Prior to describing methods employed to teach both library users and staff how to use the online catalog at Ohio State University (OSU), this paper presents a background of the development of the online catalog, now called LCS (Library Computer System), and a chronology of important points in the 17-year development, enhancement, and solution of the online system. Among the basic elements required for staff and user training for the online catalog are a similar response and commitment on the part of the library to meeting the needs of both groups. The common requirements of the training programs include library personnel willing and qualified to lead workshops and meetings, and personnel able to write clear documentation and training materials. Other common features of training programs for both staff and public users include; (1) database content, (2) communication requirements, (3) display content, and (4) change, e.g., new system features. For both the staff and the public it is necessary to accommodate different levels of background and preferences in instructional approaches. The individual program designed must be feasible within the organizational structure and size of the particular library, including attention to such things as content and frequency of training, and times and places in which it will be offered. (THC)
USER AND STAFF EDUCATION FOR THE ONLINE CATALOG

BY

NOELLE VAN PULIS

PAPER PRESENTED AT:

PLANNING FOR AN ONLINE CATALOG

NORTHERN OHIO TECHNICAL SERVICES LIBRARIANS

SPRING MEETING

JOHN CARROLL UNIVERSITY

UNIVERSITY HEIGHTS, OHIO

JUNE 8, 1985
INTRODUCTION

I was asked to speak to you today about patron and staff training for the online catalog. I will talk about training primarily based on the OSU experience - what we have done or are doing and I will comment on our plans for the future and what we might like to do. And if any of you have waded your way through the reports of the CLR study, you will recognize that the OSU experience is not unique. Our training needs are similar to those of other institutions, especially academic libraries. However, the ways in which we have met these needs have been and will continue to be shaped by our organizational structure and staffing situation, as they will for each of your libraries.

I brought with me copies of training materials we have prepared as well as a bibliography on our online catalog. You may look at or take copies at the end of the program. I also brought two videotapes, both developed for our public user training, which you may see at the end of the session. I'll be staying here to answer any question you might have.

LCS BACKGROUND

The road to online catalog training has not been straight and smooth. There have been hills and valleys, a few rough surfaces and some curves as the training program evolved along with the system itself. Let me briefly describe the development of our online catalog, now called LCS, so that you have a better understanding of our training needs and activities.

The initial programming for LCS was done by IBM according to specifications prepared by the library. OSU wanted a circulation system that would allow remote searching and charging in a large, decentralized organization. I am sure many of you are familiar with the OSU campus. There is a main library, two undergraduate libraries and about 26 department libraries. The Columbus campus is more than 3000 acres in size and some libraries are miles apart. The collection contains more than 3.5 million volumes representing more than 1.5 million titles and expands at the rate of 130,000 volumes per year. The libraries serve a primary clientele of more than 70,000 students, faculty and staff, and circulate about 2 million items each year. We have about 75 librarians, 200 clerical staff and many student employees.

The OSU online catalog as it stands today evolved from the original circulation system. By "evolved" I mean that we have made many changes in order to create an online catalog from a circulation system originally designed for staff use only. Let me briefly review the chronology of this changeover.
CHRONOLOGY

LCS began operation in November 1970. The database consisted of 736,60 short records converted from the shelflist. Each record included call number, main entry, short title, edition statement, date, LC card number (if any), a unique title number, and OSU locations. Circulation transactions were displayed as part of this short record, now called a Library Location Record. Here is an example of this record, which has remained basically unchanged since 1970 (Figure 1). The system allowed searches by call number, title, or author-and-title, and, of course, handled the circulation functions: charge, discharge, renew, etc., plus overdue notices and fines. The search and circulation transactions were accomplished with the appropriate commands and search keys. Here is an example of a general search by author-and-title for the Carl Sagan book for which we just saw the short record. (Figure 2).

The LCS link permitted our patrons fast and easy access to the entire collection, no matter which library they went to first. The LCS Telephone Center extended this remote searching and circulation even further, so that a patron could call from anywhere—home, office, even long distance—and have a book charged out, and held for pick-up or mailed to a campus address.

The system underwent only minor changes until 1974. (Table 1). In that year, the Shelf-Position Search was initiated. This feature allowed cataloging personnel to shelflist new books using LCS, usually in conjunction with use of an OCLC terminal. Other than charging books out to the bindery, this was the first formal technical services use of LCS.

The transition to an online catalog really began in 1975, when our first public access terminal was made available. It was placed at the Catalog Information Desk in the Main Library, near our union card catalog. Also in that year, a full-name author search was initiated.

The next major changes occurred in 1977. (Table 2). The author search went to a new command and a 4+5 search key, but, more importantly, the Serial Holdings File was made available. This file is an extension of our short record for serials, giving years and volumes owned for each title. This example shows a relatively simple record for a journal. (Figure 3).

The potential for an online catalog became more of a reality in June 1978, when LCS was enhanced to include storage of full MARC records, which we call Full Bibliographic Records. These records contain descriptive information only—no location or circulation information. Here is the Full Bibliographic Record for the same book we saw earlier. (Figure 4). With the addition of these records (for newly cataloged items), we received subject search capability (using LC headings), a new author search key (6+3 instead of 4+5), and the capability of searching added entries.

By this time, the State Library of Ohio had converted their holdings (excluding serials) to machine-readable form and, having investigated commercial systems, chose to use LCS as their circulation system and catalog. By March 1979, all of their records have been added to LCS and, in December 1980, the State Library closed its catalog. LCS is now a shared, or union, catalog for the two libraries.
OSU, meanwhile, was moving even closer to an online catalog. In January 1981, with the implementation of AACR2, we chose to use LCS as the catalog for items which generated conflicts with AACR1 in the card catalog. A link is created for the patron to show that entries in the new form will be found in LCS.

We have been gradually adding Full Bib. Records, using OCLC-MARC archival tapes, and now have full catalog access for records back to January 1974. For some subject areas, Title II-C grants have allowed retrospective conversion of all holdings, so there are exceptions to the 1974 limitation.

By December 1981, the programming was completed to allow for what OSU calls headings and cross reference control and display. (Table 3). That is, LCS handles authority records for names, subjects, series and uniform titles. As part of this move, the subject search command was changed (SUB instead of SIS), the author search went back to full name rather than search key, and searches were added for series and uniform titles. There are slightly different public and staff versions of the author, subject, series and uniform title searches, with the staff searches allowing access to control numbers the public doesn't need to see.

In the summer of 1982, the final step in the changeover to an online catalog occurred when the card catalog was frozen and LCS became the only catalog for newly added materials.

In addition to being an online catalog, LCS also serves as an in-process file for items on order or in process. These records are accessible by author and title, and the in-process call number.

Even all of this change has not resulted in a "finished" online catalog. We are continuing to enhance the system and will do so for the foreseeable future. Let's look now at the training issue in relation to our online catalog.

TRAINING

Let me set the tone for the discussion of training by quoting Anne Lipow, who spoke at a recent meeting devoted to training online catalog users. Speaking of the University of California system, called MELVYL, she said:

Teaching Melvyl to all library staff has many benefits. It creates a more competent, more self-confident staff who, whether or not they need the information in their daily jobs, feel more connected to the library system—which, of course, is good for morale. It also increases the likelihood that a user's question will be dealt with directly and effectively by whatever staff member handles the question. And, finally, it creates a ready pool of instructors, enabling the library to launch and sustain a good user training program. (1)

These comments by Anne Lipow highlight the reasons for a good staff training program. An online catalog is an integral part of all library function and all staff should have a basic level of knowledge about its
content and use. And, as she points out, a user training program depends on the availability of knowledgeable staff who are both willing and able to provide such instruction. If your library is like our library—understaffed—you may find that technical service personnel as well as their public service colleagues will be needed for the user education activities.

What should the library staff know about the online catalog? What are the components of a staff training program? At OSU, we see four areas that need to be addressed:

1. database content
2. communication requirements (protocols and equipment)
3. display content
4. change

In addition to these areas, there are three other factors relating to personnel that affect the program. These are:

1. staff needs (individual and unit level)
2. staff turnover
3. organizational structure and size

These aspects of staff training might seem obvious and indeed they should be. However, when OSU developed its online system in 1970, the library was breaking ground in automation. And at that time, the literature contained little, if any, helpful information. Let me describe briefly OSU's initial approach to staff training and what we have learned over the past fourteen years.

In September 1970, when the Library Circulation System (as it was then called) became operational, training was made available for all circulation staff. The training took several hours each day for five days, and included both a lecture portion and experience on the terminals. There were two pieces of documentation to support the training: a "pre-training manual" developed by a member of the library staff and a "User's Manual" written by the programmers. The pre-training manual described the system and the equipment (that is, the terminals), provided a detailed outline of the training program and included exercises. The "User's Guide" described the operation of LCS in "programmer-ese" and was the only staff manual available for nearly nine years. The major advantages of this initial training program were that it was systemwide and that it was standardized. Everyone was at a similar skill level and received the same training at the same time. Followup was provided by notices published in our internal newsletter, called Newsnotes. After this time, new personnel received their training at the unit level. That is, each division or department was responsible for training its own personnel, using existing materials or developing what they needed.

As you can see, we went from a centralized to a decentralized program. There were several reasons for this. Staff training in general had always been decentralized and LCS instruction simply was included in the general training needed by the personnel in each unit. Another reason was that there were no major system changes for several years. And, at that time, we did not
have a person or unit assigned to provide centralized training. The disadvantages of this decentralization were duplication of effort and inconsistency in the training. You know what can happen to a story when it is passed orally from one person to another. Parts can be left out or altered, and we know that much the same thing happened with the decentralized training for LCS.

A related problem that we began to lose, through retirement and resignation, those people who had received the initial standardized training and who had raised their knowledge level through years of experience. Thus, the pool of LCS experts became smaller as time passed.

The decentralized training continued until 1976. In that year, we held "open meetings" to describe and discuss new features, such as the serial holdings file. However, those who chose not to or were unable to attend relied on information that appeared in Newsnotes or other printed materials, or on information passed on orally by their peers or supervisors.

It soon became obvious that with the changes which occurred in 1976 and others which were planned for the future, greater attention needed to be paid to training needs. In April 1977, the Director of Libraries formed a Task Force on Education for the Public/Staff Use of Online Library Systems, for which I served as the chairman. The Task Force was charged with determining training needs and with developing programs and materials to meet those needs. For staff, the Task Force offered workshops on new system features as well as some refresher programs. The group also developed a workshop specifically for new student employees, who handled much of the circulation activity.

In July 1978, a new position was created, that of Coordinator for Library Automation. The person who filled this position, Susan Logan, is an LCS expert who greatly facilitated the efforts of the Task Force. And a major accomplishment of the group was the preparation of a new LCS Staff Manual in 1979. The Task Force also requested that a special section of Newsnotes be devoted to LCS information. This section called LCS Update, is printed on colored paper to separate it from the other pages and is numbered sequentially to facilitate indexing. It is issued from the Library Automation office (and assisting in its preparation will be one of my new responsibilities).

The Task Force also reviewed existing activities, such as the computer-assisted instruction that had been developed and maintained by personnel in the Circulation Department, where it was used most heavily. Although this is a patchwork program, it is relatively current. The main drawbacks to CAI for our decentralized and understaffed library are that it requires personnel to come to the equipment and is time-consuming. It also requires a staff member interested in maintaining the program and skillful enough to do so.

Eventually, the Task Force became a standing committee, an indication of the library administration's commitment to training. The current training activities are sponsored by this group or by divisions or other groups, often with the assistance of the committee or the Library Automation office. The activities include:
1. Individual or small group training at the unit level
2. Workshops
3. Meetings
4. Written materials (Staff Manual, LCS Update, etc)

A variety of approaches is needed to meet the different individual and unit level needs and to accommodate staff turnover. The turnover element is perhaps most prevalent in an academic library such as ours, which relies heavily on student employees. Our organizational structure and size also have made the training needs more difficult to meet than would be true of a smaller, more centralized institution.

We feel we still need improvement in the staff training programs and materials. We are fortunate in having a number of people who are interested and energetic enough to pursue this activity, which, for most of them, falls under the category of "other duties as assigned" or is done as part of voluntary committee service.

Much of the same situation occurs with training the public users of our online catalog. Until the appointment of the Task Force I mentioned earlier, the instructional needs of the public were met first in 1975 by catalog information desk staff who developed the original guides for public users of LCS. Although there was no official oversight of this instructional effort, no one objected, either! During this time, of course, LCS was a supplement to the card catalogs. It could be used as a catalog but did not have access by added entries or subject, and only contained short records.

At that time, in 1975, there was only one public LCS terminal, located in the Main Library at the Catalog Information Desk. One of the instructional materials was a huge, colorful hand-drawn poster. It did get one's attention but was hard to read. At about the same time, basic instructions were printed on a 5 x 8 inch card, which came to be called the "orange card." This was better; it was more legible and people could carry a copy away with them. However, many of them had a problem with it—they did not notice instructions printed on the back side! Eventually, with the appointment of the Task Force, a brochure was developed which was more complete than the orange card and was cheaper and easier to produce. We chose a mimeographed format to allow for easy revision.

There were two major reasons for wanting instructional materials that could be easily revised. First, we felt we did not know for sure what the best content or format would be for our public users. This was nearly seven years ago, and we were in uncharted territory. Secondly, LCS was undergoing many changes which would require updating the materials. I brought with me several versions of the brochure. The latest edition is the best as far as production quality goes, because it is offset rather than mimeo. We also had some help with the graphics, which improved the appeal and legibility.

Two other major activities of the Task Force were a public users manual and open group instruction. The manual took a step-by-step approach for each kind of search, with examples of the normal search and all of the special cases. This document was about 80 pages long and included such information as
detailed descriptions of the display content, a glossary and a troubleshooting guide. Production of the manual was an arduous task. The group responsible chose very carefully each element of the format (such as use of different type faces or underlining) and each word used in the instructions. Trying to avoid library jargon was a challenging part of this task.

One of the most difficult problems to solve concerning this manual was how to keep the copies from disappearing. The manual consisted of the 80 or so pages slipped in plastic sheets in a yellow vinyl ring binder. Naturally, these were costly to produce and we put out only 30 copies to be shared among more than 100 terminals. We finally decided to solder the rings so the sheets could not be removed and to use a chain and screw ring to fasten the binder itself to the table on which the terminal sat. If this reminds you of the chained books of the olden days, that's where we got our inspiration.

However, we confess that the solder and chain approach did not work well. First we had to find soldering equipment and someone to use it. Then, the plastic sleeves often broke and the soldering had to be undone in order to replace them. Today, most locations maintain their own copies, some of which are in a sad state of disrepair. I'll tell you shortly why we haven't done much about it.

In addition to the brochure and manual, we also have a one-page detailed guide to the display content and some general informational handouts. Until recently, these were available only to users who attended an instructional session offered by the library. For the past few months, copies have been made available for pick-up in a new user education display in the Main Library lobby. Some of these materials will soon be made unnecessary by changes in the system itself.

The "instructional session" that I mentioned is a program that we call the LCS workshop. This was developed by the Task Force and has been offered several times each academic quarter since January 1980. The session is divided into two parts: a lecture portion, which lasts about a half-hour (depending on who is giving the lecture and how many questions there are from the audience) and another twenty minutes or so of hands-on experience at the LCS terminals. One of the videotapes which I brought today may be used as a substitute for a "live" lecture, although a library staff member should be available to answer questions. The committee is proposing that this tape be shown to new staff and student assistants on the first day of work, to provide an introduction to LCS.

The workshop seems to be especially suitable to online catalog instruction in an academic library. After all, our primary clientele are students, who are used to going to classes. The workshop appeals primarily to graduate students, particularly those who prefer lectures to reading detailed printed materials. The disadvantage of the workshop from the libraries' standpoint is that it is very labor intensive. It also requires a pool of library staff members who are both willing to speak in front of groups and who are knowledgeable about LCS. However, it does have advantages. One of the most important is that it seems to serve as a PR tool. That is, the posting of the announcements highlights the availability of the online catalog and the content of the program points out the advantages of LCS over the card
catalogs. It also provides an avenue of instruction for students and staff who do not have other opportunities for "live" training.

In addition to the printed materials and the LCS workshop, all freshmen receive a basic orientation to LCS in their first quarter at OSU. The orientation includes an exercise which requires hands-on experience at an LCS terminal. This orientation is offered by the Libraries' User Education Office as part of an activity known as the Library Instruction Program or LIP. This program has been in effect since 1979, so at least one complete generation of OSU undergraduates has received this basic level of instruction in using the online catalog. The second videotape, called "Battle of the Library Superstars," was produced for the Library Instruction Program.

The areas that need to be addressed in a user training program are the same as those I mentioned earlier for staff:

1. database content
2. communication requirements
3. display content
4. change

And, as for the staff training program, there are other factors that will affect user training:

1. individual needs (attitude, computer literacy, frequency of use)
2. constant pool of new users
3. organizational structure and size

The CLR studies have verified what OSU learned by experience and error. A user education program for the online catalog should include a variety of instructional approaches and will need to be a continuing activity. I would like to mention a problem to which we have not yet found a solution. This is the need for some kind of training for advanced users. The LCS manual is detailed and includes most information a user should need. However, it is expensive to produce and we did not feel it would be feasible to offer it for sale or even that it was fair to ask library users to buy such an instructional tool. We did offer advanced LCS workshops but found that either attendance was poor (possibly due to the time of the quarter) or novice users came to the advanced workshops without having had basic training. We have not offered the advanced workshop for a couple of years and it is unlikely that we will do so in the future.

There is one aspect of user training which I have not discussed and that is the built-in instructional features of the system itself. As you may know, some systems are considered more "user friendly" than others. It is probable that the user friendly system is in itself an instructional tool. Over the past few years, we have been working on more and better prompts, as well as more instructive error messages. We also have a series of "help" screens, although they are not yet in their final form. These help screens, to a large extent, already replace much of the manual I spoke about earlier and are the reason we have chosen not to update that document.
We also are working on substantial revisions of the short record display. As you may recall, this was designed for staff use only, so the format and content are not particularly suitable to academic library users. Before the CLR results were published, we were working toward the kind of display that was recommended in those reports. For example, we plan to rearrange some of the information in a format more recognizable to our public users and to suppress some information that really is more for staff use only. We also plan to have labels for the different elements of the display.

Related to these built-in features is the concept of an interface. This has been tried at the University of Illinois and at Dartmouth. These libraries use a microcomputer as a terminal. At Illinois, the software was written by a philosophy professor to provide a "friendlier" approach to searching. The Dartmouth online catalog uses the DAS online bibliographic search system software with a microcomputer interface similar to that at Illinois.

In addition to simplifying the use of the system, an important advantage is that the interface can be changed without affecting the catalog itself. It also gives the library flexibility in being able to use the terminal to access other systems. A common disadvantage of this type of interface is that they usually make the process longer, for example, by adding menus from which the user must select options rather than allowing direct execution of a command. Also, dial access users (which are a growing group) would need a floppy disk developed for their particular microcomputer.

If instruction is built into the catalog itself, all users have the access to the same instruction. This also would simplify learning the online catalog by users who are mobile and find themselves faced with different species of the catalog at each library they use.

CONCLUSION

I would like to conclude by highlighting the basic elements of staff and user training for the online catalog. The staff and the users each require a similar response and commitment on the part of the library. What are the common requirements of the training programs? First, the library will need personnel who are willing and qualified to lead workshops and meetings. Although vendors of turnkey systems do offer training, it is probable that additional in-house training would be needed to relate the system to the library policy and philosophy. Also, vendors usually charge for training beyond a certain amount that is included with the purchase of the systems, and many libraries will not be able to afford the additional cost.

The second thing that a training program requires is personnel who are able to write well, to provide the necessary documentation and training materials. Again, it is unlikely that a turnkey vendor will provide all the materials that will be needed for a particular application of a system. And, if you want to try anything special, such as computer-assisted-instruction or a videotape, you may need consultants if qualified personnel are not available in-house.
In addition to these personnel needs, there are common features of training programs for both staff and public users:

1. database content
2. communication requirements
3. display content
4. change

For both staff and the public, you need to accommodate different levels of background and preferences in instructional approaches. You also need to design a program that will be feasible within your organizational structure and size. These aspects include consideration of such things as the content and frequency of training and the times and places in which it will be offered.

I hope you have found my remarks helpful. If you are interested in this area, I encourage you to read the CLR reports and the proceedings of the recent meeting on training users of online catalogs. And, as you may know, the RASD Catalog Use Committee and LITA both are sponsoring programs related to training at ALA in Dallas this month. I'll be happy to answer any questions or some of you might wish to see one or both videotapes. And, finally, I would especially encourage you to view the user videotape called "Battle of the Library Superstars." This production won an honorable mention award in 1982 in the category of instructional programming from the Corporation for Public Broadcasting.

Thank you.

References

**FIGURE 2**

LCS AUTHOR/TITLE SEARCH

COMMAND:      ATS/

SEARCH KEY:    SAGA

SAGAN, CARL

ENTERED SEARCH:  ATS/SAGADRAGO

RESPONSE:

PAGE 1

3 TITLES (ALL DISPLAYED IN 1 PAGE)

01 SAGAN, CARL  THE DRAGONS OF EDEN  1977 FBR
02* SAGAN, CARL  THE DRAGONS OF EDEN  1977 FBR
03 SAGARON, GEORGE  DRAGONS AND DREAMS  1949

END FOR AVAILABILITY ENTER DSL/ AND LINE NO.
FIGURE 1

LCS LOCATION AND AVAILABILITY DISPLAY

COMMAND: DSI/
ENTERED SEARCH: DSI/1
RESPONSE:

BF431S2 SAGAN, CARL THE DRAGONS OF EDEN: 1ST ED. 76-45372
2101740 1977 3 ADDED: 770527 FBR
01 001 3WK BRW 71036934 0 CHGD 810402/810423
02 002 3WK WCL
03 003 3WK UND

PAGE 1 END
FIGURE 3

LCS LOCATION AND AVAILABILITY DISPLAY

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FIGURE 4

LCS FULL BIBLIOGRAPHIC RECORD

COMMAND: FBL/
ENTERED SEARCH: FBL/1
RESPONSE:

BF431S2
SAGAN, CARL

THE DRAGONS OF EDEN: SPECULATIONS ON THE EVOLUTION OF HUMAN INTELLIGENCE / CARL SAGAN. 1ST ED. NEW YORK: RANDOM HOUSE, c1977. 263 P. : ILL. ; 24 CM.
INCLUDES INDEX. BIBLIOGRAPHY: P. (241)-249.
SUB: 1. GENETIC PSYCHOLOGY 2. BRAIN 3. INTELLECT
LC CARD #:76-45372 TITLE #:2101740 OCLC #:2922889 &da780926
PAGE 1 END

3/26/81
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<td>Headings and Cross Reference Display and Control</td>
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