Is Its Future Up in the Clouds?
OCLC is a nonprofit, membership, computer library service and research organization dedicated to furthering access to the world’s information and reducing information costs. Currently, according to OCLC, “More than 72,000 libraries in 170 countries and territories around the world have used OCLC services to locate, acquire, catalog, lend and preserve library materials.”

In 1967, Ohio libraries came together to found OCLC as a nonprofit membership organization. The first step in the vision was to merge the catalogs of Ohio libraries electronically through a computer network and database. In 1971, the Alden Library at Ohio University became the first library in the world to do online cataloging. The first year it used the shared cataloging system, Ohio University increased the number of books it cataloged by 33% while reducing staff by 17 positions through attrition.

OCLC’s Public Purpose

OCLC’s stated public purpose is “Furthering access to the world’s information and reducing the rate of rise of per unit costs.” During a period of several months, we corresponded with Bob Murphy, manager of public relations at OCLC. What follows is his responses to the questions we submitted via email about this public purpose.

What specific initiatives is OCLC working on currently and planning to do in the near future to further the public purpose?

OCLC’s public purposes are integral to our existing services. OCLC shared cataloging makes the cataloging process more efficient and helps libraries get materials available to their users as quickly as possible. Likewise, OCLC interlibrary loan speeds up internal processes for libraries while increasing the availability of materials for users. Our discovery services offer access to content from a wide variety of partner organizations.
provides new efficiencies for the management of special collections, and new Web harvesting tools from OCLC can help the libraries put their special collections out on the Web for the general public to see. These services are OCLC’s public purposes in action. We are building our new Web-scale services with libraries, and these new services in circulation and acquisitions are already helping libraries reduce their costs while they are increasing availability of their resources in new and exciting ways.

Can you elaborate on your cloud computing initiatives and your vision to use web-scale management services (WMS) to deliver library resources, services, and expertise at the point of need within user workflows and in a manner that users want and understand?

When we at OCLC talk about “Web-scale” we mean more than simply cloud computing. Libraries can move their hardware and software to the cloud, where OCLC or somebody else will operate them. That’s just one aspect, however. Web-scale means concentrating computer resources, applications and data to deliver benefits to large numbers of users through the Web. Librarians at one of our pilot libraries for WMS told us that WorldCat Local was a big deal for their users—for the first time, they had access to the entire collection through a single interface. This was very exciting. When the library got WMS, however, the end-users didn’t notice, but the librarians sure did. Instead of having to keep 9 windows open to order a book, they can do it now by toggling between functions with a consistent interface. And, when an item is received, it can go straight to physical processing.

So, Web-scale addresses both the end-user experience and the librarian experience. Moreover, we are combining our cloud-Based services with our existing end-user discovery and delivery tools, such as ILLiad in resource sharing, and EZProxy in authentication, thereby improving the overall experience for both library users and librarians.

How does OCLC plan to use the web-scale model to encourage users to participate in a network and community of libraries, enabling them to re-use information and socialize around information? How will OCLC create a powerful, unified presence for libraries on the web to give users a local, group, and global reach?

Web-scale takes cooperation to new levels of sharing. First and foremost is the shared data—WorldCat records and holdings. Other data that can be shared and not duplicated over and over again include that for materials vendors, license management and statistics. Resource sharing goes beyond sharing of materials to actually sharing development. For example, in the OCLC Developer Network, library developers and OCLC staff build machine-to-machine applications for WorldCat search and retrieval as well as protocols for sharing data and services. More than 70 developers in the network have created more than 60 applications that are shared worldwide. These apps and others are accessed more than 10 million times a month. These volunteer developers are bringing their creativity and practical skills to bear on software solutions that benefit all members of the community.

Can you elaborate on OCLC’s strategic initiatives and explain why OCLC chose those particular initiatives?

We have two major strategic initiatives. The first is to keep our current systems running and to make them even better. For example, WorldCat has grown rapidly in the last decade, but we have to keep enhancing its functionality and, at the same time, work to maintain and improve its quality. Our second major initiative is to collaboratively build Web-scale services with libraries. We believe that these initiatives will reduce costs for libraries and improve their own services to their users. OCLC is well positioned to provide the level of scale required to sufficiently weave libraries into the Web-scale landscape — the mixture of data, technology, and community is second to none in the library ecosystem. And OCLC is collaborating with libraries to drive continuous innovation and provide new efficiencies wherever we can.

What are OCLC’s future directions in the areas of mobile computing, social networking, or any other emerging markets?

To borrow an ice hockey term, we are trying to skate to where the puck is headed. We’ve introduced a mobile version of the WorldCat.org site itself, as opposed to using only mobile apps for access. We believe that more and more mobile devices are going to be browser-enabled. We are making the QuestionPoint virtual reference system available on mobile devices. Industry experts are predicting that people are going to adopt tablets faster than they took to smartphones and other devices. So, libraries and OCLC are going to skate ahead of that direction.

Doris Helfer interviewed Jay Jordan, president and CEO of OCLC, for an article on OCLC back in 2002. Jordan talked then about increasing OCLC membership by expanding
beyond the traditional American library market to reach museums and archives, etc. How successfully have those initiatives been for increasing OCLC membership beyond the traditional library market?

Through our research group, OCLC has cultivated a broad range of deep working relationships with archives and museum libraries. We’ve mounted a multi-year program of projects aimed at Mobilizing Unique Materials that is looking at the processes involved in acquiring, describing, managing and making accessible these types of materials. One of the efforts that has gotten a lot of attention was a very large survey of special collections and archives that OCLC Research undertook and published in October 2010. The recommendations based on that survey are driving a community agenda that will make these important materials more easily discovered and usable.

OCLC staff members are engaged with the museum and archive communities. For example, Jackie Dooley, OCLC research program officer, has been elected vice president/president-elect of the Society of American Archivists.

We also work with archives and museums to help them manage their digital collections through their use of CONTENT and the Digital Collection Gateway. We recently redesigned the end-user web site in CONTENT to make it easier for users to discover and interact with the unique materials held by archives and museums. We think it’s important to help these institutions get as much exposure for their collections as possible. That’s why we also encourage them to contribute their data to WorldCat using the Digital Collection Gateway, through which 10 million records have been added to WorldCat. Once their materials are represented in WorldCat, they are more discoverable by searchers worldwide.

We are still interested in supporting the description and discovery of materials held in archives and museums. Many libraries manage collections that include the kinds of unique materials that are under archival control. We need to ingest that data, transform it and make it appear alongside all the other materials that a library offers to its community and the world. WorldCat Local, for instance, needs to present all the information assets of an institution to the local community so we’ve had to get better at loading and displaying this type of data.

HathiTrust

In September 2011, OCLC announced a plan to integrate full-text HathiTrust search capability into WorldCat. According to a news release, “Under this new agreement, OCLC will be able to integrate the full-text index of HathiTrust collections into services such as WorldCat.org and WorldCat Local. Following integration of the full-text index, users will be able to search beyond bibliographic records to include the full text of these cooperatively built library collections in their searches.”

Once the functionality goes live, more than 9.5 million HathiTrust works will be accessible to the WorldCat users through a single search portal. Similar agreements also exist
between HathiTrust and Serials Solutions, as well as EBSCO. A digitization cooperative for the nation's 60 research libraries, the HathiTrust Digital repository offers a means to archive and provide access to libraries' digital content, whether scanned or born-digital materials.

Developing strategic partnerships to increase its web presence and discoverability is nothing new for OCLC. In May 2008, OCLC and Google signed an agreement to exchange data that facilitated the discovery of library collections through Google search services. Under terms of the agreement, OCLC member libraries participating in the Google Book Search program, which makes the full text of millions of books searchable, may share their WorldCat-derived MARC records with Google to better facilitate discovery of library collections through Google [www.oclc.org/news/releases/200811.htm]. This sharing of OCLC's information with Google allows people who search Google Books to now not only find the bibliographic information (and in some cases to export the book's citation information to BibTeX, EndNote, and RefMan), but also the bookstores where you can buy it or to find the libraries near your ZIP code. When you are in Google Scholar, you can change your personal preferences to understand your home library so that if your library uses an open URL Link resolver, you can be linked into your library's catalog to find out if your library or another nearby library holds this book. OCLC clearly understands the importance of associating libraries to Google, and Google, to its credit, also clearly understands the importance to people of finding books to borrow as well as to buy.

In addition to Google, OCLC collaborates with Yahoo and Bing and is always interested in expanding in the consumer web. Recent additions include citation management sites such as EasyBib, BibMe, Citavi, and others, which generate a lot of referrals. OCLC is also very interested in social book sites, Q&A sites, and homework help — any site likely to be used by library patrons.

**Not Without Problems**

The seemingly unstoppable growth of OCLC, however, is facing challenges these days with the establishment in October 2009 of a new company called SkyRiver Technology Solutions, LLC [http://theskyriver.com]. SkyRiver launched a bibliographic utility, directly challenging the long-dominant OCLC. SkyRiver was founded by Jerry Kline, the owner and co-founder of Innovative Interfaces. Kline aims to offer an alternative bibliographic utility for cataloging that he says could save libraries up to 40% off their expenditures for bibliographic services.

On July 29, 2010, SkyRiver filed suit against OCLC. The suit alleged OCLC unlawfully monopolizes the markets for cataloging services, interlibrary lending, and bibliographic data and is attempting to monopolize the market for integrated library systems, by anticompetitive and exclusionary practices. Some have even theorized that SkyRiver may have been established in order to either 1) bring the antitrust lawsuit or 2) to keep OCLC out of the integrated library systems market, where it would certainly threaten all companies in the library systems business, including Innovative Interfaces. If the lawsuit succeeds, it could open up OCLC's WorldCat database to commercial competitors. (For further and detailed information about the entire SkyRiver vs. OCLC lawsuit, please see Library Technology Reports' excellent website [www.librarytechnology.org/web/breeding/skyriver-vs-oclc], which is maintained by Marshall Breeding.)

Perhaps some of the concerns of integrated library systems vendors stem from OCLC's Lab exploring an experimental cloud-based service that makes it easy and inexpensive to bring small libraries onto the Internet. "Being easy to find on the Web today is being visible to your community, your state, your country and the world," says Mike Teets, vice president, OCLC Innovation Lab. Adds Teets, "It was a surprise to me that most of the 2,000 or so libraries with 10 or fewer staff, which represents roughly 25 percent of the U.S. public library community, have no working or discoverable Web presence — a full 20 years after the invention of the Web. Every library deserves to have a presence on the Internet."

Teets and developers in the Innovation Lab are working on a cloud-based service to provide small libraries with a neatly designed, easy-to-navigate, professional-looking web presence. The service requires no programming, no technical skills, and no knowledge of content management systems. It provides a site that's ready to go after some editing and that is accessible both by desktop computers and mobile devices [www.oclc.org/nextspace/018/labs.htm].

Despite the allegations of bibliographic domination from SkyRiver, it is not easy for OCLC to put the “world” into WorldCat. According to the company, there are multiple challenges, great and small, on the international front. Price is a drawback for the poorest libraries. Different bibliographic formats and cataloging rules make the transition from a national format to an international one difficult. The diversity of languages and diversity in authority headings among countries...
create problems for end users. Localizing an OCLC service involves more than translation.

Nonetheless, in the past decade, the OCLC cooperative has grown from 3,000 libraries in 62 countries outside the U.S. to more than 16,000 libraries in 170 countries. In Europe alone, there are more than 300 million library holdings listed in WorldCat. Since implementing Unicode support in its technological platform, OCLC has expanded the scripts in WorldCat to include Arabic, Bengali, Chinese, Cyrillic, Devanagari, Greek, Hebrew, Japanese, Korean, Tamil, Thai, and even Latin. The Virtual International Authority File (VIFA), joint project of 21 national and regional libraries, is implemented and hosted by OCLC. It is slated to become a full-fledged service in 2012. OCLC, the Bibliothèque nationale de France, the Deutsche Nationalbibliothek, and the Library of Congress started this project in 2003 to lower the cost and increase the utility of library authority files. Since then, 17 more national libraries and organizations have joined in the effort to include authoritative names from many libraries around the world. By linking variant names for the same person or organization, VIAF provides a means to repurpose bibliographic data produced by libraries in different languages.

In 2008, for the first time, there were more records in WorldCat for items in languages other than English — 49.75% English, and 50.25% non-English. By 2010, the percentage of materials in languages other than English had risen to 57.5%. In 2010 alone, OCLC batch-processed some 359.2 million records from member institutions around the world. Moreover, there are now 35 national libraries that participate in OCLC.

WorldCat.org is a website destination with search and social networking features that allow information seekers to discover, localize, and personalize content from a local library’s collections as well as those of more than 10,000 WorldCat libraries globally. People not only can find which nearby libraries own the book but can also find other people’s reviews and links to bookstore websites that sell the books. WorldCat.org also allows you to export a citation in APA, MLA, Chicago, Turabian, and Harvard bibliographic styles. In addition, you can export citations to the RefWorks, EndNote, and EasyBib bibliographic database software. The expansion of OCLC to the museums and archives has also greatly expanded the visibility of special collections and archival materials to the public and greatly increased its usage by scholars.

Describing the ideal world a la OCLC, the company envisions that libraries around the world could connect with each other easily and cost-efficiently in order to meet the information needs of the people they serve. It’s both that simple and that complicated. That’s what OCLC has been working on since 1967, and it’s what it’s going to be working on for the foreseeable future.