

The Invisible Users of Online Catalogs: A Public Services Perspective

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THE 1982 STUDY on online catalogs sponsored by the Council on Library Resources verified that some users are not happy with the way libraries define their boundaries. Patrons are demanding remote access to online catalogs from their dormitories, homes, offices—even supermarkets and telephone booths—and any other location where they can expend as little energy as possible: “I could use the computer anywhere in town, and it could deliver a book to my home.”¹

The popularity of remote access is not new. In the early days of American academic librarianship, the book catalog was popular and college students could use it in their residences to discover what materials their libraries owned. When the card catalog was introduced in the late nineteenth century, one of the major complaints was the loss of this “remote access” ability. A student at Harvard College complained that now he would have to hitch up the horses to his carriage and drive the muddy roads to Cambridge to consult the card catalog—wasting perhaps an entire day.²

Libraries seem to have come full circle working rapidly toward the “library without walls” concept. For those of us in public services work this means offering our services in a decentralized environment. Traditionally we learned about our patrons through one to one contact over the reference desk or through interaction in a classroom. Now we can no longer rely on this library-centered feedback for our perceptions of patrons’ needs. This is particularly true when dealing with those who

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remotely access our online catalogs. This group of remote users, whom I will call the *invisible users*, is increasing as more libraries implement dial-access to their catalogs and investigate the viability of networks.

The Pennsylvania State University Libraries have offered remote access to its integrated online catalog, called LIAS (Library Information Access System), for nearly three years. Patrons can reach LIAS either via dial access or through terminals hard wired to the university's Computer Center network. They can call the main campus at University Park (814-865LIAS) or any of Penn State's other nineteen campuses (which is a local call for most Pennsylvanians). There are a total of thirty-seven lines: sixteen at University Park, three at the Capital College campus, and one at each of the other eighteen campuses. Remote patrons can access the online catalog, corresponding circulation information, plus the MARC monographic tapes which have been loaded into LIAS.

Remote access is used for many purposes. Obviously patrons like the convenience of finding out what materials the libraries own and their availability without leaving their homes and offices. LIAS is very popular with faculty: we often see graduate assistants coming into the library with printouts that have been generated in faculty offices. These graduate students have been sent to the library to fetch and deliver materials for the faculty member. (We suspect that some faculty members like LIAS because they can avoid publicly displaying their ignorance of the system by playing with it in the privacy of their offices.)

Because of the size of the database and the availability of the MARC tapes, LIAS is useful for bibliographic verification. Some special librarians use LIAS to catalog their collections. Consultants use it to discover if the university owns materials they need in their jobs. Secondary school librarians use LIAS to introduce high school students to the mechanics of online searching. As part of Penn State's responsibilities as a regional resource library, it established an 800 toll-free number to allow free access to LIAS by Pennsylvania's District Library Centers. The district centers find LIAS very helpful in preparing interlibrary loan requests. Some patrons try to use remote access for unrealistic purposes: one user was puzzled as to why she couldn't find the address of the attorney general in our database!

The remote access capability of LIAS has been tremendously popular—we probably receive more favorable comments on this than on the online catalog in general—and it serves as an excellent public relations tool. On a personal note, I find that being able to dial LIAS from my home to be a great convenience because it enables me to be more efficient (and comfortable!) when completing professional work.

Invisible Users of Online Catalogs

Because of the responsibilities as LIAS coordinator, the author has the dubious distinction of being the major contact person in the university libraries for remote access users. Over the past two and a half years, this author has spoken to hundreds of these invisible users, and many perceptions about them and their needs are based on these discussions.

Librarians, faced with implementing remote access to their catalogs, may ask the rhetorical question: as public service librarians, what is our responsibility to these invisible users? Does our responsibility end at the library's walls, or must we take it beyond these walls?

It was discovered that it doesn't matter how librarians think this question should be answered: regardless of the answer, invisible users are demanding service from us. Just as subscribers to commercial databases such as BRS and DIALOG expect assistance—whether it is online or by telephone or via documentation—so do invisible users. Information professionals have always maintained a high level of commitment to their patrons, and experience shows that the invisible user expects no less.

What Kinds of Help Invisible Users Seek

Technical Assistance

Remote access of any kind requires dual skills: (1) how to manipulate a computer terminal/microcomputer, and (2) how to search a structured database such as an online catalog. Surprisingly, an overwhelming majority of requests for assistance involve the former—users do not know how to successfully handle their equipment. As contact person for the invisible users, questions received include "What do I do with the superserial card for my Apple?" or "Will I blow up your computer if I try to use 9600 baud?" or "How do I change the baud setting on my terminal?" The most common query is: "I'm getting garbage. What do I do?" This author has quickly learned that garbage covers a wide gamut of screen displays, and that this is a difficult problem to diagnose.

Sometimes users decide to purchase microcomputer systems just for the purpose of using LIAS, and they call and ask for recommendations of what to buy. Although LIAS can be accessed with any standard microcomputer and modem, it is felt that it is inappropriate for librarians to make any such purchase recommendations.

Invisible users fall into three categories, each with specific needs: *Category One*: This category includes the person who loves his micro-

computer and knows how to use it. Often he can be the ideal client, because he will not ask many technical questions as other patrons. However he may demand more documentation than you had thought necessary; he will probably want to know how the system was constructed; he may ask for codes, etc. that your systems staff regard as proprietary; and he may be harsh in his criticism. Often invisible users in this category come from scientific or technical backgrounds. In general, these patrons can be demanding but may also become your staunchest supporters.

Category Two: A user in this category has access to a machine and is looking for new applications. Most online catalogs, such as LIAS, do not charge any fee beyond communication costs. Users view the online catalog as presenting the ideal opportunity to try out the communications package that came with their microcomputer. They often need assistance establishing the communication parameters on their software. The most important thing to these users is access to the database as the contents of the database are secondary to the fun of access. Often these users are first time users, and they may never try the online catalog again.

Category Three: The third kind of user is frightened or untutored in the workings of his terminal or microcomputer. He may not want to read the accompanying documentation, and even if he reads it he may not understand it. The vendor who sold him his equipment may not be helpful.

These patrons are very difficult to help, and, unfortunately, they comprise a large proportion of invisible users. To be able to provide assistance on all types of microcomputers, communication packages, and modems currently in use is unrealistic. We conducted a survey of remote access users earlier this year; the sixty respondents owned twenty-three different types of micros/terminals, thirty-three different communication packages, and twenty-eight different modems! Possessing this sort of technical knowledge is outside the domain of most librarians; however patrons are surprised to find that we do not have expertise in all kinds of hardware and software.

This category of invisible users often requires a new method of reference work—that of “reference psychotherapist.” This includes reviewing the remote access directions step by step, reassuring the patron that everything will be all right, and concluding by guaranteeing that further help is available with the simple statement “call me if you have any more problems” (very few users ever do).

Invisible Users of Online Catalogs

Searching Assistance

Once users have mastered the basics of their equipment, then they need the skill or the ability to search the online catalog successfully. This is where we had another surprise: several weeks (and over 200 phone calls) passed after implementation of remote access before anyone asked a question about LIAS. However we have had to be cautious about not becoming too complacent about instruction—the lack of questions may not be indicative of successful use of the system.

A large number of remote access users are engineers and scientists who may have more success using an online catalog because: (1) they have the most access to microcomputer systems and software and are therefore most comfortable with them, (2) they have a better conceptual understanding of databases, and (3) they are most accustomed to the procedural mode of thinking, which is valuable when doing online searches.³ According to the informational requests we get, there are now more students, social scientists, and humanities professors joining the ranks of invisible users. Since they may lack in-depth understanding of computerized systems, they may experience more difficulties using online catalogs in a remote mode.

Some of our invisible users are teaching themselves LIAS by developing their own instructional materials which sometimes wind their way back to us (with errors). There also appears to be a reliance on individuals learning how to use LIAS through their colleagues. Research studies have found that end users of database systems often teach their colleagues to search, and there is no reason to expect that end users of online catalogs are any different.⁴ This has given us some concern since a questionnaire survey of 1200 LIAS users found that users taught by friends or peers registered a higher level of dissatisfaction and a lower rate of relevant retrieval than users in general. Are users relying on each other for instruction because our instructional materials are deficient? Or is it because they don't know how to or don't want to obtain assistance?

Currently a popular topic in the library profession is end-user searching of databases such as BRS/AFTERDARK and DIALOG's KNOWLEDGE INDEX. Some of the research that is being published, as well as my own experience at Penn State, indicates that end users often need consultations with librarians and supplementary documentation before they can successfully search these databases. And these databases are designed specifically for the invisible user! Is the searching of online catalogs by remote users really any different than other types of

end-user searching? Patrons using online catalogs with keyword and Boolean search features are probably struggling with the problems of recall and relevance just as they would be in searching a commercial database, yet little attention has been paid to their needs and problems.

Suggestions for Improving Service to Invisible Users

Promote Remote Access Capabilities

Remote access capabilities should be promoted in every way possible, keeping in mind that some remote users are not library users and therefore cannot be reached in the traditional library setting. When remote access to LIAS first became available, we had a press conference for the local media and ran a half page ad in the university's newspaper. Our chief form of promotion is a one page, two-side *Remote Access Guide* which is made widely available in the libraries and at the student union buildings on campus (although half the invisible users in our survey indicated they had never seen it). Recently we put the text of the *Remote Access Guide* online with a message on the LIAS banner screen advertising its availability.

In retrospect, we should have told computer retailers in our region of our remote access plans. When dial access to LIAS was first implemented, local dealers received many questions about LIAS and the best method to access it. Some of these questions were attributable to this author because, as LIAS contact, I was recommending that remote users contact their computer dealers for technical questions. If I had informed the dealers of our plans they may have been more receptive to these questions.

Specify Where Assistance is Available

On educational and promotional material, specify a service desk or phone number (hotline) that invisible users can contact in case they need assistance. When LIAS was first available through remote access, we experienced a "testing out" period. Over 200 phone calls were logged the first two weeks, and we should have had extra telephone help. If relying on a phone number, make sure that there is someone available at all times to answer the telephone and, if necessary, take messages. Invisible users who call usually have an immediate need—make sure phone calls are returned promptly. Do not automatically assume that your system's staff will handle these phone calls unless they are especially accommodating and do not mind phone interruptions (something public services librarians are accustomed to!). However, verify

Invisible Users of Online Catalogs

that the systems staff will be a resource for difficult questions. From transaction log analysis, it was found that heavy use of remote access parallels heavy use of the libraries; this means that remote access queries are frequently received when public services staffs are at their busiest.

Good Documentation

Good documentation is essential whether printed or online. Invisible users seem to rely heavily on online help, and system designers should make sure that this documentation is appropriate. For example, our online documentation told users to press certain function keys to obtain LIAS commands. These function keys are prominently visible on the LIAS terminals located in the university libraries. We had to rewrite our documentation and customize it for invisible users after we realized that these users, who use personal equipment, do not have function keys.

Provide Technical Details

Provide invisible users with details about the technical elements of accessing LIAS. Do not assume that they are knowledgeable about using their equipment. They need to know about terminal emulations, adjusting screens, communication parameters, logging on, and disconnecting. Be cautious in developing this documentation; take care not to overwhelm them with so much detail that they cannot interpret the directions. If they get frustrated setting up their hardware and software they may never become regular users. Remember that first time use of a new system is never completely "user friendly."

Understandable System Prompts

Make sure your system prompts are understood by users outside the library setting. It may be advisable to have a two-level system of prompts—i.e., one that acts as a tutorial to "hold the user's hand" and guide him through a search, and the other could be a simple prompting system for the experienced searcher. "Friendly" end-user reference systems can act as models. The invisible users who answered our questionnaire indicated that "muddling through" is a popular response to problems. With better online prompts users can "muddle through" a bit easier.

Is the System Easy to Relearn?

When designing an instructional program for an online catalog remember that maintenance of skills may be difficult for remote access

users, as their use of the system may be more sporadic than regular library users. When calling for assistance, users sometimes mention that they have used LIAS once or twice before but have forgotten key skills. How easy is your system to relearn?

Messaging Systems

Investigate messaging systems, such as electronic mail, which would allow you to communicate electronically with your patrons. Then you can answer questions in not only an appropriate but an efficient manner.

Train Public Services Staff in Remote Access

Public services staff should be trained in remote access use. To be effective, this training should include hands-on practice in remote access to the online catalog. Our information desk functions as the first contact point for remote access questions, and initially the staff was confused by questions about parity, duplex, and stop bits. Most of the information staff had never done any database searching, and we unfairly imposed upon them by expecting them to answer a barrage of technical questions. In addition, our invisible patrons were frustrated by the lack of adequate assistance. We had to put the staff through a training program that emphasized definitions of computer terms.

Conduct Research About Users

If at all possible, conduct research to find out something about your invisible users. We tried to reach our invisible users by sending out a questionnaire with the university's MUG (Microcomputer User Group) *Newsletter* which has a circulation of over 800. Unfortunately we had only sixty responses; however we were still able to develop some assumptions about these users and the adequacy of the services that we offer them. In addition, this author has kept a record of the kinds of individuals who have been calling for assistance and the kinds of questions they ask. It was determined that the majority are faculty members, seconded by professionals on campus and in the community. While students were originally a small group, their numbers are growing rapidly as they purchase microcomputers for their apartments and dormitories.

Several years ago the University of Illinois Libraries conducted a study entitled *The Invisible User: User Needs Assessment for Library Public Services*, which was sponsored by the General Electric Foundation and published by the Association of Research Libraries. Its purpose

Invisible Users of Online Catalogs

was to analyze and compare the information needs—particularly in the electronic arena—of faculty in various subject disciplines. The results revealed that those using computer-based systems are bypassing the library as an intermediary. To collect data from their invisible users, the Illinois librarians designed an online questionnaire that could be completed by users after dialing into their online catalog. This report is recommended for those considering the implementation of remote access to their invisible constituency. It offers some valuable suggestions for collecting concrete data on the needs of invisible users.⁵

Conclusion

When librarians are queried as to whether they will have dial access to their online catalog, the answer is usually “yes,” as if this is an obvious and logical extension of a functioning catalog. Yet discussion on how to serve the invisible users of these catalogs is sadly lacking from the professional literature and librarians’ forums.

Librarians and administrators must remember these invisible users as they design and implement integrated online catalogs. They must adopt a proactive stance, anticipating these users’ needs and the services that will satisfy them. Our experiences at Pennsylvania State have taught us that satisfying this group of users has much to do with the total success and acceptance of the libraries’ online system.

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