

National Science Digital Library

SHARING OUR STORIES:
SUSTAINING COLLABORATIONS

A N N U A L M E E T I N G

2003

2003



The National Science Digital Library
PO Box 3000 • Boulder, Colorado 80307-3000
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NSDL ANNUAL MEETING

OCTOBER 12-15

WASHINGTON, DC

WELCOME

Sharing Our Stories: Sustaining Collaborations

On behalf of the planning committee, I welcome you to the 2003 NSDL Annual Meeting.

Our goal in planning this meeting was to bring together people interested in digital libraries, from within the NSDL community as well as other communities, who will offer a wide variety of knowledge, experiences, and visions. The Monday sessions are designed to stimulate a collective conversation among the NSDL community and our colleagues who share a commitment to digital libraries as major education and community resources. The Tuesday and Wednesday sessions follow the themes of Building Collections, Deployment and Continuity, Services Development, and User-Centered Design. These themes evolved from the comments that were received from last year's meeting survey as well as the work being done in the standing committees.

We hope this meeting provides a rich environment in which to share experiences as well as establish new relationships. Thanks so much for participating!

—Kimberly S. Lightle, Planning Committee Chair

Acknowledgements

NSDL would like to thank the National Science Foundation for its generous support and advocacy of NSDL as the NSF digital library of science education.

2003 Planning Committee

Kimberly S. Lightle	Planning Committee Chair
Sarah Giersch	Educational Impact and Evaluation Standing Committee
Marcia Mardis	Community Services Standing Committee
Dave McArthur	Sustainability Standing Committee
Mike Wright	Technology Standing Committee
Ellen Hoffman	Policy Committee
Kaye Howe	Core Integration
Casey Jones	Core Integration
Donna Cummings	Core Integration
Alex Chau	Core Integration
Susan Van Gundy	Core Integration

SCHEDULE OVERVIEW

Sunday, October 12, 2003

TIME	ROOM	TITLE
12:00 PM	Federal A	New Projects' Lunch
01:30 PM	Federal AB	New Projects' Orientation
01:30 PM	Congressional-Senate	Poster Set-Up
06:00 PM	Congressional-Senate	Poster Reception

Monday, October 13, 2003

09:00 AM	Presidential Ballroom	Opening Keynote — Medusa Tamed: Endurance in Time and Education
10:15 AM	Presidential Ballroom	Digital Libraries and the Intellectual and Economic Universe
01:00 PM	Presidential Ballroom	Technology, Scalability, and Metadata (or Not): Research Challenges for Digital Libraries
02:45 PM	Presidential Ballroom	Content and Context: Digital Libraries and Education
04:30 PM	Presidential Ballroom	Implications of Today's Conversations for NSDL: A Summary

Tuesday, October 14, 2003

08:30 AM	Presidential Ballroom	NSDL Update
11:00 AM	New York	Evaluating the Content of Your Collection
11:00 AM	Statler AB	Introduction to Metadata
11:00 AM	South American A	Building Community in Digital Libraries: User Involvement
11:00 AM	Federal B	Intellectual Property Rights and Digital Rights Management
11:00 AM	Federal A	Sustainability I: The Projects
11:00 AM	Pan-American	Information Retrieval: From Databases to Search Engines

11:00 AM	South American B	Digital Library Requirements: Evaluating System Design and Use
02:00 PM	California	Implementation of Metadata Standards by Different NSDL-funded Collections
02:00 PM	New York	Managing the Content of Your Collection: Content Development, Cataloging, and Archiving
02:00 PM	South American A	Collaborative Projects in NSDL: Institutionalized Collaboration
02:00 PM	Federal A	Sustainability II: NSDL
02:00 PM	Federal B	Providing and Using Scientific Data Through NSDL
02:00 PM	Statler AB	NSDL and the Open Archives Initiative
02:00 PM	Pan American	Registration and User Profiles
02:00 PM	South American B	Techniques for Formative Evaluation
04:00 PM	Various	Birds of a Feather

Wednesday, October 15, 2003

09:00 AM	Statler AB	Innovative Metadata Development and Implementation
09:00 AM	South American A	Collaboration in NSDL: Ad Hoc Collaboration
09:00 AM	Federal A	Spreading the Word: Outreach and Dissemination Strategies
09:00 AM	Pan American	NSDL Services Interoperability and Web Services
09:00 AM	South American B	Evaluating Digital Libraries on Many Levels: Library Use, User Needs, Accessibility Issues, and Educational Impact
09:00 AM	Federal B	Designing for Re-Use and Accessibility
11:00 AM	Presidential Ballroom	NSDL Summary
12:30 PM	Various	Informational Meetings
02:30 PM	South American A	Community Services Committee
02:30 PM	South American B	Content Committee
02:30 PM	Federal B	Educational Impact & Evaluation Committee
02:30 PM	Federal A	Sustainability Committee
02:30 PM	Statler AB	Technology Committee

What You Need to Know

Collaboration Finder

Please take advantage of the computer workstations available in the Poster Room to enter or update details about your NSDL project in the Collaboration Finder, or to search for information about other projects. **Those who do will be rewarded with chocolate.** See the Meeting Registration/Help Desk for further details.

Poster Room

The Congressional and Senate rooms will be open for viewing posters and networking with colleagues throughout the meeting (see schedule inside back cover). Continental breakfast, small meeting tables, and computer terminals with Internet access will also be available in the Poster Room.

Swikis

To facilitate the NSDL community's ability to continue discussions, networking, and brainstorming after the annual meeting, each breakout session will contribute notes to a shared, editable online forum known as a swiki. Swikis will be accessible at <http://swiki.dlese.org/nsdl2003> during the meeting, and indefinitely afterward, for any participant to add comments or pose questions. Thanks to our colleagues at the Digital Library for Earth System Education (DLESE) for making swikis possible for this meeting.

Birds of a Feather Sessions

These sessions are an opportunity for discussion and idea sharing around specific topics suggested by the community. Anyone can propose a new session or review the currently proposed sessions posted at the Meeting Registration/Help Desk in the Upper Lobby. All sessions are open for any interested person to attend.

Identifying Meeting Staff

Planning Committee members can be identified by their brightly-colored name badge lanyards or t-shirts. Please feel free to call upon these colleagues to assist you with meeting related needs. Staff will also be available at the Meeting Registration/Help desk during meeting hours (see schedule inside back cover).

Extra Meeting Rooms

Venues for ad hoc or project discussions are available on a first-come, first-served basis throughout the meeting. If you are interested in scheduling a meeting room, please contact staff at the Meeting Registration/Help Desk.

Photo Release

Print and broadcast media may be present at workshop and poster sessions events. In addition, CI staff will be taking photographs for future NSDL publications. If you prefer not to have your image captured for these purposes, please obtain a sticker for your badge from the Meeting Reception/Help Desk. It will be assumed that any meeting participant not identifying themselves in this manner is granting permission for their image to be used for NSDL promotional purposes.

Guide to NSDL Acronyms

DL	Digital Library
NVC	NSDL National Visiting Committee
PC	Policy Committee
SC	Standing Committee
CI	Core Integration
STEM	Science, Technology, Engineering, and Mathematics
MR	Metadata Repository
OAI	Open Archives Initiative
DC	Dublin Core

NSDL Leadership

National Science Foundation

NSDL is the National Science Foundation's science education digital library.
Lee Zia, Program Officer

National Visiting Committee (NVC)

The National Visiting Committee is appointed by NSF to advise the CI team on high-level strategic and operational issues and to raise the visibility of NSDL in the external community.

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

Core Integration (CI)

The CI team provides day-to-day management of NSDL and is responsible for engaging the community, providing technology, and operating core services.

Principal Investigators:
Dave Fulker, University Corporation for Atmospheric Research, Executive Director
Bill Arms, Cornell University
Kate Wittenberg, Columbia University

Policy Committee (PC)

The Policy Committee advises the CI team, other NSF grantees, and NSF on operational strategies and implementation priorities. The Policy Committee acts on behalf of the NSDL Assembly (which consists 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.nsd.org>

Howard Burrows, Chair	Gerard Hanley	Stuart Sutton
Katherine Hanson, Co-Chair	Flora McMartin	Sebastian Uijtdehaage
Edward Fox	William Mischo	Vivian Lee Ward
Ellen Hoffman	Jeanne Narum	
Yolanda Scott George	Len Simutis	

Standing Committees

Community Services

The activities of this committee assist NSDL users and learners in defining services, processes and standards that NSDL can use to increase the impact, reach, and efficiency of the library. <http://commserv.comm.nsd.org>

Marcia Mardis, Chair Amy Chang, Co-Chair

Content

This committee recommends and implements 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. <http://content.comm.nsd.org>

Kimberly Lightle, Chair Sarita Nair, Co-Chair

Educational Impact and Evaluation

This committee ensures that participatory and stakeholder evaluation principles are integrated into the design, development, and implementation of NSDL. <http://eduimpact.comm.nsd.org>

Tamara Sumner, Chair Sarah Giersch, Co-Chair

Sustainability

This committee exists to facilitate the development of an NSDL entity that will continue to thrive in the long term through collective action and diversified funding streams. <http://sustain.comm.nsd.org>

Dave McArthur, Chair Paul Berkman, Co-Chair

Technology

This committee identifies 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.nsd.org>

Timothy Cole, Chair

OCTOBER 13

MONDAY

7:30 am – 9:00 am **Congressional/Senate Rooms**
Continental Breakfast

9:00 am – 10:15 am **Presidential Ballroom**
Opening Keynote

Welcome Remarks
 Lee Zia, National Science Foundation

Introduction
 Tom Moritz, American Museum of Natural History

Opening Keynote
Medusa Tamed: Endurance in Time and Education
 Gregory Crane, Tufts University

Gregory Crane holds a professorship in the Department of Classics at Tufts as well as the Winnick Family Chair in Technology and Entrepreneurship. His association with the well known Perseus Project began in 1986 and since 1988 he has been Editor-in-Chief.

In an interview with First Monday he said:

“When I became an assistant professor in 1985, I collaborated with some other classicists to start work on what would become the Perseus Project.... At the time, we had a dim sense of what a heterogeneous digital library might look like. We wanted to link every category of data that we used in print form in an electronic environment and then to see what would happen.”

Perseus has gone well beyond print and has become one of the most successful and well used digital libraries. Gregory Crane is a man whose honors and recognition span the distance from the Lowell Prize for Excellence in Greek in 1977 to the 2001 Vannevar Bush Award for Best Paper at JCDL. He has much to tell about the ways in which digital libraries are the cognitive tools of the educational and intellectual world.

10:15 am – 11:30 am **Presidential Ballroom**
Digital Libraries and the Intellectual and Economic Universe

Michael Lesk, Rutgers – The State University of New Jersey
 Joyce Ray, Institute of Museum and Library Services
 Publishing Community Representative to be announced
 Moderator: Dave McArthur, NSDL Sustainability Committee

11:30 am – 1:00 pm **Lunch on Your Own**

1:00 pm – 2:15 pm **Presidential Ballroom**
Technology, Scalability, and Metadata (or Not):
Research Challenges for Digital Libraries

Carl Lagoze, Cornell University
 Clifford Lynch, Coalition for Networked Information
 William Mischo, University of Illinois at Champaign-Urbana
 Moderator: Gerry Hanley, NSDL Policy Committee

2:45 pm – 4:00 pm **Presidential Ballroom**
Content and Context: Digital Libraries and Education

Tom Reeves, University of Georgia
 Len Simutis, Eisenhower National Clearinghouse
 Moderator: Alfred Moyé, NSDL National Visiting Committee

4:30 pm – 5:30 pm **Presidential Ballroom**
Implications of Today’s Conversations for NSDL: A Summary

Abby Smith, Council of Library and Information Resources
 Community Discussion

OCTOBER 14

TUESDAY

Please note that session moderators are indicated in bold text.

7:30 am – 9:00 am **Congressional/Senate Rooms**
Continental Breakfast

8:30 am – 10:30 am **General Interest | Presidential Ballroom**
NSDL Update

Lee Zia, National Science Foundation
Dave Fulker, Core Integration
Howard Burrows, Policy Committee
Katherine Hanson, Policy Committee
Moderator: Kaye Howe, Core Integration

This general session will serve as a briefing on the latest activities and accomplishments of the NSDL community at-large, as well as standing committees, the Policy Committee, the National Visiting Committee, Core Integration, and the National Science Foundation. Speakers will include representatives from each of these entities. This status report will also include an overview of upcoming projects and strategies to facilitate future growth and sustainability. Questions and group discussion are encouraged.

11:00 am – 12:30 pm **Building Collections | New York**
Evaluating the Content of Your Collection

John Saylor, Cornell University
Paul A. Craig, American Society for Biochemistry and Molecular Biology
Sebastian Uijtdehaage, University of California at Los Angeles
Siva Kumari, Rice University
Frank Settle, Washington and Lee University

Collection Development Policies that direct the work of Core Integration as well as individual collections will be shared. An overview of the research on users' needs and digital libraries as well as ideas on how to track use of your library will also be shared. Examples of online surveys and how to hold focus groups will be shared.

11:00 am – 12:30 pm **Building Collections | Statler AB**
Introduction to Metadata

Vivian Lee Ward, National Health Museum
Diane Hillman, Cornell University
Judy Ridgway, ENC / The Ohio State University
Marcia Zeng, Kent State University
John Marquis, University of Southern California

The following questions will be answered: What is metadata and why is it valuable? How do the various standards (Dublin Core, IEEE LOM, SCORM, and DOI for example) relate to one another? What metadata standard will best describe your collection? What are the challenges and hurdles to avoid and overcome? What is the relationship between metadata and searching your collection? What is the relationship between metadata and your catalog record display? What is OAI and what are the minimal metadata elements that make your collection harvestable in a meaningful way by NSDL.org?

11:00 am – 12:30 pm **Deployment and Continuity | South American A**
Building Community in Digital Libraries: User Involvement

Don Sadoway, Massachusetts Institute of Technology

Wes Shumar, Drexel University

Bruce Mason, American Association of Physics Teachers

Daniel Zeng, University of Arizona

Nancy Lane, Pacific Resources for Education and Learning

This panel session will include speakers who will discuss their initial expectations for gaining a project user base, their methods for cultivating users, and their approaches to retaining users. Panelists will also discuss ways in which they measure their impact on user communities and how well their projects meet user needs.

11:00 am – 12:30 pm **Deployment and Continuity | Federal B**
Intellectual Property Rights and Digital Rights Management

Kate Wittenberg, Columbia University

David Millman, Columbia University

Robby Robson, Eduworks Corporation

Participants will receive an overview of intellectual property rights issues and NSDL's digital rights management technologies, together with a hands-on discussion of how to apply them in their own projects and collections.

11:00 am – 12:30 pm **Deployment and Continuity | Federal A**
Sustainability I: The Projects

Dave McArthur, North Carolina Central University

Muniram Buhdu, University of Arizona

Lillian Cassel, Villanova University

Jon Holmes, University of Wisconsin

Christopher Klaus, Argonne National Laboratory

A brief introduction framing the issues will be followed by a panel discussion with representatives of diverse projects that have demonstrated some progress on their sustainability plans. An open question period will follow, where other projects and participants can share ideas.

11:00 am – 12:30 pm **Services Development | Pan American**
Information Retrieval: From Databases to Search Engines

Ed Fox, Virginia Polytechnic Institute and State University

James Allan, University of Massachusetts at Amherst

Paul Berkman, The New Media Studio / EvREsearch LTD

Elizabeth Liddy, Syracuse University

Dean Zollman, Kansas State University

The session will involve a mix of presentations on some current implementations at both the core NSDL level and individual projects. These presentations will provide a basis for questions and discussion on the types of the technical approaches being used for particular needs.

11:00 am – 12:30 pm **User-Centered Design | South American B**
Digital Library Requirements: Evaluating System Design and Use

Elizabeth Liddy, Syracuse University

Marcia Mardis, University of Michigan

Bing Pan, Cornell University

User-Centered Design (UCD) is a methodology that focuses on user needs and goals when designing a system. User needs and goals affect the design of back-end system elements (hardware and software) as well as front-end elements such as the placement of information for accessibility and functionality. Evaluation methods used to analyze system requirements are similar to those analyzing the use of digital libraries because both are concerned with what users are doing or might do with the system.

12:30 pm – 2:00 pm

Lunch on Your Own

2:00 pm – 3:30 pm **Building Collections | California**
Implementation of Metadata Standards by Different NSDL-Funded Collections

Stuart Sutton, University of Washington

Grace Agnew, Rutgers University

Karon Kelly, University Corporation for Atmospheric Research

Kim Lightle, ENC / The Ohio State University

Questions for panelists: What metadata standard did you choose and why? What modifications have you made to your chosen standard? What are the costs, software, timelines, and manpower associated with creating digital libraries using the standard?

2:00 pm – 3:30 pm **Building Collections | New York**
Managing the Content of Your Collection:
Content Development, Cataloging, and Archiving

Janet Kahkonen Smith, ENC / The Ohio State University

Karen Cariani, WGBH

Elizabeth R. Blackmer, Washington and Lee University

Edward Almasy, University of Wisconsin

Paul Berkman, The New Media Studio / EvREsearch LTD

Andrew Chase, San Diego Supercomputer Center

Stephen Miller, Scripps Institution of Oceanography

Collection builders will talk about the decisions that they made as they built their collections and the reasons behind the choices that were made. Examples to be shared include collection development policies, content management systems, indexing guidelines, archiving policies, and much more.

2:00 pm – 3:30 pm **Deployment and Continuity | South American A**
Collaborative Projects in NSDL: Institutionalized Collaboration

Bryan Aivazian, Natrona County School District

Tamara Ledley, TERC

Gerry Hanley, MERLOT / California State University

Mark Benthien, University of Southern California

Members of the projects defined at “Collaborative Projects” will discuss the reasoning behind their decisions to submit projects with the NSF status of “collaborative” as well as the success of the results of these decisions. This session will include an overview of the “collaborative” status and its implementation aspects as well as explore the advantages to and challenges inherent in institutionalized collaboration.

2:00 pm – 3:30 pm **Deployment and Continuity | Federal A**
Sustainability II: NSDL

Sarah Giersch, Consultant

Ed Fox, Virginia Polytechnic Institute and State University

Reagan Moore, San Diego Supercomputer Center

Dave McArthur, North Carolina Central University

The panel will include presentations on technical as well as business models for the NSDL, drawing lessons from existing large-scale successful digital enterprises and attempting to apply them to the NSDL. These relatively tactical talks will be complemented by more strategic ones that attempt to define what the NSDL is or will be (e.g., primarily a collection or collections vs. a tightly integrated set of collections complemented by many value-added community services?), and how these options relate to the models presented in the breakout. This will provide a background for the roundtable discussions which follow.

2:00 pm – 3:30 pm **Deployment and Continuity | Federal B**
Providing and Using Scientific Data Through NSDL

Cathy Manduca, Carleton College

Ben Domenico, University Corporation for Atmospheric Research

David Halle, University of California at Los Angeles

Andrew Beveridge, Queens College

New technologies are facilitating unprecedented access to and techniques for interpreting complex datasets, as well as data sharing across disciplines and beyond traditional communities of scientific researchers. Authentic inquiry-driven experiences are being increasingly proven to have positive impact in K-12 and undergraduate education, stimulating a demand for data resources that are engaging and easy to use for non-technical audiences. This session will explore multiple aspects of providing and accessing data through NSDL including technical challenges, evidence from classroom use, new visualization tools, and discussion about how NSDL can best support the differing needs of researchers and educators.

2:00 pm – 3:30 pm **Services Development | Statler AB**
NSDL and the Open Archives Initiative

Tim Cole, University of Illinois at Champaign-Urbana

Naomi Dushay, Cornell University

Stephen P Sarapata, ENC / The Ohio State University

John Weatherley, University Corporation for Atmospheric Research

The session will present key details of how the OAI-PMH works as a protocol, how it fits into the NSDL infrastructure, and some guidance on generic OAI-PMH 2.0 metadata provider implementations currently available. Presentations will elaborate on the OAI's "Implementation Guidelines for OAI-PMH," will discuss common questions and problems that arise when first implementing OAI-PMH for NSDL, and will talk about some of the metadata authoring and workflow issues that must be addressed when implementing OAI-PMH for NSDL. The session will provide a venue for answering questions related to OAI-PMH implementation and use. There will also be information on what the core Metadata Repository desires from an OAI-PMH implementation, and why.

2:00 pm – 3:30 pm **Services Development | Pan American**
Registration and User Profiles

Walter Hoehn, Columbia University

David Millman, Columbia University

The session will provide an overview of the NSDL access management system, and provide guidance on how to approach integrating the system into services developed by projects. Some of the highlights and problems that groups have already faced with integrating will be shared with participants.

2:00 pm – 3:30 pm **User-Centered Design | South American B**
Techniques for Formative Evaluation

Tamara Sumner, University of Colorado at Boulder

Mary Marlino, University Corporation for Atmospheric Research

Manuel Perez-Quinones, Virginia Polytechnic Institute and State University

Carol Terrizzi, Cornell University

Ying Zhang, Rutgers University

User-Centered Design (UCD) is a methodology that focuses on user needs and goals when designing a system. Using UCD techniques for formative evaluation can help to assure that the system allows users to achieve their goals. Formative evaluation techniques assess the effectiveness of websites, resources, and services. Additionally, user interface design techniques and evaluative methods are important considerations for formative evaluation. Examples of Formative Evaluation techniques are cognitive walkthroughs, formal user testing with think-aloud protocol, and the Tullis method. Process evaluation will also be discussed with respect to the methodologies used and their effectiveness.

4:00 pm – 5:00 pm **Various Rooms**
Birds of a Feather Sessions

These sessions are an opportunity for discussion and idea sharing around specific topics suggested by the community. Anyone can propose a new session or review the currently proposed sessions posted at the NSDL Reception/Help Desk in the Upper Lobby. All sessions are open for any interested person to attend.

OCTOBER 15

WEDNESDAY

Please note that session moderators are indicated in bolded text.

7:30 am – 9:00 am **Congressional/Senate Rooms**
Continental Breakfast

9:00 am – 10:30 am **Building Collections | Statler AB**
Innovative Metadata Development and Implementation

Sharon Dennis, University of Utah

Faisal Ahmad, University of Colorado at Boulder

Anne Diekema, Syracuse University

Darin Burleigh, Journal of Chemical Education

Kristen Catlin, American Society for Microbiology

Daniel Zeng, University of Arizona

Panelists will describe their experiences in the keyword review process, developing metadata standards to fit new kinds of digital content, developing controlled vocabulary lists based on content standards and themes, and the use of a machine learning approach to assigning metadata

9:00 am – 10:30 am **Deployment and Continuity | South American A**
Collaboration in NSDL: Ad Hoc Collaboration

Brandon Muramatsu, California State University

Cathy Manduca, Carleton College

Rob Stephenson, Wayne State University

Dave Yaron, Carnegie Mellon University

This session will focus on tools that support the interaction of the development community, as well as other communities. Representatives from the NSDL Developers' Portal and the Collaboration Finder will discuss their processes for defining user needs, building responsive environments, encouraging the use of these environments, and measuring their impact.

9:00 am – 10:30 am **Deployment and Continuity | Federal A**
Spreading the Word: Outreach and Dissemination Strategies

Susan Van Gundy, University Corporation for Atmospheric Research

Rajul Pandya, University Corporation for Atmospheric Research

Christopher Klaus, Argonne National Laboratory

Sarita Nair, Education Development Center, Inc.

This session will address strategies for building NSDL awareness at multiple levels within a variety of communities. Participants will be introduced to a set of presentation resources designed to integrate information about NSDL into formal and informal talks for different audiences. The session will also include brainstorming about collaborative outreach actions for the future, as well as idea sharing and discussion about participants' previous outreach and dissemination experiences.

9:00 am – 10:30 am **Services Development | Pan American**
NSDL Service Interoperability and Web Services

Bill Mischo, University of Illinois at Champaign-Urbana

Dean Krafft, Cornell University

Kurt Maly, Old Dominion University

Michael Bieber, New Jersey Institute of Technology

Ed Fox, Virginia Polytechnic Institute and State University

The session will provide a forum to discuss the types of services and protocols that are being developed or used in the NSDL, relate these to the growing web-services community, and discuss the needs of services characterization and discovery. The session will include some short presentations of some current service implementations to stimulate the discussion.

9:00 am – 10:30 am User-Centered Design | South American B
Evaluating Digital Libraries on Many Levels: Library Use, User Needs, Accessibility Issues and Educational Impact

Susan Musante, American Society for Microbiology

Lillian Cassel, Villanova University

Andrew Kirkpatrick, WGBH

Chris Neuhaus, University of Northern Iowa

K. Ann Renninger, Swarthmore College

As digital libraries have evolved, so have the metrics, tools and reasons for performing evaluations. A number of NSDL projects have begun to evaluate facets of their digital libraries using log analysis tools to track activity; or, they have combined structured interviews with online questionnaires to learn more about users' needs and preferences. One project is looking at ways to make all of NSDL more accessible to users or developers with disabilities. Co-presenters and attendees will share their experiences, learn about the theories underpinning current evaluation efforts, discuss how to use evaluation results and identify potential collaborators or mentors.

9:00 am – 10:30 am User-Centered Design | Federal B
Designing for Re-Use and Accessibility

Robby Robson, Eduworks Corporation

Bruce Caron, New Media Studio

Deborah Knox, The College of New Jersey

Mimi Recker, Utah State University

Ted Sicker, WGBH

An important but as yet unfilled promise of digital repositories of learning resources is that they will enable instructors and learners to find and use existing learning resource, thereby improving instructor productivity and instructional quality. Reuse can also help foster communities of practitioners, who develop and share best practices. Designing, or retrofitting, resources that adhere to accessibility guidelines are also key to their reuse. This session will examine the potentials of and barriers to reuse of learning resources. As appropriate, we will draw upon existing literature and participant expertise to discuss issues such as resource granularity, resource design, standards, and pedagogy. Participants will be asked to bring examples of learning resources that have been successfully reused in different instructional contexts.

11:00 am – 12:30 pm General Interest | Presidential Ballroom
NSDL Summary

Moderator: Kim Lightle, ENC/The Ohio State University

The meeting's closing session will review the discussions, conclusions, ideas, and questions generated during Monday's philosophical explorations and Tuesday's and Wednesday's break-out sessions. The assembled group will then use elements of the progress achieved over the three days to frame next steps for the NSDL community.

12:30 pm – 2:30 pm Lunch on Your Own

12:30 pm – 5:00 pm
Informal Meetings

Meeting Rooms are available during this time for informal, ad hoc, or project group meetings. Please visit the NSDL Meeting Registration/Help Desk for a posted list of meetings or to sign up for a room.

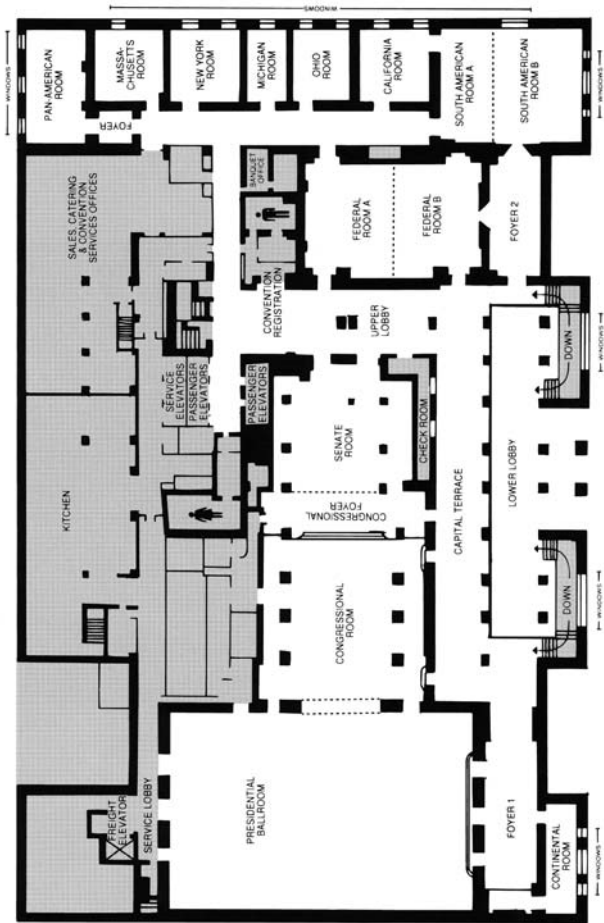
2:30 pm – 5:00 pm
Committee Meetings

NSDL standing committees provide a forum for discussion and participatory decision-making regarding issues that are relevant to all individual projects and the Library as a whole. All community members are encouraged to attend committee meetings. Previous involvement with a committee is not required.

Community Services	South American A
Content	South American B
Educational Impact and Evaluation	Federal B
Sustainability	Federal A
Technology	Statler AB

Notes

Capital Hilton: Second Floor



Quick Reference

Hotel Front Desk 202-393-1000

Hotel Fax 202-639-5784

Meeting Registration/Help Desk Hours

Staffed by members of the Annual Meeting planning committee

Sunday 11:00 am to 6:30 pm (Upper Lobby)

Monday 7:30 am to 5:30 pm

Tuesday 7:30 am to 5:30 pm

Wednesday 7:30 am to 1:00 pm

Poster Room Hours

Sunday 1:30 am to 8:00 pm

Monday 7:30 am to 7:00 pm

Tuesday 7:30 am to 7:00 pm

Wednesday 7:30 am to 1:00 pm

Internet Access

Computer workstations are located in the Poster Room (Congressional-Senate). Please limit your use to 15 minutes as a courtesy to others that may be waiting.

Extra Meeting Rooms

Schedule at Meeting Registration/Help Desk

Swiki URL

<http://swiki.dlese.org/nsdl2003>