Staffing a Web-based information system

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The University of Iowa Libraries-Wide Information System

The University of Iowa Libraries, like many research libraries throughout the country, is developing a Web-based information system for delivering information, communicating with clients, facilitating use of the Internet and other electronic resources, and as a teaching tool. This article describes an action-oriented team structure developed to implement the University of Iowa Libraries-Wide Information System (LWIS). Our approach takes into consideration the fact that we do not have sufficient staff to devote solely to this project. Therefore, a structure was designed to take advantage of staff expertise and knowledge and provide a “part-time” opportunity for many people to contribute to the development of LWIS. (Ed. note: Visit the UI Web site at http://www.lib.uiowa.edu/.)

Creating LWIS

LWIS is an integrated and expandable system that makes use of the World Wide Web to deliver information generated by the libraries and to direct users, via a gateway, to information obtainable through the Internet. LWIS is a key part of the new University of Iowa Campus-Wide Information System. Currently, LWIS contains four main sections:

- University of Iowa Libraries Information;
- Gateway to the Internet;
- OASIS (University of Iowa Libraries online catalog); and
- University of Iowa Home Page.

Technically sophisticated development work on LWIS, headquartered in the libraries’ award-winning Information Arcade, has already been accomplished by Paul Soderdahl, team leader for LWIS and multimedia (MM), and other staff from throughout the library system. Ongoing work needs to be done to expand LWIS, add important information links, and move the system forward as new technological innovations occur.

However, harnessing scarce human resources to quickly and efficiently expand LWIS to its full potential is a continuing challenge. To this end, Anita Lowry, former head of information, research, and instructional services (IRIS), and Paul Soderdahl developed an organization plan to enable LWIS to reach its full potential. (Ed. note: Anita Lowry died last July.) The plan was reviewed by the libraries’ governing bodies and is now in place. The architecture fits with the Libraries commitment to a fluid, team-based organization that can work quickly and change rapidly as needs arise. Staff, working within the new structure, are now addressing the following areas identified as high priority for the LWIS for the immediate future:

- Educating libraries’ staff about LWIS (programs for this purpose, offered during fall 1995 were planned by Janice Simons-Welburn, coordinator for personnel and diversity services).
- Increasing the amount of information provided by LWIS and ensuring that it is accurate, up-to-date, and presented in appropriate formats (e.g., expanded homepages for all library departments, inclusion of the Libraries Newsletter and other librarywide information, more “links” in the Gateway to the Internet, etc.).
• Expanding the offerings and capabilities of LWIS in the areas of interactive user education (e.g., Library Explorer, a SuperCard-based library instruction program), interactive services (e.g., forms for interlibrary loan and reserve material requests), the Gateway to the Internet (e.g., making it keyword-searchable), and the interface with OASIS and interaction user education. A particularly important goal is to convert Library Explorer so that it is accessible through LWIS. Library Explorer is a sophisticated hypermedia tutorial designed to help students learn to choose information sources and finding tools appropriate to their purpose, locate books and other materials using the online catalog and the card catalog, as well as find periodical and newspaper articles using electronic and print indexes and abstracts. It was created by staff members from the University Libraries and Information Technology Services. A grant from the University of Iowa Community Credit Union made the conversion possible.

Developing LWIS
The organizational structure described below was created to support a significant LWIS development effort during 1995–96. Approximately 42 individuals including librarians, technologists, library support staff, and nonlibrary staff, the equivalent of about 4.25 FTE staff are working on the project. Their work is designed to:
• establish basic policies and guidelines for the design and use of LWIS;
• provide expert and timely advice on issues of policy and procedure to the team leader for LWIS and multimedia;
• move forward quickly with the development and implementation of a graphical “welcome screen,” updated and enhanced homepages for individual libraries and departments as well as for the libraries as a whole, an expanded Gateway to the Internet, the conversion of Library Explorer, and the OASIS-LWIS connections;
• increase staff knowledge of and involvement with LWIS;
• effectively provide three levels of support for staff contributing to LWIS including: 1) helping train library staff how to select, create, markup, and place materials directly into LWIS themselves; 2) helping train library staff how to select, create, and markup materials for LWIS, but having Information Arcade staff put the materials into LWIS; and 3) helping train library staff how to create documents in appropriate electronic formats (via word-processing or scanning), but having Information Arcade staff provide the necessary markup and/or hypertext scripting for LWIS and having them put the materials into LWIS.

The new organizational structure
The following individuals and groups were identified to carry out activities leading to successful completion of LWIS goals:

LWIS liaison: liaison between the LWIS Advisory Group and Executive Council. The co- liaisons are the director of information and research services and the director of information systems and technology.

Team leader for LWIS and multimedia (IRIS): manages LWIS and oversees policy development, planning, and implementation of the system. Duties include chairing the LWIS Advisory Group; working closely with members of the LWIS working groups and other librarians providing information on LWIS; designing and implementing new uses of the LWIS for information delivery and user education; acting as system administrator; performing software and hardware installation and troubleshooting; providing training and technical support for staff; and giving presentations, teaching instructional sessions, and leading workshops on use of the system. This person will also participate in the Campus Home Page Design Team and serve in liaison and advisory capacities to the University Campus-Wide Information System.

LWIS Advisory Group: chaired by the team leader, this group consists of librarians from each of the working groups (noted below) and addresses major LWIS-wide issues, such as designing the welcome screen for public workstations, approving guidelines for departmental homepages and for gateway resource selection, using LWIS as an interface to electronic resources including OASIS, making recommendations regarding staff and user education, and promoting LWIS. When necessary, individual working groups will bring recommendations to the Advisory Group for approval, and the Advisory Group will identify those issues that need to come before Executive Council for consideration. The Advisory Group can also advise the team leader on creating additional working groups and disbanding unneeded working groups and will help to ensure that efforts of working groups are not duplicative.
LWIS working groups for 1995-96

The LWIS Working Groups, small expert teams, each concentrate on a particular aspect of LWIS. Their mandate is to encourage and facilitate contributions of information and ideas from appropriate libraries staff, to make recommendations for changes and enhancements to the areas they are coordinating, and, in some cases, actually to put information into LWIS. Each working group consists of one or two librarians and an Information Arcade consultant (or the team leader for LWIS and MM). The purpose of these working groups is to "encourage, initiate, and facilitate," not to "control," and they work with other staff members throughout the libraries. The team leader for LWIS and multimedia may disband individual working groups as their work is completed and may form other working groups in response to needs for development work in other areas of LWIS.

Main Library Homepage & General Libraries Pages: this group is responsible for developing guidelines for library homepages (in collaboration with the Working Group on Department Home Pages), designing the homepages for the Main Library and for the University Libraries, creating the navigational structure for how users access general information about the libraries (including items such as the reorganization report, newsletter, Friends of the Library information, librarywide announcements, etc.), and designing a routine to ensure that those pages remain accurate and current. Members include a special collections librarian, a user education librarian for Hardin Health Sciences Library, and an Information Arcade consultant.

Department Homepages: this group is responsible for developing guidelines for library homepages (in collaboration with the Working Group on the Main Library Homepage), ensuring that each of the departmental units are represented on LWIS, meeting with librarians from the various units to discuss the different levels of support available (levels 1-3 above), and providing guidelines to ensure that the pages remain current, accurate, and maintain a consistent look and feel. Members include the head of the Business Library, the electronic services team liaison for health sciences, and two Information Arcade consultants.

Gateway to the Internet: this group is responsible for creating and maintaining a procedure for gateway selectors to add and remove items from the Gateway to the Internet and to oversee that the gateway links remain current, as well as designing the user interface for accessing the gateway (including the layout of the pages, the navigational scheme, and whatever search interfaces might be desired). This group is also responsible for developing the "general" sections of the gateway and for assisting selectors in identifying and organizing links to resources for the subject section of the gateway. Members include the humanities bibliographer, the head of information, research, and instructional services, and two Information Arcade consultants.

Library Explorer: this group is responsible for porting Library Explorer from a stand-alone Macintosh application to LWIS (including proposing any interface changes that might be desired or necessitated) and for updating Library Explorer as needed. Members include the user education coordinator and an Information Arcade consultant.

Access Services: this group is responsible for creating homepages for the various access services units, and designing and implementing interactive forms (including forms for online renewal, recall, retrieve and hold storage items, interlibrary loan, and reserve). Members include the coordinator for access services and the team leader for LWIS and multimedia.

OASIS-LWIS Connections: this group is responsible for creating the navigational structure for OASIS (the libraries' online catalog) user education documents on LWIS and designing a system to ensure that those pages remain accurate and current, as well as examining the issues and alternatives for using LWIS to search OASIS and other bibliographic databases. Members include the head of the OASIS Office and the team leader for LWIS and multimedia.

Staff Education: this group is responsible for developing ways to use LWIS to provide information and materials for staff education. Members include the coordinator for personnel and diversity programs and the team leader for LWIS and multimedia.

LWIS Technical Support: this group ensures appropriate technical support for the project. It consists of a document markup assistant to provide html markup support for LWIS materials, a gateway links assistant who regularly verifies that all gateway links are active and notifies the Gateway to the Internet Working Group when "broken" links are discovered, a technical support assistant to provide assis-

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...with Web systems administration, back-ups, implementation of new software, markup and scripting, etc. Information Arcade student assistants are assigned to these activities.

Summary
The organizational structure described here has enabled the libraries to move forward in LWIS development. A new libraries homepage, a departmental libraries homepage template, a new Gateway to the Internet, the converted Library Explorer Program, revised Information Arcade homepages, and a new staff Web site (which provides a way for library administrative offices and departments to publish data for use within their units and throughout the libraries) were unveiled at the spring 1996 Staff Technology Fair. LWIS development is truly a systemwide accomplishment for the University of Iowa Libraries.

Note
1. The Information Arcade name is registered in the U.S. Patent and Trademark Office.