

The MidContinental Messenger

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Welcome to the MidContinental Messenger!

Welcome to the inaugural issue of the NNLM MidContinental Region's new newsletter "The MidContinental Messenger."

After 15 years of publishing the "Plains to Peaks Post," as our quarterly newsletter, we decided it was time to shake things up with a new name and a new design.

In the spring we sponsored a contest to choose a new name for our newsletter. We had 24 entries with great suggestions. NNLM MCR staff chose the top three finalists. We then asked members to vote for their favorite.

The winner of the contest was Renee Gorrell from Goldfarb School of Nursing at Barnes – Jewish College in St. Louis. She received a beautiful Elizabeth Blackwell "A Curious Herbal" throw blanket as a prize for having the winning entry. Congratulations to Renee and thank you to everyone who participated.



Barb Jones awards Renee Gorrell for having the winning entry.



Renee Gorrell with her Elizabeth Blackwell "A Curious Herbal" throw blanket.

We hope you like the new look of "The MidContinental Messenger!" You can expect to continue to receive the same timely and interesting information from us.

Please feel free to contact us if you have any suggestions or if you'd like to contribute to "The MidContinental Messenger."

–Suzanne Sawyer, Project Coordinator, Editor

Parting Words from the NNLN MCR Director



As I write this, I am struck by the title I chose for this farewell article to the great members of the MidContinental Region of the National Network of Libraries of Medicine. While I am writing to say that I have left my position as director effective August 6, 2017, I am sure these will not be the last words I will share with you. I hope to see many of you at upcoming library conferences and meetings and will remain in contact as I start my new position as Vice President, Global Library Relations with Elsevier.

It has been a great honor and pleasure to serve as your regional library director for the past nine years. During this time, we have transitioned from a contract funding mechanism to a cooperative agreement. We have gotten three renewals of the MCR funding and added the National Training Office as well. Many terrific librarians have been part of the MCR and NTO, and all of our and staff have delighted in assisting you with your educational and professional needs. We have learned a

lot from all of you and hope the same is true in return. It takes a village, and I'm richer for being a part of the fantastic MidContinental Region. Thank you for all of your contributions and for letting me join in the fun times, and the not so fun ones.

The key message I wish to impart is how valuable you all are to your institutions and the personnel within them. In times of rapid transformation, libraries, as they often are cost centers, are frequently the target of reductions or closures when budgets get tight. With the need for valid and accurate information, libraries and librarians are even more necessary. How to message this value to administrators who are looking for return on investment or revenue-generating services is an effort that we should continue to pursue and refine. I challenge you all to continue to share your stories of how you have made a difference, how you have assisted with shortening the length of stay for a patient, how you have enabled a health care provider to order only needed tests, etc. Never stop telling others about what you do and be proud of your profession. We are one of the nation's greatest treasures, and a resource that has stood and will stand the test of time! Meanwhile, drop me a line from time to time to stay in touch, as you are my friends and colleagues! Thank you for the past nine great years and for the ones to come!

Jean P. Shipman

Christian Minter – Taking a New Position



I'm pleased and sorry to report that Christian Minter, our Education Coordinator, started a new position as Community Engagement and Health Literacy Librarian for McGoogan Library of Medicine at University of Nebraska Medical Center. Her last day as an NNLM MidContinental Region coordinator was June 30, 2017. Since she started working as a coordinator, Christian has developed relationships all around Nebraska with Network members, community based organizations, public librarians and health care providers. She coordinated our webinars and managed our professional development awards. She represented the NNLM MCR as an ex officio member of the MCMLA Education Committee. On the national stage she has been a presenter for OCLC's Web Junction and the

National Area Health Education Council. In the past months she also coordinated the national series, NNLM Resource Picks. Christian had been working half-time for both the NNLM MCR and McGoogan Library of Medicine. She decided she didn't want to be "split" any longer and is now working as a "whole" librarian.

Christian's .5 fte is being transferred to Creighton University Health Sciences Library/Learning Resources Center. Annette Parde-Maas, who had also been working half time for the NNLM MCR and her library, will now be working full-time for the NNLM MCR as Nebraska/Education Coordinator.

–Claire Hamasu, Associate Director

Data Science and Visualization Institute for Librarians

Shirley Zhao, MSLIS, MS
Spencer S. Eccles Health Sciences Library
The University of Utah
shirley.zhao@utah.edu

Shirley received funding through the NNLM MCR Professional Development Award to attend Data Science and Visualization for Librarians.

One of my goals is to support researchers with their data and scholarly communication needs. My knowledge of data science and data visualization has mostly been acquired piecemeal through webinars, online courses, and self-study over several years. In my current role as a librarian faculty member, I have been invited to guest lecture in a number of undergraduate and graduate level courses on data visualization best practices, using the ggplot package to generate plots, and writing in LaTeX. However, I still currently lack the depth of knowledge (e.g. in statistical analysis, data wrangling, using APIs, etc.) and practical experience to be an invaluable member of a research team. The [Data Science and Visualization Institute for Librarians](#) (DSVIL) looked like the perfect program to build up additional knowledge and skills.



Hosted by North Carolina State University Libraries, DSVIL is a weeklong immersive course to develop knowledge, skills, and confidence to work with researchers in data-heavy areas. Topics included data description, sharing, reuse, cleaning, exploration, analysis, and visualization; version control; bibliometric network analysis; web scraping; and mapping and geospatial visualization. Instructors were experts in their fields and affiliated with local institutions.

Participants came from all over the country, with fantastic representation from health sciences libraries. We used the hashtag [#DSVIL](#) on Twitter to post resources, insights, and photos. Every morning, we spent a half hour over breakfast reflecting on the previous day's learning. Sessions ranged from 1 hour to 3.5 hours depending on the topic, but there were a number of sessions where we couldn't get more in-depth because we ran out of time.

I appreciated that instructors included a hands-on segment and made their materials available online. The tools we covered are [GitHub](#) for version control; [Sci2](#) and [Gephi](#) for bibliometric network analysis; [OpenRefine](#) for data cleaning; [Web Scraper](#) for getting data off webpages;

[ATLAS.ti](#) and [NVivo](#) for qualitative analysis; [QGIS](#) and [CARTO](#) for geospatial visualization; and [Tableau](#) and [Plotly](#) for general data visualization. We even covered using Excel for data cleaning and visualization because it's a tool most people are already familiar with using and have readily available.

In addition, I found the sessions that discussed security, legal, and ethical uses of data incredibly valuable. For example, check out [this website](#) to figure out how easily identifiable you are as an illustration of how difficult it can be to de-identify a dataset while still being able to do meaningful analysis. At the end of the week, some participants and invited speakers gave lightning talks on what projects their institutions are working on. It was inspiring to learn about the many different efforts around data support happening around the country.

Overall, I had a fantastic experience doing some concentrated exploration of data science and data visualization. I look forward to putting some of these tools into practice. Plus, belonging to a cohort will be extremely valuable moving forward as we support each other in our endeavors. I initially dismissed the idea of applying because the tuition alone was \$2500. But it is possible to make it happen! In the end, I was able to attend DSVIL with support from my library, MLA's Continuing Education Grant, [NNLM MCR's Professional Development Award](#), and extended family in the area who generously opened their home to me. Thank you!

Things are getting social at the MCR



In May of 2017, the NNLM MCR quietly relaunched our [Twitter account](#). This account had been mostly dormant since late 2013, but is now back in action. This year we are committed to tweeting or re-tweeting relevant resources, health information, and educational opportunities five days per week.

Why now?

We completed a Social Media Audit in early 2016 and, based on the results, felt that it was good time to reintroduce social media to our regional communication channels. While many of our members had been unable to access social media in the past due to institutional restrictions, it appears that this is no longer a major concern in the region. Additionally, our small but growing membership that is not based in hospital or academic health science libraries indicated that they would prefer we communicate and share health information with them via social media instead of email.

What's the point?

The content shared through this account will be focused on shareable consumer-level health resources and training opportunities. We are hoping individual and institutional members will join us, but are also targeting potential members or collaborators from our regional communities. We are also interested in highlighting regional health news and activities.

Please follow us [@NNLMMCR](#)!

If you're not able to access social media at your workplace, you can still see the latest tweets from our account and other relevant resources by visiting the [MCR Social Media Stream](#).

-Alicia Lillich, Kansas/Technology Coordinator

Introducing NNLM RD3: Resources for Data-Driven Discovery



The National Network of Libraries of Medicine (NNLM) is excited to announce a new web resource, [NNLM RD3: Resources for Data-Driven Discovery](#).

NNLM RD3 is a place for librarians, information professionals, library and information science students, and interested individuals to learn about and discuss research data management throughout the data lifecycle for biomedical and scientific research.

NNLM RD3 evolved from the *eScience Portal for Librarians* (originally the *New England eScience*

Portal for Librarians) that was developed under contract between the National Library of Medicine and the Lamar Soutter Library at the University of Massachusetts Medical School, Worcester, MA. The NNLM appreciates the New England Region's members and advisors who helped develop the original *Portal*, which provided a successful model and strong foundation for this new resource.

NNLM RD3 contains subject primers, professional development events, and information on the major components of research data management: data management, storage, and sharing. The [subject primers](#) provide introductory overviews on topic areas within data literacy, physical sciences, life sciences, and engineering.

Professional development opportunities will be continuously updated. The resources compiled on the site will help you learn the basics of data management and the ins and outs of data visualization, as well serve as a guide to regional and national level activities.

Core library and information science competencies in the areas of metadata, standards, citation, and information management are critical to enabling effective data-driven discovery. Librarians and information professionals translating these competencies to the realm of data are equipped to assist organizations in effectively managing, storing, and sharing data.

Visit [NNLM RD3](#) to learn about resources and opportunities and to [join the discussion](#).

–Reprinted from [NNLM News](#)

ACRL 2017 Review

Anne K. Heimann
Clarkson College
Omaha, NE
heimannanne@clarksoncollege.edu

Anne received funding through the NNLM MCR Professional Development Award to attend ACRL 2017.

Thanks to the NNLM MCR Professional Development award, I was able to attend the 2017 Association of College & Research Librarians (ACRL) Conference in Baltimore Maryland. The conference is held every two years and brings together thousands of academic librarians from across the country and around the world. This year's theme "At the Helm: Leading Transformation" was timely given the current climate of our country and the many unknowns librarians face. From federal funding cuts to threats on basic freedoms, this conference provided a lively, informative, educational avenue to learn, connect, and grow as a professional.

One of the many highlights of this year's meeting was the keynote speakers. David McCandless was the opening keynote. He is a British data-journalist whose primary work is the creation of works that visualize and express data. His presentation featured beautiful graphs and charts on a variety of information, from what is the best dog breed to which country has the biggest military budget. He discussed information design and the impact it can have on how we receive information.

I attended the posters sessions. Each day there were 50 posters featured on topics ranging from information literacy to interlibrary loan to leadership. The poster sessions are a great time to interact with fellow librarians. Because it isn't possible to view all the posters, ACRL makes them available online through the virtual conference.

I attended as many paper and panel sessions as possible. One of primary interest was titled "Scoping Out Success for Your Users: More Options, Less Confusion" by librarians from the College of Southern Nevada. They discussed their website redesign, which provided MORE options for searching. I found this interesting because the trend has been towards the single search box as an effort to make it easier for our users. However, they found that providing app-like buttons that mapped to commonly used searches was more effective for their users. I also attended a town hall panel on reaching out to your representatives. Given the political climate and the threats to federal education funding there were a lot of questions about the best way to advocate for the importance of libraries.

I believe that ACRL is THE conference to attend if you are an academic librarian.

Whooo Says



Dear Whooo,

I am a hospital librarian in a community hospital. I keep reading about the new developments in research with big data and precision medicine with interest. Though I don't know of any such projects happening here at my hospital, I want to be ready when library skills are needed. These projects seem to be almost miraculous with the potential described and the results I read about. Can it really be true?

Looking to be a Data Diva

Dear Diva,

Thanks so much for writing. You have certainly found a topic that is in the forefront of healthcare today. The messages from NLM are full of information about data driven projects, especially as NLM Director Patti Brennan has been appointed the Interim NIH Associate Director for Data Science. I think you are wise to look for ways to educate yourself in this area and to prepare for the future.

There are many things about data happening around us in the library world.

- Big Data in Healthcare: Exploring Emerging Roles – The current class has already started, but it will be repeated in the spring. Watch for announcements.
- Big Data in the Library: How One Institution is Meeting the Data Needs of Today's Researchers – this webinar is being given by the Greater Midwest Region, focusing on the University of Cincinnati Libraries and how they are partnering with otolaryngology researchers for data sharing. The class is scheduled for August 30, 2017 from 11-12 CT. Registration [here](#).
- NNLM has a new [data related website](#) – which is a treasure trove of information. Look for more details in the "Introducing NNLM RD3: Resources for Data-Driven Discovery" article in this newsletter.
- Medical Library Association has a new Special Interest Group (SIG) titled the Data SIG. You can join this SIG [here](#).

These opportunities should provide you with a good start to learning more about data. I'm sure that as you meet others with the same interest, you will network with them for other sources of information.

The other part of your comments regarding the miraculous nature of what can be achieved with data has encouraged me to stop and think about your statement. Truly, the potentials in the use of big data for healing and discovery are tremendous, and can be summarized in four major points.

1. Expand of the capacity to generate new knowledge

2. Allow for efficient knowledge dissemination
3. Translate personalized medicine initiatives into clinical practice by offering the opportunity to use analytical capabilities that can integrate systems biology (e.g., genomics) with EHR data
4. Transform health care by delivering information directly to patients, empowering them to play a more active role with their healthcare

However, I fear there is equal opportunity for confusion and loss. As you can imagine, the amount of data produced in healthcare is huge. It includes data from the electronic health record, imaging, patient generated data, sensor data, etc. Privacy concerns will certainly always be an issue in the use and manipulation of data. Additionally, many of the current EHR programs are fragmented and lack interoperability. And of course, as with any other system involving humans, there are always safety concerns. These concerns may be as "simple" as mislabeling samples or selecting an incorrect medication to a multitude of other more complex errors.¹

Another issue is the sharing and availability of the data. The International Committee of Medical Journal Editors (ICMJE) is very concerned with this issue, and in January 2016 published a proposal to help create an environment in which the sharing of de-identified individual participant data becomes the norm. This sharing is happening in some settings, however there are considerable challenges, and mechanisms to mandate this sharing are not currently available. Plans continue to be developed and clinical trials enrolling participants by January 1, 2019 must submit a data sharing plan in the trial's registration.²

The final issue to be discussed here is curation and storage of the data. A 2013 article in The Atlantic discusses a study which found that as much as 80% of the raw scientific data from the 1990's is gone forever as nobody knows where to find it.³ Sadly, the data is lost because the authors have changed their contact information and thus can't be reached, or the data was stored using outdated technology. As you can see, this affects the ability to validate conclusions by reproducing the study. It also makes it impossible to conduct broad, long-term studies. Academic institutions are working hard to create institutional repositories, and journals are concerned with the adequate collection of data, but the problem still exists.

I hope I have not discouraged you, Diva. The move to working with large data sets is a wonderful development. My goal is to point out the necessity for careful and thoughtful development of data creation, collection, curation, and storage. This requires the involvement of several disciplines across the spectrum, all working toward the need for solid and safe systems. I hope that you are able to move into some of this data work, as you seem to be so interested in the potential for discovery.

Best wishes for your data discovery journey!

Sincerely,

Whoaa

1. Murdoch, Travis B. and Allan S. Detsky, "The Inevitable Application of Big Data to Health Care" 2013; 309(13):1351-1352
 2. Taichman, Darren B etal. "Data Sharing Statements for Clinical Trials: A Requirement of the International Committee of Medical Journal Editors." PLoSMed. 2017 June; 14(6): e1002315.
 3. "Data are lost to science at 'astonishing rate.'" Biology & Nature. Thursday, December 19, 2013. 18:02.
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The RML Opens its Heart to a Small Town:

Our experience with the K-12 School Partnership Award

Adelaide Myers Fletcher
Saratoga Elementary School
Saratoga, Wyoming
afletcher@crb2.org

Several years after moving from a health sciences library to the school library setting, I was delighted to have the opportunity to work with some of my former colleagues again through the NNLM MCR's K-12 School Partnership Award. This award granted \$2,500 to the Saratoga Elementary School Library, where I work, to enhance outreach and improve collaboration between a Network member and a school. There was just one catch: we didn't really have a nearby Network member. But I had an idea. I thought to myself, "Well, once a medical librarian, always a medical librarian," and I decided to make the library at the elementary school where I worked a member with myself as the liaison. My partner would be my boss, the librarian at the high school. Over our tenure together, I had told her a lot about my previous life as a medical librarian and she was fascinated, but we never really had time to work together so she could learn more. Here was a way we could afford the time to train her in the basics of consumer health reference, and at the same time increase awareness throughout our community.

Achieving buy-in from our respective principals and health teachers was a no-brainer. Neither of the district nurses had ever asked the library for help in any way and I thought that needed to change. Again, it was easy to convince them to collaborate in order to gain new resources for their teaching efforts.

With a lot of help from Dana Abbey, Colorado/Community Engagement Coordinator, we were able to craft a plan that included materials for the health curricula at both schools. We were also justified in butting into our respective staff meetings with training for teachers. The Parent Teacher Organization, a group of our most dedicated mothers were happy to learn about something that could help them keep their families healthy. Students were not aware that the resources they were "playing with" were grant funded, nor did they care, although some were really interested when I

told them I used to be a medical librarian. They all just wanted to have a turn squeezing the pumping heart model and playing "Tox Mystery" at the elementary school, and playing "STD Roulette" and "Substance Abuse Truth or Consequences" at the high school!

Teaching my boss how to be an honorary medical librarian was fun and interesting. I was forced to look at my former career and try to distill it down to the most relevant parts for a consumer health librarian. My other colleagues were interested to learn that there were places where they could find lesson plans already made in the K-12 Outreach web pages. The second grade teacher with a new student from Mexico was excited to learn about MedlinePlus in Spanish. A teacher friend of mine who had recently been diagnosed with an aggressive cancer had already been one of my "clients" when I helped her locate several articles about an experimental treatment she was participating in. She was quick to point out that I knew my stuff when I gave a staff lesson even though I was a little rusty, not having taught about the subject in a few years! Did I mention that during my staff meeting while comparing MedlinePlus vs WebMD, a banner ad about erectile dysfunction popped up? You can guess which website it appeared on, and which one they won't be using if they have to look something up in front of their kids.

Problems encountered were few, but we did discover one hard barrier in our IT department's flat out refusal to allow us access to Facebook to set up a page about our libraries as a consumer health resource. Our principal had been all for it, in fact the superintendent had recommended it for all of the schools, but still the IT director would not budge. I am certain that this is a problem common to many (though not all) school districts, and I remember well my days as a hospital librarian where social media was strongly discouraged if not outright blocked. Such is life in a publicly funded institution! At least the websites I took the kids to were not blocked because they are .gov or .org for the most part, which tied in nicely with my information literacy lessons over the previous months.

I was also unable to get the elementary school PE teacher to incorporate these new resources into her health curriculum. Even though her office is next door to mine, she seemed disinclined to give over any of her teaching time to something outside of her prescribed curriculum. So instead I decided to make February Heart Month in the library and each class was treated to a discussion of heart health using the handheld models I now had: the pumping heart, that demonstrated how blood moves through the chambers of the heart, and the cartoon, "The Final Chamber" from the Nemours Foundation, which I linked to from MedlinePlus. They were also able to listen to their own and others' hearts with the three stethoscopes I now had. Funny thing was, when the end of the month rolled around, the PE teacher suddenly wanted me to help with her Hoops for Hearts fundraiser using "my" stethoscopes as a heartbeat monitoring station. I was happy to oblige.

If I had it to do over again, I absolutely would! I found the way the project was structured somewhat frustrating at first (especially the funding model – I wanted to spend more of the funding on books!), but after all was said and done, I really appreciated how the NNLM MCR's specifications and Dana Abbey's advice forced me to plan carefully and realistically, and the guidelines helped me maximize the benefit of each dollar spent. One of the greatest benefits has been that the libraries at both schools have a little higher profile now that faculties at both are aware of yet another trick we librarians have up our sleeve! This kind of project really makes for great advocacy at budget time.

HOSA-NLM Health Ambassador Pilot Program

Rob Logan
National Library of Medicine
robert_logan@nlm.nih.gov

The 2016-17 school year featured progress among Utah high school HOSA chapters to participate in the Health Information Ambassador pilot program sponsored by the National Library of Medicine (NLM), HOSA, and the NNLM MidContinental Region.

HOSA (or the Health Occupations Student Association; www.hosa.org) is a national student organization recognized by the U.S. Department of Education and the Health Science Education Division of the Association for Career and Technical Education.

The HOSA-NLM Health Information Ambassador program is intended to introduce MedlinePlus.gov to future health care professionals while they are in high school. The pilot program is designed to encourage the use of MedlinePlus.gov and other web health resources in grades 9-12 as well as surrounding community health educational settings. The long-range goals of the HOSA-NLM Health Information Ambassador program are to increase [MedlinePlus](http://MedlinePlus.gov)'s and NLM's visibility and foster sustainable health educational activities within HOSA chapters.

2015-2016 vs. 2016-2017 Participation

2016-17 was the second year of the pilot and resulted in participation by 18 high schools in Utah compared to one school in 2015-16 (Timpview High School in Provo).

There are two levels of recognition for HOSA students. To achieve the first level, Health Information Ambassador, students demonstrate the ability to find evidence-based health information on the Internet and to navigate MedlinePlus.gov, by passing a written test. For the second level, Health Information Ambassador Certificate of Merit, students demonstrate their ability teach peers or community members to find evidence-based health information on the Internet.

Thirty-three Utah high school students received a HOSA-NLM Health Information Ambassador award and 18 Utah high school students received a HOSA-NLM Health Information Ambassador Certificate of Merit award in 2016-2017. While the number of high school students who received a HOSA-NLM Health Information Ambassador award during the current academic year declined, the number of students who received a HOSA-NLM Health Information Ambassador Certificate of Merit increased.

Three high schools received the HOSA-NLM Health Information Ambassador chapter award in 2016-17; only one Utah HOSA chapter received this award in 2015-16. This recognition is for schools who have three or more students receive the Health Ambassador Certificate of Merit.

Following a suggestion from Denise Abbott, HOSA's state coordinator in Utah, the NNLM MCR conducted training for 18 HOSA chapter advisors, who are high school teachers, at HOSA's Utah

conference in October 2016. The fall training program was followed by webinar training for HOSA advisors and student members that was provided to 30 additional students and teachers.

HOSA Utah recently appointed a Task Force to begin to prepare new lesson plans for high school teachers about evidence-based health information seeking and the use of MedlinePlus.gov. National HOSA is funding this curricula development.

HOSA Utah expects the lesson plans created by the Task Force to be useable in state HOSA chapters and across the U.S. Hence, the Task Force's work may create a foundation for the expansion of the HOSA-NLM Health Information Ambassador's development in Utah as well as other states.

The NNLM MidContinental Region, NLM, the National Network of Libraries of Medicine, and HOSA Utah look forward to the expansion of the pilot program in 2017-18.