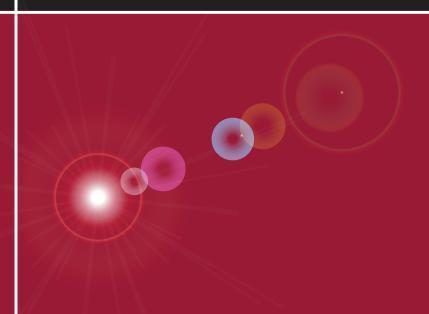
**National Science Digital Library** 

# STEM RESEARCH & EDUCATION IN ACTION



2008

NSDL Annual Meeting September 30 - October 2 Washington, D.C.



National Science Digital Library
PO Box 3000 • Boulder, Colorado 80307-3000
Tel: 303 497 2940 • nsdl.org

# Welcome to the 2008 NSDL Annual Meeting

This year, the program for the 2008 NSDL Annual Meeting highlights the complementary efforts of mature NSDL projects. Significant results have been achieved in professional development and outreach with K12 and higher education audiences; and, in web-based services that allow educators and learners to use, and re-use, the burgeoning collections in NSDL and NSDL Pathways. The program also highlights NSDL projects' efforts to employ high-speed networks that enable the delivery and use of rich media content, identify the usage data that supports webmetric analysis of networks, and facilitate connections between personal and organizational networks to further the use of online content in support of STEM education. Finally, a plenary session of the meeting completes the transition to a new leadership structure for NSDL with the advent of a Resource Center and a Technical Network Services Provider.

Throughout the course of the NSDL program, Principal Investigators and project staff have made significant contributions to the multifaceted environments in which NSDL is situated. Going forward, NSDL - the program, the projects, and the community - will continue to play a key role in the nation's educational cyberinfrastructure. Take time to celebrate both the foundation of previous achievements and the continuing opportunities for NSDL.

Thank you!

The 2008 Annual Meeting Planning Committee

#### 2008 Annual Meeting Planning Committee

Rachael Bower, University of Wisconsin–Madison & Policy Committee

Sharon Clark, UCAR & NSDL Central Office

Donna Cummings, UCAR NSDL Central Office

Anne Diekema, Utah State University & Educational Impact & Evaluation Standing Committee

Jeremy Frumkin, Oregon State University & Technology Standing Committee

Sarah Holsted, UCAR • 2008 Annual Meeting Planning Committee Chair

Cathy Lowe, Kent State University & Content Standing Committee

Lois McLean, McLean Media & Sustainability Standing Committee

Robert Payo, UCAR & NSDL Central Office

Lutishoor Salisbury, University of Arkansas & Member-At-Large

#### **Proposal Reviewers**

Dave Ennist, American Society of Cell Biology

Diny Golder, JES & CO

Yan Han, University of Arizona

David McArthur, University of North Carolina-Chapel Hill

David Mogk, Montana State University

mimi recker, Utah State University

Wesley Shumar, Drexel University

Tom Wrensch, Eduworks

### What you need to know

## **Schedule Overview**

## All meeting events and sessions will be held at

Omni Shoreham Hotel 2500 Calvert St NW Washington, DC 20008 (202) 234-0700

#### **Posters**

The Omni's Blue Room will be open for viewing posters and networking with colleagues at the poster reception on Tuesday from 6:00 pm - 8:30 p.m. Hors d'oeuvres, small meeting tables, and wireless Internet access will be provided.

Posters can also be viewed on Wednesday from 4:30 pm -6:30 pm. during a second reception with coffee, tea, dessert, and Internet access available. Note: Posters must be removed by 7:00 pm Wednesday.

#### **Internet and Email**

Wireless Internet is provided in the meeting rooms and in the hotel lobby at the Omni. Computer stations will be available to check email on Tuesday and Wednesday in the Blue Room during poster viewing hours. Wireless Internet access is also available for free in guest rooms by enrolling in the Omni Hotels Loyalty program.

#### **Schedule Notes**

Schedule information is included in this program and in your meeting packet, including a list of Lightning Talks and poster abstracts. For additional materials and access to the Annual Meeting survey, go to <a href="http://annualmeeting.nsdl.org">http://annualmeeting.nsdl.org</a>

#### **Meeting Space**

Additional meeting space is available. For times, see schedule, inside back cover. Reserve space at the registration table.

#### Annual Meeting: Blog on Expert Voices

The NSDL Road Reports Blog provides a fast, focused, and flexible format for publishing information and discussion around events, activities, and prevailing themes of the Annual Meeting. Blogs will be moderated by NSDL's Outreach and Communications Group. Commentary, opinion, and reaction to posts are welcome from all meeting attendees.

http://expertvoices.nsdl.org/roadreports.

#### Tuesday, September 30th

Time	Location	Session (Title may be abbreviated)
3:00 pm - 5:00 pm	Blue	Poster set up
5:00 pm - 5:45 pm	Blue Pre-Function	Opening plenary
6:00 pm - 8:30 pm	Blue, Blue Pre-Function	Opening poster reception

#### Wednesday, October 1st

Time	Location	Session (Title may be abbreviated)
7:30 am - 8:30 am	Blue Pre-Function	BREAKFAST
8:30 am - 9:15 am	Blue Pre-Function	Resource Center & Technical Network Services Update
9:15 am - 9:30 am	Blue Pre-Function	BREAK
9:30 am - 10:45 am	Congressional A & B	Pathways and Partnerships HPC University
9:30 am - 10:45 am	Capitol	NSDL in the Wild
9:30 am - 10:45 am	Embassy	Reuse of NSDL Resources SMILE: What Do Science & Math Informal Educators Need?
9:30 am - 10:45 am	Blue, Blue Pre-Function	Available for poster viewing & meetings
10:45 am - 11:15 am	Blue Pre-Function	BREAK
11:15 am - 12:15 pm	Congressional A & B	Integrating Research and Education Through NSDL Research-Based Pedagogies: Supporting Faculty Prof Development
11:15 am - 12:15 pm	Capitol	Professional Development from Math Forum and The Exploratorium
11:15 am - 12:15 pm	Embassy	Correlating Collections to K-12 Content Standards for Interoperability
11:15 am - 12:15 pm	Blue, Blue Pre-Function	Available for poster viewing & meetings
12:15 pm - 1:15 pm	Blue Pre-Function	LUNCH
1:15 pm - 2:30 pm	Congressional A & B	Role of NSDL & Related NSF Initiatives: Building the STEM Pipeline
1:15 pm - 2:30 pm	Capitol	Sharing Evaluation Expertise and Results
1:15 pm - 2:30 pm	Embassy	Connecting Applications with NSDL: Theory, Practice and Examples
1:15 pm - 2:30 pm	Blue, Blue Pre-Function	Available for poster viewing & meetings
2:30 pm - 3:00 pm	Blue Pre-Function	BREAK

## September 30th Tuesday

#### Wednesday, October 1st

Time	Location	Session (Title may be abbreviated)	
3:00 pm - 4:00 pm	Congressional A & B	Students and Teachers Speak Up about NSDL	
3:00 pm - 4:00 pm	Capitol	Fedora Commons Educational Repository Projects Building the NSDL: Reflections on the Impacts of Collaboration	
3:00 pm - 4:00 pm	Embassy	Available for meetings	
3:00 pm - 4:00 pm	Blue Pre-Function	Lightning Talks	
4:00 pm - 4:30 pm	Blue Pre-Function	BREAK	
4:15 pm - 5:15 pm	Embassy	Tutorial: Creating Podcasts for NSDL on iTunesU	
4:15 pm - 5:15 pm	Capitol	Tutorial: Collection Development with CWIS	
4:15 pm - 7:00 pm	Congressional A & B	Available for meetings	
4:30 pm - 6:30 pm	Blue, Blue Pre-Function	Afternoon Poster Reception	
6:30 pm - 7:00 pm	Blue	Poster tear down	

#### Thursday, October 2nd

Time	Location	Session (Title may be abbreviated)	
7:30 am - 8:30 am	Blue Pre-Function	BREAKFAST	
8:30 am - 9:45 am Governor's Board Rm		Online Collaborative Science Visualizations	
		Researching Metrics: What Do You Want to Learn? Data Driven Decision Making	
8:30 am - 9:45 am	Calvert Available for meetings		
8:30 am - 9:45 am Embassy Three Services That Enhance Re-purposing of NSDI		Three Services That Enhance Re-purposing of NSDL-wide Content	
9:45 am - 10:15 am	Blue Pre-Function	BREAK	
10:15 am - 11:30 am Governor's Board Rm Professional Development: A Survey of Models & Stra Just Build It and They Will Come, Right?		Professional Development: A Survey of Models & Strategies Just Build It and They Will Come, Right?	
10:15 am - 11:30 am	Capitol	New Projects Out of Old: Three Examples	
10:15 am - 11:30 am	1:30 am Calvert Digital Classroom: Approaches to High-tech Learning Experience		
10:15 am - 11:30 am	Embassy, Blue Pre	Available for meetings	
11:30 am - 12:00 pm	Blue Pre-Function	BREAK, Hotel checkout	
12:00 pm - 1:00 pm	Blue	LUNCH, Closing remarks	
1:00 PM		MEETING ADJOURNS	

Location: Omni Shoreham Hote	el Blue & Blue Pre-Function Rooms
2:00 pm - 5:00 pm	Meeting Registration/Help Desk Hours
3:00 pm - 5:00 pm	Poster Set-Up
5:00 pm - 5:45 pm	Opening Plenary Session

#### **Welcoming Remarks**

Sarah Holsted, 2008 Annual Meeting Planning Committee Chair

#### **Opening Remarks**

Lee Zia, National Science Foundation
Kaye Howe, NSDL
Linda Slakey, Director, Division of Undergraduate Education,
National Science Foundation

6:00 pm - 8:30 pm Opening Poster Reception

## Wednesday



**Location: Omni Shoreham Hotel** 

7:30 am - 8:30 am BREAKFAST Blue Pre-Function Room

8:30 am - 9:15 am Blue Pre-Function Room

Resource Center Update
Technical Network Services Update

9:15 am - 9:30 am BREAK

9:30 am - 10:45 am Congressional A & B

#### **Pathways and Partnerships**

Patricia Jacobs, Shodor Foundation

Discuss several facets of partnership such as identifying and forming partnerships and how they can work together to leverage NSDL resources.

#### **HPC University**

Scott Lathrop, University of Chicago

HPC University is focused on high-quality, high-performance computing training and education resources and activities.

9:30 am - 10:45 am Capitol

## The NSDL in the Wild: Encounters with K-12 Classroom, Library, and Policymakers' Implementation of NSDL

mimi recker, Utah State University Marcia Mardis, Wayne State University Anne Perrault, University of South Carolina Irene Harwarth, US Department of Education

This session includes three linked components: preservice teachers' use of NSDL; NSDL in school libraries; and an interactive panel of presenters.

9:30 am - 10:45 am

**Embassy** 

#### **Reuse of NSDL Resources**

Thomas Wrensch, Eduworks

Report of data gathered on reuse across the NSDL. Discusses where reuse happens, highly reusable objects, and impacts of reuse on teachers.

### The SMILE Pathway: What Do Science & Math Informal Educators Need?

Darrell Porcello, Lawrence Hall of Science, UC Berkeley Sherry Hsi, The Exploratorium Eric Marshall, New York Hall of Science

Come hear about the NSDL SMILE Pathway's first year accomplishments and challenges: a front-end survey, metadata questions, and user interface plans.

9:30 am - 10:45 am

**Blue & Blue Pre-function Rooms** 

Available for meetings and poster viewing

10:45 am - 11:15 am

**BREAK** 

11:15 am - 12:15 pm

Congressional A & B

#### **Integrating Research and Education Through the NSDL**

David Mogk, Montana State University

Demonstrations of ways in which NSDL can showcase NSF's mission, "People, Ideas, and Tools", in support of STEM education for all audiences

#### Bringing Research-Based Pedagogies into Use: Digital Libraries Supporting Faculty Professional Development

Cathryn Manduca, Carleton College Ellen Iverson, Carleton College Bruce Mason, University of Oklahoma Hubert Staudigal, University of California, San Diego Sean Fox, Carleton College

The Pedagogic Service provides a way for NSDL collections to connect resources to examples of their effective use with research-based pedagogies.

## October 1st Wednesday

11:15 am - 12:15 pm

Capitol

## Examples of Professional Development from the Math Forum and the Exploratorium

Sherry Hsi, The Exploratorium Wesley Shumar, Drexel University

Hear models, research, and designs of in-person and online workshops to promote tighter alignment with instructional practices

11:15 am - 12:15 pm

**Embassy** 

## Solutions for Correlating Collections to K-12 Content Standards for Interoperability

Stuart Sutton, University of Washington Diny Golder, JES & Co Anne Diekema, Utah State University

Demonstration of effective means for correlating collections of learning objects to K-12 content standards using semi-automatic and manual tools

11:15 am - 12:15 pm

Blue, Blue Pre-function Rooms

Available for meetings and poster viewing

12:15 pm - 1:15 pm

LUNCH

Blue Pre-Function

1:15 pm - 2:30 pm

Congressional A & B

#### The Role of NSDL and Related NSF Initiatives in Building the STEM Pipeline

Sarita Nair-Pillai, Education Development Center, Inc (EDC)
Joyce Malyn-Smith, ITEST Learning Resource Center at EDC
Ellen McCallie, Center for Advancement of Informal Science Education (CAISE)

Members from NSDL, ITEST, ISE and other NSF program communities will discuss their cross-program efforts to build the STEM education and workforce pipeline.

1:15 pm - 2:30pm

**Embassy** 

## Connecting Applications with the NSDL: Theory, Practice, and Lots of Examples

Aaron Birkland, Cornell University
Jim Blake, Cornell University
Tim Cornwell, Cornell University
Katy Ginger, UCAR, Digital Learning Sciences
Jonathan Ostwald, UCAR, Digital Learning Sciences
John Weatherley, UCAR, Digital Learning Sciences

Using NCore services in your project. Will introduce developer toolkits, provide examples of working code, and review the NCore suite of tools

1:15 pm - 2:30 pm

Capitol

#### **Sharing Evaluation Expertise and Results**

Flora McMartin, Broad-based Knowledge Anne Diekema, Utah State University mimi recker, Utah State University Sarah Giersch, UCAR Sherry Hsi, Exploratorium Joshua Morrill, Morrill Solutions Research Bruce Mason, University of Oklahoma Lyle Barbato, University of Oklahoma Glenda Morgan, George Mason University

NSDL project evaluators report on successful and "thorny" evaluation projects. Evaluation problem solving sessions follow presentations.

1:15 pm - 2:30 pm

**Blue and Blue Pre-function Rooms** 

Available for meetings and poster viewing

2:30 pm - 3:00 pm

**BREAK** 

3:00 pm - 4:00 pm

Congressional A & B

#### Students and Teachers Speak Up about NSDL

Laurie Smith, Project Tomorrow Julie Evans, Project Tomorrow

During this session, participants will learn about proven techniques for marketing programs for K-12 educators

3:00 pm - 4:00 pm

Capitol

#### **Fedora Commons Educational Repository Projects**

Carol Minton Morris, Cornell University

Fedora's flexible framework allows institutions and organizations worldwide to do more with their digital collections. This presentation highlights international Fedora use cases and suggests how NSDL partners might forge collaborations.

## Building the NSDL: Reflections on the Impacts of Collaboration on Research and Development

Susan Jesuroga, Jesuroga & Associates Flora McMartin, Broad Based Knowledge David McArthur, University of North Carolina-Chapel Hill Brandon Muramatsu

What are the stories of NSDL? How has NSDL been shaped by its projects and participants? Hear our progress in getting reflections on building NSDL.

## October 1<sup>st</sup> Wednesday

## October 2<sup>nd</sup> **Thursday**

3:00 pm - 4:00 pm

**Embassy** 

Congressional A & B

Available for meetings

3:00 pm - 4:00 pm Blue Pre-function Room

**Lightning Talks** 

4:00 pm - 4:30 pm BREAK

4:15 pm - 5:15 pm Embassy

**Tutorial: Creating Podcasts for iTunesU** Charles Kazilek, Arizona State University

Robert Payo, UCAR

Hands-on workshop on developing and producing podcast content, tips and strategies and information on how to get your content onto NSDL iTunesU

4:15 pm - 5:15 pm Capitol

**Tutorial: Collection Development with CWIS** 

Ed Almasy, University of Wisconsin-Madison Andrea Coffin, University of Wisconsin-Madison

This session will cover tips and tricks using the CWIS open source software package to help maintain and expand your resource collection.

4:15 pm - 7:00 pm

Available for meetings

4:30 pm - 6:30 pm Blue, Blue Pre-function Rooms

AFTERNOON POSTER RECEPTION (Coffee, tea, & dessert)

6:30 pm - 7:00pm Blue Room

**POSTER TEAR DOWN** 

**Location: Omni Shoreham Hotel** 

7:30 am - 8:30 am BREAKFAST Blue Pre-Function Room

8:30 am - 9:45 am Governor's Board Room

Online Collaborative Visualizations

Paul Allen, Cornell Lab of Ornithology Laura Bartolo, Kent State University Gene Klotz, Swarthmore College

We present three projects that engage users in science visualization in collaborative, interactive environments.

8:30 am - 9:45 am Capitol

Researching Metrics: What Do You Want To Learn?

Ted Sicker, WGBH/Teachers' Domain Bob Donahue, WGBH/Teachers' Domain

Log analysis tools such as Google Analytics and Omniture provide convenient reporting for basic metrics. How can you learn more for your website?

**Data Driven Decision Making** 

Jessica Fries-Gaither, Ohio State University Kim Lightle, Ohio State University

This session explores how multiple sources of data can inform and direct content development and delivery decisions.

8:30 am - 9:45 am Embassy

Three Services That Enhance Re-purposing of NSDL-wide Content: OnRamp, Curriculum Customization Service, NSDL on iTunesU

Lynette Rayle, Cornell University John Weatherley, Digital Learning Sciences, UCAR Robert Payo, UCAR Susan Van Gundy, UCAR

Three key services for organizing and structuring content for better access, discoverability, use, re-purposing, flexibility, and customization.

## October 2<sup>nd</sup> **Thursday**

8:30 am - 9:45 am Calvert

Available for meetings

9:45 am - 10:15 am BREAK

10:15 am - 11:30 am Governor's Board Room

#### Professional Development: A Survey of Models and Strategies

Robert Payo, UCAR Susan Van Gundy, UCAR Wes Shumar, Drexel University Kim Lightle, Ohio State University

#### Just Build It and They Will Come, Right?

Beverly Woolf, University of Massachusetts Ethel Stanley, Beloit College Steve Weimar, Drexel University David Yaron, Carnegie Mellon University

This combined session addresses how we can support our users through professional development, tools, and mechanisms to grow a community of digital library users.

10:15 am - 11:30 am Capitol

#### **New Projects Out of Old: Three Examples**

Lang Moore, Duke University (retired)
Rachael Bower, University of Wisconsin-Madison
Frank Settle, Washington and Lee University

This is a panel presenting MathDL, ATE Central, and Nuclear Pathways as examples of new projects from old, with emphasis on the process involved.

The Digital Classroom: Three Practical Approaches to Crafting High-tech Learning Experiences

**Calvert** 

Susan Dreher, Columbia University Rob Lane, Columbia University Lois McLean, McLean Media Rick Tessman, McLean Media Jessica Fries-Gather, Ohio State University Colleen McLinn, Cornell Lab of Ornithology

Gain real-world insight on tools that give teachers and web publishers new ways to leverage digital resources and students new ways to learn science.

10:15 am - 11:30 am

10:15 am - 11:30 am

**Embassy & Blue Pre-function Rooms** 

Available for meetings

11:30 am - 12:00 pm BREAK & CHECK OUT

Hotel checkout by 12 pm

12:00 pm - 1:00 pm LUNCH & CLOSING REMARKS Blue

1:00 pm MEETING ADJOURNS

### **NSDL** Leadership

NSDL wishes to express deep gratitude and appreciation for all the community volunteers and staff who have participated in committee work and other leadership activities over the years, as well as all those who engaged in shaping NSDL as a library, an organization, and a vibrant intellectual community.

#### **National Science Foundation**

NSDL is the National Science Foundation's STEM education digital library.

Lee Zia, Program Officer

David McArthur, University of North Carolina-Chapel Hill

#### **National Visiting Committee (NVC)**

The National Visiting Committee was appointed by NSF to advise the Core Integration team on high-level strategic and operational issues.

Diana Oblinger, Chair	Sandra Glass	Linda Roberts
Martin Blume	Tom Moritz	Bernard Rous
Wade Ellis	Alfred Moyé	Abby Smith
Ira Fuchs	Thomas Reeves	Gerald Wheeler

#### Core Integration (CI)

The CI team has provided day-to-day management of NSDL and was responsible for engaging the community, providing technology, and operating core services. Many of Core Integration's functions will be provided by the NSDL Resource Center and the Technical Services Network Provider

Principal Investigators:

Kaye Howe, University Corporation for Atmospheric Research, Director Dean Krafft, Cornell University Kate Wittenberg, Columbia University David Millman, Columbia University

#### 2006-2008 Policy Committee (PC)

The Policy Committee has acted on behalf of the NSDL Assembly (which has consisted of all principal investigators for NSF NSDL grants) to work with NSF and the CI team in coordinating the activities of the standing committees, task forces, and other aspects of the NSDL community. http://policy.comm.nsdl.org

Martin Halbert, Chair Laura Bartolo

Rachael Bower

Bruce Caron Lillian Cassell

Brandon Muramatsu

Steven Weimar

#### 2007-2008 Standing Committees

#### **Community Services**

The activities of this committee have assisted NSDL users and learners in defining services, processes, and standards that NSDL can use to increase the impact, reach, and efficiency of the library. <a href="http://commserv.comm.nsdl.org">http://commserv.comm.nsdl.org</a>

David Yaron, Chair

#### Content

This committee has recommended and implemented policies to ensure that NSDL content is high quality, is appropriate and consistent, has technical integrity, and is accessible for use by global audiences of learners at all levels. <a href="http://content.comm.nsdl.org">http://content.comm.nsdl.org</a>

Kimberly Lightle, Chair Stuart Chalk, Co-Chair

#### **Educational Impact and Evaluation**

This committee has ensured that participatory and stakeholder evaluation principles are integrated into the design, development, and implementation of NSDL.

#### http://eduimpact.comm.nsdl.org

Flora McMartin, Chair Anne Diekema, Co-Chair

#### Sustainability

This committee was formed to facilitate the development of an NSDL entity, examining long-term sustainability through collective action and diversified funding streams.

#### http://sustain.comm.nsdl.org

Paul Berkman, Chair Liz Liddy, Co-Chair Lois McLean, Co-Chair

#### **Technology**

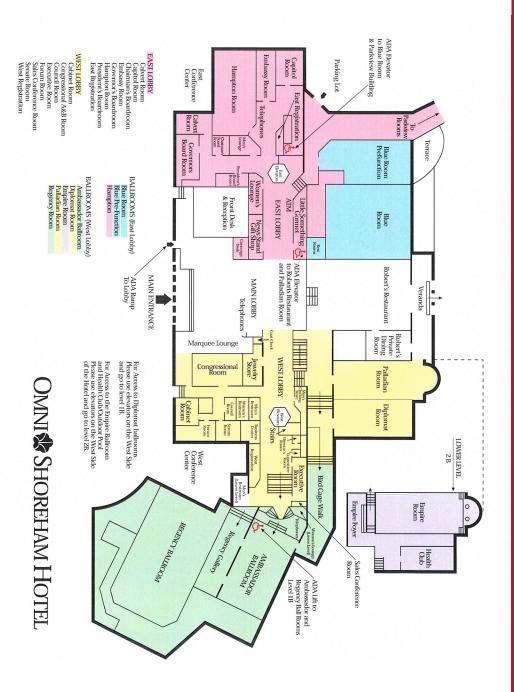
This committee has identified community technical needs and the means to translate those needs into deployable technology including recommendations for technical standards and the technical integration of resources and services into NSDL architecture.

#### http://technology.comm.nsdl.org

Ed Almasy, Chair Jon Holmes, Co-Chair

#### **About NSDL Committees**

While the committee structure as it existed from 2000-2008 will not be continued as NSDL moves forward, new processes and opportunities will be created by the Resource Center and Technical Network Services to solicit community input, coordinate informed decision-making, facilitate discussions of interest, and to generally provide for ongoing community engagement.



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#### **Acknowledgements**

NSDL would like to thank the National Science Foundation for its generous support and advocacy.