

# NSDL Projects 2000–2002

| State                             | Organization                                    | Project Title  | Principal Investigator | NSDL Track  | FY of Award |
|-----------------------------------|---|--|------------------------|-------------|-------------|
| AZ                                | University of Arizona                           | Online Resources for Geotechnical Engineering, Rock Engineering, and Water and Its Use: Toward a National Civil Engineering Resource Library     | Muni Budhu             | Collections | 2001        |
|                                   |   | Intelligent Collection Services for and about Educators and Students: Logging, Spidering, Analysis, and Visualization                            | Hsinchun Chen          | Services    | 2001        |
|                                   |   | An Active Object-Based Digital Library for Microeconomics Education  | James Cox              | Collections | 2002        |
| CA                                | California State University                     | Peer Review of Digital Learning Materials: Critical Service for Digital Libraries  | Gerard Hanley          | Services    | 2000        |
|                                   | California State University, Trustees           | Scaling the Peer-Review Process for National STEM Education Digital Library Collections  | Gerard Hanley          | Services    | 2002        |
|                                   |   | The NSDL Collaboration Finder: Connecting Projects for Effective and Efficient NSDL Development  | Brandon Muramatsu      | Services    | 2002        |
|                                   | Foothill College                                | Collaborative Project: To Gather, Document, Filter and Assess the Broad and Deep Collection of the Digital Library for Earth Systems Education   | Christopher DiLeonardo | Collections | 2000        |
|                                   |   | Collaborative Project: To Enhance the Depth, Breadth, and Quality of the Collections of the Digital Library for Earth System Education (DLESE)   | Christopher DiLeonardo | Collections | 2002        |
|                                   | New Media Studio                                | Data Discovery Toolkit and Foundry   | Bruce Caron            | Services    | 2001        |
|                                   | University of California, Berkeley              | Developing a Core Integration System for a National Science, Mathematics, Engineering, and Technology Education Digital Library at www.smete.org | Alice Agogino          | CI - pilot  | 2000        |
|                                   |   | Collaborative Project: An Open Federation for the National SMETE Digital Library   | Alice Agogino          | Collections | 2001        |
|                                   |   | Collaborative Research: Developing a Learner-Centered Metathesaurus for Science, Mathematics, Engineering, and Technology Education              | Alice Agogino          | Research    | 2001        |
|                                   | University of California, Los Angeles           | A Digital Library: Collection for Visually Exploring United States Demographic and Social Change   | David Halle            | Collections | 2002        |
|                                   |   | Collaborative Research: Health Education Assets Library  | Sebastian Uijtdehaage  | Collections | 2002        |
|                                   | University of California, San Diego             | Bridging the Gap Between Libraries and Data Archives   | Brian Schottlaender    | Collections | 2001        |
|                                   | University of California, Santa Barbara         | Textual-Geospatial Integration Services for NSDL   | Jim Frew               | Services    | 2001        |
| University of Southern California | Electronic Encyclopedia of Earthquakes          | Tom Jordan   | Collections            | 2001        |             |
| CO                                | Colorado State University                       | Water in the Earth System (WES): An NSDL K-12 Collection Project   | Ed Geary               | Collections | 2001        |
|                                   | University Corporation for Atmospheric Research | Collaborative Project: Core Integration of the National SMETE Digital Library  | David W. Fulker        | CI          | 2001        |

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| CO    | UCAR  | Thematic Real-time Environmental Data Distributed Services (THREDDS)   | Ben Domenico           | Collections | 2001        |
|       |   | Core Integration Services for a Federated NSDL   | David W. Fulker        | CI - pilot  | 2000        |
|       | University of Colorado at Boulder                   | A Lightweight, Flexible, and Web-Based Approach to Supporting Workflow in Digital Libraries  | Ken Anderson           | Services    | 2001        |
|       |   | Collaborative Research: TeachEngineering—Hands-on Resources for K-12   | Jacquelyn Sullivan     | Collections | 2002        |
|       |   | Strand Maps as an Interactive Interface to NSDL Resources  | Tamara Sumner          | Services    | 2002        |
| DC    | American Association for the Advancement of Science | BioSciEd Net (BEN) Collaborative: Cycle 2  | Yolanda George         | Collections | 2002        |
|       |   | Biosciences Education Network (BEN)  | Yolanda George         | Collections | 2000        |
|       | Association of Research Libraries                   | Developing a National Science Digital Library (NSDL) LibQUAL+ Protocol   | Duane Webster          | Research    | 2001        |
|       | Mathematical Association of America                 | MATHDL: A Library of Online Learning Materials in Mathematics and Its Applications   | Lang Moore             | Collections | 2000        |
|       | Smithsonian Institution Astrophysical Observatory   | Harvard-Smithsonian Digital Video Library  | Matthew Schneps        | Collections | 2002        |
| HI    | Pacific Resources for Education and Learning        | Ethnomathematics Digital Library   | Nancy Lane             | Collections | 2001        |
| IA    | Eastern Iowa Community College District             | (NSDL) Advanced Technology Environmental Education Library (ATEEL)   | Ellen Kabat Lensch     | Collections | 2002        |
| IL    | Argonne National Laboratory                         | Atmospheric Visualization Collection   | Chris Klaus            | Collections | 2000        |
|       | University of Illinois at Urbana-Champaign          | Second Generation Digital Mathematics Resources with Innovative Content for Metadata Harvesting and Courseware Development                 | William Mischo         | Collections | 2002        |
| IN    | Indiana University Bloomington                      | Reciprocal Net—A Distributed Molecular Database  | John Huffman           | Collections | 2001        |
| KS    | Kansas State University                             | Collaborative Project: Physics Teaching Web Advisory (Pathway)—A Digital Video Library for Enhancement and Preparation of Physics Teachers | Dean Zollman           | Collections | 2002        |
|       | University of Kansas Center for Research, Inc.      | Analytical Sciences Digital Library  | Ted Kuwana             | Collections | 2001        |
| MA    | Education Development Center                        | Gender and Science Digital Library   | Katherine Hanson       | Collections | 2001        |
|       |   | Effective Access: Using Digital Libraries to Enhance High School Teaching in STEM  | Katherine Hanson       | Research    | 2002        |
|       | TERC, Inc.  | Earth Exploration Toolbook: A Collection of Examples of Educational Uses of Earth System Science Tools, Datasets and Resources             | Tamara Ledley          | Collections | 2002        |

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| MA                                    | Tufts University                         | Collaborative Research: TeachEngineering—Hands-on Engineering   | Martha Cyr             | Collections | 2002        |
|                                       |  | Collaborative Research: Managing Authority Lists for Customized Linking and Visualization: A Service for the National SMETE Digital Library       | Gregory Colati         | Services    | 2002        |
|                                       | University of Massachusetts Amherst      | Question Triage for Experts and Documents: Expanding the Information Retrieval Function of the NSDL   | W. Bruce Croft         | Research    | 2002        |
|                                       | WGBH Educational Foundation              | Teachers' Domain Collection: Life Sciences, K-12  | Michele Korf           | Collections | 2001        |
|                                       |  | Teachers' Domain—Physical Science and Engineering   | Michele Korf           | Collections | 2002        |
|                                       |  | Access NSDL   | Madeleine Rothberg     | Services    | 2002        |
| MD                                    | American Association of Physics Teachers | ComPADRE: Communities for Physics and Astronomy Digital Resources in Education  | Bruce Mason            | Collections | 2002        |
|                                       | Johns Hopkins University                 | Collaborative Proposal: Managing Authority Lists for Customized Linking and Visualization: A Service for the National SMETE Digital Library       | Golam Choudhury        | Services    | 2002        |
|                                       | Universities Space Research Association  | Implementing an Electronic Peer-reviewed Journal of Earth System Science Education Resources (JESSE): A Pathfinder for SMETE Resource Peer Review | Donald Johnson         | Services    | 2000        |
|                                       | University of Maryland, Baltimore County | Collaborative Research: Developing a Learner-Centered Metathesaurus for Science, Mathematics, Engineering, and Technology Education               | Bill Wood              | Research    | 2001        |
| Virtual Telescopes in Education (TIE) |  | Susan Hoban   | Services               | 2001        |             |
| MI                                    | Eastern Michigan University              | TeacherLIB—Digital Community and Collections for Science and Mathematics Teacher Education  | Ellen Hoffman          | CI - pilot  | 2000        |
|                                       | Merit Network, Inc.                      | Viewing the Future: Aligning Internet2 Video to K-12 Curriculum   | Marcia Mardis          | Collections | 2002        |
|                                       | University of Michigan, Ann Arbor        | A Digital IdeaKeeper For K-12: NSDL Scaffolded Portal Services for Information Analysis and Synthesis   | Chris Quintana         | Services    | 2002        |
|                                       | Wayne State University                   | Unleashing Supply: Services for Collaborative Content Development   | Robert Stephenson      | Services    | 2002        |
| MN                                    | Carleton College                         | Linking Pedogogy, Resources and Community Interaction to Support Entry-Level Undergraduate Geoscience Courses                                     | Cathryn Manduca        | Collections | 2002        |
| MO                                    | University of Missouri, Columbia         | Collaborative Project: An Open Federation for the National SMETE Digital Library  | Su-Shing Chen          | Services    | 2001        |
|                                       |  | National Biology Digital Library  | Su-Shing Chen          | CI - pilot  | 2000        |
| ND                                    | North Dakota State University, Fargo     | The Digital Archive Network for Anthropology (DANA)   | Jeff Clark             | Collections | 2001        |

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| NH   | Dartmouth College                                     | Collaborative Project: To Gather, Document, Filter, and Assess the Broad and Deep Collection of the Digital Library for Earth Systems Education (DLESE) | Barbara DeFelice            | Collections | 2000        |
|  |   | Collaborative Project: To Enhance the Depth, Breadth, and Quality of the Collections of the Digital Library for Earth System Education (DLESE)          | Barbara DeFelice            | Collections | 2002        |
| NJ   | Foundation @ NJIT, New Jersey Institute of Technology | Digital Library Service Integration   | Michael Bieber              | Services    | 2002        |
|  | Rutgers University New Brunswick                      | The Moving Image Gateway  | Grace Agnew                 | Collections | 2002        |
| NY   | Columbia University                                   | Columbia Pubscape: A Core Integration System for a National Science Digital Library Publishing Center   | Kate Wittenberg             | CI - pilot  | 2000        |
|  |   | Collaborative Project: To Gather, Document, Filter and Assess the Broad and Deep Collection of the Digital Library for Earth Systems Education          | Kim Kastens                 | Collections | 2000        |
|  |   | Collaborative Project: Core Integration of the National SMETE Digital Library   | Kate Wittenberg             | CI          | 2001        |
|  |   | Collaborative Project: To Enhance the Depth, Breadth, and Quality of the Collections of the Digital Library for Earth Systems Education (DLESE)         | Kim Kastens                 | Collections | 2002        |
|  | Cornell University                                    | The NSDL Central System   | William Y. Arms             | CI - pilot  | 2000        |
|  |   | Collection and Distribution of Geoscience (Solid Earth) Data Sets for the National Science Digital Library  | Dogan Seber                 | Collections | 2000        |
|  |   | Collection and Dissemination of Geoscience Data and Knowledge for the National Science Digital Library  | Dogan Seber                 | Collections | 2001        |
|  |   | Kinematic Models for Design Digital Library (K-MODDL)   | John Saylor                 | Collections | 2002        |
|  | CUNY Queens College                                   | Collaborative Research: A Digital Library Collection for Visually Exploring United States Demographic and Social Change                                 | Andrew Beveridge            | Collections | 2002        |
|  | solutions-united.com                                  | Breaking the Metadata Generation Bottleneck   | Woojin Paik                 | Services    | 2000        |
|  | Syracuse University                                   | Breaking the Metadata Generation Bottleneck   | Elizabeth Liddy             | Services    | 2000        |
|  |   | Integrating Expertise into the NSDL   | Richard Lankes              | Services    | 2001        |
|  |   | Collaborative Project: StandardConnection—Mapping NSDL Educational Objects to Content Standards   | Elizabeth Liddy             | Services    | 2001        |
| MetaTest: Evaluating the Quality and Utility of Metadata |   | Elizabeth Liddy   | Research                    | 2002        |             |
| OH   | Kent State University                                 | Green's Functions Research and Education Enhancement Network (GREEN)  | Gregory Shreve              | Collections | 2001        |
|  | Ohio State University Research Foundation             | National Digital Library for Undergraduate Mathematics, Science, and Technology Teacher Preparation and Professional Development                        | Kimberly (Roempler) Lightle | Collections | 2000        |

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| OH    | Ohio State University Research Foundation     | Marine Mammal Commission Digital Library of International Environmental and Ecosystem Policy Documents.                                    | Paul Arthur Berkman         | Collections | 2002        |
|       |   | Collection Building and Capacity Development for K-12 Federally Produced Mathematics and Science Education Digital Resources               | Kimberly (Roempler) Lightle | Collections | 2002        |
|       | University of Dayton                          | A Digital Library of Ceramic Microstructures   | Mattison Ferber             | Collections | 2001        |
| OK    | University of Oklahoma Health Sciences Center | Collaborative Research: Health Education Assets Library  | Chris Candler               | Collections | 2002        |
|       | University of Oklahoma Norman Campus          | Collaborative Research: TeachEngineering—Hands-on Engineering  | Michael Mooney              | Collections | 2002        |
| PA    | Carnegie-Mellon University                    | Threading Information Pathways Through NSDL Video  | Howard Wactlar              | Services    | 2000        |
|       |   | Collaborative Project: A Component Repository and Environment for Assembly of Teaching Environments (CREATE)                               | Dave Yaron                  | Services    | 2000        |
|       |   | Collaborative Project: Physics Teaching Web Advisory (Pathway)—A Digital Video Library for Enhancement and Preparation of Physics Teachers | Scott Stevens               | Collections | 2002        |
|       | Drexel University                             | Improving Knowledge Transfer: Prioritizing Content Creation in Digital Libraries Using Competitive Intelligence Systems                    | Michael Atwood              | Services    | 2000        |
|       |   | Math Tools Project   | Eugene Klotz                | Collections | 2002        |
|       | Swarthmore College                            | NSDL: A Digital Library Collection for Computer Vision Education   | Bruce Maxwell               | Collections | 2002        |
| RI    | Brown University                              | Collaborative Project: A Component Repository and Environment for Assembly of Teaching Environments (CREATE)                               | Andries van Dam             | Services    | 2000        |
|       |   | ReMarkable Texts: A Digital Notepad for NSDL   | Andries van Dam             | Research    | 2002        |
| TN    | University of Tennessee, Knoxville            | An Active Mathematical Software Collection for Inquiry-based Computational Science and Engineering Education                               | Jack Dongarra               | Collections | 2001        |
|       |   | Integrating NSDL Into Undergraduate Science Education by Creating a Collaborative Learning Environment                                     | Carol Tenopir               | Services    | 2001        |
| TX    | Texas Engineering Experiment Station          | Metadocuments as Communicative Artifact to Enable Use of a Research Digital Library in Undergraduate SMET Education                        | Rich Furuta                 | Research    | 2000        |
|       |   | Design and Evaluation of Maintenance Tools for Distributed Digital Libraries   | Frank Shipman               | Research    | 2001        |
|       |   | Integrating Digital Library Resources into Online Courses  | LeAnn McKinzie              | Research    | 2002        |
|       |   | Using Spatial Hypertext as a Workspace for Digital Library Providers and Patrons   | Frank Shipman               | Research    | 2002        |
|       | University of Texas at Austin                 | www.eSkeletons.org: An Interactive Digital Library of Human and Primate Anatomy  | John Kappelman              | Collections | 2002        |

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| TX  | University of Texas Medical Branch at Galveston     | Ceph School: A Pedagogic Portal for Teaching Biological Principles with Cephalopod Molluscs  | Phillip Lee            | Collections | 2002        |
|   | William Marsh Rice University                       | Advanced Placement Digital Library for Biology, Physics and Chemistry  | Datla Siva Kumari      | Collections | 2002        |
| UT  | University of Utah                                  | A Digital Multimedia Library for Health Sciences Education   | Sharon Dennis          | Collections | 2000        |
|   |   | Collaborative Research: Health Education Assets Library  | Sharon Dennis          | Collections | 2002        |
|   | Utah State University                               | The Instructional Architect: A System for Discovering, Recommending, and Combining Learning Objects  | Mimi Recker            | Services    | 2000        |
| VA  | American Geological Institute                       | Collaborative Project: To Gather, Document, Filter and Assess the Broad and Deep Collection of the Digital Library for Earth Systems Education | Sharon Tahirkheli      | Collections | 2000        |
|   |   | Collaborative Research: To Enhance the Depth, Breadth, and Quality of the Collections of the Digital Library of Earth System Education (DLESE) | Sharon Tahirkheli      | Collections | 2002        |
|   | American Indian Higher Education Consortium         | Digital Library Services for American Indians  | Carrie Billy           | Services    | 2001        |
|   | International Technology Education Association      | National Digital Library for Technological Literacy  | Brigitte Valsey        | Collections | 2001        |
|   | National Association of Biology Teachers            | Biology Education Online—An Interactive Electronic Journal   | Wayne Carley           | Collections | 2000        |
|   | Old Dominion University Research Foundation         | An OAI-Compliant Federated Physics Digital Library for the NSDL  | Kurt Maly              | Services    | 2001        |
|   | University of Virginia Main Campus                  | Decentralized Image Retrieval for Education (DIRECT)   | Scott Acton            | Services    | 2001        |
|   | Virginia Polytechnic Institute and State University | A Digital Library Network for Engineering and Technology   | Saifur Rahman          | Collections | 2000        |
|   |   | Computing and Information Technology Interactive Digital Educational Library (CITIDEL)   | Ed Fox                 | Collections | 2001        |
|   | Washington and Lee University                       | The Alsos Digital Library  | Frank Settle           | Collections | 2000        |
| The Development and Use of Digital Collections to Support Interdisciplinary Education |   | Frank Settle   | Services               | 2002        |             |
| WA  | University of Washington                            | Collaborative Project: StandardConnection—Mapping NSDL Educational Objects to Content Standards  | Stuart Sutton          | Services    | 2001        |
| WI  | University of Wisconsin-Madison                     | The Internet Scout Project's Personalized Content Delivery System  | John Strikwerda        | Services    | 2001        |
|   |   | The Journal of Chemical Education Digital Library  | John Moore             | Collections | 2002        |
|   |   | Optimizing Workflow and Integration in NSDL Collections  | John Strikwerda        | Services    | 2002        |

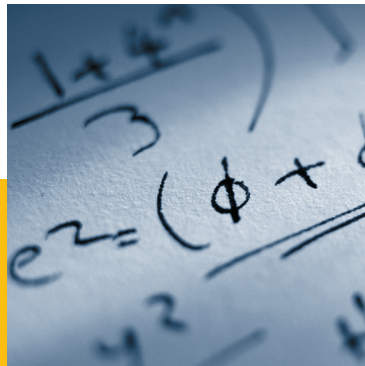




## NSDL Funding FY2000–FY2002

| Fiscal Year (FY)      | Core Integration | Subcontracts | Collections   | Services     | Targeted Research | Total         |
|-----------------------|------------------|--------------|---------------|--------------|-------------------|---------------|
| <b>FY2000</b>         |                  |              |               |              |                   |               |
| Number of Awards      | 6                | 4            | 13            | 9            | 1                 | 33 Awards     |
| Percentage of Funding | 29%              | 2%           | 44%           | 23%          | 2%                | 100%          |
| Dollar Amount         | \$ 4,075,180     | \$ 273,201   | \$ 6,273,546  | \$ 3,244,076 | \$ 249,245        | \$ 14,115,248 |
| <b>FY2001</b>         |                  |              |               |              |                   |               |
| Number of Awards      | 1                | 5            | 18            | 13           | 3                 | 40 Awards     |
| Percentage of Funding | 15%              | 5%           | 56%           | 21%          | 3%                | 100%          |
| Dollar Amount         | \$ 3,775,160     | \$ 1,224,071 | \$ 13,848,788 | \$ 5,129,215 | \$ 722,766        | \$ 24,700,000 |
| <b>FY2002</b>         |                  |              |               |              |                   |               |
| Number of Awards      | 1                | 6            | 25            | 10           | 6                 | 48 Awards     |
| Percentage of Funding | 15%              | 4%           | 60%           | 14%          | 7%                | 100%          |
| Dollar Amount         | \$ 4,573,967     | \$ 1,111,399 | \$ 18,041,305 | \$ 4,110,867 | \$ 2,149,251      | \$ 29,986,789 |

Note. Subcontract figures are a part of the Core Integration budget but are separated here for budget clarity. All percentages are rounded.



## Acknowledgements

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