DIGITAL LIBRARY FEDERATION

North Carolina State University Libraries

Report to the Digital Library Federation
Fall, 2003

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I. Collections, services, and systems

A. Collections

InsideWood

The InsideWood Project is a two-year NSF grant-funded collaborative effort focused on development of an extensive, Internet-accessible wood anatomy reference, research and teaching tool. InsideWood will build on existing databases, specimen collections, and photographic images at NC State and other institutions. This project will develop a Web site with nonexclusive, open architecture to allow for long-term sustainability of the collection. Objectives include preservation and integration of information from wood anatomy databases at multiple institutions; development of a robust data structure and search protocol; and creation of an Internet-accessible collection of microscopic slide images. Instructional materials on wood anatomy and a practical wood identification tool will be included.

Forest History Project

In collaboration with the Forest History Society and The Biltmore Company, the library has digitized primary research materials, including photographs, diaries, correspondence, artifacts, and printed materials relating to the Biltmore Estate Forest (some of which is now part of the Pisgah National Forest) and the career of Carl A. Schenck, founder and director of the Biltmore Forest School, the nation's first school of forestry. The Schenck Collection forms the foundation of the NCSU Libraries' special collections on forest history and natural resources.
http://www.lib.ncsu.edu/archives/forestry/

Congressional Committee Meetings Index

An XML-based index to over 55,000 meetings of Congressional committees (1985 to present) has been developed using Blue Angel Technology's MetaStar repository software. Data is drawn from meeting summaries found in the Congressional Record's "Daily Digest" sections. The resource allows more precise searching of this data than do existing government or commercial indexes, and returns information about specific meetings rather than a hit list of documents containing specified search terms. The target audience is anyone interested in matters under

deliberation by Congress in recent years. This new research tool is available to students, faculty, scholars, and the general public.
http://www.lib.ncsu.edu/stacks/senatebibs/

B. Services

Learning and Research Center for the Digital Age

In March 2003, the NCSU Libraries opened its Learning and Research Center for the Digital Age (LRCDA) in renovated space. The LRCDA brings together a number of essential services and facilities to create a technologically rich environment of collaboration, discovery, and creativity. The LRCDA embodies important partnerships between the NCSU Libraries and other key campus units, primarily the university's Information Technology Division (ITD) and Distance Education and Learning Technology Applications (DELTA) organization. Staff from the Libraries, DELTA, and ITD work together to provide technology training, consultation, and guidance in the development of digital materials for teaching and learning. LRCDA components include the Digital Media Lab, Usability Research Laboratory, Information Technologies Teaching Center, Scholarly Communication Center, Learning Technology Service (DELTA), and Digital Library Initiatives Department.
http://www.lib.ncsu.edu/administration/lrcda/

TEACH Act Toolkit

The Technology, Education, and Copyright Harmonization Act of 2002 (the TEACH Act), enacted in November 2002, updates copyright law as it applies to the transmissions of performances and displays of copyrighted works, particularly during digital distance education efforts. The NCSU Libraries' Scholarly Communication Center (SCC) has collaborated with Distance Education and Learning Technology Applications (DELTA), the Information Technology Division (ITD), and the Office of Legal Affairs (OLA) to create "The TEACH Act Toolkit" to facilitate implementation of the new provisions. This web-based resource includes educational and implementation guides, checklists, policies, scenarios, and other tools. Library staff are partnering with DELTA to develop a solution to the technological controls requirement of the Act. The TEACH Act Toolkit is widely used by universities and colleges across the country.
http://www.lib.ncsu.edu/scc/legislative/teachkit/

Digital Media Lab

A newly expanded and renovated Digital Media Lab (DML) is now open in the Learning and Research Center for the Digital Age. The new DML offers 20 workstations with peripheral hardware such as flatbed image scanners, slide and negative film scanners, fast document scanners, and a microform scanner. An expanded software suite to assist in the creation and development of digital objects for teaching and learning is available. The DML also provides access to digital video and digital audio workstations in a separate, soundproof room with controlled lighting. The digital video workstation has the capability to import and edit both analog and digital video. The audio-editing workstation permits the conversion of analog audiocassette files to various digital formats; captured audio files can then be edited and converted to various digital formats. A GIS workstation and large format plotter are also available.
http://www.lib.ncsu.edu/ads/dml/

Usability Research Lab

The Usability Research Laboratory in the LRCDA is a unique campus resource. It was created to help interested faculty, students, and staff learn the benefits of a user-centered approach to computer interface

design and to support usability testing. The new lab has two separate rooms: one for observation and recording of the test session and another for the test participant. Equipment in the lab allows for collection of video, audio, and computer data generated in real time for observation and analysis. The lab is available for use by instructors who assign their students to design and run usability tests as part of class projects. It is also available to faculty, staff, and students in the campus community wishing to incorporate usability testing into the development of Web sites, software, or online course materials.
http://www.lib.ncsu.edu/dli/usability/

Database Finder

The Database Finder was developed to improve discovery of key resources for students and researchers across various subject disciplines. Subject specialist librarians enhance catalog records for databases by applying rankings to databases, indicating the level of appropriateness for each discipline they cover. These catalog records are then harvested and converted to XML. XSLT processing is used to generate ranked database listings for each of 65 discipline areas. These pages can be used as either a jumping-off point to search appropriate databases individually, or as a gateway to take advantage of the MultiSearch service.
http://www.lib.ncsu.edu/eresources/dbfinder.html

MultiSearch

MultiSearch was developed to allow patrons to broadcast a search to a number of databases simultaneously. Seeing how many results each database yields for a given search allows the user to focus on the databases that are most likely to be useful for finding articles on a particular topic. Users may view the search results for a given database directly through a customized MetaStar interface or go directly to the database's native interface to continue the search. Blue Angel Technology's MetaStar software has been used to construct MultiSearch interface pages for discipline areas accessible through the Database Finder. Databases are searched through the Z39.50 protocol where such access is offered. MultiSearch has also been integrated with SFX, allowing a patron to click the SFX link and obtain the full text if it is available.
http://www.lib.ncsu.edu/eresources/MultiSearchFAQ.html

Library Online Basic Orientation

A next-generation version of LOBO (Library Online Basic Orientation), a tutorial introduction to library research, was made available as an interactive tool to help students learn, evaluate, and use information within the context of their first major college writing assignments. Developed on the research process model, LOBO includes modules covering the steps through which students progress as they search for information for research papers. Interactive components that illustrate complex concepts are integrated into the tutorial. For example, a keyword builder teaches students how to select and combine search terms, and a citation builder helps the user create citations. Synchronous communication between student and librarian is also featured. This tutorial is used primarily with first-year students in freshman composition classes.
http://www.lib.ncsu.edu/lobo2/

C. Systems

Luna Insight Deployment

In order to improve access to existing and planned image collections, Luna Imaging's Insight software product was acquired in April 2003 with implementation work beginning shortly thereafter. The first collection to be deployed will be selected from the North Carolina State University Archives Photograph

Collection, which contains almost 250,000 photographs that document the history of the university from its founding in 1887 to the present. The library has also acquired access to the AMICO Library, which will be available for cross-collection searching in connection with other local digital image holdings such as the Design Image Collection.

II. Projects and programs

A. Projects

Shibboleth Pilot between NCSU, Duke, and UNC-Chapel Hill

NCSU, Duke, and UNC-Chapel Hill received a grant from the North Carolina Networking Initiative to conduct a pilot implementation of the Shibboleth architecture for inter-institutional sharing of Web resources. The pilot is led by senior library and information technology staff from each university. The goals of the pilot are to address local issues related to implementation, and to identify appropriate Shibboleth applications in library and non-library domains. Key questions the group will examine are the degree to which the campus implementations will be coordinated and the identification of areas where this partnership might be able to contribute to further Shibboleth development.

III. Specific Digital Library Challenges

Using Library Catalog Data in Other Library Services and Applications

With the implementation in 2003 of the Sirsi Unicorn ILS, the development of an electronic resources management system ("E-matrix"), and implementation of SFX, the NCSU Libraries is now looking toward better integration of key data sources. One such source is the catalog database, including both bibliographic and associated holdings data. The ability to use this data outside the ILS would allow improved virtual integration of the print and electronic collections through services such as SFX and the library's website.

Rethinking MyLibrary@NCState

MyLibrary@NCState, a customizable Web interface to library resources, has been fully operational and available to faculty, students, and staff for more than four years. Since usage statistics have indicated that only a small number of MyLibrary account holders are frequent users, the library has made the decision to separate the product from the service and focus on the latter, pursuing further development of the personalization and customization features that are part of the MyLibrary service with hopes of reaching a wider audience. Efforts will focus on the ability to create and publish pages for courses and on the ability to create pages and profiling options that would be useful for undergraduates, who are not as discipline-focused as graduate students or faculty.

Digital Repository and Institutional Repository Development

The NCSU Libraries is exploring the topic of institutional repositories with the campus community. Specific challenges to institutional repository implementation include gaining faculty acceptance, finding a sustainable model for repository development, addressing copyright and intellectual property issues, and implementing a preservation plan. At the same time, the library is working to develop a digital repository to house, preserve, and provide access to digital objects owned by the library. One challenge is that of defining the relationship between the technical infrastructures for the institutional repository and the library digital repository. Another challenge is that of identifying a long-term, scalable, and reliable storage solution for repository content.