“What I Really Want from the World Wide Web Is...”
How Do We Establish Access to Ever Expanding Resources?

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As information providers, we are excited about the potential for delivering information to the desktop of our users in a user-friendly manner. Inevitably, as with any new technology there are many questions to resolve: search engines don’t work the same as those in sophisticated databases, we now become “publishers” as well as “guides,” everyone must re-tool their skills, we must rethink our realm of responsibility when our students mount their own sites, etc. In Part 1 of this discussion Rob Aken will discuss issues of Internet resources access and the librarian’s role in creating, managing, and enhancing that access. In Part 2 Mary Molinaro will address issues involved in providing Internet access to users in a public setting including security, personal web pages, and providing varying levels of consultation. We welcome an open discussion of these issues following our presentation.
Providing Web Access to Library Users

WWW sites can serve both a local clientele and a broad-based user population around the world. Excellent guides to resources abound, but they are often overwhelming to new users or users with very specific needs. Local creation of web sites permits designers to take into consideration the specific needs of their particular user groups (e.g., students and faculty in specific disciplines). Each site therefore can selectively point to and mount appropriate resources. Researchers at other institutions who share this interest can then access this specialized data, as well.

Librarians know the idiosyncratic needs of their users and are therefore well suited to compiling this information. A structured selection process is critical to encouraging the continued use of web resources, especially since the growing size of the web makes finding relevant material difficult. Mounting unique local materials and adding pointers to specific related materials contributes a resource that saves students and researchers invaluable searching time, especially given the limitations of current WWW search engines. Most users need the libraries’ resources primarily at certain critical junctures in their research, and their ability to use a sophisticated, ever-expanding resource will require all the assistance we can provide them, both via well-designed, well-maintained electronic guides and with timely training and consultation. The maintenance of pointers to resource sites is critical in this regard: sporadic users cannot hope to keep up with the changing nature of the web, but dedicated subject specialists (who analyze their subject areas continuously by searching, evaluating, organizing and presenting the material with their specific user group in mind) can and should.

The variety of user needs requires a variety of approaches: some users will take initial training and be off and running. Others will want to consult with librarians often. They may also rely on the library’s ability to provide high-end machines and connectivity at a localized site. Still other users will rely on librarians to supply the material they need. End-user searching appears user-friendly to those who use a particular product often enough to get comfortable with it. The growth of the number of sites on the web, now approaching 10 million URL’s, increases the need for sophisticated methods of searching, thereby making the use of the resource, even one as easy to use as a web browser, more difficult for periodic and new users. Lycos, for example, plans to add field and code searching, and while on the surface that suggests ease in finding more relevant results, it will often extend the learning curve and not be that useful to users who enter one search term and browse the resulting hits to determine the relevancy level themselves). The one constant, of course, of all users is the need to find information as quickly as possible so they can apply it to their work in progress; what librarians bring to this process is the efficiency that comes with experience with information
resources and the application of appropriate strategies to filter resources so that the most relevant are available.

Various approaches are being considered for making material more easy to find and access. The OCLC Internet Cataloging Project will help libraries provide users with a way to discover Internet materials using a structured, familiar resource (their own online catalogs) access them from the same workstation. This single gateway approach is one of the prime advantages of the web, something users have been seeking ever since electronic resources starting appearing in libraries. Introducing this material into the online catalog is particularly critical at this point in the development of the web because what a user wants is often there, but they don’t know how to find it or even think to look there for it.

Librarians are also starting to provide descriptive information and evaluative analysis of tools on the web (see, for example, Roy Tennant’s Internet Search Tool Details on the UC Berkeley Library web site http://www.lib.berkeley.edu/Help/searchdetails.html). We can also keep users informed of new resources on a structured, regularized schedule (as we’ve done for years, for example, with Selective Dissemination of Information searches; Lycos plans to introduce a current awareness service in the near future). And there is a need for evaluating and introducing new search and access tools.

Archiving materials is also necessary; useful collaborations between librarians, computing personnel and information providers are occurring to this end. We should develop electronic repositories encoded for precise access, taking care to designate duplicates and versions, maintaining stable and error-free materials, and establishing authority control for uniform access.

Critical to SCHOLARLY research will be the commitment on the part of resource providers to ascertain the reliability of the material as well as its availability. Librarians must work with technical support personnel as well as the publishing world to guarantee the value of the WWW as a scholarly tool. It is likely access to much of this scholarly material will be fee-based, and libraries will need to work with producers to find distributed cost alternatives that provide access to their constituency. Mirroring of heavily-used sites can contribute to access reliability.
Providing Web Services in Public Facilities

With the explosion of the World Wide Web use on campus, click and go browsers such as Netscape present a host of challenges to those providing access in public facilities. While an integration of internet services such as mail and netnews into a single browser is a blessing for a machine on one's desk, in a public facility with open easy access this open access can create havoc.

While Netscape gives the user the ability to post mail and to submit forms to web sites around the internet, the only requirement is that one's mail address be set in the browser's preferences file. The difficulties arise because the user can input any address -- real or fabricated. This unauthenticated mail access is clearly a violation of campus computer security policies and internet regulations, but is extremely difficult to control. System administrators can even go so far as to eliminate mail access from the browsers loaded on all public machines, but there is nothing to prevent users from downloading fresh copies over the internet, configuring the preference files and then sending mail at will.

World Wide Web services have become so accessible that users are now easily able to publish their own information on the Web. Since it is so easy for users to create their own web pages it is natural that they want them to be attached to a web server for public consumption. The more savvy computer users can create their own servers within their accounts while the less able pressure the local system administrators for public space for their work. Several questions arise from these scenarios. Do system administrators spend time hunting down and eliminating unauthorized web servers or is it better to provide space for users to publish on the web? If administrators provide the facility for users to mount web site is the university responsible for content? The material is after all gaining access on university owned and operated equipment.

As technology is better integrated into the classroom and the World Wide Web is being used more as an instructional tool, who is charged with maintaining the sites that are created? Since the sites are world readable and these sites project a certain image of the university is the university responsible for monitoring the content, for safeguarding the accuracy of the information or the "look and feel" of the information?

Providing good service to users becomes increasingly difficult as applications become more diverse and more powerful. There are so many different web browsers with a such a variety of functions that providing service and support for each one are difficult. Users can use browsers with a graphical user interface or one that is text-based; a browser that supports forms or one that does not; a browser that functions one way today and another version that functions differently tomorrow. The computing environment is
changing so rapidly that providing consistent support is nearly impossible to accomplish successfully.

Accessing user needs and abilities is also difficult. New users and experienced users will have varying levels of needed assistance. Consultants in public facilities must be able to assess users' abilities and needs to answer their questions appropriately.

Many faculty members are now requiring students to use internet services to find information and to submit assignments electronically. It is not uncommon for faculty to assume either that students already have the internet skills needed to complete the assignments or that the consultants in the public labs will provide the needed instruction.

The new technologies are allowing us to teach in ways never imaginable two decades ago. Students are now better able to communicate with the faculty and with each other. Collaborative projects are now possible using various software packages or the World Wide Web. While providing service and support in a rapidly changing environment to a clientele with ever expanding expectations is challenging, the overall benefits to the educational process make it worth the effort. Instructional technology is providing the foundation for an information literate student body that will be better able to compete in tomorrow's society.