in a public area and students are permitted to search. Swift Current Comprehensive (Chapter 20), also a school library, makes its databases available to students at school and in the community. Mann Library (Chapter 6), as part of a land-grant institution, has as its mission the provision of library services to New York State residents, so access to CD-ROM products is not restricted. In the Education Library at Vanderbilt (Chapter 3), area teachers and principals, as well as members of the Vanderbilt community, have access to the CDs. Parties unaffiliated with Vanderbilt must purchase a library card. The Health Sciences Library at Utah (Chapter 9) serves physicians, hospital staff and patients as well as University faculty, staff and students. These patrons all have access to the CD-ROMs. Some libraries are relatively unrestricted, but members of the primary clientele are given priority. In some departments at Auburn (Chapter 5), patrons not affiliated with Auburn are asked to step to the back of the line when people are waiting to use CD databases. At Maryland (Chapter 10), only faculty, staff and students are permitted to make appointments to use the CDs. Others are limited to first-come, first-served access. Other libraries such as UCLA and Carnegie Mellon (Chapters 21 and 22) restrict access to their primary clientele. Finally, some CDs are limited to staff use, such as the Missouri Union List at St. Louis (Chapter 8).

Location

The location of the CD workstations is an important determinant of the services which will be provided and of patron awareness of the system. Several libraries (Kent, Brock, Hereford Branch, Vanderbilt, Carnegie, Mann; Chapters 16, 2, 13, 3, 22, 6) locate the workstations near, or within sight of, the reference or information desk. Rutgers-Newark staff (Chapter 17), wanting students to see the relationship between the CD-ROMs and other reference tools, have integrated them with print periodical indexes. Auburn (Chapter 3) has located them in the reference areas of subject collections; in some areas, they are nearer the reference desk than in others.

In small libraries, such as the school libraries in the Union-Endicott School District (Chapter 11), there may be few options for locations. The placement of electric outlets, or a desire to make the equipment visible to the lone staff member,

may determine location. Large libraries, such as the ones at Texas and at Oregon (Chapters 14, 15), have set up separate areas for CD-ROMs and other end-user searching. At UCLA (Chapter 21), because there was insufficient space in the reference area, CDs have been moved into the library's Instructional Media Facility which contains microcomputers used for other purposes. Two health sciences libraries have tried placing CD-ROM workstations in areas outside the main library. St. Louis (Chapter 8) located one MEDLINE station in a conference room in the University Hospital for a three-week evaluation period, and Utah (Chapter 9) has a MEDLINE CD-ROM in its clinical library in the affiliated hospital. Finally, for Swift Current Comprehensive, the location of workstations is now of secondary importance (Chapter 20), since remote bulletin board software permits dial-in access from any nearby school or home computer.

Multiple-User, Multiple-Disk Access

Since CD-ROM products were developed, librarians have been eager to make several disks available at one station and to make the same database accessible to several patrons at once. Equipment is now available to perform these tasks. Brock (Chapter 2) and Milan (Chapter 7) have both connected CD-ROM drives in a daisy-chain configuration to allow several disks to be accessed from the same station. Other libraries have experimented with local area networks so that several users can search the same databases. Boston was a test site for the MultiPlatter CD-ROM network (Chapter 19), and Rutgers-Newark (Chapter 17) has either tested or instituted several different configurations, including a Wilson network running IBM PCLAN software on IBM Token-Ring hardware, a network using Meridian Data's file server, and a network of SilverPlatter products using LANtastic's Network Operating Software. Howard County (Chapter 18) has implemented a Novell network and Swift Current (Chapter 20) uses the Remote Bulletin Board System software to enable patrons to access their CDs both remotely and simultaneously.

Added Software

Software, besides networking and bulletin board software, may be added to perform such functions as security, menu access and transaction logs. Howard County (Chapter 18) has added the Direct Access Menu software to keep use statistics and safeguard the operating system. Rutgers-Newark (Chapter 17) added Automenu to protect DOS and to permit patrons to format blank diskettes on the A drive for downloading purposes. Vanderbilt (Chapter 3) uses Sidekick to provide a menu so patrons can switch databases without exiting to DOS. Programmers at Mann (Chapter 6) have created batch programs that permit any one of several CD-ROMs to be used on a machine without rebooting.

Hours of Availability

Many libraries make their CD-ROMs available whenever the library is open, but others, for security reasons or to ensure adequate staff assistance, limit hours of availability. At Carnegie Mellon and at Maryland (Chapters 22, 10) CDs may be used only when librarians are scheduled at the reference desk, and at Texas (Chapter 14) "when service desks are staffed for full-service operations." Remote access can

enable CDs to be searched even during hours when the library is not open (Swift Current, Chapter 20).

Time Limits

Where CD-ROMs are in high demand, it is common to restrict use by a single patron to a specific length of time. A 30-minute limit when other users are waiting is the rule at Brock, Texas, Carnegie Mellon, Oregon State, and Vanderbilt (Chapters 2, 14, 22, 15, and 3). At Utah (Chapter 9) the academic health sciences library also has a 30-minute limit, but at the clinical library, there are no such limits. The longest time limit mentioned—two consecutive hours—is at Mann (Chapter 6). Fifteen minutes is the rule at Auburn and at Swift Current, where searches are automatically cut off by the remote access software (Chapters 5 and 20). At the Hereford Branch, if someone searches for more than fifteen minutes while others are waiting, library staff ask the patron if he needs help, and he is reminded that others need to use the system (Chapter 13). At libraries with network arrangements, time limits are less necessary, because more than one person may search the same product at once. According to a survey at Rutgers-Newark, where no restrictions on time are imposed, the average search lasted twenty minutes, while the longest session required about two hours (Chapter 17).

Scheduling and Advance Reservations

Several libraries, including Maryland, Brock, Milan, the academic health sciences library at Utah, Mann, and Texas (Chapters 10, 2, 7, 9, 6 and 14), permit patrons to sign up in advance to use a CD-ROM. Texas adds that patrons may arrive up to five minutes late for their appointments, but will lose their turns if they are later. At the clinical library at Utah (Chapter 9), there is less interest in reserving appointments because hospital personnel cannot count on being available at a specific time. Staff at St Louis (Chapter 8) prefer not to institute sign-up sheets because of the problems of policing and of handling no-shows and late arrivals. Carnegie and Vanderbilt (Chapters 22 and 3) do not have sign-up sheets either.

The Schuyler-Chemung-Tioga BOCES School Library Systems Library has another approach to ensuring equity; since the Library serves many schools, the CD-ROMs themselves circulate to different sites (Chapter 12).

Fees

Only two libraries mentioned charging user fees. Brock charges from \$5.00 to \$10.00 for a search on a CD database, if the search is performed by a librarian (Chapter 2) while searches performed by patrons are free. Kent charged \$0.15 per minute using a debit card system in order to pay initial subscription costs; charges will be discontinued after Summer 1989 (Chapter 16).

Printing and Downloading

The costs of supplies needed for printing have induced some libraries to either limit printing by patrons or charge for it. Utah (Chapter 9) limits free citations to 200 in the academic health sciences library and to 25 in the clinical library, where patrons may be in a hurry for information. At Brock (Chapter 2) users may print 50 citations free at one time (printing defaults may be set on the SilverPlatter software). Extensions may be granted by staff if the topic warrants.

Although all the libraries permit printing, downloading policies vary. Downloading is not permitted at Hereford Branch (Chapter 13) because the plexiglass panel used to protect the system from tampering also prevents access to the floppy drive. Downloading is not permitted at Carnegie Mellon (Chapter 22), but, since most patrons use Macintosh computers instead of the IBMs or compatibles used as the CD workstations, this is not perceived as a problem. At Maryland (Chapter 10), users may download if they supply a formatted disk, do not need assistance from staff, and have read the PsycLIT permission policy if they are using PsycLIT. Vanderbilt (Chapter 3) encourages downloading to conserve resources, and Brock, which has set limits on printing (Chapter 2), sees downloading as a way of accommodating users wishing to record large numbers of citations.

Staff Support and Training

Staffing

Staffing arrangements across the libraries are so diverse that it is difficult to generalize. Some libraries have designated particular individuals or departments to be responsible for CD-ROM service. At Carnegie Mellon (Chapter 22), these are the database service coordinators, who provide staff training and documentation and ensure system upkeep. Brock (Chapter 2) also assigns responsibility to the computer search service, and Oregon has created a new position, that of CD-ROM Librarian (Chapter 15). At Vanderbilt (Chapter 3), responsibility is divided among the several subject libraries, but the Automation Project Librarian serves as a resource person and coordinates activities among the libraries.

In almost all libraries, user assistance is provided at least some of the time. Libraries assigning CD-ROMs to separate areas in the library must designate staff accordingly. At Oregon (Chapter 15) an administrative assistant supervises the CD-ROM area, with students as the primary staff answering basic questions and loading disks. They refer reference-type questions to the reference desk and difficult technical questions to automation support staff. The compact disk service at Texas (Chapter 14) is also staffed by students. At UCLA, CD products are available in the Instructional Media Facility, along with public access microcomputers and machine-readable materials (Chapter 21). This area includes a division head, a library assistant and several students, all knowledgeable in microcomputer technology. It is felt that, since most questions about the products concern mechanics, this type of staffing is appropriate. Reference questions are referred to the reference desk.

Libraries where CD-ROMS are housed in the reference area normally have staff already available to assist users; CD-ROMs are integrated with their regular duties. At Kent and Auburn (Chapters 16 and 5), these staff are a combination of librarians, support staff and student assistants. At Brock (Chapter 2), CDs are normally supported by Public Services librarians, but there are some hours when no assistance is available. At St. Louis (Chapter 8), circulation staff serve as a back-up to resolve basic problems when reference staff are not available.

Some libraries designate particular staff to handle technical issues. At Carnegie Mellon (Chapter 22) the database services coordinators are responsible for maintaining the hard disks and writing programs for switching from one system to