

# Strategic Partnerships

- Pathways are the core partnerships
- Library building and awareness building have created a critical mass of value that enables new kinds of partnerships
- We no longer expect that users must come to nsdl.org
- NSDL as socio-technical middleware bridging research and education communities
  - Brokering, facilitation, translation
  - “Business to business” services and tools
  - Organizational and technical consulting and co-development

**Leveraging Trusted Organizations and Networks**

*Engaging influencers including NSF, Pathways, other NSDL Project Partners, and significant STEM education and research communities*

**Expanding the Reach of Educational Digital Libraries**

*Providing resources, tools, and services to support other national efforts in STEM education and research*

**Collaborative Outreach and Communications**

- *Serving as a dissemination and public outreach venue for NSF funded projects*
- *Adding value to the outreach efforts of others*
- *Cross-promotion and co-branding*

NSTA web seminars  
 (NSTA, Pathways, and other NSDL project partners)

Pathways Workshops

Engaging People in Cyberinfrastructure  
 (supercomputing community)

Publisher Partnerships

NSF Research Centers Education Network (NRCEN)

21<sup>st</sup> Century Learning workshop  
 (American Museum of Natural History)

Southern Regional Education Board

NSDL resources selection for NSF-OLPA

**Embedding NSDL into Existing User Workflows**

- *Creating access to NSDL through the channels from which users are already receiving information and resources*
- *Creating tools that partner organizations can implement to enhance service to their users*

Textbook publisher project

Southern Regional Education Board

Yahoo teacher resources initiative (Yahoo!)

School libraries toolbar campaign  
 (Baltimore County Schools,  
 American Association of School Librarians)

NSTA web seminars (NSTA, Pathways, and other NSDL project partners)

Expert Voices use by university courses (Cornell, Texas A&M)

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<p><b>Capacity Building</b></p> <ul style="list-style-type: none"> <li>– <i>Increasing users' abilities to integrate digital resources into educational practices</i></li> <li>– <i>Training trainers</i></li> <li>– <i>Collections development</i></li> <li>– <i>Assisting other library builders to enhance the discoverability and use of their resources</i></li> <li>– <i>Improving the long-term outlook for educational digital libraries</i></li> <li>– <i>Developing technologies that improve service to users</i></li> <li>– <i>Policy development and identification of best practices</i></li> </ul>	<p>Pathways Workshops</p> <p style="text-align: center;">NSF Research Centers Education Network (NRCEN)</p> <p style="text-align: right;">Digital Library Sustainability Task Force (Library of Congress / NSF)</p> <p><i>Digital Libraries Go To School and Test Drive Projects</i> (Utah State University, SUNY Cortland, Project Tomorrow)</p> <p style="text-align: right;">Applied Technology in Education Resource Centers (ATERC)</p> <p>Publisher Partnerships</p> <p style="text-align: right;">Pathways Metadata Working Group</p>
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**Contextualization**

- *Social and technical approaches to associate contextual information with NSDL resources, to enhance their utility in educational settings*
- *Editorial processes that make resources more readily usable in different educational contexts*

<p>Teacher-generated content from <i>Digital Libraries Go To School</i> Project (Utah State University, SUNY Cortland)</p> <p style="text-align: center;">Strand Map Service (Digital Learning Sciences, AAAS)</p> <p style="text-align: right;">Educational standards alignment and assignment tools (University of Washington, JES&amp;CO, Syracuse, WGBH, DLESE)</p> <p>Pilot project to provide textbook table of contents contextualization (Pathways, publishers)</p> <p style="text-align: center;">International Polar Year grant proposal for an online magazine and learning object repository (Ohio State University)</p> <p style="text-align: right;">Expert Voices for VolTS Project (New York Hall of Science, Association of Science and Technology Centers, IEEE)</p> <p style="text-align: center;">OurNSDL and MyNSDL will become opportunities for partner engagement</p> <p style="text-align: right;">Grade-level Assignment (San Diego Supercomputing Center)</p>
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**Co-Development**

- *Collaborative technical development or refinement of new technologies*
- *Demonstration projects for implementing new technologies*

Community Sign-On (Engineering Pathway, Utah State University, MatDL, ComPADRE, Teachers' Domain)

Soft Matter Wiki (MatDL, MRSECs)

The Fedora Commons

Physics Modeling Curriculum wiki (ComPADRE, Arizona State University, Maine Math and Science Alliance)

Fedora library architecture for The Alliance (Digital Learning Sciences, University of Colorado, Denver Public Library, Western Governors' University, University of Wyoming, Colorado College, Colorado State University, et al.)

Educational standards alignment and assignment tools (JES&CO, Syracuse, WGBH, Digital Learning Sciences)

NSDL Cataloging Tool and NDR Instance (Digital Learning Sciences)

	<b>Existing Partnerships</b> that will be continued and/or expanded	<b>2007 Targets</b>	<b>Other Organizations of Interest</b>
K12	National Science Teachers Association (NSTA)  Project Tomorrow  Pathways and their partners	National Council of Teachers of Mathematics (NCTM)	International Society for Technology in Education (ISTE)  Council of State Science Supervisors (CS3)  Partnership for 21 <sup>st</sup> Century Skills  The Gateway to Educational Materials (GEM)  State Educational Technology Directors Association (SETDA)
Higher Ed	Pathways and their partners  Advanced Technologies in Education Research Centers (ATERC)	EDUCAUSE  Project Kaleidoscope	Merlot
Educational Systems	Southern Regional Education Board (SREB)	Baltimore County Schools  Washington, D.C. Schools	21 <sup>st</sup> Century Skills statewide adoption states – WV, NC

	<b>Existing Partnerships</b> that will be continued and/or expanded	<b>2007 Targets</b>	<b>Other Organizations of Interest</b>
Libraries		American Association of School Librarians	American Libraries Association  Association of College and Research Libraries OCLC
Informal Education	Exploratorium  New York Hall of Science  Lawrence Hall of Science  Association of Science and Technology Centers	American Museum of Natural History	

	<b>Existing Partnerships</b> that will be continued and/or expanded	<b>2007 Targets</b>	<b>Other Organizations of Interest</b>
Digital Libraries	Fedora Commons	Digital Library Federation (DLF)	Open Repositories Community  MIT Media Lab  CNI
Federal Agencies and Federally- funded Networks	NSF (including EHR, OCI, OLPA, Research Directorates)  National Digital Information Infrastructure and Preservation Program (NDIIPP) – including Library of Congress and Institute for Museum and Library Services (IMLS)  Engaging People In Cyberinfrastructure (EPIC)	Advanced Technologies in Education Research Centers (ATERC)  NSF Research Centers Education Network (NRCEN)	NSF Math-Science Partnerships  NASA  Institute for Museum and Library Services (IMLS)



	<b>Existing Partnerships</b> that will be continued and/or expanded	<b>2007 Targets</b>	<b>Other Organizations of Interest</b>
Corporate	MMH* Yahoo	Apple	Learning Management Systems Google
Foundations	Hewlett		Mellon McArthur
Other			AAAS Education Development Center
Publishers	Details from Mike Luby		
Collection Development	Details from Ann Miller		

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WEB SEMINARS ARCHIVES

- [Spring, 2007](#)
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- [Fall, 2005](#)
- [Spring, 2005](#)

ABOUT WEB SEMINARS

- [Features](#)
- [Frequently asked questions \(FAQs\)](#)

WEB SEMINARS SOFTWARE:



NSDL/NSTA Web Seminars:



NSDL/NSTA Web Seminar Series

The National Science Digital Library (NSDL) collaborated with NSTA to develop a series of web seminars focusing on a variety of topics including, "Teach Engineering" and "Chemistry Comes Alive!" The seminars included information and resources for educators available on the NSDL website. Presenters are well-respected, veteran educators from NSDL with diverse backgrounds and experience. Take a moment to download the PowerPoint presentations, and see available archived programs from the comfort of your own office or home!



Learn more about the [features](#) of the Web Seminar and read answers to [frequently asked questions](#) from participants.

Recent NSDL/NSTA Web Seminars:

Read about the topics covered, download the PowerPoint presentations, and see available archived programs from the comfort of your own office or home!

- [Selecting and Using Digital Phenomena and Representations for Middle School](#)

# Just-In-Time Content Resources for Elementary Teachers

A collaborative project with Macmillan/McGraw-Hill

## Science Background

**Weather** Weather is caused by interactions among the air temperature or pressure, the amount of moisture in the air, and the speed and direction of the wind. These changes affect the movement of air masses, which in turn cause weather.

See Science Yellow Pages, in the Teacher Resources section, for background information.


**LOG ON** Professional Development For more Science Background and resources from **NSDL** visit [www.macmillanmh.com/nsdl/](http://www.macmillanmh.com/nsdl/)

ENGAGE EXPLORE **EXPLAIN** EVALUATE EXTEND

## 2 Teach

### Read Together and Learn

Reading Skill **Summarize** Retell the most important ideas from the reading selection.



Graphic Organizer 2, p.18180

### What is weather?

**LOG ON** LX\_Wrap\_HdD

Main Idea Weather can be observed and described.

Before reading, ask children to describe weather.

After reading together, ask:

- What was the weather like when you came to school this morning?

Have children look outside to see if the weather has changed. Encourage children to think about what the weather will be like when they go home. Ask:

- Why is it important to know what the weather will be like? Possible answer: to dress appropriately for the temperature.

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### Read Together and Learn


**Vocabulary**  
weather  
temperature  
wind

### What is weather?

It's time to wake up and get dressed for school. Will you need a coat? How will you choose what to wear?



sunny



cloudy

**128** **CONTAIN** **FACT** Snow is one kind of frozen water.

### ELL Support

**Use Labels** Describe a type of weather shown on pp. 128-129. Ask children to point to the picture showing the type of weather and read the label. Have children make their own pictures of weather and label them.

**BEGINNING** Encourage children to use the labels on pp. 128-129 to label their own pictures. Ask them to verbally identify weather elements, such as rain, sun, or clouds, in their pictures.

**INTERMEDIATE** Have children label their pictures and verbally describe them.

**ADVANCED** Ask children to write a sentence about their picture and describe it verbally using complete sentences.

# SREB



## Member States

Alabama	Mississippi
Arkansas	North Carolina
Delaware	Oklahoma
Florida	South Carolina
Georgia	Tennessee
Kentucky	Texas
Louisiana	Virginia
Maryland	West Virginia

3300 school districts

800 colleges & universities

- SREB Learning Object Repository
- Virtual Schools Initiative
- Possible initiatives around Middle Grades, Community Colleges, Schools of Education
- K-12 and school librarian professional development
- EvaluTech Portal

# SchoolNet

- K12 data management solution
- Users want access to content embedded within the platform
- ?



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- ▶ Create a new account
- ▶ Forgot your password?

## Announcing Neo-Sphere.org:

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0 Guests | 1 Members

Ethan

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<http://si.umich.edu/>

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## [Success Stories] Volunteers Bring Passion to Science Outreach

Science Education Forum article on volunteer, student-led science outreach program: <http://www.sciencemag.org/cgi/content/summary/314/5803/1246> Science 24 November 2006; Vol. 314, no. 5803, pp. 1...

## [Reports] Using Nominal Group Technique for Collective Inquiry

Using Nominal Group Technique for Collective Inquiry and Gaining Consensus among Audiences Mini-Workshop Prepared for NRCEN Meeting, April 7-10, 2005 @ Caltech by Jill H. Andrews Abstract. Research on g...

### RECENT UPDATES

[Strategic Plans] [Education Plan for the Center for Integrated ...](#)

[Strategic Plans] [NEES Consortium EOT Strategic Plan](#)

[Publications] [A Pilot University/K-12 Partnership in Michigan](#)

[Evaluation Tools] [Research Experience for Teachers \(RET\) Evalu...](#)

[Evaluation Tools] [What is Outreach? How Does One Evaluate It?](#)

[Publications] [IMPORTANT! Copyright notice.](#)

[Useful Links] [EPO: Education and Public Outreach - A Guide for...](#)

[Programs] [About Programs Section](#)

[Annual Reports] [About Annual Reports Section](#)

### Announcements

[View](#)

- ▶ Job Posting: Assistant Director, ...
- ▶ Time Sensitive! Teachers invited: ...
- ▶ NISE Net Announces "Nano Week"
- ▶ Job Opening: Education and Diversi...
- ▶ By May 20! Informal Science Educat...

LISTSERV



ASK EXPERTS



SITE GUI



### Recent Questions

[View](#)

- ▶ Photos on profiles and searchab... (2)
- ▶ Who is the best person to ...
- ▶ K-12 Engineering activitie...
- ▶ What is NRCEN?

### Recent Comments

- ▶ Hi Jill, I just tried to ad...
- ▶ OK! we just upgraded this section of...
- ▶ Shannon, that's a great idea! I'll a...
- ▶ Gary, the Plan is now posted to this...
- ▶ Great news! What form does the...

- LIBRARY
- Music
- Movies
- TV Shows
- Podcasts 1
- Radio
- STORE
- iTunes Store
- Purchased
- SERVICES
- What Road?
- PLAYLISTS
- Party Shuffle
- Pennsylvania St...
- Research Un...
- University of So...
- Tech-Lesson ...
- 90's Music
- Music Videos
- My Top Rated
- Recently Added
- Recently Played
- Now Playing
- Nothing Playing

iTunes U

**iTunes U**  
Click. Sync. Learn.  
Learn More



**Michigan Tech**

**NSDL**  
THE NATIONAL SCIENCE DIGITAL LIBRARY

- iTunes STORE**
- Music
  - Movies
  - TV Shows
  - Music Videos
  - Audiobooks
  - Podcasts
  - iPod Games
  - iTunes Latino
  - iTunes U** **NEW**

- UNIVERSITIES**
- Arizona State University
  - Bowdoin College
  - Concordia Seminary
  - Duke
  - Michigan Tech University
  - MIT
  - NJIT
  - Otis College of Art and...
  - Pennsylvania State Uni...
  - Queen's University
  - Seattle Pacific University
  - Stanford

**HIGHLIGHTS**

**RoboCup 2007 World...**  
Bowdoin College

**Integrative Biology**  
UC Berkeley

**Aircraft Systems Eng...**  
MIT

**LIT 331: World Literat...**  
NJIT

**Homeland Security**  
Texas A&M University

**Straight Talk About ...**  
Stanford

**HOOVER INSTITUTION**

**DUKE CHAPEL CHOIR**

**Politics & Public Policy**  
UC Berkeley

**QUICK LINKS**

- Browse
- Power Search
- Account
- Buy iTunes Gifts
- Redeem
- Support
- Complete My A... **NEW**
- iTunes Plus **NEW**

**TOP DOWNLOADS**

- Lecture 1: The B...**  
Jeremy Wolfe
- Lecture 2: Motivat...**  
Jeremy Wolfe
- physics for Future...**  
Richard Muller
- Lecture 3: Learn...**  
Jeremy Wolfe
- Lecture 4: Sensing...**  
Jeremy Wolfe
- Lecture 7: Mem...**

# IPY

- Cyberzine focused on science + literacy for elementary grades
- Includes use of Expert Voices
- Editorial and selection services
- User customization and podcasting experiments
- EPO function for NSF



SEARCH

Home &gt; Build Your Own Slate

Ask

Web search

SEARCH

- News & Politics >
- Arts & Life >
- Business & Tech >
- Health & Science >
- Home & Shopping >
- Travel & Food >
- Sports >
- Life on NPR >

- PRINT
- DISCUSS
- E-MAIL
- RECOMMEND
- NEWSLETTERS
- PODCASTS
- RSS

## Sponsored Links

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Free Estimates For Windows, Roofing, Siding, Sun Rooms, etc. FreeEstimates.com

## Avoid the Nursing Home

Learn how to banish backaches, pains, and

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## NEWS &amp; POLITICS

- Why the latest good news from Iraq doesn't matter.**  
war stories Phillip Carter, Aug 1, 2007, 3:02 PM
- Getting comfy with genocide.**  
the spectator Ron Rosenbaum, Aug 1, 2007, 1:40 PM
- McCain's Hope--Turning against the media.**  
kausfiles Mickey Kaus, Aug 1, 2007, 7:39 AM
- Slate's guide to all the political betting markets.**  
political futures Aug 1, 2007, 7:09 AM
- The MSJ**  
today's papers Daniel Politi, Aug 1, 2007, 6:00 AM

Mortgage Rates Fall Again  
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\$510,000 Mortgage for Under \$1,498/Month!



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2. Select Your Rate  
3.00% - 3.99%
3. Select Your Credit  
Good

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THE MOST **read** | e-mailed

## Obama's Achilles' Heel

What's he ever done?

posted July 30, 2007 By John Dickerson

## God-Fearing People

Why are we so scared of offending Muslims?

posted July 30, 2007 By Christopher Hitchens

There Are 12 Kinds of Ads in the

# Emerging implications

- Need for selection, editorial, and contextualization services
- Need for longer, more diverse, and more tailored professional development offerings
- Sharing selected metadata from the NDR out to other sites?

# Potential Areas of concentration

- Diversity / underrep / broadening partic
- Schools of education
- Rss feeds / podcasts
- Education and public outreach arm for NSF
- Evaluating impact

# Webmetrics

## What Mick has been doing:

- Omniture reporting on a monthly basis. Basic numbers of visitors to nsdl.org and 6 pilot project sites, with general interpretation. Other data by request.
- recently added click density

## During Transition

- continue to use Omniture, click density, surveys
- create a webmetrics analysis team within CI who will meet monthly to discuss nsdl.org usage data
- continue to work with PW and other projects to run Omniture on additional sites
- create a plan to coordinate metrics across PW

## Long-term

- an in-house evaluator would become part of the webmetrics analysis team, but this would not be the new person's primary focus.

# User Testing

## What Mick has been doing:

Mick has conducted user testing as needed around website redesign, re-engineering search and was in the process of assembling a pool of people for ad hoc user testing.

## During Transition

Implement the ad hoc group for tests around SMS, educational standards, and search by audience that will be needed in the next several months.

## Long-term

Small-scale user testing would be part of the new evaluator's responsibilities. Larger-scale testing would be outsourced on an as-needed basis.

Explore need / opportunities to coordinate user-testing centrally

# Coordination with PW and other projects on non-webmetrics evaluation

## What Mick has been doing:

Mick had been planning to convene the PW evaluators at Aug. 1-2 meeting in Boulder to begin creating processes for sharing eval data across PW. This meeting was postponed.

## During Transition

Reschedule the PW evaluators meeting in the fall.

There had been some discussion about Mick initiating a meta-analysis of the eval work from Targeted Research and other NSDL-funded projects. In the absence of a FT person to do this now, I propose bringing those projects together for a 1-2 day meeting.

## Long-term

Creating plans and processes for coordinating with partners on evaluation would become a key focus area for a new evaluator

# Educational Impact

What Mick has been doing:

This hasn't really been addressed.

During Transition

Create a working group with CI, PW, and other key partners

As part of the preparation of a ME proposal, consider the possibility of focusing our evaluation of educational impact on assessing changes in educator's pedagogic content knowledge. This would include aspects of content knowledge, process knowledge, and best practices for how to teach STEM topics, including the use of 21st century tools and skills.

Long-term

Develop a long-term plan for assessing educational impact in a manner that is iterative and that informs the design and operations of NSDL

Strand Map Service as centerpiece

# NSDL as Talent Agency

- What are your big 3 areas of need?