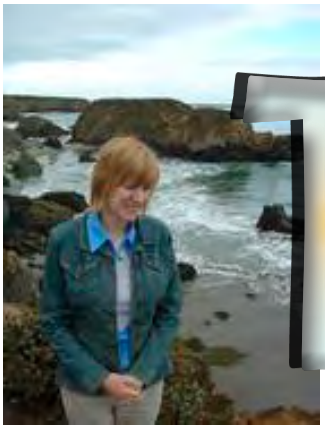
School Public Special Academic

LIBRARY INSTRUCTION ROUND TABLE NEWS

Volume: 35 No. 2 December 2012

From The President

Technologies in Transition



By Mardi Mahaffy

The ALA Midwinter Meeting is fast approaching and I just recently jumped on my iPad to make my plane reservations. Today's technologies could not have made it easier. I had a notice show up automatically in my inbox telling me of a great deal one of the airlines was offering (and it wasn't just hype)! I could link directly to the reservation site, pull up calendars to check dates, and pinch, swipe, and otherwise manipulate the screen all the way through to my purchase of a shining, new, e-ticket.

Not that this kind of electronic transaction is unusual. In fact, full range mobile services delivered via intuitive interfaces are now the norm in the commercial world, and library users have the same expectations of us. As librarians grapple with evolving user demands, it can be a struggle to know which technological trends

Technologies in Transition, continued on page 2

in the December issue:

ISSN 2161-6426

The purpose of LIRT is to advocate library instruction as a means for developing competent library and information use as a part of life-long learning.

Technologies in Transition, continued from page 1

to adopt, which to pass on, and how to make everything work seamlessly for the user. From large scale transitions to small scale troubleshooting, technology issues can hit fast and furious. These were some of the questions raised in my library in just the past few days:

> How can we become more mobile accessible?
>
> Can we provide electronic tutorials on common database functions when the steps are slightly different from one database to the next?
>
> Can we keep a tablet at the front desk to enhance some of our services without someone walking off with it?

However complex or varied our technology challenges, we can learn from one another's expertise. This month's Tech Talk column (see page 10) takes on the large topic of Web-scale Management Systems and begins to break it down for us. At ALA Midwinter in Seattle, the Technology Learning and Teaching Committee will be leading a discussion called Library Technology Challenges: Woes and Wows (see page 4). Join us to talk about your technological struggles with the group, and to share your success stories.

I hope you have your plane tickets!

Mardi Mahaffy

President

ALA LIRT ANNUAL PROGRAM - CHICAGO

Going Where the User Takes Us: Instruction beyond the Library Classroom

If libraries want to remain relevant and vital to their communities, they need to reach out to their users in virtual and physical spaces beyond the traditional library walls. Library instruction is no different. It needs to go beyond the traditional library classroom with 20 computers and a white board. Instruction can occur when a school library hosts an after-school program or club. Instruction can occur when a public library offers homework tutoring. Instruction can occur when an academic library partners with another campus organization to provide a workshop in the student union. This program will explore how libraries are doing library instruction outside of the traditional classroom, how it benefits patrons, and how other libraries can implement similar instruction initiatives. There will be invited speakers from public, school, and academic libraries.

For more information please contact Arianne Hartsell-Gundy, Conference Program Committee co-chair hartsea@miamioh.edu

ALA MIDWINTER LIRT MEETING SCHEDULE

Friday, January 25

5:30 p.m. – 7:30 p.m. Library Trainers Reception
Reception cosponsored by LIRT and WALT
Talking Book & Braille Library
2021 9th Avenue, Seattle WA 98121

7:30 p.m. - 10:00 p.m. Executive Board Meeting I (LIRT)
Sheraton Seattle Hotel
Eagle Boardroom

Saturday, January 26

8:30 a.m. - 10:00 a.m. Steering Committee Meeting I (LIRT)
Washington State Convention Center
TCC 305

10:30 a.m. - 11:30 a.m. All Committee Meeting (LIRT)
Washington State Convention Center
TCC 305

Sunday, January 27

1:00 p.m. - 2:30 p.m. Discussion Forum:
Library Technology Challenges: Woes and Wows
Washington State Convention Center
TCC 301

Monday, January 28

8:30 a.m. - 10:00 a.m. Steering Committee Meeting II (LIRT)
Sheraton Seattle Hotel
Redwood

10:30 a.m. - 11:30 a.m. Executive Board Meeting II (LIRT)
Sheraton Seattle Hotel
Redwood

LIRT News is published quarterly (September, December, March, June) by the Library Instruction Round Table of the American Library Association. Copies are available only through annual ALA/LIRT membership.

ISSN 2161-6426

http://fleetwood.baylor.edu/lirt/lirtnews/

Editor:
Teri Shiel, M.L.S., M.A.
Reference and Information Instruction Librarian
American Library Assoc. 2011 Emerging Leader
Ely Library
Westfield State University
577 Western Avenue
Westfield, MA 01086
413.572.5483
tshiel@westfield.ma.edu

Contributions to be considered for the **March 2013 issue** must be sent to the editor by **February 15, 2012.**

Send claims to:
Darlena Davis, HRDR, 800-545-2433, X4281
American Library Association
50 E. Huron Street
Chicago, IL 60611

Production editor: Susan Gangl

DISCUSSION FORUM AT MIDWINTER

Library Technology Challenges: Woes and Wows

ALA Midwinter in Seattle, the Technology Learning and Teaching Committee will be leading a discussion forum called Library Technology Challenges: Woes and Wows. Trends such as digital badges, ebooks, data management strategies, and collaboration with IT professionals will be open for discussion.

Technology has been a driving force in librarianship since the construction of the first library but the last few decades have seen more and faster technological change than ever before. LIRT's Technology Learning and Teaching Committee will be hosting a discussion on the technological challenges in librarianship in a variety of areas. Instruction librarians face a number of challenges including staying abreast of the next new trend while continuing to engage users of all levels. As learners and classrooms evolve, what are the technology challenges we now face and how do instructor librarians stay afloat? Opportunities to discuss upcoming trends such as digital badges, ebooks, data management strategies and collaboration with IT professionals provide an open venue for librarians of all types to share information and experience.

The Forum is scheduled for **Sunday, January 27, 2013** from 1:00 pm to 2:30 pm in the Washington State Convention Center.

image source: wikimedia

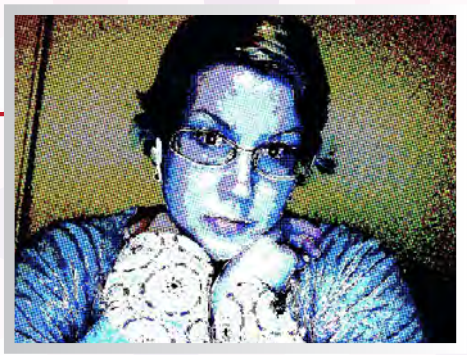
BITES with LIRT

LIRT (Library Instruction Round Table) is organizing "Bites with LIRT" groups for lunch at moderately priced restaurants during the ALA Midwinter Conference in Seattle from **12:30 to 1:30 p.m.** on both **Saturday, January 26** and **Sunday, January 27**. This is your opportunity to meet other librarians interested in library instruction while enjoying lunch in a local restaurant.

LIRT welcomes anyone who has an interest in instruction from all types of libraries. You need not be a member of LIRT to participate. We hope you will join us in this opportunity to exchange ideas and experiences about library instruction in a relaxed setting. Enjoy a stimulating and fun lunch with LIRT -- good food, good company, and interesting conversation. We will make the arrangements; all you have to do is reserve your spot and show up!

RSVP information will be coming soon on the LIRT website.

From the Editor



by Teri Shiel
tshiel@westfield.ma.edu

Hello LIRT Members,

Happy December!

This year has completely flown by, hasn't it? It seems as though we were just in Anaheim for Annual and now it's almost time to pack our bags for Midwinter in Seattle. The LIRT Program for this year is entitled "Going Where the User Takes Us: Instruction beyond the Library Classroom" which I'm sure will be of interest to many of us. The LIRT Discussion Forum is all about "Library Technology Challenges: Woes and Wows" where trends such as digital badges, ebooks, data management strategies, and collaboration with IT professionals will be open for discussion. The Forum is scheduled for Sunday, January 27, 2013 from 1:00 pm to 2:30 pm in the Washington State Convention Center.

We hope to see you there!

In this issue LIRT President Mardi Mahaffy will talk about Technologies in Transition, you'll meet University of Alaska Anchorage librarian Anna Bjartmarsdottir in our Member A-LIRT, and get the best in Tech Talk from Billie Peterson. As always, if you're interested in submitting an article for LIRT News, please contact me. The submission deadline for the March newsletter is February 15, 2013.

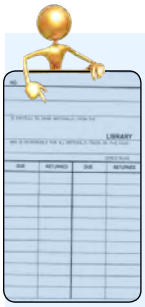
Although I haven't been to Seattle since 2007, it's one of my favorite cities. I love the touristy stuff like the Pike Place Market, Chinatown, and the Space Needle; but also the fabulous food to be found at places like the Kingfish Café (http://thekingfishcafe.com) where you can have some amazing Southern favorites and authentic mint juleps served in Mason jars. I also love that downtown Seattle is so walkable and eclectic. There's a lot to do, so pack some free time along with your raincoats. If you're already looking forward to ALA Annual in Chicago, registration opens on January 7, 2013.

As always, LIRT News is for the LIRT members, so please let us know what you think and whether there's anything else you'd like to see in the newsletter.

I hope everyone has a happy holiday season and a wonderful New Year! I'll see you in Seattle.

Best,

Teri



CHECK THESE OUT!

Column co-authored by:
Sharon Ladenson, Gender and Communication Studies Librarian, Michigan State University (ladenson@msu.edu).
Michelle Allen, Reference Librarian, Michigan State University, (allenm38@msu.edu).

Information literacy instruction for graduate students presents diverse challenges and rewards. How do we assess the research and information evaluation skills of graduate students? What are the unique needs of students at the graduate level? What teaching methods are appropriate for reaching graduate students? Check these out, and enjoy!

Boden, Catherine, and Susan Murphy. "The Latent Curriculum: Breaking Conceptual Barriers to Information Architecture." *Partnership: The Canadian Journal of Library & Information Practice & Research* 7.1 (2012): 1-17.

In June of 2009, the University of Saskatchewan added an online graduate level class to their curriculum (Introduction to Systematic Reviews). Boden and Murphy discuss introducing Camtasia screencast tutorials to the course to help students learn strategies to proficiently complete systematic literature reviews. While the tutorials were generally well received by the class, assessment activities (such as student observation, process assignments, and interviews) revealed that students did not fully understand the literature search process. Two problems emerged: students had trouble understanding the information in the tutorials, and some tutorials had incomplete information. Using the construct of Bloom's Taxonomy Knowledge Dimension (factual, conceptual, and procedural knowledge) along with the Cognitive Process Dimension (remember, understand, apply, analyze, evaluate, and create), additional exercises were added to the online tutorials to promote critical thinking skills and to meet the higher order objectives of factual and conceptual domains. The authors describe this addition as the latent curriculum.

Carlson, Jacob, et al. "Determining Data Information Literacy Needs: A Study of Students and Research Faculty." *Portal: Libraries & The Academy* 11.2 (2011): 629-657.

As of 2011, the National Science Foundation (NSF) requires grant applicants to submit formal data management plans. Consequently, academic librarians have an opportunity to invigorate the library's value to academia. They are assuming new roles by working with researchers to help organize a system for data collection, management, curation, and broad dissemination to peers in other organizations. Seeking to assess local needs in data management and literacy, the authors interviewed 19 faculty members from Purdue University and the University of Illinois at Urbana-Champaign (UIUC) during summer and fall of 2008, and during spring of 2009. Their findings suggest that graduate students are not currently equipped to manage research data, and that faculty members are not currently equipped to train them. During the second set of interviews, faculty members were asked to share specific needs regarding a data management training program for their graduate student researchers. Faculty noted specific student deficiencies, such as locating, documenting, and preserving data. In addition, the authors conducted a pre-course assessment and a post-course survey with 27 students in two sections of a Geoinformatics course. They also reviewed semester projects to assess how well students mastered data information literacy skills. Among other findings, the results suggest that students could identify and incorporate external data sources into their analyses. However, students had difficulties with citing secondary data. In conclusion, the authors recommend that students complete a "Core Competencies for Data Information Literacy" program to cover the following topics: introduction of data/datasets; data management; conversion/interoperability; data quality; metadata; curation and reuse; cultures of practice; data analysis; visualization; and analysis and ethics, including proper citation.

CHECK THESE OUT! continued on page 7

Du, Jia Tina, and Nina Evans. "Academic Library Services Support for Research Information Seeking." *Australian Academic & Research Libraries* 42.2 (2011): 103-120.
In September and October of 2010, Du and Evans (librarians at the University of South Australia) conducted a study in which ten PhD students of various disciplines completed questionnaires and follow-up interviews to discuss the purpose of physical visits to the library. The study also assessed student awareness and utilization of university library academic services. In addition, the authors completed four interviews with librarians to assess perceptions of their own helpfulness. Findings indicate that the number one and two reasons for visiting the library are finding and returning library resources, and attending workshops, classes, or meetings. Also, students surveyed are aware and make use of interlibrary loan and document delivery services. Other findings illustrate student confusion about the librarian's role and level of knowledge. In addition, a knowledge gap exists between older students just coming back to academia and younger, native Internet users. Consequently, the authors recommend conducting an initial assessment of incoming students' skill levels using online library resources and tailoring instruction based on current needs. The authors also note that students' information needs vary according to their level of experience in a doctoral program and within a discipline. This suggests that librarians need to work more proactively with researchers by keeping in contact as students move through doctoral programs. Overall, the authors identify four areas of support needed by graduate students: resource search assistance; selecting and maintaining electronic databases; a training center for research skills; and librarians on the research team.

Dunaway, Michelle Kathleen and Michael Teague Orblych. "Formative Assessment: Transforming Information Literacy Instruction." *Reference Services Review* 39.1 (2011): 24-41.
Formative assessment involves the process of determining whether students are mastering concepts while an instruction session is taking place. Instructors can modify teaching methods and content during the session based on information solicited from their students. Dunaway and Orblych note that while the information literacy literature presents many examples of pre-assessment and post-assessment activities to measure learning outcomes, few studies document how librarians have modified their instruction as a result of formative assessment. Consequently, the authors address this gap in the literature by sharing the impact of assessment on information literacy instruction for MBA students at the University of Michigan-Dearborn. Students completed a pre-assessment exercise as a required course assignment two weeks prior to visiting the library for instruction. The exercise was designed to determine the level of student competencies as outlined in the ACRL Information Literacy Standards for Higher Education, as well as the students' perceptions of their own research skills. Based on the results of the pre-assessment exercise, as well as another assessment exercise conducted during class, the instructor tailored sessions with different groups to meet student needs. For example, for one of the sessions, the instructor placed strong emphasis on the significance of the peer review process, as the students failed to demonstrate a solid grasp of this concept in both the pre-assessment and the assessment exercise conducted in class. For another session, some students did not provide information regarding the date or author of a source that they retrieved for the pre-assessment exercise. Consequently, for that class, the instructor placed more emphasis on the importance of identifying the publication date and author's credentials as part of the process of evaluating sources. The authors conclude by asserting that assessment is particularly critical at the graduate level, as such students have very diverse research needs and varied skills in the area of information literacy.

Monroe-Gulick, Amalia, and Julie Petr. "Incoming Graduate Students in the Social Sciences: How Much Do They Really Know about Library Research?" *Portal: Libraries & the Academy* 12.3 (2012): 315-335.
In order to develop evidence-based information literacy programs and services for graduate students, Monroe-Gulick and Petr assessed the information needs of first year graduate students from selected social sciences departments at the University of Kansas. Semi-structured interviews were conducted with fifteen graduate students. The authors aimed to compare research skills of the

CHECK THESE OUT! continued on page 8

students with those outlined in the Association of College & Research Libraries Information Literacy Standards for Higher Education. Consequently, the interviews were coded according to language used for ACRL information literacy competencies. The fifth standard, focusing on the ethical and legal use of information, was not included in the study (although the authors noted that it would be important to include for research in the future). The authors also aimed to learn more about how graduate students approach the research process. The majority of the students fulfilled outcomes outlined within the ACRL standards. The authors assert that other factors (such as intellectual curiosity) could be more pertinent to success than fulfilling all of the outcomes of the ACRL standards. The authors also note that one of the most significant findings of the study was that students consulted with faculty (rather than with librarians) for advice on locating information sources. One area of weakness that students identified was recognizing when their information needs were met sufficiently. Consequently, the authors note that understanding "information saturation" would be a useful topic to explore with students as they transition to the graduate level. As the students demonstrated high levels of information literacy, the authors also planned to facilitate discussion groups for graduate students that would provide the opportunity to exchange ideas about the research process (possible topics included expectations of graduate work, identifying individual approaches to conducting research, and academic socialization).

O' Connor, Lisa, and Jill Newby. "Entering Unfamiliar Territory Building an Information Literacy Course for Graduate Students in Interdisciplinary Areas." *Reference & User Services Quarterly* 50.3 (2011): 224-229.
Conducting interdisciplinary research presents significant challenges. Researchers need to master the vocabulary and organization of diverse areas of inquiry. As they cope with the issue of information scatter, researchers also need to utilize multiple indexes and other tools. Keeping up with the literature in various areas also presents challenges. Consequently, Newby proposes an information literacy course for graduate students who conduct interdisciplinary research. The course would introduce strategies for learning the structure, organization, language, and transmission of knowledge within diverse disciplines. Students would also learn about cited reference searching, and utilize multidisciplinary tools (including Google Scholar). In addition, students would interview faculty to learn about networking strategies for interdisciplinary areas. They would also learn techniques for keeping up with the literature in their fields (including monitoring RSS feeds and utilizing alert services).

Of further note:

Al-Muomen, Nujoud, Anne Morris, and Sally Maynard. "Modelling Information-Seeking Behaviour of Graduate Students at Kuwait University." *Journal of Documentation* 68.4 (2012): 430-459.

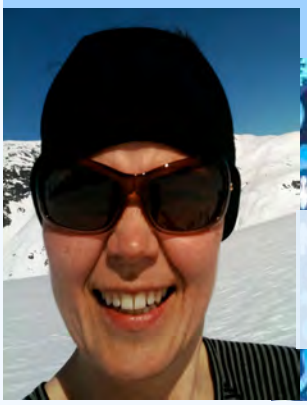
Harkins, Mary Jane, Denyse B. Rodrigues, and Stanislav Orlov. "Where to Start?": Considerations for Faculty and Librarians in Delivering Information Literacy Instruction for Graduate Students." *Practical Academic Librarianship: The International Journal of The SLA* 1.1 (2011): 28-50.

Hodgens, Catherine, Marguerite C. Sendall, and Lynn Evans. "Post-Graduate Health Promotion Students Assess Their Information Literacy." *Reference Services Review* 40.3 (2012): 408-422.

Kumar, Swapna, and Marilyn Ochoa. "Program-Integrated Information Literacy Instruction for Online Graduate Students." *Journal of Library & Information Services in Distance Learning* 6.2 (2012): 67-78.

in the spotlight

MEMBER A-LIRT: Anna Bjartmarsdottir



Anna Bjartmarsdottir, English Liaison and Reference/Instruction Librarian, University of Alaska Anchorage Consortium Library

What brought you to LIRT? A significant part of my current position is to provide instruction and participate in information literacy initiatives at my campus, so LIRT seems like a good way to keep up to date with trends and meet colleagues from other institutions involved in similar activities.

What was your path to librarianship? Like many librarians, I came to this profession in a rather circuitous manner. I pursued a M.A. in Theater, Film and Creative Writing, which did not bring me fame and fortune, but instead penniless and unsure of what to do next. My immediate need was to provide money for rent, so I took a job at a local library. A colleague of mine marched me over to the Library Science Department's Admin office at a nearby university, and I started my MLS degree a few weeks later! Luckily it was a good fit, and I have been enjoying my profession as an academic librarian ever since.

Tell us about your current position. What do you like most about it? For a little over one year, I have been working as the English Librarian at the University of Alaska in Anchorage, in the Instruction and Reference Department of the Consortium Library. That means that I provide instruction and collection development services, among other things, to the departments of English, and Creative Writing at UAA as well as to Alaska Pacific University. I have wonderful colleagues that are supportive and enthusiastic. I really enjoy the collaborative nature of my work. I partner with a variety of folks within the library as well as across campus. As an added bonus, it's also a beautiful library in a beautiful part of the world!

In what ways does it challenge you? Before I came to the University of Alaska, I was at a large university library. As a result, my role within it was clearly defined. UAA and the Consortium Library are much smaller. As a result, I am often taking on projects and roles that are outside of my comfort zone, but I learn quite a bit from that and certainly have a better sense of the library as a whole. I also have more freedom to initiate projects of my own, and I find that energizing.

If you could change one thing about libraries today, what would it be? Cuts to funding – an issue not only for libraries but also universities nationally as well.

Throughout all your educational experiences, what teacher inspired you the most and why?
I would have to say my high school history teacher. She found ways to engage us, by using unorthodox methods and talking about historical events that were not a part of the standard K-12 curriculum. For example, we had a mock Watergate hearing in class, and we were so immersed in it, that we found it hard to separate fact from fiction. I was assigned the role of the Secretary of State. However, since I was not a citizen of the United States (being from Iceland), some of my classmates claimed that I should be ousted from my position, stating that you had to be a citizen to hold public office.

When you travel, what do you never leave home without? A new Scandinavian Crime Fiction novel.

Tell us one thing about yourself that most of us probably don't know. That I have seen every single one of Ingmar Bergman's films…twice, at least! It's probably safe to say that I'm pretty much done there. Don't need to see any of them again.

By Billie Peterson, Baylor University
Billie_Peterson@baylor.edu

TECH TALK: WSWSTT, Take Two

Dear Tech Talk –

In your previous column, you briefly described "web-scale management services" but you didn't discuss this concept further, other than to say it was a "completely different animal". I'd like to know a little more about web-scale management services, especially the potential impact, if any, on my work as a public service librarian.

–Wha'Sup Web Scale, Take Two

Dear WSWSTT–

Let's start by repeating what I wrote in the September 2012 Tech Talk column regarding web-scale management services.

"…'web-scale management services' provide both the staff and user functionality (acquisitions, cataloging, circulation, serials management, the online catalog, etc.) of an integrated library system in a cloud environment. Most notably, OCLC is moving in this direction with the announcement and branding of their "WorldShare" Management Service (http://www.oclc.org/webscale/). However, Ex Libris has announced Alma (http://www.exlibrisgroup.com/category/AlmaOverview), Innovative Interfaces, Inc. is implementing Sierra (http://www.iii.com/news/it/INNTouch_Sierra-Final.pdf), and Serials Solutions is developing Intota (http://www.serialssolutions.com/en/services/intota/). . . web-scale management services use extensible, modern database technology, are cloud based, and use a Web 2.0 interface, but at this point, the similarities end" (Peterson-Lugo, 19).

More succinctly, a web-scale management service could replace a library's current integrated library system, but it's really much more than a simple replacement. Moving to a web-scale management service from a traditional integrated library system represents a significant paradigm shift, and – if implemented appropriately – should result in significant changes and improvements in how the library "back-room" activities and functions take place.

Before looking forward, let's review the past 40 years, courtesy of Jay Jordan:

- ➔ 1970s: Basic library systems came into existence (books cataloged, circulated, OPAC available for users instead of card catalog
- ➔ 1980s: Addition of acquisition functions, connections to consortia, national systems, cataloging utilities; some self-service activities for users (placing holds, viewing fines, renewing books; libraries started working with partners, as well as vendors, utilities, consortia, and national and global systems
- ➔ 1990s: Appearance of electronic resource management (ERM) systems, A-to-Z e-journal lists, link resolvers, some interaction with e-vendors
- ➔ 2000s: Increased challenges with digital materials: institutional repositories, digital collections; implementation of metasearch products; integration between acquisition and ERM systems (Jordan, 7-8)

Tech Talk: Take Two *continued on page 11*

TECH TALK: Take Two, continued from page 10

During this same period, technology moved from physically large mainframe computers (using terminals to access the database) to smaller mini-computers to client/server technology (some processing takes place on local desktop computers with thin-client software) to cloud computing (Breeding, 32-34).

So, here we are, well into the second decade of the 21st century with integrated library systems (ILS) still using client/server technology to work with resources and concepts that didn't even exist when the first library systems were born 40+ years ago. Librarians and technologists who manage these systems find themselves jumping through all kinds of hoops to make modern resources and technological needs function efficiently and rationally in outdated architectures, things like ERMs, OpenURL resolvers, A-Z lists of e-journal content, MARC records for e-books, e-journals, and e-resources, metadata for digital collections and institutional repositories. Additionally, further changes loom on the near horizon: RDA, FRBR, and Linked Data, to name a few.

Many look at libraries as models of success regarding cooperative activities, but in reality libraries have been highly cooperative with cataloging records (Library of Congress and OCLC), resource sharing (interlibrary loan), and consortial purchasing of e-resource, but that's where the cooperation ends. Up until this point library systems have functioned as "every boat on its own bottom". Not only are library resources in silos from the users' perspective, many of the back-room functions also take place in silos – silos within each library and silos among other libraries. And yet, staff across libraries use many of the same resources as they perform their daily responsibilities: the same vendors, the same publishers, the same basic licensing agreements, the same authority records, etc. Just as with cataloging records, changes are made in the base record to reflect local practices, but everyone starts with the same base. Why not work with these records in a shared database?

Prior to the development of cloud computing, sharing data on a massive scale (web-scale) was virtually impossible. However, Amazon, Ebay, Facebook, Google, and many, many others have clearly demonstrated that through cloud computing, sharing and managing large amounts of data is not just a viable option; it is perhaps the preferred option. Before proceeding further with cloud computing as it relates to web-scale management services, let's clarify that "hosting" and "cloud computing" are two different concepts. The Serials Solutions document, "Software as a Service and Cloud Computing: Key Considerations for Libraries" provides some distinctions:

SaaS (Software as a Service):

"The software vendor or other provider owns the application . . . and delivers it via the Internet. The provider is responsible for maintaining the data resources and keeping them up to date and protecting them by running backups. Libraries have the ability to customize the application for their own use via Web-based tools and an API (Application Programming Interface)."

Hosting Model:

"The provider runs the application on the library's behalf, on the provider's hardware, but doesn't take on the task of maintaining the software. Upgrades and maintenance are up to the library." (http://www.serialssolutions.com/assets/resources/saas-and-cloud-computing-key-considerations-for-libraries.pdf)

With this distinction in mind, we recognize that many libraries already use cloud computing – take the outsourcing e-journal maintenance as an example. The service maintains and provides access to a central knowledgebase that all subscribers (multitenants) use. Using the interface maintained and provided by the service, individual libraries identify the content in the knowledgebase to which they have access; they may customize URLs, proxy settings, holdings dates, and/or the look and feel of the user display; they send reports of data errors to the service, so errors are corrected for the collective, instead of correcting the error locally; depending on the scope of the subscribed services, from this

Tech Talk: Take Two, *continued on page 12*

one knowledgebase each library may receive an online A-Z list of its e-journals, MARC records for the catalog, data for the Open URL manager, data to populate an ERM, data to populate a discovery service, and more. From a systems perspective, there is one "input" (a resource identified as owned by a library) and multiple "outputs" (content added to the A-Z e-journal list, MARC records for the catalog, data for OpenURL configuration, etc.)

So, what is the potential for improving library services if the management of resource moves to a cloud environment? Before answering this question, let's identify some issues with current ILS:

- Designed on the premise of acquiring physical resources instead of electronic/digital resources at a time when digital acquisitions starts to outpace physical acquisitions
- Tied to the MARC record, which has held up well over time but doesn't adapt well for managing electronic/digital resources
- Augmented with add-ons – ERM, Open URL resolvers, proxy servers, etc. – that don't mesh well with processes associated with physical materials, slowing down processing or resulting in missing data
- Kludged functions (subject to malfunctions after system upgrades) or manual processes to connect the ILS and local enterprise systems – financial systems, person databases, learning management systems
- Added complexities of integrating new processes, such as RDA, FRBR, linked data, etc.
- Time devoted to server maintenance (including server replacements, operating system patches and updates, ILS software updates, back-ups, security issues, etc.) and client computer maintenance (software installation and upgrades, troubleshooting problems, etc.)
- Infrequent (maybe once or twice a year) software updates that enable system enhancements – if – a library chooses to install the update
- Outdated public search interface and presentation, unless the library implements a discovery layer/service, which adds another level of complexity
- Closed to search engines like Google

Now, imagine a web-scale management service with a knowledgebase that consists of not just records for all types of library materials (books, audiovisual content, sound recordings, e-books, e-collections, e-journals, databases, openly accessible digital content, etc.) and also contains authority records and base records for vendors, publishers, licenses, and other collectively-used records. The knowledgebase also maintains the connections between library materials records and the appropriate data from the other shared records (publisher, authority, license, etc.). If an authority changes, the service makes the change in the knowledgebase, and the change automatically applies to all libraries with content associated with that authority. When a database is sold to another vendor and that change is applied in the knowledgebase, all libraries with that database automatically receive the updated URLs and other appropriate changes.

Now imagine the user who is interested in only two things: "discovery" and "delivery". She has very little interest in what happens in between those two actions, as long as she obtains what she needs as quickly and conveniently as possible. She searches in the web-scale discovery interface and doesn't find what she needs in the local collection, so she expands the search to resources not locally available. She finds a book that she needs and clicks on a button that will get the book for her. In the back end of the system, some decision-making "rules" are in place to determine whether or not this book should be purchased or obtained from another library.

Maybe the decision is to get it from another library and it happens to be available from that library as an e-book (which meets the user's need) in the knowledgebase. Because licensing data is available, it may be as easy as a "click" in the system to make that e-book temporarily available to this user. Alternatively, maybe the decision is to purchase the

Tech Talk: Take Two, *continued on page 13*

book. Once again, it's clear that an e-book version is available for purchase and it's from several vendors, including one with whom the library already has a license. With just a click, the staff person "purchases" the book, the e-book record is now active in the library's discovery service, the purchase price goes against the fund and is transferred to library's financial system. In both of these scenarios, the user receives a message that her e-book is available.

With a web-scale management service, separate acquisitions and interlibrary loan units may disappear. Both are vested in the "delivery" of materials, with acquisitions "delivery" equals "purchase"; with interlibrary loan "delivery" equals "borrow". Part of the lending side of interlibrary loan may be more closely aligned with the libraries' digital services, the part that scans articles for electronic delivery. The part of ILL that delivers physical books to other libraries may be more closely aligned with traditional circulation services. In a web-scale management service, these workflows are managed by the system. There is no need for separate units to manage what are very similar activities or processes that are historically tied to print-based practices.

The above scenarios begin to demonstrate the paradigm shift associated with moving from a traditional ILS to a web-scale management service. These scenarios will not happen magically upon implementation. Quite to the contrary, migrating data to a web-scale management service will seem trivial compared to re-examining every aspect of how the back-room work is accomplished, and how those changes may impact public services. Change, under the best of circumstances, is challenging. Change associated with completely changing how and what employees will do in their positions moves beyond challenging into scary.

However, don't consider moving to a web-scale management service if a re-examination of current practices isn't part of the package. Much of the value of making such a move is the ability to reduce the amount of staff needed for routine processes and realign their positions so more value can be gained from their contributions. In the article written jointly by Pepperdine and OCLC staff, they outline key ingredients to laying the groundwork for a successful migration:

- Convey to all staff that your migration will be an opportunity to question everything about your current operations
- Temper the anxiety caused by change
- Complete a stakeholder analysis
- Ensure that staff members are ready to take on new roles
- Match skills and interests to roles as much as possible
- Communicate, communicate, communicate (Dula, 9)

As mentioned previously, there are currently four products available or in development for web-scale management services:

- WorldShare Management Services (2009, OCLC)
- Alma (2010, Ex Libris)
- Intota (2011, Serials Solutions)
- Sierra (2011, Innovative Interfaces, Inc.)

Some also place the open source Kuali OLE (http://www.kuali.org/ole) product in this category, but since it does not (at this time) use a cloud environment, I don't consider it to be a web-scale system, although it does have similar attributes. WorldShare Management Services (WMS) and Alma got off to early starts and have a number of implementations up and running. III is currently implementing Sierra early adopters. To ease the initial change from Millennium (current III staff module), Sierra retains all of Millennium's functionality and still functions as a client/server ILS. However, the database structure has moved from a closed, proprietary system to one that is open and modern. Time will tell as to whether and how Sierra moves into a true web-scale environment.

Tech Talk: Take Two, *continued on page 14*

Tech Talk: Take Two, *continued from page 13*

Some argue that Intota was late to the game, especially considering neither Serials Solutions nor its parent, ProQuest, have had any past experience with library systems. However, Marshall Breeding states:

> "The company is well positioned for such a project. Jane Burke, for example, Vice President for ProQuest with responsibilities for Serials Solutions, led the development of the Voyager ILS for academic libraries in the mid-1990s as President and CEO of Endeavor Information Systems. Several personnel at various levels of the company came from the ranks of the ILS vendors. The company can tap into deep expertise from these individuals as it addresses incorporating the management of print resources into its new platform" (Breeding, 5).

Although Serials Solutions brings much expertise to the project, for the most part, they are building a new system – as opposed to repurposing an existing system. They already have a good track record with their well-developed knowledgebase for e-journals and e-books, their MARC record offerings, their link resolver, their ERM, their customer support. From the Intota webinars and Breeding's and Wilson's articles, it is clear that Serials Solutions has identified lofty goals for Intota, and if achieved, Intota will be a highly competitive product, especially for academic libraries. Their aim is for a high degree of interoperability not only with vendors and publishers but also with enterprise systems found on campuses, such as financial systems, person databases, and learning management systems. Currently Serials Solutions is working with 6 development partners (http://tinyurl.com/7yjwfjt), with the first release slated for 2014.

Because they are cloud-based solutions, web-scale management services have the potential to:

- Enable large-scale sharing of data through a collective knowledgebase, relieving library staff from routine maintenance
- Build workflows based on the similarities of activities, thereby improve efficiencies
- Enable interoperability among vendors, publishers, and local enterprise systems, using APIs
- Reduce or eliminate the amount of time and resources needed to maintain local servers and software, an issue that increases in significance as security issues continue to grow
- Realign resources (human and financial) to focus on service and innovation;
- Implement the most current technologies because of rapid update/enhancement cycles;
- Enable "discovery" and "delivery"

And, because they are cloud-base solutions, web-scale management services come with caveats:

- Libraries give up the level of control they have with locally implemented systems, as they become part of a collective
- Dependence on an outside entity holding content that describes the library's collection and perhaps having access to normally highly secured data (financial and person data)
- Dependence on infrastructure (Internet connections, electricity)
- Multiple vendors (Ex Libris, III, OCLC, Serials Solutions, others) developing products, all with similar but different knowledgebases; in particular – given the nature and size of its database – how is WorldCat incorporated into the non-OCLC services?

In the previous column on web-scale discovery services, I stated, "Web-scale management services are an interesting development in the realm of integrated library systems, but they are a completely different animal from discovery layers and web-scale discovery services" (Peterson-Lugo, 19). It is true that they are a completely different animal but there is an immediate and direct connection between the two services. Each of the 4 web-scale management service vendors has a web-scale discovery service. For all practical purposes, that web-scale discovery service becomes the online catalog for the library that selects a particular web-scale management service; it also becomes the tool used by library staff for the back-room functions. The one exception (at this time) is Intota, which Serials Solutions is

Tech Talk: Take Two, *continued on page 15*

developing to interoperate with other web-scale discovery services (Wilson, 122). Consequently as libraries assess web-scale discovery services and web-scale management services, they need to acknowledge the close relationship between the two and factor that relationship into their decision, particularly if they think they may implement a web-scale management service in the future.

As Holly Schoch from Bucknell University states, "It is no longer about which library has the largest collection of materials but about which library can provide their community with the best means to access the materials they need, regardless of location" (http://lit.blogs.bucknell.edu/2012/01/25/web-scale-management-services/). Web-scale management services and web-scale discovery services may provide the one-two punch that is needed to enable more completely: discovery and delivery.

Additional Resources

Addressing the Challenges of Today's Library Collections. Serials Solutions, 2012. http://www.serialssolutions.com/assets/resources/intota-datasheet.pdf

Breeding, Marshall. "A Cloudy Forecast for Libraries." *Computers in Libraries* 31.7 (2011): 32-4. *http://www.infotoday.com/cilmag/sep11/Breeding.shtml.*

---. "Library Web-Scale." *Computers in Libraries* 32.1 (2012): 19-21. *http://www.librarytechnology.org/ltg-displaytext.pl?RC=16577*

---. "Serials Solutions to Build Web-Scale Management Solution." *ALA Techsource* (2011). http://alatechsource.metapress.com/index/UM5JKQ465603.pdf

---. "Working Toward Transparency in Library Automation." *Computers in Libraries* 27.2 (2007): 23-25.

Brunning, Dennis, and George Machovec. "Interview with Andrew Pace about OCLC's Web-Scale Management Services." *Charleston Advisor* 11.2 (2009): 59-60.

Bryant, Sally, and Grace Ye. "Implementing OCLC's WMS (Web-Scale Management Services) Circulation at Pepperdine University." *Journal of Access Services* 9.1 (2012): 1-17.

Collins, Maria, and Andree J. Rathemacher. "Open Forum: The Future of Library Systems." *Serials Librarian* 58.1-4 (2010): 167-73.

Collins, Maria. "Partnering for Innovation: Interviews with OCLC and Kuali OLE." *Serials Review* 36.2 (2010): 93-101.

Dula, Michael, et al. "Implementing a New Cloud Computing Library Management Service." *Computers in Libraries* 32.1 (2012): 6-40.

Dula, Michael, and Gan Ye. "Project Briefings: Migrating to the Cloud: Pepperdine Libraries at Web Scale ". *CNI Spring 2011 Membership Meeting.* April 4-5, 2011, San Diego, CA. Coalition for Networked Information , 2011. http://www.cni.org/wp-content/uploads/2011/08/cni_migrating_dula.ppt

Fitzpatrick, Sean F. "Early Adopters Climb onto OCLC's Web-Scale Management Cloud." *American Libraries* 41.9 (2010): 15. http://americanlibrariesmagazine.org/news/08122010/oclcs-web-scale-management-services-released-early-adopters

Goldner, Matt. "Moving Libraries to a Web Scale." 2011. http://pro.inflow.cz/moving-libraries-web-scale

---. "OCLC Web-scale Management Services: Building the Future." 2010. http://www.oclc.org/us/en/news/announcements/2010/images/Matt_Goldner_Cloud_and_WMS_201012_MA.pdf

---. "Winds of Change: Libraries and Cloud Computing." 2010. http://www.oclc.org/multimedia/2011/files/IFLA-winds-of-change-paper.pdf

Grant, Carl. "Thoughts from Carl Grant: Impressions of the New Library Service Platforms, a 7-part series." 2012. http://

Tech Talk: Take Two, *continued on page 16*

Tech Talk: Take Two, *continued from page 15*

Additional Resources, *continued*
thoughts.care-affiliates.com/2012/10/impressions-of-new-library-service.html

Griffey, Jason. "Pattern Recognition: OCLC Web Scale Management." 2010. http://jasongriffey.net/wp/2010/07/15/oclc-web-scale-management/

Haight, Larry, and Eric Wheeler. "When Simpson University Library's Server Failed, OCLC's Web-scale Management Services Prevailed " 2011. http://www.oclc.org/us/en/news/membership/2011/announcement5.htm

Imagine the Future of Managing Resources & Improving Workflows. Serials Solutions Webinar, August 30, 2012. http://tinyurl.com/9jsqtbv

Jordan, Jay. "Climbing Out of the Box and into the Cloud: Building Web-Scale for Libraries." *Journal of Library Administration* 51.1 (2010): 3-17.

Kim, S. Michael. "Next Generation Catalog on the Horizon. A Report of the LITA Next Generation Catalog Interest Group Program, American Library Association Midwinter Meeting, Dallas, January 2012." *Technical Services Report* 29.4 (2012): 317-22.

"OCLC to Move Library Management Services to Web Scale." *Advanced Technology Libraries* 38.6 (2009): 1-10.

"OCLC Web-Based Service Challenges ILS Vendors." *American Libraries* 40.6 (2009): 38.

"OCLC's Cloud-Based ILS Enters Next Phase." *Library Journal* 135.13 (2010): 16-8.

Pace, Andrew K. "Web Scale for Libraries: A Sea Change for the 21St Century." *NextSpace*.13 (2009): 12-3.

Peterson-Lugo, Billie. "Wha'sup Web Scale?." *Library Instruction Round Table News* 35.1 (2012): 18-24. http://fleetwood.baylor.edu/lirt/lirtnews/2012/sep12.pdf

Rampp, Carrie, Jennifer Clarke, and Bill Burkholder. "Moving Your Library to the Cloud". *Charleston Conference Proceedings 2011.* November 2-5, 2011, Charleston, SC. 2011. 493-6.

Rapp, David. "OCLC Says Its Web-Scale Management Services To Release July 1." 2011. http://www.libraryjournal.com/lj/home/890863-264/oclc_says_its_web-scale_management.html.csp

"Serials Solutions® Announces Development of New Web-Scale Management Solution to Improve the Efficiency of Library Operations " 2011. http://www.serialssolutions.com/en/news/detail/serials-solutions-announces-development-of-new-web-scale-management/

"Serials Solutions® Announces Second Development Deployment for Intota™ Library Management Solution." 2012. http://www.prnewswire.com/news-releases/serials-solutions-announces-second-development-deployment-for-intota-library-management-solution-172453921.html

Storey, Tom, and Lorcan Dempsey. "WorldCat - the Power of Global Library Community, Efficiency, and Sharing." *Uncommon Culture* 2.1/2 (2011).

Wang, Xiaocan (Lucy), and Jie Huang. "What Cloud Computing Means to Libraries." *Journal of Library and Information Science* 37.2 (2011): 166-74.

Wang, Yongming and Trevor A. Dawes. "The Next Generation Integrated Library System: A Promise Fulfilled?" *Information Technology and Libraries* 31.3 (2012): 76-84. http://ejournals.bc.edu/ojs/index.php/ital/article/view/1914/

"Web-scale Aggregation Promises to Unlock Libraries' Potential." 2011. http://www.researchinformation.info/features/feature.php?feature_id=308

"Web-Scale Management Services… in their Words." *NextSpace*.17 (2010): 20.

Wilson, Kristen. "Introducing the Next Generation of Library Management Systems." *Serials Review* 38.2 (2012): 110-123.

Yang, Sharon Q. "Move into the Cloud, Shall We?" *Library Hi Tech News* 29.1 : 4-7.

Library Instruction Round Table News
c/o Darlena Davis
American Library Association
50 E. Huron Street
Chicago, IL 60611

LIRT Standing Committees

Adult Learners
This committee is charged with assisting library professionals to more effectively serve adult learners.

Conference Program
This committee shall be responsible for annual program preparation and presentation.

Liaison
This committee shall initiate and maintain communication with groups within the American Library Association dealing with issues relevant to library instruction and shall disseminate information about these groups' activities.

Membership
This committee shall be responsible for publicizing the Round Table's purposes, activities and image; and for promoting membership in the Round Table.

Newsletter
The committee shall be responsible for soliciting articles, and preparing and distributing LIRT News.

Organization and Planning
This committee shall be responsible for long-range planning and making recommendations to guide the future direction of LIRT.

Teaching, Learning, & Technology
This committee will be responsible for identifying and promoting the use of technology in library instruction.

Top 20
This committee shall be responsible for monitoring the library instruction literature and identifying high quality library-instruction related articles from all types of libraries.

Transitions to College
This committee builds and supports partnerships between school, public, and academic librarians to assist students in their transition to the academic library environment.

Web Advisory
This committee shall provide oversight and overall direction for the LIRT Web site.

Please see our online committee volunteer form at

http://fleetwood.baylor.edu/lirt/volform.php