In Search of Services: Analyzing the Findability of Links on CIC University Libraries' Web Pages

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Abstract

This paper examines Web-based services from the 13 member libraries of the CIC (Committee on Institutional Cooperation). Information was gathered from a survey of member libraries and from an analysis of each Web site. Particular attention was given to the placement and "findability" of service links on the sites. Successes and problems are summarized with suggestions for further individual and CIC-wide Web development focusing on services.

CIC Libraries—A Unique Consortia

The exploding development of Web-based services is a critical activity for college and university libraries. This is especially true for the 13 member libraries of the Committee on Institutional Cooperation (CIC) consortia. This paper analyzes access, reference, information and user education services reflected on the CIC pages related to where these services are located or their "findability" by users. By using the CIC libraries as the target population for this study it is hoped that the findings might provide a possible model for next generation developments of the CIC Virtual Electronic Library (VEL) as this consortia of research libraries seeks to advance collabora-

tion and cooperation, not only in collection provision, but also in innovative service delivery.

The CIC Libraries vision is as follows:

> By the beginning of the 21ˢᵗ Century, the CIC libraries will have a cohesive consortial organization guided by a vision of the information resources in the CIC as a seamless whole, whether those resources are developed or owned individually or collectively. Through shared planning and action, the libraries and their patrons will have equal access to the total information resources of the CIC. In addition,

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the libraries will provide the students, faculties, and staffs of the CIC universities with access to comprehensive resources throughout the world. **Through collective leadership and cooperative action, each CIC library will realize extensive value-added services for its clienteles.** The CIC libraries will be in the forefront of efforts to preserve, expand, and access both electronic information resources and traditional collections.

Its mission:

Through cooperation and collaboration, to advance the missions of the individual CIC libraries in their support of teaching, research, and service by:
• *creating*—individually and collectively— new ways to fulfill the information needs of the faculties, students and staffs of the CIC universities;
• *extending* and *enhancing* the information resources and services available on each campus by providing equal access to complementary resources throughout the CIC; and thereby, improving the collections, information resources, and services of the individual CIC libraries.

While collection cooperation is paramount in the CIC mission an interest in cooperative services is coming to the fore, particularly with the emergence of the CIC Virtual Electronic Library (VEL), a Web-based catalog of the CIC holdings, and patron-initiated interlibrary loan services. The experience of cooperative development related to the VEL and to creating the CIC Libraries Strategic Plan has provided CIC librarians with incentive to move forward with many other cooperative projects and ideas. Collaboration is particularly critical as each individual library is challenged with limited resources and staff to create similar platforms and Web-based services.

Web Design and Evaluation
The literature is exploding with articles related to Web design and usability though research libraries are just beginning to conduct specific needs assessment and evaluation related to their Web site. More libraries have included questions about their Web presence in general user needs assessment surveys but these focus most often on whether the respondent uses all or specific parts of the Web site. Few are involving users at the front end of the Web design. Abels, White, and Hahn developed and implemented user-based criteria for designing a Web page for the academic business community. They note that in the past usability testing is most often conducted after the Web sites are developed, usually in the evaluation stage. They propose determining the criteria that influences the community's use of the Web, integrate these in the design and involve users in the evaluation phase. Wan and Chung examine Web page design in terms of network analysis, and classify Web sites according to the complexity of their designs, a factor strongly related to effectiveness and efficiency for users. After mapping the structure of Web sites they concluded that it is desirable to keep Web pages within a close distance to the homepage. McMurdo agrees with the concept of a shallow structure for Web sites. Roy Tennant summarizes that "determining a logical structure that supports multiple uses" is the key to developing information for different people who seek and use the information in a wide variety of ways.

Specific analysis of research library Web sites is beginning to emerge in the literature. For example the University of Arizona Library conducted user-based testing to develop and evaluate their Website. In a descriptive article, King examined the home pages of the 120 libraries in the Association of Research Libraries with a goal of comparing design similarities and differences. Allen and Prabha are in the process of analyzing data from a study of user perceptions of the CIC Virtual Electronic Library (VEL) using the critical incidence methodology where a recent experience by a user is studied.

Emergence of Web-Based Services: An Initial Survey of CIC Libraries
CIC libraries all have Websites containing a wide variety of information about collections, digital resources, and services. This paper will focus only on a preliminary analysis of the inclusion and placement of services in these Web sites. A questionnaire was completed by 12 of the 13 member libraries concerning their Web sites. Service areas of each site were also examined individually for placement and "findability." Linkage of these

services from the libraries' homepages was also reviewed. Table 1 summarizes the number of library Web sites where a particular service is found, the number found on the libraries' homepage and the number of "clicks" to get to the particular service from the homepage.

Specific services

Electronic reference, library instruction, interlibrary loan, and circulation policy information sites were the most frequently noted service sites. However, they were not located, in most cases, on the libraries' homepages. Electronic reference was most frequently on the homepage (5 of 12). Interlibrary loan (3 of 12) and circulation policies (only 2 of 12) appeared on very few homepages. Circulation recalls was the next common site (11 of 12) with circulation renewals, electronic suggestion box, campus document delivery, and acquisitions suggestions following in frequency. Other common sites include interactive library instruction, circulation renewals, reserves, disability services, frequently asked questions, electronic tours, and technical support. Less frequent were sites for research consultations, distance education or subject-specific interactive library instruction.

Table 1. Services on CIC Libraries Web Sites

Services	Libraries	On Homepage
Circ. - policies	12	2
Electronic reference	12	5
ILL	12	3
User education	12	3
Circ. - recalls	11	1
Acquisitions suggestions	10	0
Campus document delivery	10	0
Circ - renewals	10	3
Electronic reserves	10	3
Electronic suggestion box	10	4
Reserves (directory)	10	3
Disability services	9	3
Interactive library instr (gen)	9	5
FAQ	8	2
Electronic tour	7	3
Distance education	6	1
Technical support	6	1
Reference consultation	3	1
Interactive library instr (subj)	2	0

CIC VEL

As members of the CIC consortia, all 13 libraries provide access to the CIC Virtual Electronic Library or VEL. However, only four have this service located on their homepage. Allen and Prabha found that in libraries where the VEL is embedded it takes users an average of three clicks to locate it. Also none of the libraries link to the CIC Website, itself (although currently it does not contain many specific services for library users). It takes four clicks to get to the "Links to CIC Libraries" page from the CIC consortia homepage. Another possible barrier is that users cannot go to a CIC library catalog within the VEL and then move to that library's Website.

"Findability" Issues in CIC Libraries

Locating service sites can either be easy or almost impossible on the various CIC library sites. Two major barriers exist for users. First, the service must be found and, in some cases, important service points are imbedded in the Website site requiring two or more "clicks." For example, electronic reference, one of the most prolific service sites, can be found on the homepage of only five of 12 libraries. Circulation is only found on two homepages. Interlibrary loan is found on three.

The second major barrier to locating services is terminology. Although the service might be on the homepage its label may be obscure to users. Examples of this linguistic obscurity include words like lending services for circulation (which is also an obscure word to some), library outreach services for distance education, virtual reference for electronic reference services and 7-Fast for document delivery. Librarians are becoming keenly aware of this problem and are applying new, hopefully more understandable names to the services. For example, five CIC libraries use "Ask a Librarian" as the title for their electronic reference site. Another library uses the phrase "a.k.a. assigned reading, after reserves and another puts "borrowing books" in parentheses after "circulation." Interactive tutorials also suffer from the naming problem. Everything from *Library Explorer to netTutor* is used to identify these very useful interactive tutorials.

Web searching and subject gateways

Seven of 12 libraries offer users the ability to search their entire Website and eight of 12 libraries have some kind of subject-based gateway to the Internet. One library removed the Web searching capability because us-

ers were confusing it with the online catalog. Another library solved this problem by including a phrase under the search link "excluding the library catalog." The increased blurring of online catalogs with Web-based resources is quite confusing and will not diminish until the catalogs and Web resources are more effectively integrated into a single, easily searchable gateway. Although this paper does not address staffing issues, construction of individual subject-based gateways can be quite demanding and most libraries have a difficult time keeping these sites current as well as applying effective search capabilities to them.

University homepages

Findability of libraries' Web sites is also related to whether or not the universities' homepages feature the library as a direct link. Five of 12 CIC institutions have a clickable link to their respective library. At other CIC institutions it is difficult to find the library because it is not always located where it might fit logically. For example, searching under "research" did not lead to the library Web site in several of the CIC institutions while searching under faculty and staff did. King found similar results in the ARL Web pages study where only 44% of library homepages could be found in one step from the institutions' homepage.

Web Site Assessment and Evaluation

All of the CIC libraries are strongly interested in user-based needs assessment, particularly now that the first wave of more comprehensive Web sites has been created and used for a period of time. Three CIC libraries report conducting some a specific assessment of their Web site using surveys, focus groups, individual interviews, and desk interaction data. One library has hired consultants to conduct an in-depth study of their Web presence. Others are in the process of conducting general library user needs assessment projects which have selected questions related to Web use.

All of the libraries are reviewing their Web sites and some are doing major overhauls with an eye to improving design features, adding more services, improving the organization of information, improving access to specific sites such as electronic journals, improving ease of use, and relocating buried sites. One library reported that their Web redesign was part of a larger intellectual effort to aid in resource discovery and selection through reconceptualize of information zones or spaces. It is likely that many of

the libraries' Web pages will continue to change as the assessments are completed and new information about usability applied to design and placement of services.

Web Site Successes

CIC libraries reported a number of successes with their Web sites. These included elevating services to a level equal to that of information resources, the ability to use electronic request forms for various services, self service features for reference and instruction, delivery of full-text content, and the ability to develop a one library view for library users entering the Web space. Many libraries also reported positive experiences with Web versions of their OPAC integrated into their Web presence.

Web Site Problems

A number of common problems exist with the CIC libraries' Web sites. Users cannot understand categories where services are placed. Current designs are often heavily based on the individual library's organization structure which is not intuitive to the user or does not have a bearing on their particular information need. Service features are buried. The Web sites contain too much information poorly placed. One library indicated the need for "a demolition and rebuilding project" to address this problem. Several libraries indicated the need to improve design to take advantage of virtual information delivery rather than to rely on conventional models of delivery in the virtual environment (rather like using the card catalog as a model for the online catalog environment).

Next Steps

CIC libraries are committed to advancing Web-based information services and new developments will continue to appear on individual Web sites as more is learned about user needs and interface design. This analysis reveals a growing priority for the member libraries to bring Web-based services to the forefront of their Web presence through a variety of methods including better placement and improved user-friendly design. Though not part of this study the importance of marketing the sites is becoming obvious to CIC librarians based on results of user surveys and anecdotal evidence.

CIC libraries are also interested in advancing projects that promote the rich resources contained on their individual Websites. Developing effective searching capa-

bilities across CIC library Websites is one such effort underway. Other projects of interest include a searchable database to electronic reference sites and improved links to digital initiatives. CIC libraries are developing strategies to advance their collective virtual presence to the next level. A major challenge for CIC libraries will be how to develop selected cooperative Web-based services in a user-friendly and seamless way. Services could include cooperative reference consultation services and joint user education program development. A more multidimensional CIC library Website could be developed containing not only the resources found in the VEL and the electronic Web-based resources located on member library Websites, but also services and expertise. Place these elements in a searchable and responsive site and the search for services will be fulfilled.