



January 2011

Vol.9 No. 3

A publication of the National Network of Libraries of Medicine MidContinental Region

Network Member Focus Groups

The National Network of Libraries of Medicine, MidContinental Region (NN/LM MCR) regularly solicits input from its Network members about their work supporting access to health information and about how the NN/LM MCR can support them with training, advocacy, and resources. Questionnaires, focus groups, polls, and informal conversations are all useful means for obtaining feedback from Network members. During February 2010, the NN/LM MCR held a series of five focus groups. The intent of these groups was to solicit feedback from Network members about the anticipated effect that changes in health care might have on NN/LM Network members in the next few years and how the RML can support members as they respond to the changes. Thirty hospital and academic librarians in the region participated using Adobe Connect, the online conference system used for monthly Breezing Along with the RML and Spotlight! sessions. Rebecca Davis, from the University of California, Davis, Blaisdell Medical Library, helped develop the questions and facilitated each focus group session. In analyzing transcripts of the sessions (all identifying information was removed before analysis was done), a number of themes became apparent.

What librarians are doing:

Librarians in the MCR are busy! Literature searches, teaching, presentations, journal article retrieval, maintenance of electronic resources as well as committee meetings, planning, budgeting, and personnel management occupy substantial time. Email is becoming the primary means of communication between librarians and their patrons. Librarians must manage both the large numbers of messages and the expectations for immediate and 24/7 response.

What does the future hold:

Librarians anticipate significant changes in their institutions in the next few years. New job titles, quality standards, health care reform, uncompensated care, an aging population, and increased emphasis on patient engagement will all have an impact. Technology continues to influence the way health professionals and librarians work and communicate. Institutions are expanding, adding new facilities, purchasing or merging with other institutions or increasing services and adding more staff.

How will the future impact libraries:

Changes in the institutional and health care environment are and will continue to affect libraries and librarians. Budgets, increased technology applications and growth in electronic resources, demands for space, and the overall pace of change requires library staff to change and learn quickly. Institutional changes reinforce awareness of the need for library marketing, advocacy, and outreach to users. Effectively conveying the knowledge, skill, and effort required to provide access to library resources (selecting resources, negotiating licenses, and producing web pages) is critical to illustrate the library's role in the current technology environment. Changes in health care standards, requirements, and practice expectations are affecting libraries, often very positively. Increased emphasis on evidence-based practice and institutional reviews for accreditation or certification often bring a renewed focus on library resources and services.

See "Focus Groups" on page 2

In This Issue



Network Member Focus Groups	1
Online DOCLINE Classes Reach Milestone	2
Whooo Says:.....	3
Knowledge Management Practice in Action.....	4
Social Media and Privacy	4
MedlinePlus Connect	5
Knowledge Sharing at Via Christi	7
Untangling the Semantic Web	8
Get Plugged In To Education	9

Libraries and the RML:

Participants commented on the excellent quality and value of RML education and training on a variety of topics and in multiple formats and venues. They want the RML to continue covering topics in advocacy, consumer health, and new technologies. Additional topics such as copyright, the electronic health record, and licensing electronic books were suggested. Participants indicated that whatever education and training was offered by the RML, they were confident of the benefits, based on the relevance and usefulness of previous offerings. Also identified was a need for the RML to advocate for the role of health sciences libraries with other groups interested in information organization and access and with hospital administrators.

Finally, participants expressed gratitude for the availability of National Library of Medicine resources and databases and positive feedback was offered on the RML model implemented in the MidContinental Region, including the state liaisons with specialty roles.

Thank you to the 30 members who thoughtfully shared their experiences and ideas in the focus group discussions.

Betsy Kelly, Assessment & Evaluation Liaison

Additional Opportunities for Your Feedback

Questionnaire for the National Emergency Preparedness and Response Initiative

Provide your input on how effective our activities and resources have been in promoting emergency preparedness in the region

- Distributed January 20, 2011 to Full Network members
- Deadline: February 10, 2011

Hospital Library Questionnaire

Offer information that will allow us to assess the health of hospital libraries in the region

- Distributed February 10, 2011 to hospital library members
- Deadline: February 28, 2011

Communication Questionnaire

Provide your perspective on the effectiveness of our communications, the media as well as the message

- Distributed the week of March 7, 2011 to a random sample of all members
- Deadline: TBA

Spring Questionnaire

Let us know whether our resources and services have been helpful to you

- Distributed the week of April 11, 2011 to all members
- Deadline: Week of April 25, 2011

Online DOCLINE Classes Reach Milestone

Have you ever been in a situation that wasn't going the way you wanted, were about to quit but decided to give it one more try and then, were very glad you did? Well, that happened to us recently.

It all began back in 2009 when the NN/LM MCR began offering free 60 minute online monthly DOCLINE classes to Network members. At that time, we taught three subject areas: Beginning DOCLINE, Serial Holdings, and Routing Tables. When the classes were first offered, 10-15 DOCLINE users attended each class. Towards the end of 2009 it seemed like we'd saturated the market and we'd be lucky to get one person attending.

In November, we were about to cancel the class series due to this drop in attendance. We liked teaching the online classes and were reluctant to commit to this decision, so we brainstormed about what we could do to draw a bigger crowd. We thought that adding free MLA CE credits might be the carrot to bring people in. So, we worked to get our classes to meet MLA's CE requirements. In our case, this included adding a hands-on component and an MLA class evaluation. We also added another class on basic DOCLINE borrowing and lending.

The classes were approved and we began promoting the classes, touting the additional class, the hands-on component, and the bonus of receiving free MLA CE credit. January 2010 rolled around and we were ready to teach the new and improved classes. Thinking we'd see about 20-25 attendees, we were shocked when we logged into the online classroom and saw that there were 55 attendees waiting for us and more kept arriving. In that first session we had over 95 attendees and ever since we've had an average of 32 DOCLINE users attend each class!

We hope we're not being too boastful in saying that we are proud to announce that the end of 2010 marked a rather astounding milestone for us. In November, we taught our 1,018th DOCLINE user. Ninety-seven percent of the attendees reported that they benefited from attending the classes.

How important was earning MLA CE? Approximately 68% of attendees went to the trouble of filling out the CE request form so they would receive their MLA CE certificates. DOCLINE users from each NN/LM region and Canada have attended the classes. Was there a widespread need for this form of DOCLINE training? We say yes!

We are now in 2011 and are again wondering if we have saturated the market for these classes. Will we be able to reach more DOCLINE users than we reached in 2010? We will find out. We will be teaching the DOCLINE classes quarterly and at a new time. Stay tuned to the MCR-MCMLA listserv for the announcements!

-John Bramble, Utah/Network Membership Liaison
-Camille Salmond, DOCLINE Coordinator



Whooo Says: . . .

Dear Whooo,

I am a librarian in a large hospital system. The system has decided to purchase electronic resources for all the member hospitals, even those without librarians. I am concerned that my hospital administrator will cut my budget so that I won't be able to purchase any hard copy materials. I'm also concerned that with the availability of all these resources, the librarian will become viewed as unnecessary; document delivery will not be needed. Do you have any help for me?

Desperately,

Hard Copy Hannah

Dear HC Hannah,

I'm sorry to hear that you feel desperate. Dealing with change, especially change that is imposed upon us, can cause discomfort and anxiety. But before you spend time worrying needlessly, stop and reflect on the role of the librarian.

Librarians have been and continue to be the conduit between content and the user. In order to maintain this role, librarians have been primary agents of change. You can see this in the development of the card catalog, the OPAC, the use of e-resources, virtual reference services, etc. Now let's take a minute and think about document delivery. Document delivery is a very important part of library services. Document delivery and interlibrary loan greatly increase the accessibility of information available to our users. Document delivery often consumes significant amounts of a hospital librarian's time. Document delivery does not require the higher level skills that should be found in and used by a professional librarian.

Now, let's consider the activities that a librarian can explore that often get postponed because of time constraints. We all know that daily activities can cause us to postpone larger programs and changes. With the advent of electronic resources in your library, you will now have the time to investigate new opportunities that were pushed aside with the daily chores of circulation, shelving, etc. This is the perfect time to look at assessing your services and your users. Take some time to find a way to ask your users what they like about your services, what they need, and what else you can offer.

Do you have champions that are interested in new or different kinds of service? You may very well discover that there are things you can discontinue. Also, you may find that this is a perfect time to adjust how you interact with your users, and that with changing technology, you can be even more effective.

The practice of health science librarianship is changing continuously, and with that change new opportunities are emerging. I'm sure that you have followed the latest literature documenting the value of the librarian and information at the point of care. Now might be the perfect time to start attending morning report and working with the physicians on their information needs when they are discussing specific cases. You might also be able to work with nursing units by setting up "library hours" on the floors. Health literacy is a huge issue facing health care, and opens numerous doors for the opportunistic librarian. Combining health information literacy programming for physicians and increased services for patients and families could have a powerful impact on health care in your institution. You might want to read the articles in this issue and the August 2010 issue of Plains to Peaks Post (http://nml.gov/mcr/services/comm/newsletter/PTPP_August_2010.pdf) on knowledge sharing projects that have increased the activity and value of hospital libraries. These articles may give you some new ideas that will enhance the information from your assessment activities we talked about earlier. Other areas that may be of interest and value to you and your institution are electronic health records, emergency preparedness for your library and the hospital, and patient safety.

I hope you realize by now, that all is not lost! This could be the opportunity of your career! Take a deep breath, look at your landscape, and make plans for your future. And, remember always to communicate with your users, your potential users, and your administrators. Listen carefully to what is important to them and use this change to promote your value in as many ways as you can imagine. Use personal conversations, newsletters, your web site, bulletin boards, email --- the ways you can communicate are endless! The important point is that you continuously communicate positive, "relevant to your users" information about your skills and services.

HC, I hope you will consider your situation carefully and take positive action. Do keep in touch and let me and the MCR know your plans change and evolve.

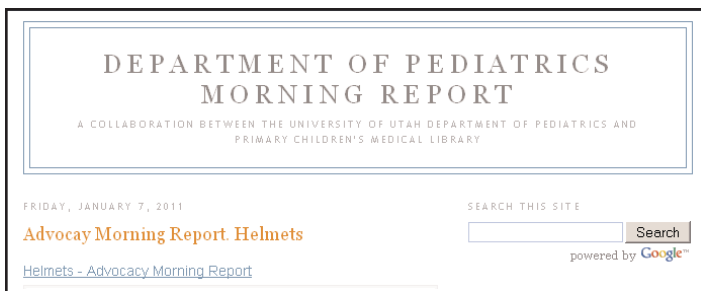
Sincerely,

Whooo

Knowledge Management Practice in Action

This project resulted from participation in Knowledge Sharing in Hospitals: The Librarian's Role sponsored by the NN/LM MCR in 2009.

Emily Erusuma
Medical Librarian
Primary Children's Medical Center
emily.eresuma@imail.org



Morning report is a time before rounding that a resident presents a case they feel will bring a learning point to the other residents. Morning report starts with the presentation of a patient and questions are asked to obtain the patient history. The next stage is discussing the patient, the possible tests and labs, with values given for the tests or labs that were ordered. A differential diagnosis is discussed and then the actual diagnosis is presented along with a learning point about the diagnosis.

At Primary Children's Medical Center this knowledge was shared but never archived, so there was no access to past morning report presentations or the knowledge that was gained from treating a particular patient. The medical librarian and research coordinator created a blog to share what was learned through presentations at morning report by the University of Utah Pediatric Residents practicing at Intermountain's Primary Children's Medical Center. We use a public access blog site, Blogspot, which was free. This allows visitors to view the blog while at the hospital and also outside of the hospital's online network. PowerPoint presentations by the residents were embedded in the blog, and the medical librarian and research coordinator included further citations and resources about the topics posted. On days when there was no morning report, the medical librarian posted tips on how to search or interpret medical information in journals or other information resources. This blog allows residents access to learning points they may have missed by not attending morning report. Also, because this is a public access blog the broader population of hospital attending physicians, community pediatricians and family medicine doctors can benefit as well by visiting the blog. The blog can be reviewed at www.pcmcmorningreport.blogspot.com. This knowledge management project was a partnership between the medical librarian at Primary Children's Medical Center, a research coordinator in the University of Utah Department of Pediatrics and the chief pediatric residents.

Our team worked with the associate medical director and the director of the pediatric residents along with the chief pediatric residents.

We participated three times a week when morning report occurred. The kick off of the blog was presented at a noon conference lunch to the broader resident and attending physician population. Residents have told attending and clinic physicians about the blog and this has increased readership. One story I love to tell about the blog is from one of the current chief residents. She told me she loved the blog and that she uses it to teach the residents. In fact, as she was having a teaching moment on the floor, she just pulled up the blog and went through the PowerPoint that covered her topic. The pediatric residents feel that the blog is a great resource and willingly share their information to be posted to the blog. The barriers to this project include: full-text resources could not be posted to the blog because of copyright; sometimes morning report was missed by the blog administrators; getting the morning report topic is sometimes difficult as the residents do not always respond to the request for the topic.

What contributed most to our site success was having administrative support. This support was gained by meeting with the associate medical director of the hospital and discussing our project with him. The chief residents showed a lot of enthusiasm at the suggestion of this project and were very excited we wanted to attend morning report. We were open to suggestions, as this was not our initial knowledge management project idea. We used an electronic format that is accessible inside the organization as well as outside on the Internet. This web application could be accessed through the hospital's network firewall. A web application is always better to use than software that needs to reside on a computer. We post regularly and do not post anything that would reveal patient identification. We always try to be creative, as it helps in learning and knowledge sharing.

Social Media and Privacy: Can you say oxymoron?

Consider these facts about Facebook, Twitter, and LinkedIn. LinkedIn has over 85 million members in over 200 countries. Facebook has more than 500 million users, with 70% of its users outside of the United States. As of December 2010 there are a reported 190 million Twitter users, with 60% of them residing outside of the U.S.

In addition to the huge number of social media users around the world, there are millions of posts and Tweets made to these three services every day. The point being there are many opportunities for you to "see" and be "seen" online. So, if you are going to participate in one of these three services (or another similar service), it behooves you to become familiar with the privacy settings and policies for each site.

See "Social Media" on page 5

Items to Note:



Facebook

- Facebook has three levels of privacy: Everyone, Friends, and Friends of Friends.
- Only a few of the default settings are for Friends only, so consider customization. Customization allows you to specify who can see your posts, photos, personal information, etc. You can choose Friends Only for personal information, and Everyone for photos, for example.
- Facebook's Statement of Rights and Responsibilities (<http://www.facebook.com/terms.php?ref=pf>) says that you can only have one account, so use the list feature to segment personal and professional contacts.
- Learn how to un-tag yourself from photos that others post.
- Learn how to block or remove someone that you previously friended.
- While not a privacy setting, the groups you join can say a lot about you. Choose selectively if you are using Facebook for more than social reasons.



Twitter

- Twitter's privacy policy, in most cases, is to make your information public. (<http://twitter.com/privacy>)
- Consider applying the Tweet Privacy setting (found under Settings). Private tweets can only be seen by people you approve. If this option is checked, your tweets will not be publicly available.
- Avoid "oversharing." There have been real-world cases of Tweets coming back to haunt users.
- Twitter allows for more than one account. Create a personal and professional account.



LinkedIn

- LinkedIn's stated purpose is for professional networking.
- LinkedIn's privacy policy states that their policy is to share the information that members find useful, but that amount of information you share is up to you. http://www.linkedin.com/static?key=privacy_policy&trk=hb_ft_priv#pri-top
- The default settings for your public profile are to show all your information.
- Learn the lingo: InMail (*private messages that let you send business and career opportunities directly to any LinkedIn user*) Introductions (*let you contact users in your network, through the people you know*)
- Your public profile can be viewed by anyone who searches for you. Set your public profile to **none**, and nobody will be able to search for you.

There's a song by the group Poco (Can you tell how old I am? - you won't find it in my Facebook profile) that might help guide you in the world of social media...You Better Think Twice.

-Rebecca Brown, Kansas/Technology Liaison



MedlinePlus Connect: Connecting Electronic Health Records to Health Information for Patients and Consumers

Introduction

NLM recently announced MedlinePlus Connect (<http://medlineplus.gov/connect>), a free service that allows electronic health records (EHR) systems to link patients and consumers to MedlinePlus (<http://medlineplus.gov>), an authoritative up-to-date health information resource for patients, families, and health care providers. MedlinePlus provides information about conditions and disorders, medications, and health and wellness. When MedlinePlus is implemented in an EHR system with a patient portal, the patient can click on a problem code (i.e., a diagnosis) to navigate to the appropriate health topic page in MedlinePlus.

MedlinePlus Connect accepts requests for information on diagnoses (problem codes) and medications. NLM mapped MedlinePlus health topics to two standard diagnostic coding systems used in EHRs: ICD-9-CM and SNOMED CT CORE Problem List Subset. When an EHR submits a request to MedlinePlus Connect, the service returns the closest matching health topic as a response. MedlinePlus Connect also links EHR systems to drug information written especially for patients. For medication codes, MedlinePlus Connect accepts RXCUs and NDCs. The service also conforms to the HL7 Context-Aware Knowledge Retrieval (Infobutton) Knowledge Request URL-Based Implementation specification.

MedlinePlus responds to problem code requests in either English or Spanish. Currently, it supports requests for drug information in English only. NLM is working on adding laboratory test responses to MedlinePlus Connect. It will also support an XML-based Web service at a future date.

Advantages of MedlinePlus Connect

Implementing MedlinePlus Connect has a number of advantages:

- It is FREE - no licensing or registration
- It may help you achieve one of the 10 menu criteria for Meaningful Use of Health Information Technology (for more information about meaningful use, see: The "Meaningful Use" Regulation for Electronic Health Records. David Blumenthal, M.D., M.P.P., and Marilyn Tavenner, R.N., M.H.A., N Engl J Med 2010; 363:501-504.)
- There is no need to use MedlinePlus Connect exclusively - most systems can be configured to link to more than one source of patient information

See "Connect" on page 6

"Connect" continued from page 5

- Implementing MedlinePlus Connect will make a global change; you do not need to create individual links
- MedlinePlus Connect utilizes existing standards

MedlinePlus Connect Demo

A MedlinePlus Connect demonstration page is available at <http://apps.nlm.nih.gov/medlineplus/services/demo.html>. The demo page allows you to type in problem codes and medication codes so that you can see the results that MedlinePlus Connect would deliver to users of an EHR system.

This screen shot shows the first page of the demo. The user has typed in the ICD-9-CM code 493.22:

MedlinePlus Connect
Trusted Health Information for You

A service of the U.S. National Library of Medicine
NIH National Institutes of Health

MedlinePlus Connect Demonstration Page

Use this demo to see how MedlinePlus Connect responds to codes for problems and medications.

Demo for Problems

SNOMED CT CORE Problem List Subset
Examples: 195967001, 23056005, 225323000, 19063003, 6285003

ICD-9-CM
Examples: 493.22, 722.80, V15.82, V43.65, 427.31

493.22

Demo for Medications

RXCUI
Examples: 387013, 849383, 207349, 372196, 797063

NDC
Examples: 00456140501, 00149078302, 57866004508, 00088110947, 55111015778

Type code

MedlinePlus Connect will map this code to the health topic "Asthma." After pressing Go, the MedlinePlus Connect "Infobutton" page displays the results of the search:

MedlinePlus Connect
Trusted Health Information for You

A service of the U.S. National Library of Medicine
NIH National Institutes of Health

ESPAÑOL

Health Information for You

MedlinePlus found the following results for your request. However, these results may not exactly match the link you selected. Check with your health care provider to discuss your questions and get the information that is right for you.

Asthma

Asthma is a chronic disease that affects your airways. Your airways are tubes that carry air in and out of your lungs. If you have asthma, the inside walls of your airways become sore and swollen. That makes them very sensitive, and they may react strongly to things that you are allergic to or find ... [more](#)

Patient Handouts

- [Anti-IGF Treatment](#) (National Jewish Health)
- [Asthma - control drugs](#)
- [Asthma - quick-relief drugs](#)
- [Asthma and Pregnancy](#) (Organization of Teratology Information Services)
- [Exercise-induced asthma](#)

[see all](#)

MedlinePlus matched the above topic(s) to ICD-9-CM 493.22. ICD-9-CM stands for the International Classification of Diseases, 9th edition.

The user can then click on "more" to get to the Asthma health topics page:

MedlinePlus
Trusted Health Information for You

A service of the U.S. National Library of Medicine
NIH National Institutes of Health

Home About MedlinePlus Site Map FAQs Contact Us Search MedlinePlus

Health Topics Drugs & Supplements Videos & Cool Tools ESPAÑOL

Other Topics: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z All Topics

Asthma

Asthma is a chronic disease that affects your airways. Your airways are tubes that carry air in and out of your lungs. If you have asthma, the inside walls of your airways become sore and swollen. That makes them very sensitive, and they may react strongly to things that you are allergic to or find irritating. When your airways react, they get narrower and your lungs get less air. This can cause wheezing, coughing, chest tightness and trouble breathing, especially early in the morning or at night.

When your asthma symptoms become worse than usual, it's called an asthma attack. In a severe asthma attack, the airways can close so much that your vital organs do not get enough oxygen. People can die from severe asthma attacks.

Asthma is treated with two kinds of medicines: quick-relief medicines to stop asthma symptoms and long-term control medicines to prevent symptoms.

NIH: National Heart, Lung, and Blood Institute

Get Asthma updates by email [What's this?](#)

Start Here

- [Asthma](#) (NIH (National Heart, Lung, and Blood Institute))
Also available in [Spanish](#)
- [Asthma Interactive Tutorial](#) (Patient Education Institute)
Also available in [Spanish](#)

MEDICAL ENCYCLOPEDIA

- [Asthma](#)
- [Asthma - control drugs](#)
- [Asthma - quick-relief drugs](#)
- [Asthma - what to ask the doctor - adult](#)
- [Exercise-induced asthma](#)
- [How to use a nebulizer](#)
- [How to use an inhaler - no spacer](#)
- [How to use an inhaler - with spacer](#)
- [How to use your peak flow meter](#)
- [Make peak flow a habit!](#)

Implementing MedlinePlus Connect

MedlinePlus Connect was beta tested with EPIC users, so if you are already using EPIC, you can ask the vendor to implement the feature within your system.

Since MedlinePlus Connect is a web application that utilizes internationally recognized standards, it can also be linked from other EHR systems. It uses a formatted URL to pass the problem code or medication code from the EHR to MedlinePlus Connect. The documentation for this is straightforward; access it at <http://www.nlm.nih.gov/medlineplus/connect/technical.html>.

For More Information

You can find more background and technical information at <http://medlineplus.gov/connect>. If you are interested in staying up-to-date on developments with MedlinePlus Connect, or talking to other organizations that are using it, join the free email list at <http://www.nlm.nih.gov/medlineplus/connect/emaillist.html>. To send questions or feedback, use the MedlinePlus Contact Us link.

If you implement MedlinePlus Connect, please let the MCR staff know about it! We look forward to hearing about your experience implementing this exciting new service.

-Sharon Dennis, Technology Coordinator

Untangling the Semantic Web

First there was Web 1.0, a collection of static web pages. Now we have Web 2.0 with its social networking and interactivity. So what will the future of the web hold? It just might be a semantic web that looks a little something like this....

The Semantic Web was proposed by Tim Berners-Lee, the creator of the World Wide Web, in the 1990s as a vision for the development of the web.^{1,2,3} In his vision, the Semantic Web would be "a web of data that can be processed ... by machines."² While the web was originally built primarily of documents that are human-readable, the information contained within these documents is often out of reach to computers. Computers understand the structure of a document and how to display it, but do not generally understand the concepts contained within. the meaning (or semantics) of the document.^{3,4} This changes with the Semantic Web, which makes that meaning accessible to computers through the use of metadata,² allowing the web to evolve into a "web of linked data."⁵ Imagine a giant relational database with pieces of information on the web linked together by the relationships defined among them and you will begin to see the vision of the Semantic Web. This should ultimately enable computers to act intelligently on the basis of that information and automate many online tasks.²

Metadata

Key to this transformation are metadata. Metadata, data about data, provide descriptive information about a document or other item and already exist on the web to a certain extent. However, for metadata to be accessible to computer processing in the way envisioned, a common language is needed. This role can be filled by the Resource Description Framework (RDF), an XML-based language for representing metadata about resources on the Web. Through RDF, and the RDF schema that defines the form of RDF documents, information about any item identified on the Web can be represented in a way that will facilitate sharing between machines.^{2,6}

Schema Languages

Schema languages, such as RDF Schema, describe or categorize data; for computers to understand the data, inference languages are also needed. These languages enable computers to make connections between items, even if the items are described using different vocabularies. Computers would be able to link items together by meaning rather than because they contain the same words, as current search engines do, and new relationships between items can be identified. Inference draws upon existing data and relationships, as well as information provided in rules and vocabularies or ontologies.^{2,3,5} Common standards related to inference include Rule Interchange Format (RIF). Simple Knowledge Organization System (SKOS). and Web Ontology Language (OWL).⁵

Representing and linking data in this way allows the web to function in some ways similarly to a giant database and, much like in other databases, a query language is used to extract the information it

contains. For the Semantic Web, SPARQL (SPARQL Protocol and RDF Query Language) is that language.⁵ These layers of languages and standards provide the basis for the Semantic Web: XML and RDF allow data to be published and described, inference languages allow the data to be linked together and shared, and SPARQL allows the information to be retrieved.

Semantic Web Applications

Work to develop the Semantic Web is driven by the need to share and integrate data and the belief that the Semantic Web will lead to new functionality in areas such as information retrieval, data management, and integration, and scientific publishing. The Semantic Web could enable search agents to pull data from a variety of web sources to return answers to more complex queries with increased accuracy. More of the search process could be automated, and sifting through long lists of search results to find that one useful document could become a thing of the past.³ Semantic technologies can facilitate the integration of numerous diverse data sets or databases needed for research in fields such as e-science.⁴ The Semantic Web could also support the sharing of data and papers online and in real-time; the potential exists for altering the way scientific content is managed and published and for facilitating cross-disciplinary research.^{7,8}

The health sciences community is playing an active role in investigating semantic technologies.^{5,9,10} Pharmaceutical companies such as Eli Lilly and Pfizer, and healthcare organizations, such as Partners Healthcare, are exploring semantic technologies to facilitate drug discovery and personalized medicine. Researchers at the Cincinnati Children's Hospital Medical Center have used semantic technologies to study the genetics of cardiovascular disease, the University of Texas Health Science Center at Houston is using them to address public health problems,⁹ and the National Library of Medicine has been working on a Semantic MEDLINE Prototype.¹¹

The Semantic Web is infiltrating our leisure lives as well. through projects such as Friend of a Friend (FOAF; <http://www.foaf-project.org/>), a social networking application; LiveJournal (<http://www.livejournal.com/>) and TypePad (<http://www.typepad.com/>), blogging platforms; and DBpedia (<http://dbpedia.org/>), a semantic search for Wikipedia.⁹ To see web pages that are incorporating semantic technologies, try the Semantic Radar add-on for Firefox (<https://addons.mozilla.org/en-US/firefox/addon/3886/>).

The development of the web is an evolutionary process, and the Semantic Web was envisioned as an extension of the current web.³ Work to make this web a reality is ongoing,^{4,5} and many of the concepts this work brings into focus - information retrieval, classification systems, controlled vocabularies, metadata, knowledge management - are highly relevant within the field of library science; information professionals potentially have much to contribute in this new web context.^{8,12,13}

As Berners-Lee wrote in 1999, "I have a dream for the web... and it has two parts. In the first part, the web becomes a much more powerful means for collaboration between people... In the second

part of the dream, collaboration extends to computers. Machines become capable of analyzing all the data on the web - the content, links, and transactions between people and computers. A 'Semantic Web,' which should make this possible, has yet to emerge, but when it does, the day-to-day mechanisms of trade, bureaucracy, and our daily lives will be handled by machines talking to machines, leaving humans to provide the inspiration and the intuition"² Ten years later, we may be living part one of the dream, but we may yet have much to look forward to in the future.

- Kathleen Amos, 2009-10 Second Year NLM Associate Fellow*

- Berners-Lee T. Semantic Web road map [Internet]. 1998 Sep [modified 1998 Oct 14; cited 2010 Nov 6]. Available from: <http://www.w3.org/DesignIssues/Semantic.html>
- Berners-Lee T, Fischetti M. Weaving the Web: the original design and ultimate destiny of the World Wide Web by its inventor. 1st pbk. ed. New York: HarperCollins; 2000, c1999.
- Berners-Lee T, Hendler J, Lassila O. The Semantic Web. Sci Am [Internet]. 2001 May 1 [cited 2010 Nov 7];284(5). Available from: <http://www.scientificamerican.com/article.cfm?id=the-semantic-web>
- Shadbolt N, Hall W, Berners-Lee T. The Semantic Web revisited. IEEE Intell Syst [Internet]. 2006 May/June [cited 2010 Nov 7];21(3):96-101. Available from: <http://www.computer.org/portal/web/csdl/magazines/intelligent;jsessionid=7574e2439a06566753b7be45f032#4>
- W3C. Semantic Web [Internet]. c2010 [cited 2010 Nov 6]. Available from: <http://www.w3.org/standards/semanticweb/>
- W3C. RDF primer: W3C recommendation 10 February 2004 [Internet]. c2004 [cited 2010 Nov 6]. Available from: <http://www.w3.org/TR/2004/REC-rdf-primer-20040210/>
- Berners-Lee T, Hendler J. Publishing on the semantic web. Nature [Internet]. 2001 Apr 26 [cited 2010 Nov 7]; 410:1023-4. Available from: <http://www.nature.com/nature/journal/v410/n6832/full/4101023b0.html>
- McArthur A. Health information professionals and the Semantic Web: a symbiotic relationship? J Can Health Lib Assoc [Internet]. 2009 Sep [cited 2010 Nov 7];30(3):81-4. Available from: <http://article.pubs.nrc-cnrc.gc.ca/RPAS/rpv?hm=Hlnit&caly Lang=eng&journal=jchla&volume=30&afpf=c09-027.pdf>
- Feigenbaum L, Herman I, Hongsermeier T, Neumann E, Stephens S. The Semantic Web in action. Sci Am [Internet]. 2007 Dec 1 [cited 2010 Nov 7]. Available from: <http://www.scientificamerican.com/article.cfm?id=the-semantic-web-in-action>
- W3C. Semantic Web Health Care and Life Sciences (HCLS) Interest Group [Internet]. c1994-1008. [cited 2010 Nov 6]. Available from: <http://www.w3.org/2001/sw/hcls/>
- U.S. National Library of Medicine. Semantic MEDLINE prototype [Internet]. [cited 2010 Nov 7]. Available from: <http://skr3.nlm.nih.gov/SemMedDemo/>
- Cho A, Giustini D. Web 3.0 and health librarians: an introduction. J Can Health Lib Assoc [Internet]. 2008 Mar [cited 2010 Nov 7];29(1):13-8. Available from: <http://article.pubs.nrc-cnrc.gc.ca/RPAS/rpv?hm=Hlnit&calyLang=eng&journal=jchla&volume=29&afpf=c07-035.pdf>
- Robu I, Robu V, Thirion B. An introduction to the Semantic Web for health sciences librarians. J Med Libr Assoc [Internet]. 2006 Apr [cited 2010 Nov 7];94(2):198-205. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1435839/pdf/i1536-5050-094-02-0198.pdf>

* This research was supported in part by an appointment to the NLM Associate Fellowship Program sponsored by the National Library of Medicine and administered by the Oak Ridge Institute for Science and Education.



GET PLUGGED IN TO EDUCATION!

Requirements:

All online webinar classes require: 1) a computer with Internet access and speakers, and 2) a phone. Log in to the specified web site, enter your phone number when prompted, and the system calls you! What could be easier? Captioning available. Questions to: mmagee@unmc.edu

Breezing with the RML

- a monthly update from the NN/LM MidContinental staff

When: 3rd Wednesday of each month at 10-11 MT, 11-12 CT

Where: Online at: <https://webmeeting.nih.gov/mcr>

Registration: No registration. (And no Breezing session in May and December)

- February 16, 2011 Marty Magee and Barb Jones
- March 16, 2011 Rebecca Brown and John Bramble
- April 20, 2011 Siobhan Champ-Blackwell and Betsy Kelly

Spotlight! On National Library of Medicine Resources

- online sessions focused on NLM databases

When: 4th Wednesday of each month at 1-2MT, 2-3 CT

Where: Online at: <https://webmeeting.nih.gov/mcr>

MLA CE credit: 1 Medical Library Association Continuing Education credit is offered upon completion of class exercises and class evaluation.

Registration: Registration is encouraged, but not required at: <http://tinyurl.com/mcrclasses>

- February 23, 2011 Pillbox, Daily Med and My Medication List
- March 23, 2011 Finding Articles - PubMed Central, Loansome Doc and Evidence-Based Medicine
- April 27, 2011 Cancer Resources

Emergency Planning - Ten Step Classes on Service Continuity

- build your plan through five sessions

When: 2nd Wednesday of the month at 12-1 MT, 2-3 CT

Where: Online at: <https://webmeeting.nih.gov/mcr>

Registration: Registration is encouraged, but not required at: <http://tinyurl.com/mcrclasses>.

- March 9, 2011 Step 9 - Develop a Pocket Response Plan (PRP) for Service Continuity
- Step 10 - Be Prepared at Home

¿No Comprende? - Online Health Resources for English Speakers Serving Spanish Speaking Communities

Where: Online - site url to be provided upon registration

Registration: <http://tinyurl.com/m5mj1q>

- February 2, 2011, 9-11MT, 10-12 CT- Part 1
- February 16, 2011, 9-11MT, 10-12 CT- Part 2 (Attendance at Part 1 not required for Part 2)

Archived Classes - Did you miss a session you wanted to see?

It's not too late. View them at: <http://nmlm.gov/mcr/education/online.html>

NetLibrary - a free online resource for e-books.

More than 90 books on technical and library management topics.

See: <http://nmlm.gov/mcr/education/netlibrary.html>.

Calendar of MCR events -

<http://nmlm.gov/mcr/education/calendar.html>



Outstanding Public Library/Public Health Partnership Awards

Awards will be offered by the National Network of Libraries of Medicine, MidContinental Region to recognize public libraries that have had successful public library/public health partnerships involving health information. Recipients will receive a \$200 cash award or gift.

Nomination Requirements and Eligibility:

- Public library must be an Affiliate or Full Network Member of the NN/LM, MCR. Not a member? Join today, it's FREE
<http://nnlm.gov/mcr/services/network/index.html>.
- Partnership must be between a public library and a public health entity. An entity encompasses those organizations whose focus is to protect and improve the health of a community through education, promotion of healthy lifestyles, and research for disease and injury prevention.
- Nominations must demonstrate the success of the partnership
- Self-nominations are encouraged

Examples of outstanding partnerships can include, but are not limited to:

- Partnerships to improve access to health information for underserved/vulnerable populations
- Partnerships to provide access to health information before/during/after a disaster or emergency
(i.e. natural disaster, pandemic, man-made disaster)
- Partnerships to benefit the overall library communities access to health information
- Partnerships to conduct innovative health information outreach programs



Nomination Process:

- A summary of the public library/public health partnership supporting success with anecdotes or evidence
- Do not exceed four typed pages or 1,000 words (double-spaced; minimum 12-point type size)
- Provide complete contact information, including name, address, phone/fax number and e-mail address of the nominee and nominator
- Nominations should be submitted in MS Word and sent via email to Dana Abbey dana.abbey@ucdenver.edu
- Questions? Please contact Dana Abbey toll free at 1-800-338-7657, select option 1, then option 2, then option 3

Nominations must be received by: March 16, 2011

Award recipients will be notified by: April 16, 2011

NN/LM MidContinental Region Staff

For your state liaison	800-338-7657	
Jean Shipman Director	801-587-3412	jean.shipman@utah.edu
Claire Hamasu Associate Director	801-587-3412	chamasu@rml4.utah.edu
Sharon Dennis Technology Coordinator	801-587-3518	sdennis@lib.med.utah.edu
John Bramble Utah/Network Membership Liaison	801-587-5743	jbramble@lib.med.utah.edu
Suzanne Sawyer Project Coordinator	801-587-3487	ssawyer@rml4.utah.edu
Dana Abbey Colorado/Consumer Health Liaison	301-724-2110	dana.abbey@ucdenver.edu
Rebecca Brown Kansas/Technology Liaison	913-588-7307	rbrown3@kumc.edu
Barbara Jones Missouri/Library Advocacy Liaison	573-884-5042	jonesbarb@health.missouri.edu
Betsy Kelly Assessment and Evaluation Liaison	314-362-2783	kellyb@msnotes.wustl.edu
Siobhan Champ-Blackwell Community Outreach Liaison	402-280-4156	siobhan@creighton.edu
Marty Magee Nebraska/Education Liaison	402-559-7076	mmagee@unmc.edu
Jim Honour Wyoming Liaison	307-766-6537	jhonour@uwoyo.edu

The *Plains to Peaks Post* is published quarterly by the National Network of Libraries of Medicine MidContinental Region, at the Spencer S. Eccles Health Sciences Library at the University of Utah.
10 North 1900 East, Building 589
Salt Lake City, Utah 84112-5890

Editor: Suzanne Sawyer,
Project Coordinator
Phone: (801) 587-3487
Fax: (801) 581-3632
Email: ssawyer@rml4.utah.edu
URL: <http://nnlm.gov/mcr/>

This project has been funded in whole or in part with Federal funds from the National Library of Medicine, National Institutes of Health, Department of Health and Human Services, under Contract No. N01-LM-6-3514 with the University of Utah.

