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The Challenges of Librarianship in the Expanding Library Service Worldwide

By JAY JORDAN

Good evening! It is an honor for me to participate in the LIBER conference. LIBER is a very important organization, and OCLC PICA was pleased to become one of the first patron sponsors of LIBER in 2002. We are very interested in strengthening the relationship between our two organizations. OCLC PICA participants are also members of LIBER. Some of you may know that OCLC PICA has paid subscriptions to LIBER for 18 libraries in Eastern Europe since 2000. We are doing so because we want to help these libraries participate in the European library community.

This evening I will discuss the challenges of expanding library service worldwide. This is a topic at OCLC that we are very familiar with, because OCLC is a global library cooperative, helping libraries serve people by providing economical access to knowledge through innovation and collaboration. The cooperative is a truly international community. There are some 34,500 libraries in the U.S. that are participating in the OCLC cooperative. There are now approximately 8,000 libraries in 85 countries outside the U.S. that are participating. There are about 3,000 libraries, primarily institutions of higher education, participating in OCLC in Asia Pacific. There are approximately 800 participating institutions in Canada. There are approximately 678 participating institutions in Latin America and the Caribbean. In Europe, the Middle East and Africa, there are approximately 4,100 institutions participating in OCLC. Our cooperative is global indeed. We will be working the coming year to increase not only the numbers on the map, but also the level of participation by libraries and other cultural heritage organizations in our programs and services. What are some the challenges that librarianship faces?

SOME INFORMATION TRENDS

Since 1998, the OCLC Office of Research has studied the growth of the World Wide Web. There are currently about 9 million Web sites, and although growth is slowing, there could be as many as 10.4 million in five years. The surface Web is predicted to grow from its current 2 billion documents to over 9 billion documents over the next few years. The deep Web, which is that portion of the Web that is not accessible through open search engines - library OPACs or reference databases - is much larger than the visible Web.

OCLC has also studied trends in the production of scholarly materials. We looked at books, journals, scholarly articles, e-Print archives, theses and dissertations, and course management materials (see Five-Year Information Format Trends). In general, library book spending is down, and print journal publication continues to decline. Only e-materials are going up, and they are going up dramatically. What does this mean for libraries?

A grid in your handout shows the information landscape and how libraries deal with various types of information. The upper left quadrant is your library classic - we manage book collections, and provide MARC-based cataloging materials that are published and distributed widely. Here, the concept of copy cataloging works. In the lower left, knowledge workers invest a lot of curatorial care into our special collections. Copy cataloging doesn't come into play here, because the items are unique. Holdings, though, are very important. In the upper right are things that don't get a lot of curatorial care - think of all the materials on Web sites as well as the traditional gray literature. The amount of stewardship that libraries give these materials is called "Google". On the bottom right we have learning materials, courseware and data sets used in research. That is the area where institutional repositories are emerging. Now, when we plug library services and tools into this grid, here's how it looks. MARC cataloging works nicely in the upper left. Dublin Core works in all four boxes. Across the bottom, there is a wide range of cataloging practices. The bottom quadrants are where the digital library is very active. Here are challenges in digital content management and preservation, and multiple metadata standards.

OCLC INITIATIVES

I would like to briefly describe several initiatives that OCLC is developing to help libraries deal with these challenges. We are developing a cooperative rights database that aims to provide simplified access to all content that a library owns or licenses. It will feature a continuously updated, standards-based central repository for rights information built through the cooperation of libraries, vendors, publishers and OCLC. For library patrons, this will bring together all sources of full text, print and electronic, available through the library. It will make locating full text from multiple sources easier. It will save libraries time and resources, and it will help to promote the entire collection of print and electronic resources.

This past year, we introduced the OCLC Digital Archive. It provides long-term access and preservation for your digital collections. You can choose to share your collections/content with the world or limit access for your own administrative purposes. Objects can be added to the Archive one-at-a-time, using the Digital Archive harvester and preservation metadata tools, or in batches. The Archive accepts a variety of formats. Current participants include the U.S. Government Printing Office (GPO), and the State Libraries of Ohio, Michigan, and Connecticut. The Library of Congress, National

Library of Medicine and the Smithsonian Institution are now participating in a trial. The Digital Archive follows the Reference Model for an Open Archival Information System (OAIS), which has been adopted as an ISO standard. Dissemination Information Packages from the Digital Archive conform to the Metadata Encoding and Transmission Standard (METS).

OCLC offers software tools to help libraries be digital publishers. The first is CONTENTdm. You can use this software to add metadata and post Web exhibits of digital materials. You can license it for your own server or use a hosted solution from an OCLC server. More than 100 institutions are now using CONTENTdm to support a variety of digital collections, including the municipal archive of Veenendaal, a city in the Netherlands near Utrecht. The archive will mount the collection of a local photographer on the Web using CONTENTdm. The digitized collection will include approximately 75,000 unique objects; mainly images, audio, video, text, maps and some newspapers will be searchable on the Web. The site is expected to be available during the 4th quarter of 2003. The second tool is Olive Software, which incorporates optical character recognition and automatic XML tagging for increased searchability and image files to be viewed by users. The British Library is using Olive to digitize and provide access to *The Penny Illustrated Paper*, which chronicles Victorian life through 40,000 pages and 500,000 images. This collection is part of the British Library's Collect Britain Web site, which is funded by the UK National Lottery. This is one of those rare times when librarians are encouraging people to buy lottery tickets! The University of Oxford is also using Olive to support its Forced Migration Online Digital Library, which provides instant access to a wide variety of online resources dealing with the situation of forced migrants worldwide.

Another way that libraries are meeting the challenge of e-content can be seen in the ePrints-UK project in the United Kingdom. We are pleased to be working with a Joint Information Systems Committee (JISC) funded initiative, ePrints-UK, as part of its national FAIR (Focus on Access to Institutional Resources) program. We are developing Web-accessible applications in knowledge organization and name authority services to enrich metadata records for ePrints UK. Our partners include the Resource Discovery Network (University of Bath) and eprints.org (University of Southampton). E-prints UK plans to develop a national service through which the higher education community can access the collective output of e-print papers available from compliant Open Archive repositories provided by UK universities and colleges. We are also working with the Massachusetts Institute of Technology on its institutional repository, DSpace.

OCLC researchers tell me that another growing trend involves "Web services". These services are a suite of protocols that define how requests and responses between software applications should be encoded and transferred over the Web. The Metadata Switch services enables machines to talk to machines. The one machine says to the other, "Please send me a Dewey number for this record". The other machine says, "here's your Dewey number". While it's a bit more complicated than that, it is an example of the kind of services that we will be seeing more of as the semantic Web becomes reality.

WORLDCAT

In the last part of my remarks, I would like to show you how we at OCLC are working to make WorldCat a global information resource. WorldCat is certainly one of the great examples of the power of library cooperation, and it is a model that has continued to provide value over three decades of continuous technological change. It is today the world's largest bibliographic database. This past year, the British Library added the 51 millionth record in November, and in April, the University of California, Irvine input the 52 millionth record. There are now more than 888 million location listings. Even though WorldCat is one of the great tools of the library world, most of us in this room would agree, however, that it needs to continue to change to remain vital. We are in the midst of a major project to transform WorldCat from a bibliographic database and online union catalog to a globally networked information resource of text, graphics, sound and motion.

We are migrating WorldCat to a new platform, based on Oracle technology. This new platform will enable WorldCat to move beyond bibliography and its current text limitations to include graphics, sound and motion. It will be come an even more valuable resource, not only for the professional librarian, but for the library user as well. The new WorldCat will support not only MARC standards, but also Dublin Core and IFLA's Functional Requirements for Bibliographic Records. And, perhaps most important for a global library cooperative, the new WorldCat will also support Unicode, which will give us the foundation to provide access to information in a number of languages and character sets. There will be a global network of catalogs and metadata, including WorldCat and library collections from around the world. For example, the OCLC PICA and EUCAT node (a European node that will link to WorldCat and other knowledge hubs around the world) not only provides the PiCarta database with content tailored for European libraries, but also offers a link to WorldCat. Going forward, our technological platform will rely on open systems architectures and adhere to technical standards that promote the cost-effective, worldwide sharing of information across platforms, scripts, languages and cultural materials.

COOPERATION

The trends that I have discussed this evening are obviously areas where cooperation will play an important role. Libraries are cooperating in new ways to change scholarly communications and digital publishing. They are cooperating in the development of digital repositories. They are working together on digital archiving. And, where shared cataloging has done so much for libraries in the past, it is ready to do even more in the future through new methods of creating and sharing metadata.

These are challenging times for libraries, but, as Roger Crawford once said, "Being challenged in life is inevitable, being defeated is optional." I would go even farther. For libraries and for future generations of learners, defeat cannot be an option. Yes, these are difficult times, but I believe that libraries will not only survive, but also thrive.
Thank you.

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WEB SITES REFERRED TO IN THE TEXT

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