

National Library of Medicine (NLM) Update

ALA Annual Meeting, June 2019

ALCTS Technical Services Directors of Large Research Libraries

ALCTS CMDS Chief Collection Development Officers of Large Research Libraries

Cataloging and Metadata Management

- The [NLM Classification](#) was last updated in winter 2019. All main index headings are now linked to the 2019 vocabulary in the MeSH (Medical Subject Headings) Browser. The 2019 summer version will be published in mid-to-late August 2019. It will encompass the systematic review of the QW (Microbiology, Immunology) and (QX Parasitology) schedules and other miscellaneous updates. The PDF version will be updated with all 2019 classification data in the fall.
- NLM's current cataloging policy is to use a single record approach for all formats of a work or title. NLM has favored this approach because at the time the decision was made a single record better supported NLM products and users. However, NLM is now reconsidering this practice with the expected adoption of BIBFRAME and move to a newer bibliographic model that requires separate descriptions and identifiers for different formats. Staff in the Technical Services Division are evaluating the impact of moving away from the single record approach and creating individual records for each format.
- Staff in the Cataloging and Metadata Management Section (CaMMS) developed cataloging guidelines for resources in the NLM Web Archive and began creating records in Voyager for web collections. Related, a new MeSH Publication Type Web Archives and a new descriptor Web Archives as Topic appeared in 2019 MeSH.
- NLM began distributing MeSH-MARC and MARC bibliographic data in UTF-8 format, rather than MARC-8 format. UTF-8 has an expanded character set and permits better display of data.
- CaMMS concluded testing removal of some ISBD punctuation in bibliographic records and provided feedback to the Program for Cooperative Cataloging (PCC). NLM will not change any of its current practices and will continue to supply all ISBD punctuation on original NLM records. However, the Library will accept copy records lacking final punctuation and not edit them to add the final periods back into the records. NLM users will see a mix of records with and without final punctuation in the NLM database. It will have no effect on internal or external retrieval of data and will not have any impact on internal programs using the Library's Voyager data.
- Diane Boehr attended the International Standards Organization TC 46 plenary meeting in Ottawa, Ontario to review comments on the revision of the draft ISSN standard and finalize the standard for publication.
- Nancy Fallgren began her term as an At Large representative to the PCC Policy Committee (PoCo); she also continued to serve on the Linked Data Best Practices Task Group and as a liaison between the Linked Data Best Practices Task Group and the Linked Data Advisory Council, through May 2019. Beginning May 2019, Nancy Fallgren is acting as a consultant to the PCC's Metadata Application Profiles Task Group.

Collection Development and Acquisitions

- The [Collection Development Manual of the National Library of Medicine](#), which establishes boundaries for the Library's permanent collection and provides a framework for the selection of biomedical materials, is changing its name to the [Collection Development Guidelines of the National Library of Medicine](#) and moving to the [NLM Bookshelf](#). The name change reflects emphasis on the integrating nature of the resource in which updates are continuous. NLM is consolidating resources to fewer, common platforms, therefore, the Guidelines will be hosted on Bookshelf with other NLM

documentation and publications. There are just under 160 guidelines; recently updated or new guidelines include Datasets, Electronic Resources, and Self-Published or Independently Sponsored Works.

- The Technical Services Division has been increasing its support for the processing of MEDLINE applications and assisting with activities of the Literature Selection Technical Review Committee (LSTRC), a federal advisory committee that meets three times a year to review and recommend journals for inclusion in MEDLINE. The Division formed a LSTRC Transition Team to plan implementation of changes related to LSTRC support. Related, see the organizational change below for the Collection Development and Acquisitions Section.
- By September 30, 2019, the P2E (print-to-electronic) project is expected to reduce the number of print journal issues processed by staff by 9,000 (18%) due to canceled print subscriptions where the electronic journal version meets NLM access and preservation requirements. This effort was undertaken to save resources on managing multiple formats and save subscription costs.
- NLM staff created the webinar, "[PubMed Journal Selection and the Changing Landscape of Scholarly Communication](#)." This webinar is intended for librarians and other information specialists who work with PubMed and describes the selection criteria for the different components of the PubMed database. It provides additional resources for authors and librarians on assessing publication quality. The [webinar slides](#) are also available.
- Lauren Topper and Diane Boehr co-authored the article, "[Publishing trends of journals with manuscripts in PubMed Central: changes from 2008-2009 to 2015-2016](#)," published in the October 2018 issue of the *Journal of Medical Librarianship*.

Linked Data Activities

- CaMMS staff participated in the OCLC Linked Data Ecosystem Pilot project, more commonly known as Project Passage.
- NLM was accepted as an unfunded participant in a Mellon Grant project to implement cataloging using the Library of Congress' linked data format, BIBFRAME. The grant project, Linked Data for Production: Pathways to Implementation (LD4P2), led by Stanford University and involving a 'Cohort' of 20 Program for Cooperative Cataloging institutions, runs from October 2018-June 2020. The Cohort will collaborate to create original cataloging data using the BIBFRAME 2.0 RDF ontology and model in a shared cloud environment, develop workflows for cataloging in a linked data environment, develop cataloging profiles for different resource formats, and develop tools to facilitate data creation, as well as search and display of RDF data. NLM's core project team includes Nancy Fallgren (lead), Tina Shrader, Diane Boehr, Barbara Bushman, Jen Diffin, and Jennifer Marill from the Technical Services Division, and Dan Davis and Mark Vereb from the Office of Computer and Communications Systems. NLM's specific focus is on serials cataloging with BIBFRAME. Nancy Fallgren and Tina Shrader are coordinating an LD4P2 Affinity Group focused on generating a community developed and tested BIBFRAME serials profile.

Library Systems

- NLM established a Library Services Platform Working Group to investigate, recommend, and acquire a new cloud-based product to replace the Voyager Integrated Library System and LocatorPlus online public access catalog. The project is scoped in four phases and phase I, to define requirements and begin a procurement process, is underway.
- NLM released a new design for [Digital Collections](#), the free, online repository of biomedical texts, still images, videos, and maps. The updated homepage conveys the broad scope of Digital

Collections' content and provides users an enhanced search experience. Usability testing, analytics, and user feedback influenced the new design.

- NLM successfully completed moving [FDA Notices of Judgment](#) from an old DSpace database to NLM Digital Collections. The migration addresses the NLM Strategic Plan goal to consolidate information into fewer platforms for improved user experience, discoverability, and efficiency.
- Jennifer Gilbert was hired in October 2018 as Chair, Digital Repository Working Group (DRWG) and product owner of the NLM Digital Collections repository. The official role of product owner is new for this position and is one of several outcomes from a three-day Agile Project Management Training session led by Anne Steiner from DevJam. Other recommendations from the training included opportunities to streamline workflows and empower the group with new decision-making authority.

Exhibitions

- [Politics of Yellow Fever in Alexander Hamilton's America](#), a banner exhibition with a companion special display and an online adaptation, was open from January 11 to May 22, 2019 to commemorate what would have been Alexander Hamilton's 249th birthday. The [online adaptation](#) of *Politics of Yellow Fever* includes an [education component](#) featuring a K-12 lesson plan and a university module.
- [Rise, Serve, Lead! America's Women Physicians](#), a banner exhibition and companion [online adaptation](#) opened March 18, 2019 in commemoration of Women's History Month. *Rise, Serve, Lead!* highlights the lives and achievements of over 300 women physicians who have made a difference through their medical practice and research, work as activists, service as administrators, and mentorship to the next generation of physicians.
- In recognition of the 50th anniversary of the first commercially available vaccine to prevent rubella, NLM launched *Rashes to Research: Scientists and Parents Confront the Rubella Epidemic of 1964*, a banner exhibition and companion [online adaptation](#), on June 3, 2019. The exhibition highlights the work of researchers and parents to limit the impact of rubella in the years before an effective vaccine nearly eliminated the disease from the United States. *Rashes to Research* includes an [education component](#) featuring a new K-12 lesson plan and a university module, and a [digital gallery](#) that further explores the historic collection of the NLM using the works from NLM Digital Collections.

Data Science

- NLM has teamed up with the National Academies of Sciences, Engineering, and Medicine to conduct a study on forecasting the long-term costs for preserving, archiving, and promoting access to biomedical data. The [study](#) is being conducted as part of the NLM's efforts to develop a sustainable data ecosystem, as outlined in both the [NLM Strategic Plan](#) and the [NIH Strategic Plan for Data Science](#).
- NLM convened a Dataset Metadata Model Working Group (DATMM WG) to investigate, recommend action on, and oversee development of a working model of biomedical datasets to facilitate the FAIR (findable, accessible, interoperable and reusable) collection and curation of digital data, and define the requirements of an NLM Data Catalog to facilitate finding and reuse of data. The DATMM WG is currently developing a linked data model and profile for biomedical dataset description and is collaborating with the CEDAR development team at the Stanford Center for Biomedical Informatics Research. CEDAR is a web-based linked data metadata generation tool developed with funding from NIH's BD2K initiative.
- A Data Science @NLM Training Program has been established in support of the NLM Strategic Plan Goal 3 to build a workforce for data-driven research and health. NLM launched this workforce

transformation to help staff understand the value of data science and identify opportunities to strengthen the Library's proficiencies in data curation and use of analytic tools while furthering NLM's research practices and services. For some of us, data science is already a part of our day-to-day activities; but for others, this training will introduce basic concepts in the interdisciplinary field of data science. All staff participated in a training program kick-off, a Data Science Basics course, and 25 staff will attend an intensive Data Science Fundamentals course during summer 2019. Finally, an open house in late summer will showcase data science projects from the fundamentals course and highlight projects going on at NLM.

PubMed Central Update

PubMed Central (PMC), NLM's free full-text archive of biomedical and life sciences journal literature, is committed to collaborating with publishers and funders to ensure the openness and preservation of the scientific record. During Open Access Week in October 2018, PMC celebrated some of the recent outcomes of these collaborations:

- In July 2018, the PMC corpus of publicly accessible articles hit 5 million articles.
- In May 2018, the [PMC Open Access Subset](#) surpassed the 2 million article mark.
- The [Author Manuscript Collection](#) now includes more than 500,000 papers for text mining.
- The [PMC and Research Funder Policy page](#) underwent an update in September 2018 to increase transparency around funder support in PMC for publishers, authors, and the public.
- Funder policy support in PMC extended to the US Department of Homeland Security, in addition to several new US private research funders via the Health Research Alliance.

PMC has also added an Associated Data Box to the article display to expose datasets that are published as supplemental materials or otherwise linked to full-text articles. PMC records may include data links to datasets held in other NLM databases (e.g., GenBank) or to external data repositories (e.g., figshare, Dryad). NIH-funded authors may also deposit datasets to PMC via the NIH Manuscript Submission (NIHMS) system with a peer-reviewed author manuscript.

Other Programs, Initiatives and Partnerships

- A Blue Ribbon Panel established to review the intramural research program of NLM issued its [report](#) in November 2018. The Panel considers it critical that NLM have a vibrant and aggressive intramural research program and calls for expanding NLM's intramural research program to keep pace with the growing demand for novel biomedical informatics and data science approaches to biomedical research. As a result of the report, NLM is currently recruiting for a Scientific Director to guide its Intramural Research Program. The successful candidate will oversee a diverse group of some 150 scientific personnel, developing innovative new approaches to data science, biomedical informatics, and computational biology and their application to open questions in basic molecular biology, genomics, health, and healthcare. NLM also received approval to hire up to 3 tenure-track investigators to lead research programs within its Intramural Research Program.
- NLM undertook a "portfolio analysis" to establish a baseline of NLM products, or offerings, to the public. The goals of the project are to ensure alignment between NLM offerings and strategic priorities, create a framework for standardizing reporting on performance of distinct offerings, and to provide performance data to support organizational planning and informed decision making.
- NLM welcomes applications to its [Michael E. DeBakey Fellowship in the History of Medicine for 2020](#). Individuals of any academic discipline and status may apply to conduct research in the historical collections of the Library. Deadline: September 30, 2019.
- NLM and Wellcome [announced completion of their partnership](#) to provide free access to hundreds of years of medical research. Over two dozen additional titles are now freely available in PMC,

spanning three centuries and encompassing hundreds of thousands of pages. In total, the collaboration has grown PMC by over 650,000 pages and tens of thousands of individual articles. These newly-available titles are free to read, download, text mine, and re-use via the PMC Text Mining Collections, which includes the PMC Open Access Subset and the Historical OCR Collection.

- NLM launched [Medicine on Screen: Films and Essays from NLM](#), replacing *Medical Movies on the Web*, which debuted in 2013, and expanding NLM's engagement with researchers from a variety of disciplines who use the medium of film and video to study the human condition. Responding to feedback from these and other patrons, *Medicine on Screen* offers a fresh design, enhanced functionality, and new essays placing selected titles from the Library's audiovisuals collection in historical and health contexts. Subsequently, on May 4, the [Washington Post](#) featured *Medicine on Screen* in its Health & Science section.
- The open-access book entitled *Viral Networks: Connecting Digital Humanities and Medical History*, comprising a collection of research papers, is now available from [VT Publishing](#) and [NLM Digital Collections](#). The book is the product of the *Viral Networks: An Advanced Workshop in Digital Humanities and Medical History*, January 2018, hosted by the NLM History of Medicine Division, in collaboration with the Office of Digital Humanities of the National Endowment for the Humanities, and Virginia Tech.

NIH/NLM Budget

NIH received a FY19 budget of \$38.16 billion and NLM received \$442.23 million. These figures reflect increases of almost one billion and \$13.68 million from FY18, respectively. The FY 2020 President's Budget includes a total program level for NIH of \$33 billion. Of that amount, the request for NLM is \$380.5 million.

Organizational Changes

In support of the [NLM Strategic Plan, 2017-2027](#), the Library has been reviewing the alignment of functions, staff expertise and organizational boundaries. Over the past year the following changes have been made:

- The Office of Health Information Programs Development was renamed the Office of Strategic Initiatives in October 2018 and is headed by Dr. Michael Huerta.
- The High Performance Computing and Communications Office has been realigned into the Cognitive Science Branch of the Lister Hill National Center for Biomedical Communications, effective January 2019.
- The Collection Development and Acquisitions Section (CDAS) reorganized in January 2019, reflecting further integration of collection development, licensing and acquisitions work in the section. Two new positions will be added to CDAS and will serve as publisher liaisons to support the work of the Literature Selection Technical Review Committee, manage journal selection processes for MEDLINE applications, and communicate with publishers applying for inclusion in MEDLINE.
- The Audiovisual Program Development Branch of the Lister Hill Center was realigned into the Office of Communications and Public Liaison and the Office of Computer and Communications Systems, effective April 2019.
- The Division of Specialized Information Services (SIS) will be realigned into the Division of Library Operations and Office of Computer and Communications Systems by the end of June 2019. SIS products and services will each be assessed; some will be sunsetted, some will change, and others will continue.
- The National Network Coordinating Office (NNCO) will be renamed the Office of Engagement and Training (OET) and become NLM's organizational home for national and international outreach

activities. Beginning in June 2019, OET will include the program and staff of the National Network Coordinating Office and additional staff with primary outreach responsibilities from SIS and other NLM organizations. Amanda Wilson, head of the NNCO, will become head of the OET.

Staff Appointments

- Dina Paltoo, PhD, MPH, was appointed in July 2018 as NLM Assistant Director for Policy Development. In this role, she leads NLM's policy and legislative activities which promote access to scientific data and information, as well as health information technology.
- Julie Silverman was appointed Head, Collection Development and Acquisitions Section, Technical Services Division, in September 2018. Julie participated in the 2018-2019 Association of Research Libraries Leadership Fellowship Program.
- Clem McDonald, MD, Director of the Lister Hill National Center for Biomedical Communications (LHNCBC) for the past 12 years, was appointed to the newly created position of Chief Health Data Standards Officer in November 2018. Olivier Bodenreider, MD, PhD, Chief of the Cognitive Science Branch of LHNCBC, will serve as Acting Director of LHNCBC.
- Jody Nurik was appointed in March 2019 as Director of the Office of Communications and Public Liaison.
- NLM selected four fellows to join its [2019-2020 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 Brenna Cox, Sharon Han, Eden Kinzel, and Louise To.

NLM @ ALA

- Tina Shrader is presenting on linked data training for catalogers at the ALA/ALCTS/Competencies and Education for a Career in Cataloging Interest Group Friday, June 21, 2019, 1:00-2:00 PM.

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