New NLM Director

NLM welcomed Patricia Flatley Brennan, RN, PhD, on August 15, 2016, as director of the National Library of Medicine. She is the first woman and the first nurse to serve in this role. Dr. Brennan has established a blog, Musings from the Mezzanine, and she can be followed on Twitter @NLMdirector.

In January 2017, Dr. Brennan was appointed NIH Interim Associate Director of NIH for Data Science and has been working with NIH’s 27 Institutes and Centers to develop efficient strategies to improve data discoverability, utility, and sustainability for the biomedical research community. In this role, Dr. Brennan is blogging at DataScience@NIH, in addition to her NLM blog.

NLM Strategic Planning

NLM has undertaken a strategic planning process which is expected to be completed by the end of calendar year 2017. A Strategic Planning Subcommittee of the Board of Regents (BOR) has been formed to lead this effort. A Request for Information (RFI) was issued in November 2016 to obtain public input on goals and priorities for NLM’s next strategic plan. In the ten years since development of the NLM’s last long range plan, there have been significant advances in biomedical informatics; major new initiatives at the NIH in data science, precision medicine, and open access to biomedical information; and changes in the environment and infrastructure of our country’s health systems. The Subcommittee identified four themes around which the planning process has been organized and conducted, including meetings of panels of experts who have met on each of these themes:

- Role of NLM in Advancing Data Science, Open Science, and Biomedical Informatics
- Role of NLM in Advancing Biomedical Discovery and Translational Science
- Role of NLM in Supporting the Public’s Health: Clinical Systems, Public Health Systems and Services, and Personal Health
- Role of NLM in Building Collections to Support Discovery and Health in the 21st Century

In addition, topical threads such as standards, partnerships, health disparities, etc., were identified and discussed in the panel meetings. An NLM Town Hall meeting was held in February to seek input from over 500 NLM staff. During the summer the planning group is expected to develop emerging themes and a draft report for the September 2017 NLM BOR meeting. The report will be reviewed and finalized by the end of calendar year 2017. Implementation will begin with fiscal year 2019 (October 2018).

Collaborative Linked Data Related Activities:

- PCC CONSER BIBFRAME Task Group (Tina Shrader, co-chair). This task group is investigating the modeling of serials in BIBFRAME. Tina leads the subgroup that is mapping the CONSER Standard Record to BIBFRAME in order to make recommendations to better accommodate serials. At the Program for Cooperative Cataloging (PCC) Operations Committee meeting in May, Tina presented on the differences in modeling between BIBFRAME, FRBR, and FRBR-LRM. Tina Shrader, Kevin Balster (UCLA), and Robert Rendall (Columbia University) are co-authoring the article, “Linked Serial Data: Mapping the CONSER Standard Record to BIBFRAME,” which will
appear in a special themed 2017 issue of *Cataloging and Classification Quarterly*. A final report from the group is expected shortly.

- **PCC BIBCO BIBFRAME Task Group** (Barbara Bushman, co-chair). This group is responsible for mapping the BIBCO Standard Record to BIBFRAME 2.0. At the PCC Operations Committee meeting in May, Barbara presented on the work completed so far and, with Clara Liao (Library of Congress), led a discussion about issues discovered during the mapping process. A final report from the group is expected shortly.

- **PCC URI Task Group** (Nancy Fallgren, consultant). This group is developing best practices for adding URIs for linked data properties and objects to existing MARC bibliographic and authority records in preparation for a linked data environment. Nancy serves on the subgroup making recommendations for handling Real World Object URIs and led the subgroup defining the RDF object in MARC datafields. The Task Group anticipates its current proposed changes to MARC will be reviewed at the ALA Annual MAC (MARC Advisory Committee) meeting.

- **PCC Task Group on the Work Entity** (Nancy Fallgren, member). This group is reviewing the definition and use of works across library and non-library domains in order to understand if and how Work data can be shared across these domains. An essential question of this investigation is the role of works in a linked data environment. The Task Group expects to release a white paper in fall 2017.

- **National Strategy for Shareable Local Name Authorities** (IMLS grant project led by Cornell University; Nancy Fallgren, participant). Nancy attended the project’s second meeting, held at the Library of Congress, April 10-11. The meeting focused on recommendations for next steps and collaborative projects to facilitate sharing and use of name authorities from varied sources. The project is expected to release a white paper in fall 2017.

**MeSH (Medical Subject Headings) as Linked Data**

MeSH RDF beta was updated to reflect 2017 MeSH vocabulary changes.

**NLM Discontinued Distribution of Bibliographic Records with Artificially Created Subject Strings**

After surveying the library community NLM decided to streamline its cataloging process and distribution of MARC bibliographic records to subscribers by eliminating creation of artificial subject strings. Since early 2016 records are distributed in the same format as they are stored in NLM’s internal catalog. The new format for subjects promotes easier authority control and linking using the MeSH MARC files and allows libraries to download records from either NLM or a utility and not have to make modifications. Further, this simplified output better prepares the community for a transition to a linked data environment. Additional details are available from NLM.

**Adding MeSH RDF URIs to NLM Catalog Records**

As part of the library community's effort to prepare current bibliographic data for the eventual transfer to a linked data environment, NLM will be adding Uniform Resource Identifiers (URI) to the MeSH subject fields in its catalog records. The URIs will be recorded in the $0 of the MARC 21 650, 651 and 655 fields and provide a machine actionable link to the MeSH RDF records for each subject. The URIs will be in this format: https://id.nlm.nih.gov/mesh/D015242. The example is for the MeSH descriptor Ofloxacin. (For more information about MeSH RDF, see MeSH Subject Headings (MeSH) RDF Linked Data (beta).) Diane Boehr and Barbara Bushman are co-authoring the article, “Preparing for the Future: National Library of Medicine’s Project to Add MeSH RDF URIs to its Bibliographic and Authority Records,” which will appear in a special themed 2017 issue of *Cataloging and Classification Quarterly.*
These data will be distributed to subscribers of the NLM catalog record data: Catfile, CatfilePlus and Serfile. We anticipate the updated catalog records will be distributed in summer 2017. Once the date is finalized NLM will alert the community with the exact information. As virtually every catalog record in the NLM database will be updated, subscribers should expect to receive very large files at that time. Subscribers should prepare for this change by determining how their systems will handle the new subfields and if they want to store and/or display this information in their local catalogs. Because the URI is meant for machine-processing, rather than human consumption, NLM has chosen not to display this subfield in its default views in its public catalogs, LocatorPlus and the NLM Catalog. It will, however, be visible in the MARC view of LocatorPlus and the XML view of the NLM Catalog. While the actionable URI will be distributed to OCLC in $0 the data will be stored by OCLC behind the scenes and not be visible in OCLC records. It will not be exportable from OCLC. The OCLC $0 only displays the MeSH authority control number; for more information on this see just below.

**MeSH Identifiers in OCLC Records**

Users of OCLC Connexion® may have noticed that some records containing MeSH subjects (MARC tag 650 with a second indicator of 2) include a subfield $0 with a MeSH authority control number. Example: 650 #2 Lung Neoplasms $0(DNLM)D008175

This comes from a recent OCLC process to systematically control MeSH headings in records new to or newly replaced in WorldCat, based on data supplied in NLM MeSH-MARC files. When a heading is controlled, a link is made between the bibliographic record and the MeSH authority record, so if the MeSH changes, all the associated linked bibliographic records are updated as well.

**Pilot to Add RDF Structured Metadata to HTML of NLM Digital Collections Resource Pages**

NLM has undertaken a pilot project to add RDF structured metadata into the HTML headers of NLM Digital Collections resource pages for two titles (a video and a book). The goal is to optimize search engine crawling of these pages and assess whether this activity improves exposure of the resources and results in increased traffic to the repository. Preliminary statistics from Google Analytics indicate there has been an increase in the number of times the test resources appear in search results, as well as modest increases in external sites linking to these resources. Additional resources will be added to the pilot for testing.

**2017 NLM Classification**

The National Library of Medicine Classification has moved from an annual spring update to twice-yearly updates. For the 2017 winter edition, issued in January, the 2017 MeSH vocabulary was evaluated for inclusion in the Classification index. Several additions and changes were made to the Index and Schedules based on this review. All main index headings are now linked to the 2017 vocabulary in the MeSH Browser. Additional minor updates were made to the Index and Schedules. The 2017 summer version will be published in mid-to-late August 2017, and will encompass the systematic review of the WN (Radiology. Diagnostic Imaging), WM 140-308 (Mental Disorders) and the WI (Digestive System) schedules and other miscellaneous updates. The PDF version will be published annually in conjunction with the summer version.

**Authority Record Creation**

After substantial evaluation by the Catalgoing and Metadata Management Section of the Technical Services Division, NLM has decided to implement use of the Name Authority Toolkit, free software developed by Gary Strawn of Northwestern University. The product assists catalogers in creating and editing name authority records in a more automated fashion by extracting data from existing
bibliographic and authority records in Voyager or OCLC. It was determined the Toolkit would enable efficiencies and record accuracy in the creation and updating of name authority records, which has always been the most time consuming part of the cataloging process.

Standards
With the retirement of Lou Knecht, Diane Boehr has been appointed to take her place on the NISO PIE-J Standing Committee, which is the group that developed recommended practices for publishers and vendors in presentation and identification of e-journals to ensure long-term online accessibility even after title and publisher changes.

Diane Boehr has also been appointed to ISO WG5, the Working Group conducting the revision of the ISSN standard, ISO 3297.

NLM Digital Collections
The NLM Digital Collections repository, which holds over 18,000 monographs and serials, almost 70,000 still images and over 260 videos, now hosts two new collections. *Incunabula: A collection of books and broadsides printed in Europe before 1501* includes over forty items from the Library's world-renowned collection of more than 580 incunabula on subjects relating to science and medicine, from printed classical works of Galen and Hippocrates to materials on the plague and other "pestilences." *World War 2, 1939-1949: A collection of U.S. government documents* includes more than 1,500 federal, state, and local government publications. Among the variety of materials included are government reports, first aid manuals, informational pamphlets, and recruitment materials that demonstrate the efforts of government, military personnel, health professionals, and scientists, among others, on the home front and overseas during and immediately following the Second World War.

NLM recently began adding born digital, federal government documents to NLM Digital Collections. The material currently consists of monographic titles/technical reports published within the Department of Health and Human Services (DHHS) in PDF format. Staff have determined these materials are not being preserved elsewhere or in some cases DHHS officials approached NLM about longer term access. Starting in summer 2017 NLM plans to add health services research “grey literature,” including reports, analyses, and monographs from a diverse set of nonprofit organizations.

A New Illustrated History of NLM
A new, illustrated history of NLM’s development, from the early 19th century through the late 20th century, will be published on June 26, 2017. Co-edited by Jeffrey S. Reznick, PhD, and Kenneth M. Koyle, chief and deputy chief of the NLM History of Medicine Division, and made possible through the research, writing, and technical expertise of staff from across the Library, this new book will appear in the popular series *Images of America*, by Arcadia Publishing. A hardback version of the book will be available from booksellers, and an electronic version of the complete book, including the 170+ black-and-white images which appear in it, will be freely available via NLM Digital Collections beginning June 26. The book introduces the history of the Library primarily through images from its own rich collections, along with a handful of other images from the collections of the National Archives, the National Museum of Health and Medicine, the Smithsonian Institution Archives, and the Rudolph Matas Library of the Health Sciences at Tulane University.

Exhibitions
NLM launched a special display, a traveling banner exhibition made available free of charge to cultural institutions across the country, and an online adaptation of *Fire and Freedom: Food and Enslavement in*
Early America. The special display will be open to the public in the NLM History of Medicine Division Reading Room through January 13, 2018. The exhibition looks at the Chesapeake region, during the early colonial era, where European settlers survived by relying upon indentured servants, Native Americans, and African slave labor for life-saving knowledge of farming and food acquisition. Without this knowledge, Europeans suffered poor nutrition, in addition to widespread illness caused by the lack of medical care. Despite their perilous position, the colonists used human resources, the natural environment, and maritime trade to gain economic prosperity. But it is through the labor of slaves, and Fire and Freedom focuses on life at George Washington’s Mount Vernon plantation, that we can learn about the ways that meals transcend taste and sustenance.

NLM signed a memorandum of understanding with the Landstuhl Regional Medical Center (LRMC), a U.S. Army hospital in Landstuhl, Germany, according to which the LRMC will showcase 12 NLM traveling banner exhibitions in its library and coordinate a tour of the exhibitions to U.S. military bases and libraries throughout Germany. This new relationship enables the NLM to expand its traveling exhibition services globally, bring NLM resources to new audiences, and support military personnel and their families abroad. NLM exhibitions will travel to U.S. military bases and libraries in the region from 2017 until 2021. Please visit the NLM Exhibition Program website for itinerary information.

MedlinePlus Consumer Health Website
A major milestone was recently reached as MedlinePlus.gov launched its 1,000th health topic page. The topic that lifted the site to that number was "Eye Care." Created and maintained by the NLM, MedlinePlus is the National Institutes of Health’s website providing trusted health information to the public. The winner of multiple awards and a consistent top scorer among federal websites, MedlinePlus debuted in 1998 with 22 health topic pages, which bring together information on a particular disease, condition, or wellness issue. Each health topic page provides a description of the condition or issue and directs users to vetted information from the NIH and other trusted sources. All content on MedlinePlus is reviewed and must meet strict quality guidelines.

NLM will be retiring the NIHSeniorHealth website during summer 2017 and consolidating the information under MedlinePlus, working with our partner, the National Institute on Aging.

PubMed Enhancements
In March 2017 PubMed started to include conflict of interest (COI) statements below the abstract when these statements are supplied by the publisher. As of May 1 over 81,000 PubMed records have COI statements. See this Technical Bulletin article for additional enhancements. Most of the statements declare the authors have no conflicting interests.

PubMed users can now see the icon that links to the full text deposited at an institutional repository using LinkOut. The LinkOut service allows you to link to full text, library holdings, and other relevant external resources from PubMed and other NCBI databases. More on this feature is available.

New NLM Customer Support Portal
On December 15, 2016, NLM launched a new Customer Support portal with answers to the questions that NLM customers ask most often. Access to the portal is from the "NLM Customer Support" link in the top right corner of the NLM Web site. Customers can access information categorized by "Help Topics" and FAQs on "Most Popular Topics" including, "I found an error or mistake in PubMed; how do I get it fixed?" and "How do I get the full text of the article?" NLM will continue to build the knowledge base of frequently asked questions so that customers can find information quickly.
National Network of Libraries of Medicine (NNLM)
The NNLM launched 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 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. 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 as serve as a guide to regional and national level activities.

NLM Personnel:
Resignations & Retirements
- Deirdre Clarkin, Acting Chief, Public Services Division, Library Operations, resigned August 2016.
- Gale A. Dutsch, Acting Associate Director for Specialized Information Services, retired September 2016.
- Lou Knecht, Deputy Chief, Bibliographic Services Division, Library Operations, retired December 2016.
- Dr. David Lipman, Director, National Center for Biotechnology Information, resigned May 2017. Additional information is available about Dr. Lipman’s resignation.
- Betsy Humphreys, Deputy Director, NLM, retiring June 2017. NLM and partners are saying farewell to Ms. Humphreys who has made innumerable, substantial contributions throughout her over 44 year tenure at NLM.

Appointments
- Tara Mowery, Chief, Visitor Operations, Office of Communications and Public Liaison, July 2016.
- Florence Chang, Acting Associate Director for Specialized Information Services, September 2016.
- Michael Huerta, Associate Director for Health Information Programs Development, was also appointed Coordinator of Data and Open Science Initiatives, November 2016.
- Stephen Greenberg, Head, Rare Books and Early Manuscripts Section, History of Medicine Division, Library Operations, January 2017.
- Kelly Quinn, Head, Library Technology Unit, Library Technology Services Section, Technical Services Division, Library Operations, January 2017.
- NLM selected three fellows to join its 2017-2018 class of Associate Fellows. The Associate Fellowship Program, beginning in September every year, offers an educational and leadership experience, ranging from formal lectures and presentations to projects in operations, research and development, and policy and data analysis. Selected fellows are Gabrielle Barr, Shannon Sheridan and Nicole Strayhorn.
Recruitment Largely on Hold
NLM was under an NIH-imposed partial hiring freeze in 2016 in order to provide hiring flexibility for the new NLM Director. While some hiring took place towards the close of 2016, in January 2017 the new presidential administration imposed a federal-wide hiring freeze with exceptions for some personnel such as military. The administration has lifted its hiring freeze as of mid-April, but recruitment at the Department of Health and Human Services (HHS) is on hold until the Secretary issues plans to reorganize and “reimagine” HHS. NLM’s own strategic planning efforts will affect future directions in NLM hiring.

NIH/NLM Budget
NLM received an additional $12 million for FY17 for a total appropriation of $406.6 million. The additional funding strengthens ClinicalTrials.gov, supports data science initiatives and contributes to improving the NLM physical facility. The President’s FY18 Budget for NLM is $373.26 million. This is a decrease of 8% but much less than the over 20% proposed for NIH as a whole.

NLM @ ALA
- Nancy Fallgren will be participating on a panel about subject access in a linked data environment for the Program for Cooperative Cataloging Participants Meeting, Sunday, June 25, 4:30-5:30pm, McCormick Place South, S102. Nancy will be discussing the NLM Medical Subject Headings (MeSH) data in RDF.
- Tina Shrader will be speaking at the ALCTS Continuing Resources Cataloging Forum on Monday, June 26, 1:00-2:30pm, McCormick Place, W190a.

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