BIBLIOGRAPHIC INSTRUCTION IN A RESEARCH SETTING

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Abstract: The MBL/WHOI Library has merged traditional and “electronic” library resources and services into a dynamic, interactive system that serves the Woods Hole science community. These technological developments have affected the way librarians and researchers search for, acquire, and produce information. Training patrons in the use of electronic library resources is an important step towards empowerment: towards bringing information (the library) to their desk-top. Bibliographic instruction for the scientists, engineers, students and administrators in the Woods Hole science community provides a forum: 1) to describe library resources, including library-related computer services, 2) to determine the level of individual and departmental library training necessary for patrons to use these services, and 3) as an awareness mechanism for library services and program development. A description of a characteristic training session is presented, including planning, materials, personnel and technology issues.

Introduction

The impact of technology has dramatically effected the way we gather and produce information. There has been a progressive liaison between traditional and “electronic” library services provided by the Marine Biological Laboratory/Woods Hole Oceanographic Institution (MBL/WHOI) Library. By late 1993 the library had established a menu of library services that was accessible through the Internet, gopher, and dial-in by means of an Electronic Library Account. (Norton, 1993)

The librarians realized that calls for help in using internal and external electronic resources were increasing. It was obvious that the researchers needed some training to effectively use the technological innovations developed by the library. As a result, an instruction program was developed that addresses the need for training users in access to the new electronic library resources.

Empowering the Users

The Woods Hole science community that utilizes the MBL/WHOI Library consists of scientists, engineers, staff and students from MBL, WHOI, the National Marine Fisheries Service, U.S. Geological Survey, Boston University Marine Program and Sea Education Association. More recently the library has extended interlibrary loan and document delivery services (through Ariel) to the Boston Library Consortium. The MBL/WHOI Library also serves visiting scholars,
lecturers, lawyers, consultants and the public through Elder Hostel programs and our local CLAMS (Cape and Islands Automated Materials Sharing) consortium. Library users from the four major scientific institutions (MBL, WHOI, USGS and NMFS) are the primary focus of our bibliographic instruction program.

By the end of 1993 the library offered new, electronic resources that many of our patrons wanted to use. Although they were excited about the new research tools, they were also frustrated by some aspects of the technological developments: their questions and criticisms ranged from problems with very complex searches to frustration over the disparate logon and logoff procedures in the various electronic resources.

The realization that the researchers needed training resulted in a series of demonstrations of electronic library resources that were presented to the WHOI Administration and scientific departments. These presentations inform users about new electronic library resources and teach them how to use the services to achieve certain, desired results. They also help determine further library training users want and need to use electronic services. As an awareness mechanism, the librarians are provided with feedback so information needs can be more effectively served. (In the process, the myth that everything can be found in electronic format is dispelled!) Ultimately, the goal is to bring the electronic library to the user’s desk-top by using training sessions as an introduction to the resources we have implemented.

How information is acquired - the paradigm shift

Researchers obtain information from a variety of sources such as their network of colleagues ("invisible college"), personal collections, departmental reading rooms, the on-site library collection, they ask a librarian, use their computer, and/or get the information informally (i.e. riding on the campus shuttle bus). Bibliographic instruction within the MBL/WHOI Library focuses on altering the information seeking behaviors and patterns by empowering users with the ability to use their own computers to obtain information electronically.

Library patrons have always depended on traditional sources of information such as books, journals, technical reports, maps and data physically located in the library. While the library has an obligation to support traditional library services they have been augmented by electronic sources of information such as DIALOG and OCLC. More recently, CD-ROM technology and exciting, new electronic resources such as gopher, MOSAIC, FirstSearch and Uncover have become available.

In every demonstration conducted, the library’s commitment to support traditional library services is reinforced. (i.e. reference, interlibrary loan, obtaining journal articles, providing citation verification, on-line bibliographic searching, preparing bibliographies, managing contributions and reprint orders, purchasing and routing of journals (subscriptions), maintaining reading rooms, ship libraries, data and map collections, archiving institutional records, etc.) Patrons are encouraged if the relationship between new electronic resources and familiar, traditional services is authenticated. They are even more receptive to change when new methods or services are demonstrated and documented so they can reproduce the results when they return to their offices.
Planning and preparation

Planning for a demonstration must begin weeks before the actual event. Using the 5W's as a guide, basic considerations of the initial planning phase are hereafter described:

**Who:** Target the audience (i.e. specific department, laboratory or “open” demo) and determine the library and computer personnel required to set up and perform the demonstration. Coordination of an electronic library demonstration involves many people. The first contact to establish is with a department/laboratory Chairman or Assistant. Although the library staff is flexible, careful scheduling is required because we allow the department to select an appropriate and convenient day and time of day for their personnel to attend the program.

The availability of Library and Computer Center staff must also be confirmed. In our first demonstration the author managed the keyboard while presenting the talk. It was very difficult to keep the presentation moving while keying commands, answering questions, and comparing search results, etc. We now have a team of two people presenting the demonstrations: the author presents most of the material while our Reference Librarian, Colleen Hurter drives the keyboard, embellishes various points, or describes a specific service (i.e. *Current Contents*). The presentation is improved, there is more speed and accuracy, and the speaker can elaborate on features or segue to the next item while the keyboard person logs on to the next service.

**What:** An electronic library demonstration is presented to teach users about new library information products they can access from their desk-top computers. In our demonstrations, the time constraint is such that we can only answer questions that are directly related to these library resources. Unless the library is also responsible for the computer operations, it is better to refer the patron to a computer expert who will respond to the “how it works” types of questions and other computer-related issues that cannot be addressed during a demonstration. (For example, instructions for configuring a user’s desk-top computer.) The librarians cover library services and “what you can do with them.” (Schiller, 1994) Patrons are referred to the appropriate computer expert, or invited to speak to us after the demonstration to discuss their specific problem.

**Why:** There are three basic reasons for conducting a demonstration: 1) for users to learn about new electronic library resources and how to use them, 2) to determine the library training patrons want and need to use electronic services, and 3) as an awareness mechanism - to provide feedback to the librarians so information needs can be more effectively served.

**When:** The date and time of day must be appropriate and convenient for department and library personnel. We schedule “open” demonstrations during lunch hour to maximize attendance. The departments usually schedule the library demonstration as the agenda of a regular departmental meeting. Once a date/time is agreed upon, the room is booked for a block of time that allows for at least one hour before the demonstration to one hour after the show is over. On the day of the demonstration the equipment must be set up, tested, and any connection problems solved before the audience arrives. Afterward, the users should have time for “hands-on” and/or the opportunity to ask questions. Equipment must also be shut down and any borrowed components must be packed and returned to the computer center.
Where: The room/location where the demonstration will be held must meet the following criteria: the room must be available on the selected date/time, have enough seats to accommodate the audience, have “live” computer connections, and be set up with computers (if the demonstration will involve a “hands-on” component).

Schedule

The planning phase is systematized according to a time schedule (Table 1). This schedule keeps all activity and personnel “on-track” while preparing for the demonstration. Although it may seem redundant to confirm and re-confirm with computer personnel, it has proven to be an essential element in successful demonstrations: the technology must work. As a precautionary, backup measure, slides/overheads of menus, sample search results and important features should be prepared in the event of equipment/connection failure.
### Table 1: TIME SCHEDULE

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<th>Time Frame</th>
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| **4-6 weeks prior to demonstration** | Make arrangements with the department  
|                                  | Confirm date with all library and computer staff that will be involved  
|                                  | Schedule the room and reserve portable computer equipment          |
| **2-3 weeks prior to demonstration** | Confirm Ethernet connection with computer center  
|                                  | Submit announcement to all institutions’ calendars                  |
| **1-2 weeks prior to demonstration** | Confirm plans with the department liaison  
|                                  | Ask department liaison for any specific subjects that might be of interest  
|                                  | Confirm with computer center (equipment, connections, batch files working)  
|                                  | Remind the library staff                                           
|                                  | Post announcements for Open Demonstration (e-mail and flyers)       |
| **1 week - the day of the demonstration** | Prepare folders with the most current information available  
|                                  | Obtain materials describing discipline specific electronic access to the group  
|                                  | Test all electronic library services                                
|                                  | Develop appropriate search strategies                               
|                                  | Run all searches and document all search strategies you will demonstrate |
| **The day of the demonstration** | Confirm with computer center that all systems are working           
|                                  | Get the phone number to call if there is a computer problem         
|                                  | Pick up LCD display, portable computer, cables, etc.                |
| **At least one hour before the audience arrives** | Go to the room with all materials                                    
|                                  | Set up the equipment and test all connections                        |
| **After the demonstration return all computer equipment** |                                                                      |

**Equipment and Connections**

Equipment and connections required for demonstrations are listed in Table 2. In addition to the hardware/equipment, the Internet connection is critical. The room must be equipped with a reliable power source and “live” electronic connection with an active ethernet “drop”. All network and batch files on the CPU must be configured to work in the room. In addition, any networked CD-ROMs must be running and all Internet connections that will be demonstrated must be operational.
Table 2: EQUIPMENT AND CONNECTIONS

- Computer: CPU, monitor, keyboard, mouse
- Overhead projector with a strong bulb and good focus and screen
- LCD projector (i.e. Proxima) and cables
- Reliable power source, extension cord and surge protector
- Active Electronic Services
  Ethernet “drop” in the room
  Network and batch files configured
  Internet connections work
  CD-ROMs are “up” (if networked)
- Microphone (especially if the room is large/noisy)

Advertising

Approximately 2 to 3 weeks prior to demonstration some advertising may be necessary to alert your users to the coming demonstration. In the Time Schedule (Table 1) opportune times for this activity are identified. The department liaison notifies and reminds his/her own personnel about the demonstration. Open demonstrations are announced on the Weekly Calendars, posted on e-mail, and brightly colored flyers are placed on bulletin boards and sent to all Departments, Centers, and Laboratories. The librarians also mention the event at institution meetings and in conversation.

Demonstration Materials

Folders containing current library information are usually prepared in the last few days before the demonstration. A list of materials included in our demonstration folders/packets is included in Appendix A. Because the electronic environment is dynamic, and materials become outdated very quickly, we include booklets, “cheat-sheets”, search aids, logon/logoff information that is the most current information available for every system we demonstrate. The users take the folders for reference, so material must be correct. All services demonstrated must have some written documentation in addition to the online help of the electronic library menu (See Electronic Library Account, Appendix A).

Practice all systems that will be searched. Determine the exact searches that will be conducted in each on-line utility. Work out the steps with your partner, so both presenters are familiar with the sequence and expected results. Write them down in the order you will present the information. As you present each utility describe the similarities and the differences between various services using the same search strategy, as shown in the example (Table 3).
Table 3: COMPARE SEARCH RESULTS

**EXACT TITLE SEARCH in LOCAL OPAC (CLAMS)**

$t=$SYNOP  Results: 5 items (the first word of the title)

**KEYWORD SEARCH in LOCAL OPAC (CLAMS)**

$fi$ $ti$ SYNOP  Results: 10 items (any word in the title)

**Uncover**

SYNOP  Results: 1 item (a word in the title of a journal article)

**ASFA NETWORKED CD-ROM**

$find:$ SYNOP  Results: 48 items (includes abbreviated series title: FAO FISH.

SYNOP

$find:$ SYNOP EXPERIMENT  Results: 3 items

Outline of a Demonstration

A basic outline of a demonstration follows.

- Pass out the folders as people arrive. Start on-time.
- Introduce the library representatives and welcome. (i.e. Thank the group for inviting you to their meeting.)
- Describe the impact of technology on information acquisition and production.
- Tell the audience why you are meeting with them and reinforce the library’s commitment to support traditional services.
- State the focus of the demonstration: electronic library resources and services available within your organization. Mention the facts: 1) computer systems allow libraries to offer more electronic services, 2) many of these innovations have made it possible to perform research using one’s own desk top computer, and 3) we want users to be comfortable with the new systems and be able to use them with ease.
- As each feature is demonstrated, point out the page in the brochure or sheet(s) in the folder that describes the service. (For example, “User Friendly Electronic Library Services”, Uncover, FirstSearch, etc.) Compare and contrast the various services: the established and documented search sequence and strategies are the most important part of the demonstration.
- Demonstrate as much as possible in the allotted time and leave enough time at the end for questions, or “hands-on”. Encourage the audience to take advantage of individual instruction in any of the electronic resources. Offer to provide instruction in small groups within labs, or on an individual basis, by appointment.
- Reinforce the feedback mechanism by asking the audience to complete the final sheet in the folder (Appendix B).
Conclusion

Technological developments have affected the way librarians and researchers search for, acquire, and produce information, and they have resulted in dramatic changes in the research cycle for our libraries. A dynamic library instruction program provides researchers with the expertise necessary to navigate and fully utilize these resources.

As the library expands to include new and improved online, electronic services we will continue to meet the information needs of our users by teaching them how to use these resources. By training researchers to use new electronic resources effectively we take an important step toward empowerment and a critical step in the process of delivering the library/information to the their desk-top.

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References and Notes


Appendix A: Folder Contents - A sample of brochures and “cheat sheets”

**User Friendly Electronic Library Services.** A booklet describing the most current MBL/WHOI Library services. Updated versions of this booklet are photocopied for each demonstration to reflect procedural changes and new services. Includes basic logon/logoff and descriptions of all services offered by the library.

**MBL/WHOI Library Services and Staff.** A list of Library staff, phone numbers and e-mail address is provided so users can contact librarians, as needed.

**Electronic Library Account Request Form.** Forms are collected at the end of the demonstration or mailed to the library at a later date. The MBL/WHOI Library encourages users to obtain a free Electronic Library Account (password and username). This service provides menu access to all library services, except CD-ROMs located in library offices and special collections. Many researchers and students in Woods Hole do not have Electronic Library Accounts. Although many libraries do not have a gopher, MOSAIC or networked system, all electronic services that are important to the researchers should be demonstrated. A direct telnet, gopher, MOSAIC, or dial-up to each service is an acceptable alternative and these alternative access methods should always be mentioned. (During presentations keep the “lowest common denominator” in mind.)

**CLAMS Information Gateway.** Logon/logoff and search tips for the library catalog.

**Using CD-ROM's Online.** A 3-fold guide to the MBL/WHOI Library networked CD-ROM's with search tips.

**Getting to the CD-ROM Access Menu.** Detailed search aids with screen printouts and tips for keyboard mapping, format options, print and download instructions and advanced search strategies required by experienced users.

**Current Contents: Profile Request Form.** A one-page form that establishes a profile and identifies the terms the user wants in Current Contents searches.

**First Search:** 2 flyers (First Search Reference Card and What is First Search) include logon procedures, search instructions and the databases in First Search, plus a description of the service and its potential for use in scientific research. Also defines what constitutes a “search” in this system. Although 25-search passes are not included in each folder, they are offered to the attendees at no charge. New passes can be requested at any time.

**Uncover.** Includes logon/logoff and search tips for Uncover and directions for establishing Reveal service.

**Library Alert.** Fax service announcement with fee/page charge information.

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Training Questionnaire. (see Appendix B). Follow-up sheet.

Special Items: Printouts of resources available on the Internet that are applicable to the research of the department (if the demonstration is department or discipline specific, such as Chemistry Resources on the Internet)

Appendix B: Training questionnaire included in folders

Name ___________________________________________________ Phone _______________________

Building ________________________________ E-mail ________________________________

I would like more information about the library services I have checked.  
(If you have any specific questions or comments, please write them in.)

___ CLAMS (Library Catalog)

___ UnCover/Reveal (Table of Contents) Service

___ Boston Library Consortium (Union List of Serials)

___ Searching other Library Catalogs on the Internet

___ Locally Networked CD-ROM Databases

___ Current Contents

___ CD-ROMs for on-site use in the Libraries

___ First Search

___ Grateful MED

___ Finding Electronic Resources in my Area of Interest (specify)

I am interested in group instruction for my lab.

___ I would like to set up an appointment for individual instruction.

Return this form to the Library. (List the name, address, phone/e-mail/fax numbers for the person responsible for library instruction.)