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The National Library of Medicine: 175 Years of Information Innovation

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health sciences eBooks (across platforms), the success of a **University of Pittsburgh** “home-grown” solution is often mentioned. 🐼

Special Issue Editor's Note: Thank you to all of the special issue authors who took time away from their busy, frontline jobs to share their thoughts, insights, and experience. The contribution of **Shana Potash**, Public Affairs Specialist at **NLM**, should be acknowledged. Though she didn't seek authorship credit for the introduction to her colleagues' texts, it was thanks to her coordination that a timely and pertinent contribution was specifically customized for **Against the Grain**. A thank you should also be extended to **Katina Strauch** for once again seeing a need for such a special issue. The 2011 collection of articles provides a snapshot view of a few areas. A comment made in 2008 still holds true, “someone will likely need to revisit information and collection trends in the health and biomedical sciences again soon.” There are still other themes that have not yet been addressed, and representatives from various health and biomedical information-related sectors who have not yet voiced their thoughts. — **RK**

against the grain people profile

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Maria E. Collins

PROFESSIONAL CAREER AND ACTIVITIES: Worked in the **UCLA** library system, at VTLS, and KPMG. At **NLM**, I am the team lead for **DOCLINE** and the Emergency Access Initiative.

PHILOSOPHY: “The ideal man bears the accidents of life with dignity and grace, making the best of circumstances.” **Aristotle**; “Great is the man who has not lost his childlike heart.” **Mencius**; “Simplicity is the ultimate sophistication.” **Leonardo da Vinci**; and “Be kind, for everyone you meet is fighting a hard battle.” **Philo**

HOW/WHERE DO I SEE THE INDUSTRY IN FIVE YEARS: Increasing move to electronic only publishing and use of electronic resources. The electronic environment provides great advantages, but also will pose increasing difficulty in resource sharing due to publisher license restrictions, elimination of print collections, and tightened collections budget. Overall, reduced budgets will result in additional library consolidations and prioritizing of services, and innovation to meet user needs. 🐼

The National Library of Medicine: 175 Years of Information Innovation

by **Maria E. Collins** (Technical Information Specialist, Public Services Division, National Library of Medicine)

and **Martha R. Fishel** (Chief, Public Services Division, National Library of Medicine)

and **John Doyle** (Technical Information Specialist, Systems Office, Technical Services Division, National Library of Medicine)

National Library of Medicine

The year 2011 marks the 175th anniversary of the **National Library of Medicine**. **NLM** started as a small collection in the office of the U.S. Army Surgeon General. Today, **NLM**, as part of the **National Institutes of Health**, is the world's largest medical library and the producer of electronic information resources used by millions of people around the world every day.

NLM has changed the way scientific and medical information is organized, stored, accessed, and disseminated through its technical innovation, partnerships, and early adoption of the Internet. For example, the library has developed databases and software tools that make it easy to find medical literature and health information; enable scientists to study genes and their roles in the disease; and provide emergency responders with critical information to handle disasters. **NLM's** leadership of the **National Network of Libraries of Medicine**, with nearly 6,000 members, brings high-quality information

services to health professionals and the public across the country, regardless of where they live or what level of access they have to computers.

The library is committed to making its remarkable resources available to users around the world to support scientific discovery, enhance clinical care, and improve public health.

Partnerships

NLM – Publisher partnership provides free access to medical literature following a regional disaster — by Maria E. Collins

The Emergency Access Initiative (EAI) is a collaborative partnership between **NLM**, participating publishers, and the **National Network of Libraries of Medicine** to provide free access to full-text articles from over 230 major biomedical serial titles, three online databases, and over 2,000 books to healthcare professionals and libraries affected by disasters.

The idea for the **Emergency Access Initiative** developed in regular meetings between **NLM** and a small group of publishers following the widespread devastation in the Gulf Coast caused by Hurricanes Katrina and Rita in 2005. Access to medical literature and information resources was lost or severely restricted by the damage to hospital and academic medical libraries which serve healthcare professionals in the region.

The primary goal of the Emergency Access Initiative is to provide free, full-text access to key medical and scientific journals most useful to healthcare professionals and libraries responding to a disaster, and to serve as a temporary replacement to library collections damaged or rendered inaccessible following a disaster. EAI can also be used by healthcare professionals responding to disaster and post-disaster medical issues of the affected population. The Emergency Access Initiative is not an open-access collection — it is intended only for those affected by the disaster or assisting the affected population.

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Titles for the Emergency Access Initiative collection were recommended by a small team of medical librarians representing academic, hospital, and government agencies led by NLM. The primary focus was on commonly-requested titles within the **National Network of Libraries of Medicine (NN/LM)** for interlibrary loan, and emergency medicine and public health related titles recommended by the **World Health Organization (WHO)** and the **Centers for Disease Control and Prevention (CDC)**. Additionally, core medical reference works, as well as books about emergency medicine and public health, were recommended for inclusion based upon input from librarians and medical personnel consulted on the project.

A three-person team with representatives from NLM, the publishers, and the **National Network of Libraries of Medicine** serve as the activation team for the Emergency Access Initiative — deciding whether a particular event will trigger EAI. For the purposes of the EAI project, a “disaster” is a naturally-occurring or man-made event that disrupts access to biomedical literature for health care professionals, students, and other users of health science libraries in the United States and internationally (*eai.nlm.nih.gov*). The initial period of free access is four weeks, which may be extended by the activation team as they evaluate conditions and biomedical literature needs in the affected area.

The Emergency Access Initiative has been utilized in four separate regional disasters — Haiti (earthquake), Pakistan (flooding), Haiti (cholera), and Japan (earthquake, tsunami, and nuclear event). During each of these events, the site received from 2,000 to 8,000 visitors who viewed thousands of articles and book chapters. The mostly commonly accessed materials were on emergency medicine, drug reference books, and for the Japanese period, materials on radiation.

The Emergency Access Initiative (EAI) is a partnership of private, public, and government entities that resulted in a humanitarian service that provides free access to biomedical literature and medical reference material to areas impacted by a regional disaster.

NLM acknowledges the participating publishers for their generous support of this initiative: **American Academy of Pediatrics, American Association for the Advancement of Science, American Chemical Society, American College of Physicians, American Medical Association, American Society of Health-Systems Pharmacists, ASM Press, B.C. Decker, BMJ, EBSCOHost, Elsevier, FA Davis, Mary Ann Liebert, Massachusetts Medical Society, McGraw-Hill, Merck Publishing, Oxford University Press, People's Medical Publishing House, Rittenhouse Book Distributors, Springer, University of Chicago Press, Wiley, and Wolters Kluwer.**

Martha R. Fishel

PROFESSIONAL CAREER AND ACTIVITIES: Masters in Library Science, **University of Maryland**; started at **U.S. Department of Interior**; worked at **U.S. National Library of Medicine** since 1976; serials acquisitions, DOCLINE and Loansome Doc development, PubMed Central back file digitization project, MedlinePlus, print retention.

PHILOSOPHY: Don't look back unless you have to. Planning for the future is the most positive action we can take for our personal and professional lives. One of the reasons the **National Library of Medicine** has been so successful at what it does is because we look forward and have made changes to our guiding principles as the world changes around us.

HOW/WHERE DO I SEE THE INDUSTRY IN FIVE YEARS: Innovations we don't yet know about will enhance access to digital collections and improve the capturing techniques. More libraries will move all electronic, and those with access to digitized backfiles or original print will be in greater demand by historians and serious researchers. 🌱

MedPrint

NLM's National Cooperative Medical Journals Print Retention Program — by Martha R. Fishel

Since about 2000, medical libraries throughout the United States have increasingly shifted their journal subscriptions from the traditional print to the electronic journal version to meet user expectations of immediate access to material 24 hours a day. While the shift to electronic journals has eased the pressure on the limited physical space in libraries, many libraries have come under pressure to give up physical space to other areas of their parent organizations. As a result, libraries have had to discard the print holdings of some, many, or all of their journal titles — limiting them to the years/volumes available online.

The **National Network of Libraries of Medicine (NN/LM)** and the **National Library of Medicine (NLM)** are working to ensure the preservation and continued access to the historical literature through a new national cooperative medical journals print retention program called **MedPrint**, launched in September 2011. The findings of two regional task forces identified some common themes in many medical libraries with regards to print. Libraries facing pressure to reduce or repurpose library space have already begun removing back issue print journal collections from their stacks. Additionally, they are worried about the loss of the archival record, and the quality of and future access to digitized content.

NLM's Print Collection

NLM has every intention of retaining its own print collection well into the future. NLM still subscribes to a large number of print journals. As of this writing, 91% of the approximately 18,000 journal subscriptions at NLM are print, and the others are e-only. NLM will continue to subscribe to print for as long as that is an option, unless the print version becomes secondary to the e-version.

Program Decisions and Parameters

NLM has made decisions that will provide the framework for **MedPrint** for the near future.

1. Approximately 250 **Abridged Index Medicus** and **PubMed Central (AIM/PMC)** titles have been identified as the primary set of materials to preserve in print. These are core clinical titles widely held in the NN/LM. These titles are the most widely-cited and widely-requested material and thus most valuable to protect. Libraries may opt to retain titles outside of this list, but they need not sign the **MedPrint** agreement with NLM to do that.
2. Twelve copies is the minimum number to keep. This relatively high number is justified by the fact that we will not require validation at the issue or page level. NLM's copy will be the 13th copy.
3. Libraries will commit to holding a title until September 30, 2036.
4. Libraries must hold the titles they agree to retain from the first published volume until the title ceased in print or, if still published in print, at least until the year 2000.

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5. Journals must have all of their parts in place including covers, tables of contents, advertisements, and administrative matter.

6. Commitment data will be recorded in the institutional section of **DOCLINE**, NLM's online request routing and referral system.

As **MedPrint** participation grows, NLM will work with **OCLC** on exchanging print retention information between **WorldCat** and **DOCLINE**.

More information about **MedPrint's** programs and services are available at <http://www.nlm.nih.gov/psd/printretentionmain.html>.

Digital Developments

NLM's Digital Repository — by John Doyle

The **National Library of Medicine** launched its new digital repository, **Digital Collections** <http://collections.nlm.nih.gov>, in autumn 2010. **Digital Collections** allows rich searching, browsing, and presentation of monographs and films from NLM's historical collections. Users can perform full-text and faceted keyword searching across the range of content in the repository. **Digital Collections** uses a suite of open-source and NLM-created software, with the **Fedora Commons Repository** as the underlying framework. The repository facilitates the long-term preservation of the content by describing, verifying, and managing the ingested files using XML and RDF technologies. The repository also makes use of NLM's offsite co-location data-center for redundant storage and distribution of access services.

Digital Collections contains a growing number of digitized books in the Public Domain, which are therefore freely available to read and download. The books are currently presented in two collections: **Cholera Online**, consisting of 518 monographs dating from the 19th century about cholera pandemics of that period, and **Medicine in the Americas**, NLM's in-house digitization project which will eventually number approximately 6,000 volumes, demonstrating the evolution of American medicine from colonial frontier outposts of the 17th century to research hospitals of the 20th century. The books are displayed through an integrated viewer which provides within-book search, thumbnail preview of all pages and page zooming/rotating. **Digital Collections** also contains 29 historical films which can be downloaded in a variety of video formats to accommodate a wide range of playback devices, including mobile devices. The films are also playable via an integrated, Flash-based video player which allows full-text search of a film's transcript and graphically displays where the searched word or phrase occurs within the timeline of the film. Additional content, including other format types, will be added over time.

against the grain people profile

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John Doyle

PROFESSIONAL CAREER AND ACTIVITIES: Masters in Information from **University of Michigan**, working at NLM for ten years; currently project manager for digital repository and ERMS admin; also worked in interlibrary loan automation, archival processing, and sys lib supervision.

PHILOSOPHY: Go forward in all your beliefs, and prove to me that I am not mistaken in mine.

HOW/WHERE DO I SEE THE INDUSTRY IN FIVE YEARS: Existing trends will continue — i.e., increased open-access publishing of STM content, decreased demand for resource sharing of STM content among libraries, centralized discovery of licensed and free resources, and consolidation of digital libraries into multi-institutional projects with shared responsibilities. 🐼

PubMed Central

PubMed Central (PMC) is a free archive of biomedical and life sciences journal literature at NLM. In keeping with NLM's legislative mandate to collect and preserve the biomedical literature, **PMC** serves as a digital counterpart to NLM's extensive print journal collection. Launched in February 2000, **PMC** was developed and is managed by NLM's **National Center for Biotechnology Information (NCBI)**.

Free Access: A Core Principle of PMC

As an archive, **PMC** is designed to provide permanent access to all of its content, even as technology evolves and current digital literature formats potentially become obsolete. NLM believes that the best way to ensure the accessibility and viability of digital material over time is through consistent and active use of the archive. For this reason, free access to all of its journal literature is a core principle of **PMC**.

How Journal Articles are Provided to PMC

PMC is a repository for journal literature deposited by participating publishers, as well as for author manuscripts that have been submitted in compliance with the Public Access Policy mandated by **NIH** and similar policies of other research funding agencies. **PMC** is not a publisher and does not publish journal articles itself.

A number of journals that joined **PMC** prior to 2008 benefited from NLM's back issue digitization project, offered to publishers whose archival content was not yet available in electronic form. By scanning back issues from Volume 1 that were available only in print,

NLM has helped create a complete digital archive of these 90 journals in **PMC**.

International Collaboration and Durability

NLM is collaborating internationally with other agencies that share the goals of **PMC**. Maintaining copies of **PMC's** literature in other reliable international archives that operate on the same principles provides greater protection against damage or loss of the material.

Conclusion

NLM's rich collection of print and digital resources has grown significantly over the past 175 years, and the Library looks forward to the next 175 years and more of collecting, providing access to, preserving, and recording the world's most important materials in medicine and health. 🐼

Rumors from page 10

Some more non-attendees updates. **Arnaud Pelle** <APelle@emeraldinsight.com> couldn't make it but he was following the **Conference** through **Twitter** and the **Conference Website**. Technology! BTW, did you see the great interview **Arnaud** did with yours truly? <http://www.emeraldinsight.com/librarians/info/interviews/strauch.htm>

Arlene Sievers Hill wasn't at the **Charleston Conference** either. She tells me that she had surgery and was out for six weeks! Plus there was a reorganization at **Case Western**. On the plus side, **Arlene** says she spoke at the **ALPSP International Conference** in Oxfordshire about changes in acquisitions and university libraries and how these changes are affecting publishers. She may be writing a book soon!

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