

Using Top Tasks to Improve Your Website

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What is NLM?





United States
National Library of Medicine
National Institutes of Health



The World's Largest
Medical Library

- Health Information
- Library Catalog & Services
- History of Medicine
- Online Exhibitions & Digital Projects

- Human Genome Resources
- Biomedical Research & Informatics
- Environmental Health & Toxicology
- Health Services Research & Public Health
- Health Information Technology

- About the National Library of Medicine
- Grants & Funding
- Training & Outreach
- Network of Medical Libraries

Especially for:

- The Public
- Health Care Professionals
- Researchers
- Librarians
- Publishers

Current Health News

[Fish Oil Supplements May Not Slow Alzheimer's](#) (11/03/10)

[MRI Images May Pinpoint Time of Stroke](#) (11/03/10)

[Program May Help Prevent Falls in Hospitalized Patients](#) (11/03/10)

[More Health News](#)

NLM News and Press Releases

[National Library of Medicine Announces New Look for Two Web Sites](#) (11/1/10)

[NLM Announces Refreshed Version of Specialized Information Services \(SIS\) Web Site](#) (11/1/10)

[NLM Releases Images, a Database of Images in Biomedical Literature \(press announcement\)](#) (10/29/10)

[Thomas F. DeLac, MD, Academic Leader and Former NLM Board of Regents Chair, Dies at 86](#) (10/19/10)

[More NLM News](#)



Presenting NLM in Focus.
This new online newsletter gives you a behind-the-scenes glimpse of NLM—its people, programs and services.

Connect with NLM



Contact NLM | Site Map | FAQs

Search NLM Web Site

List of NLM Databases and Resources

User Alert (11/4/09):
NLM System Outages

PubMed®
Biomedical journal literature from MEDLINE/PubMed

MedlinePlus®
Health and drug information for patients, family and friends

DailyMed
High quality information about marketed drugs

Pubmed Central
Free archive of life sciences journals

Household Products Database
Health and safety information on household products

FLU.GOV
Howe What to do about the flu.

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First published: 10 October 1993
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U.S. National Library of Medicine
National Institutes of Health

Contact NLM 

Databases

- PubMed/MEDLINE
- MeSH
- UMLS
- ClinicalTrials.gov
- MedlinePlus
- TOXNET
- Images from the History of Medicine
- LocatorPlus
- All NLM Databases



What Does a Library Have to Do with Disasters?
Learn how the National Library of Medicine plays an important role in providing information and resources during disasters.

Find, Read, Learn

- Search biomedical literature
- Find medical terminologies
- Search NLM collections
- Read about diseases
- Learn about drugs
- Explore history
- Find a clinical trial
- Use a medical dictionary
- Find free full-text articles

Explore NLM

- About NLM
- Health Information
- Library Catalog & Services
- History of Medicine
- Online Exhibitions & Digital Projects
- Information for Publishers

Research at NLM

- Human Genome Resources
- Biomedical Research & Informatics
- Environmental Health & Toxicology
- Health Services Research & Public Health
- Health Information Technology

NLM for You

- Grants & Funding
- Training & Outreach
- Network of Medical Libraries
- Regional Activities
- Visit the Library
- Jobs at NLM

News & Events

- NHSEniorHealth.gov Offers Info on Anxiety Disorders in Older Adults (press announcement) (12/08/10)
- NLM Completes Catalog of Imperial Russian Holdings (12/03/10)
- NLM Announces New Web Interface for Oral History Collections (12/01/10)
- National Library of Medicine Adds New Education Resources to Online Exhibition, Frankenstein: Penetrating the Secrets of Nature (11/30/10)



For Online Searchers



Connect with NLM



Recovery Act



Podcasts



NLM Tools & Widgets

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First published: 10 October 1993
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Lesson #1:

Have a simple version of
your plan

Project Timeline

Task	Duration	Resources
Analysis	January – March	Web Team
Develop Personas	Late March	Web Team
Create Design Specs	Apr - May	Web Team
Design	June – September	Web Team, NLM-Wide Advisory Group
Draft TeamSite Specs	Oct	Web Team
Coding	early November	Web Team, IT
Test & Finalize	late November - December	Web Team, IT
Release	January 2011	Web Team, IT

Lesson #2:

Take time to analyze

Analysis

- The three months we took to look at many sources of data were invaluable.
 - People make suggestions? Go back to the data and see if it fits.
 - Disagreements between people/departments? Look at the data.
- One person should know the data really, really well. You should live and breathe that information (in our project, that was me).
- Create presentations showing the data. You will use it over and over.

Analysis: Sources to Identify Top Tasks

- Search engine logs
- Customer surveys (e.g., ACSI)
- Customer questions from your “Contact Us” form
- Web metrics software (e.g., WebTrends)
 - Popular pages
 - Search terms bringing users to your site

Lesson #3:

Know your user types

Who are our users?

- Researchers/Scientists (18%)
- Health Care Providers (18%)
- Librarians (15%)
- College/Graduate Students (13%)
- Educators (11%)
- Patients (3%)

From roles to personas...

- Personas put a human face on site users
- Can help us:
 - Learn who site users are
 - Learn the needs and goals of distinct groups
 - Create a data-based web site strategy
 - Design site improvements that benefit users

Person Summary Pretest 1-14168 Male ACSJ data from November 01, 2007 - February 25, 2010 (with gaps)

Represents 75% of site users (i.e., of those who completed the survey)

Linda

Health Care Provider
(e.g., Physician, Dentist, Nurse)



Percent of current NLM Main users: **18%**
Overall Satisfaction: **72**
(n=1,155 for most measures)

S&L Summary
Usability: 75
Functionality: 75
Look and feel: 72
Navigation: 71
Privacy: 70
Search: 69
Site performance: 65

What's your gender? (n=1,155)
Male: 50%
Female: 50%

Would make this site a primary resource (Would recommend the site to others): 71
Would return to this site: 64

Please select the category that includes your age: (n=1,155)

How did you learn of NLM's Web site? (n=1,155)

How frequently do you visit this site? (n=1,155)

Frequency: Once a month or more

Why are you visiting the National Library of Medicine website today? (n=1,155)

Did you find what you were looking for? (n=1,155)

What best describes the result of your visit? (n=1,155)

Tom

Researcher/Scientist



Percent of current NLM Main users: **18%**
Overall Satisfaction: **73**
(n=1,203 for most measures)

S&L Summary
Usability: 77
Functionality: 77
Look and feel: 74
Navigation: 73
Privacy: 72
Search: 70
Site performance: 62

What's your gender? (n=1,203)
Male: 50%
Female: 50%

Would make this site a primary resource (Would recommend the site to others): 71
Would return to this site: 64

Please select the category that includes your age: (n=1,203)

How did you learn of NLM's Web site? (n=1,203)

How frequently do you visit this site? (n=1,203)

Frequency: Once a month or more

Why are you visiting the National Library of Medicine website today? (n=1,203)

Did you find what you were looking for? (n=1,203)

What best describes the result of your visit? (n=1,203)

Debra

Librarian or information Professional



Percent of current NLM Main users: **15%**
Overall Satisfaction: **78**
(n=1,028 for most measures)

S&L Summary
Usability: 80
Functionality: 80
Look and feel: 78
Navigation: 75
Privacy: 73
Search: 70
Site performance: 65

What's your gender? (n=1,028)
Male: 50%
Female: 50%

Would make this site a primary resource (Would recommend the site to others): 80
Would return to this site: 67

Please select the category that includes your age: (n=1,028)

How did you learn of NLM's Web site? (n=1,028)

How frequently do you visit this site? (n=1,028)

Frequency: Once a month or more

Why are you visiting the National Library of Medicine website today? (n=1,028)

Did you find what you were looking for? (n=1,028)

What best describes the result of your visit? (n=1,028)

Nancy

College/Graduate Student



Percent of current NLM Main users: **12%**
Overall Satisfaction: **76**
(n=1,022 for most measures)

S&L Summary
Usability: 79
Functionality: 79
Look and feel: 75
Navigation: 73
Privacy: 72
Search: 70
Site performance: 65

What's your gender? (n=1,022)
Male: 50%
Female: 50%

Would make this site a primary resource (Would recommend the site to others): 80
Would return to this site: 65

Please select the category that includes your age: (n=1,022)

How did you learn of NLM's Web site? (n=1,022)

How frequently do you visit this site? (n=1,022)

Frequency: Once a month or more

Why are you visiting the National Library of Medicine website today? (n=1,022)

Did you find what you were looking for? (n=1,022)

What best describes the result of your visit? (n=1,022)

Carl

Educator



Percent of current NLM Main users: **11%**
Overall Satisfaction: **77**
(n=1,054 for most measures)

S&L Summary
Usability: 80
Functionality: 80
Look and feel: 77
Navigation: 75
Privacy: 73
Search: 70
Site performance: 63

What's your gender? (n=1,054)
Male: 50%
Female: 50%

Would make this site a primary resource (Would recommend the site to others): 80
Would return to this site: 64

Please select the category that includes your age: (n=1,054)

How did you learn of NLM's Web site? (n=1,054)

How frequently do you visit this site? (n=1,054)

Frequency: Once a month or more

Why are you visiting the National Library of Medicine website today? (n=1,054)

Did you find what you were looking for? (n=1,054)

What best describes the result of your visit? (n=1,054)

Christine

Patient with a specific disease or condition



Percent of current NLM Main users: **3%**
Overall Satisfaction: **71**
(n=228 for most measures)

S&L Summary
Usability: 70
Functionality: 70
Look and feel: 68
Navigation: 67
Privacy: 67
Search: 67
Site performance: 67

What's your gender? (n=228)
Male: 50%
Female: 50%

Would make this site a primary resource (Would recommend the site to others): 70
Would return to this site: 60

Please select the category that includes your age: (n=228)

How did you learn of NLM's Web site? (n=228)

How frequently do you visit this site? (n=228)

Frequency: Once a month or more

Why are you visiting the National Library of Medicine website today? (n=228)

Did you find what you were looking for? (n=228)

What best describes the result of your visit? (n=228)

Lesson #4:

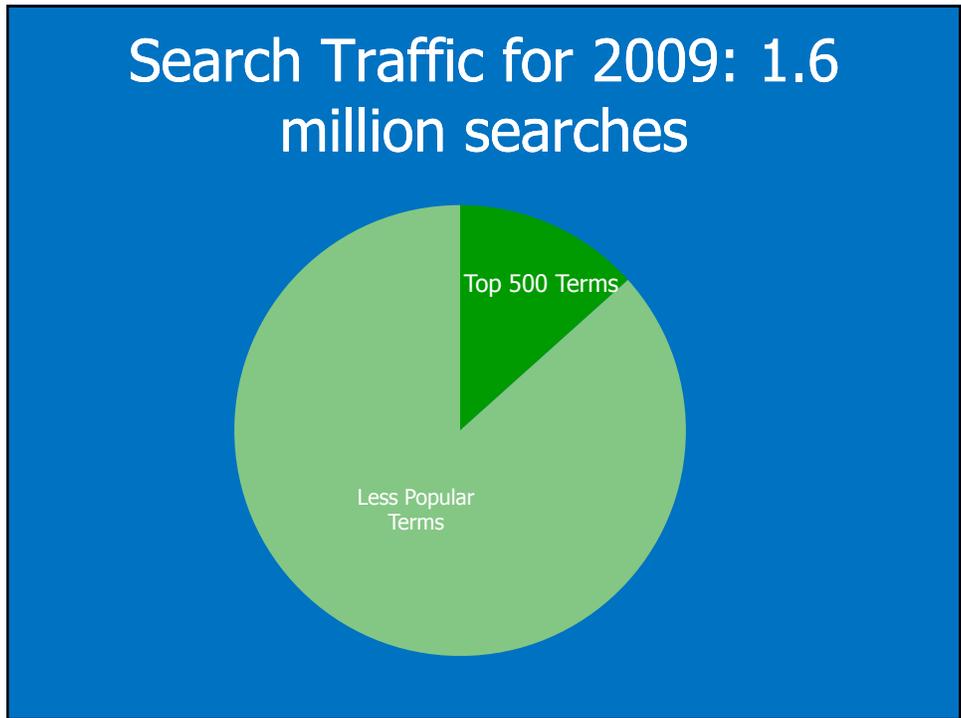
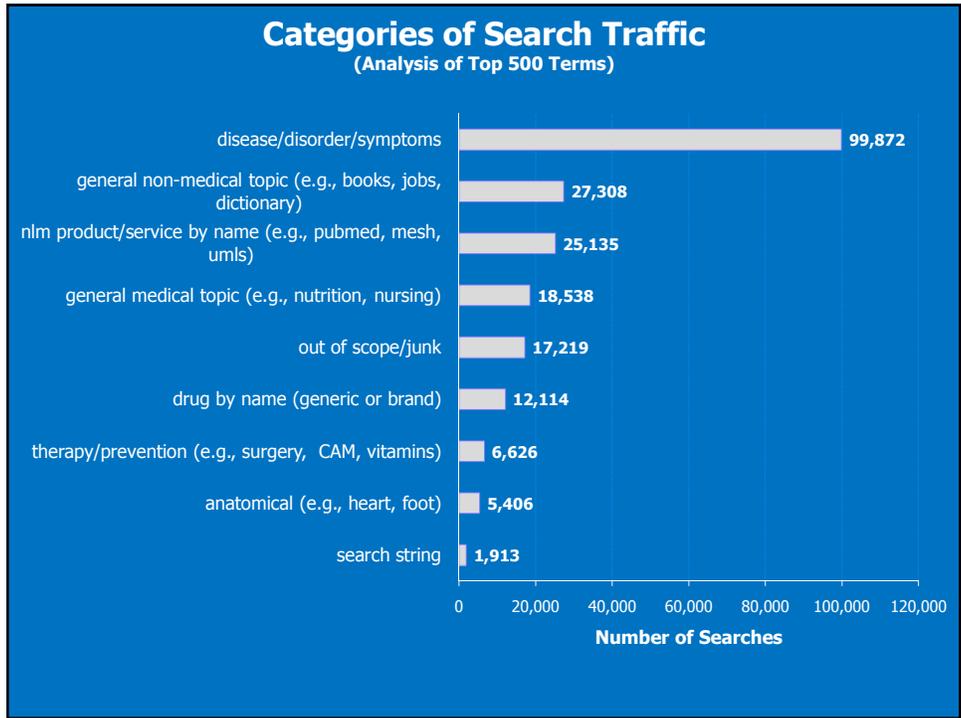
Summarize top tasks succinctly

What are users trying to do?

- Find and use NLM Databases (e.g., PubMed, MeSH, UMLS)
- Find disease and drug information
 - The best match depends on user type
 - Users may want overview information, full-text, or citations to books and articles.
- Find and use historical resources

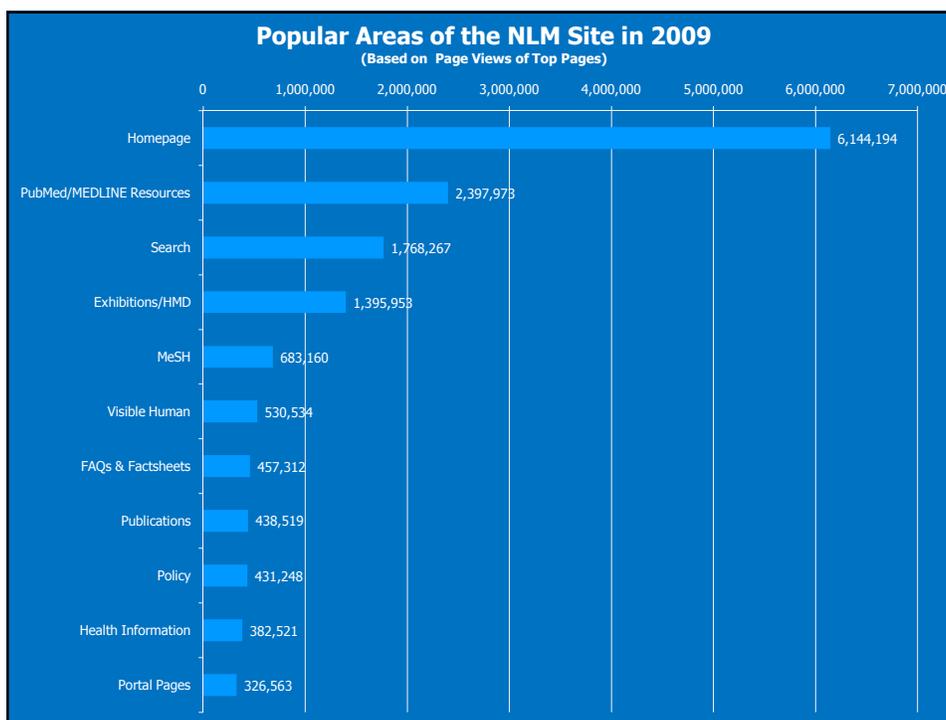
Lesson #5:

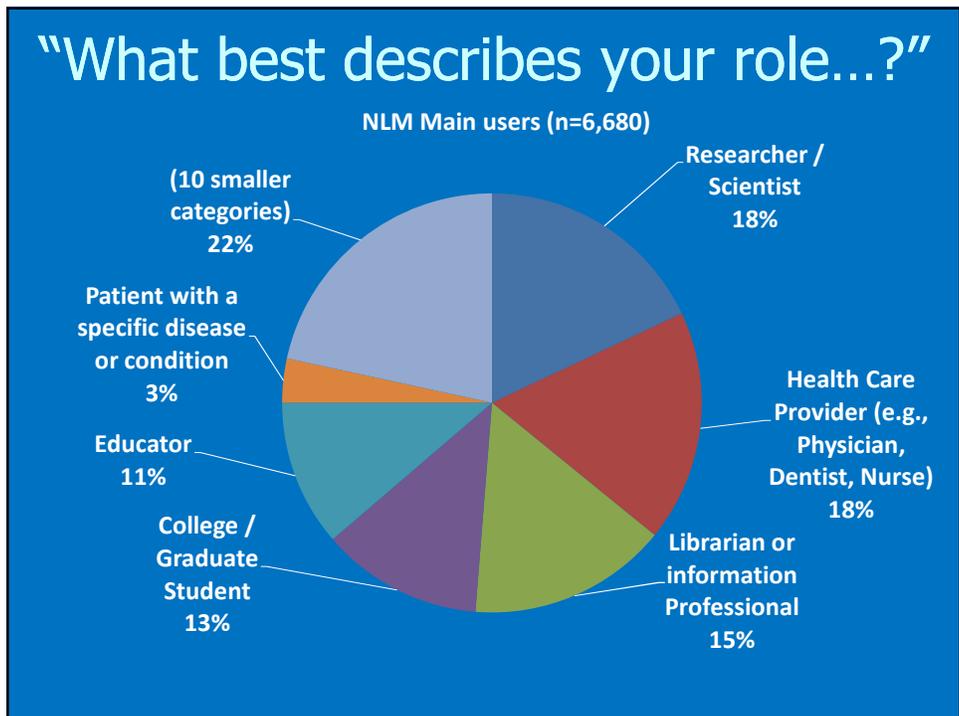
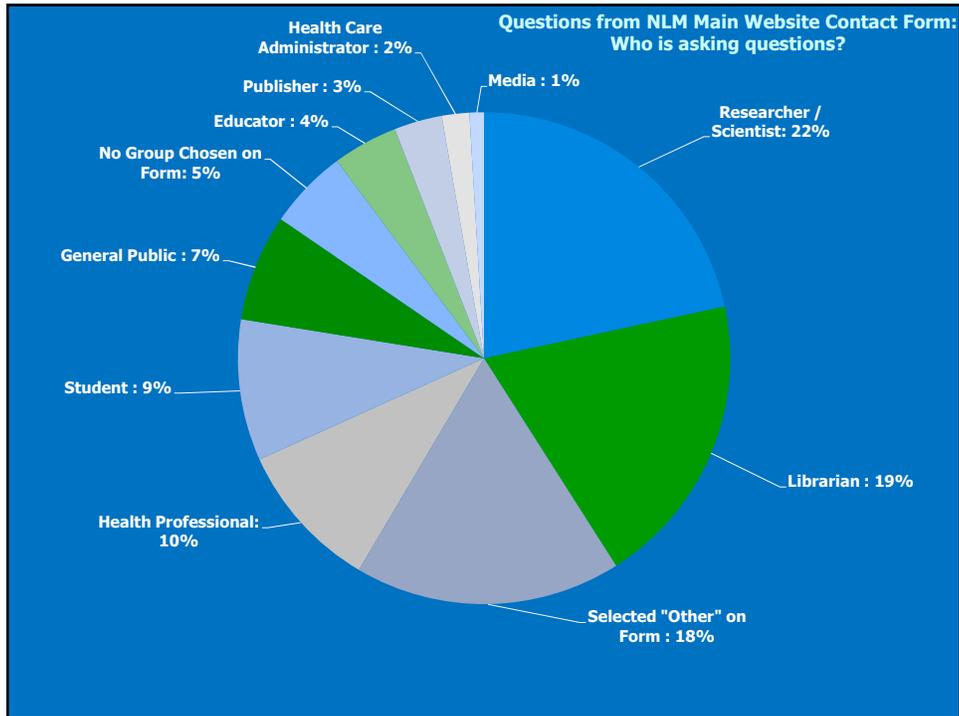
Create simple charts to
back up your conclusions
on top tasks



NLM Databases: Search Terms Used

Overall Rank	Term(s)	# Searches
1	pubmed (4057) , pub med (448)	4505
2	mesh	3696
7	medline	2212
~27	Images (651) + history of medicine (493)	1144
28	clinical trials	1129
36	umls	1038
~40	medline plus (508), medlineplus (473)	981
64	toxnet	687
~120	daily med (244), daily med (197)	441
~140	locator plus (212), locatorplus (189)	401





Lesson #6:

Committees aren't
always bad

NLM Homepage Advisory Group

- Areas invited to select representatives.
- Areas chose varying types of staff
- Weekly meetings had ~14-18 attendees
- 7 meetings over 8 weeks
- Their task was to refine draft designs into workable prototypes, based on top tasks
 - NLM Homepage
 - Site-wide header, including Division branding

Lesson #7:

Meet efficiently

Large Group Efficiencies

- Always create a brief agenda (3-5 items)
- Take concise minutes and post them quickly.
 - Draft minutes open to group within 1-2 days
 - Change to “final” after next meeting
- Some people will miss a meeting or two.
 - Might send an alternate, or not (either is ok).
- Time management is imperative.
 - Keep meetings on task and on time.
 - Remember their time is valuable. Honor that.

Lesson #8:

Skip Photoshop

Make decisions based on functioning webpages

- Functioning designs (not static mockup images) streamlined our design process immensely.
- Quick answers to
 - Where is the fold?
 - What happens on hover?
 - How big are these text and images?
- Bridge the gap between “Web” people and “Print” people.

Lesson #9:

Be as transparent as
you can

Collaboration Tools: Wiki

- Wiki for project included:
 - Overall timeline
 - Project status
 - Analysis results
 - Committee charter & meeting minutes
 - Links to functional mockups (early) and to our QA server (close to release)
- Advisory group and other selected staff could edit pages
- All NLM could view & comment

Reviewer	Status	Division	Page Title If Available	Preview URL	Production URL
Karpinski, Joanna (NH/NLM) [C]	Pass	WIM	National Library of Medicine - National Institutes of Health	https://teamsite.nlm.nih.gov:81/fw-mount/default/main/nlm/refresh/STAGING/htdocs/index.html	http://www.nlm.nih.gov/
Dine, Brooke (NH/NLM) [E]	Pass	BSD	PubMed Online Training	https://teamsite.nlm.nih.gov:81/fw-mount/default/main/nlm/refresh/STAGING/htdocs/bsd/disted/pubmed.html	http://www.nlm.nih.gov/bsd/disted/pubmed.html
Wending, Dan (NH/NLM) [E]	Pass	MeSH	Medical Subject Headings - Home Page	https://teamsite.nlm.nih.gov:81/fw-mount/default/main/nlm/refresh/STAGING/htdocs/mesh/meshhome.html	http://www.nlm.nih.gov/mesh/meshhome.html
Dine, Brooke (NH/NLM) [E]	Pass	BSD	Special Queries	https://teamsite.nlm.nih.gov:81/fw-mount/default/main/nlm/refresh/STAGING/htdocs/bsd/special_queries.html	http://www.nlm.nih.gov/bsd/special_queries.html
Dine, Brooke (NH/NLM) [E]	Pass	BSD	UMLS Knowledge Source Server (UMLSKS) System Down User Alert	https://teamsite.nlm.nih.gov:81/fw-mount/default/main/nlm/refresh/STAGING/htdocs/research/umls/kssfalover.html	http://www.nlm.nih.gov/research/umls/kssfalover.html
Wending, Dan (NH/NLM) [E]	Pass	LHC	The National Library of Medicine's Visible Human Project	https://teamsite.nlm.nih.gov:81/fw-mount/default/main/nlm/refresh/STAGING/htdocs/research/visible/visible_human.html	http://www.nlm.nih.gov/research/visible/visible_human.html
Dine, Brooke (NH/NLM) [E]	Pass	BSD	MEDLINE	https://teamsite.nlm.nih.gov:81/fw-mount/default/main/nlm/refresh/STAGING/htdocs/databases/databases_medline.html	http://www.nlm.nih.gov/databases/databases_medline.html
Heland-Luedtke, Jenny (NH/NLM) [E]	Pass	HMD	History of Medicine Home Page	https://teamsite.nlm.nih.gov:81/fw-mount/default/main/nlm/refresh/STAGING/htdocs/hmd/index.html	http://www.nlm.nih.gov/hmd/
Wending, Dan (NH/NLM) [E]	Pass	MeSH	Medical Subject Headings - Home Page	https://teamsite.nlm.nih.gov:81/fw-mount/default/main/nlm/refresh/STAGING/htdocs/mesh/index.html	http://www.nlm.nih.gov/mesh/
Karpinski, Joanna (NH/NLM) [C]	Pass	TSO	List of Journals Indexed for MEDLINE	https://teamsite.nlm.nih.gov:81/fw-mount/default/main/nlm/refresh/STAGING/htdocs/tsd/serials/fj.html	http://www.nlm.nih.gov/tsd/serials/fj.html
Karpinski, Joanna (NH/NLM) [C]	Pass	WIM	Library Catalogs & Services	https://teamsite.nlm.nih.gov:81/fw-mount/default/main/nlm/refresh/STAGING/htdocs/libserv.html	http://www.nlm.nih.gov/libserv.html
Karpinski, Joanna (NH/NLM) [C]	Pass	WIM	Health Information	https://teamsite.nlm.nih.gov:81/fw-mount/default/main/nlm/refresh/STAGING/htdocs/hinfo.html	http://www.nlm.nih.gov/hinfo.html
Dine, Brooke (NH/NLM) [E]	Pass	BSD	International Committee of Medical Journal Editors	https://teamsite.nlm.nih.gov:81/fw-mount/default/main/nlm/refresh/STAGING/htdocs/bsd/uniform_requirements.html	http://www.nlm.nih.gov/bsd/uniform_requirements.html

Constant Communication

- Tailor your message to the listener
- Work with all levels of your organization:
 - You may need approvals at a high level or multiple levels, but . . .
 - Don't forget the people actually editing content and doing the daily work
- Don't assume people have talked
- Meet in-person with areas if you can and show them how changes will affect them

Lesson #10:

Be prepared for a last minute issue or two

Last Minute

- We demonstrated the updated designs to upper management.
- They asked: why does a page labeled "Regional Activities" not have a map?
- We needed a map. Less than 2 months to go before release.
- Quickly threw together a useful map with a Google API

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National Institutes of Health

Contact NLM

search...

Databases Find, Read, Learn Explore NLM Research at NLM NLM for You

The World's Largest Medical Library

Home > Regional Activities

Regional Activities: NLM near You

- Traveling Exhibitions**
 Learn more about the history of medicine by visiting a local exhibit created by NLM historians and curators. Exhibits are typically hosted by libraries and universities. Some exhibits still have availability in their schedules, so if you would like to host an NLM Exhibition, [contact us](#) with your request.
- Professional Meeting Exhibit Schedule**
 NLM participates in many professional meetings. Whether you're a nurse, doctor, librarian, scientist or first responder, look for us at your next annual meeting.
- Training Classes in NLM Products**
 NLM supports a variety of training opportunities. We sponsor classroom sessions across the country each year as well as Web-based training on NLM products. The classroom training is aimed at librarians and health professionals but people with an interest in learning how to use NLM products to find biomedical information are welcome as well. Classes are free; participants are awarded [MLA](#) continuing education credits.
- NCBI Discovery Workshops**
[NCBI](#) offers a series of two-day training courses called Discovery Workshops. Each year it will hold three Discovery Workshops on the NIH campus and four additional Workshops at universities, colleges or government research centers located in four of the eight regions of the [National Network of Libraries of Medicine \(NNLM\)](#).
- Visit NLM**
 Are you visiting Washington, D.C. on vacation? Perhaps you live in the region? If so, consider visiting the National Library of Medicine. We offer tours daily during the week at 1:30pm, but there are many things to see and do at the Library:
 - Visit the current exhibition, [Against the Odds: Making a Difference in Global Health](#).
 - Take a [guided tour](#) of the current exhibition.
 - Take a [tour of the History of Medicine Reading Room](#).
 - See [all exhibitions](#).



Courtesy Houston Public Library, Houston, Texas

Related Products/Services

- [Network of Medical Libraries](#)
- [Training & Outreach](#)
- [Grants & Funding](#)

U.S. National Library of Medicine
National Institutes of Health

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Search

Databases Find, Read, Learn Explore NLM Research at NLM NLM for You

The World's Largest Medical Library

Home > Regional Activities

Regional Activities: NLM near You

- Professional Meeting Exhibit Schedule**
 NLM participates in many professional meetings. Whether you're a nurse, doctor, librarian, scientist or first responder, look for us at your next annual meeting.



Meet NLM in 2011

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 Learn more about the history of medicine by visiting a local exhibit created by NLM historians and curators. Exhibits are typically hosted by libraries and universities. Some exhibits still have availability in their schedules, so if you would like to host an NLM Exhibition, [contact us](#) with your request.
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Summary

1. Have a simple version of your plan
2. Take time to analyze
3. Know your user types
4. Summarize top tasks succinctly
5. Create simple charts to back up your conclusions on top tasks
6. Committees aren't always bad
7. Meet efficiently
8. Skip Photoshop
9. Be as transparent as you can
10. Be prepared for a last minute issue or two

Questions?