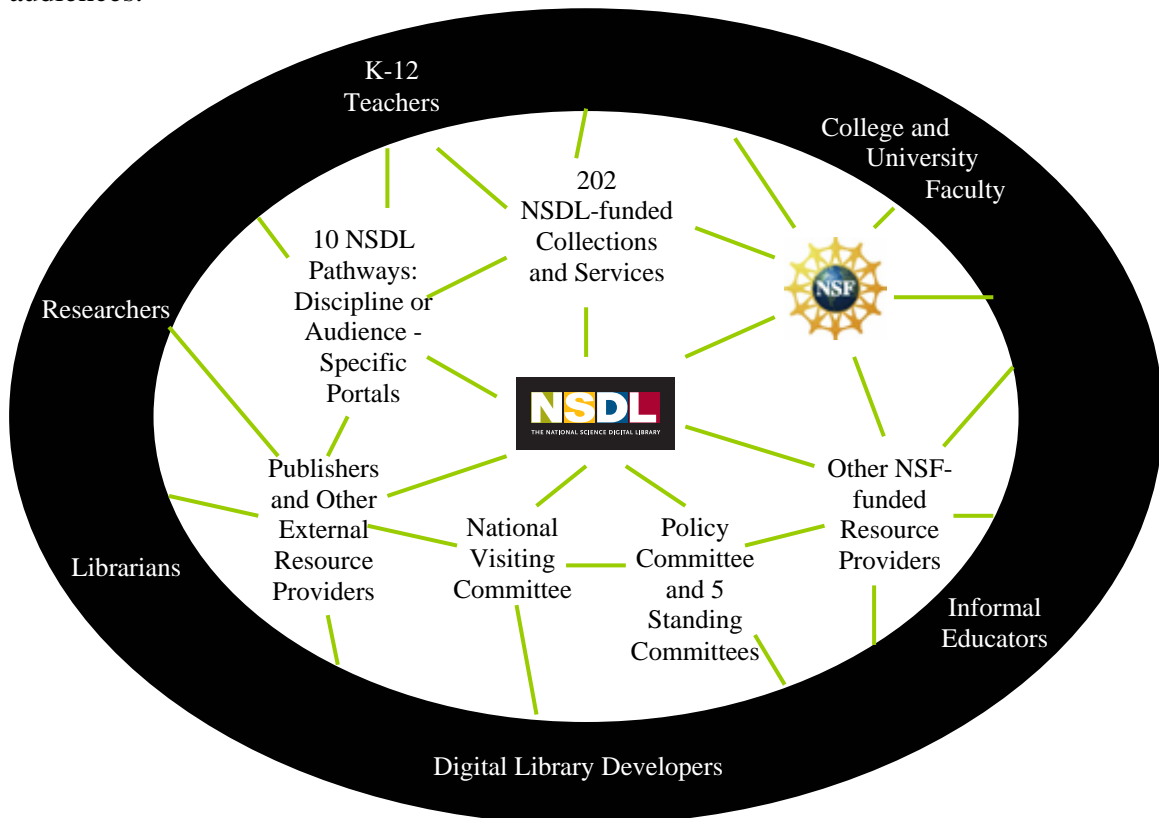# Strategic Partnerships Update
Prepared for Pathways Projects by Susan Van Gundy
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NSDL is by its nature a highly collaborative endeavor. The library exists as the result of cooperative work between a diverse community of library developers and resource contributors, the three Core Integration institutions, subcontractors, and NSF. These partnerships were initially built around establishing the technical and social scaffolds necessary to bring the library from concept to reality. Now as an operational institution, NSDL's challenges include improving and sustaining the library, and ensuring its educational relevancy. Strengthening and leveraging these foundational partnerships, as well as forging new strategic alliances, are critical activities for our long-term success. Toward this end, our current strategic partnerships work is focused on two priority areas with distinct but overlapping goals: partnerships that enhance the NSDL Network and partnerships that lead to increased usage.

Strengthening the NSDL Network
The inception of the Pathways created an important opportunity for NSDL to coordinate the distributed library building activities of multiple partners and to serve key audience groups in a more comprehensive way. The collaborations between Pathways and CI now define the core partnerships of the operational library. However, previously-funded NSDL projects and other providers of collections, tools, and services continue to contribute significantly to the library's ongoing development. As a result, staff in Core Integration have begun to refer to the NSDL Network, a term that broadly encompasses the web of interdependent connections between resource providers, technology builders, educational organizations, and others that allows NSDL to serve its diverse user audiences.

The Network is in many ways NSDL's greatest asset. As such, it benefits us to leverage the expertise, tools and services, reputations, audience bases, and other resources of the Network to strengthen each part as well as the whole. Partnership activities should reinforce the library's strategic intent by improving the user's experience at nsdl.org and across partner sites, enhancing NSDL's educational utility, aiding sustainability, and creating centralized services from which all parts of the Network can gain efficiencies. Partnership building toward these goals also involves engaging new Network members as both producers and consumers of NSDL's resources, tools, and services. CI's work with the publishing community is one example.

The relationships of the Pathways to CI, and to each other, present unique opportunities for Network enhancement. With more tightly coordinated outreach and communications efforts we could amplify the impact of each conference presentation, user workshop, newsletter article, and webpage view. Similarly, if we can begin to better pool our connections to organizations and individuals outside the Network, we can achieve a much higher level of recognition throughout the education and research communities. Current and upcoming initiatives include the Pathways workshops series, the featuring of Pathways in NSTA web seminars and a major publisher's textbook materials (details below), improving our co-branding, and building out the content of the audience pages at nsdl.org. Pathways also serve as an important testbed for technical developments such as the Fedora-based NDR API, the use of Shibboleth for single sign-on, and automated metadata generation with iVia.

Increasing Usage
There are many steps the Network itself can take to increase the educational value of NSDL, improve functionality, and remove barriers to use—including the strategies mentioned above. Additional partnership building efforts aim to increase usage by broadening key audiences' exposure to the library and reaching users through existing networks of trust. Partnerships of this nature also seek to provide professional development for teachers, faculty, and librarians whose educational technology and information literacy skills need enhancing before they can become effective users of any digital library.

Our primary tactic is to target the institutions that most directly influence significant groups of NSDL users. Professional membership organizations not already part of the NSDL Network, textbook publishers, and state departments of education are among those entities with whom NSDL is currently developing collaborations. In this approach we are networking networks, influencing influencers, and training trainers. Through these relationships we hope to reach users through the trusted channels that are already part of their professional practice and to spark a viral propagation of NSDL usage.

What Partners Want from NSDL
Of course, successful partnerships require that all parties benefit. For the library building partners funded through NSF's NSDL program, participation with the library holds certain value in areas such as grants, communities of practice, and shared technologies. As NSDL is cultivating more relationships beyond its core community of library builders, additional value propositions are resonating with potential partners.

Content, content, content. NSDL is perceived as enabling access to high quality teaching and learning resources from trusted providers. For companies that provide computer hardware or governmental departments looking to empower their educators, NSDL's ability to deliver good content is considered of high value. Their sense of quality is derived from the reputations of NSF and NSDL, but also from the known entities that constitute the NSDL Network. Other potential partners express interest in the power of the Network to disseminate their content, to help with creating their own data repositories, or enhance their service to their own users. Still others value the expertise of the NSDL community in science, math, and technology education. While different facets of NSDL offer benefit to different partners, it would be wise of us to keep in our minds the emphases on quality (of content, interfaces, expertise) and centralized services (technical tools, marketing, training) that consistently arise in partnership conversations.

Status of External Partnership Development
[Arranged alphabetically. For information about partnerships with publishers, see Mike Luby's July 2006 document "Columbia CI Report on Publisher Engagement and Future Editorial Plans".]

American Museum of Natural History
As the first step of what we have all agreed will be a more integrated partnership, we are helping the museum create an AMNH Resources for Learning collection in NSDL. Future collaboration could potentially involve a combination of content repurposing on AMNH and NSDL websites, teacher professional development, and/or collections development work with the museum's library.

Apple
NVC member Linda Roberts recently organized a meeting for NSDL with high level K-12 education staff from Apple Computer. The meeting consisted largely of introductory information sharing, but we made plans for further discussions around linking to NSDL content and joint teacher professional development.

EOT-EPIC
EOT-EPIC is the education, outreach, and training group for NSF Supercomputing Centers. We have been cross-promoting programs and are working on reciprocal presence at each other's annual meetings. Shodor is deeply involved in the supercomputing community and has been instrumental in connecting NSDL to their EOT efforts. Shodor will be organizing the education program for this community's national conference for the next several years and will be integrating the use of CSERD and NSDL as resources and repositories for conference sessions.

Science textbook publisher initiative
NSDL is in negotiations with a major publisher of science textbooks for K-12 education. For its science textbooks that will be released in Fall 2007, NSDL will be correlating selected resources from our collections to key science concepts in each chapter of each book. These resources will support just-in-time teacher learning about each concept. References to NSDL will be printed in each chapter and teachers will link to the recommended materials through a co-branded web portal. Kim Lightle and staff at the Middle School Portal will be doing the resource selection and annotation work for this project.

National Science Teachers Association
We will be delivering a monthly series of web seminars beginning in September 2006 under the umbrella of NSTA's professional development programs. Each seminar will feature a Pathway or other partner presenting information on a particular content topic by modeling the use of digital resources in the classroom. Our pilot seminar presented with DLESE in May 2006 was very highly rated by participating teachers. This partnership includes joint advertising which places NSDL references in weekly email blasts received by 250,000 science teachers. We are exploring several other projects with NSTA that will further strengthen this relationship.

Net Day / Project Tomorrow
As an extension of the Digital Libraries Go To School grant awarded to Utah State University and NSDL CI through NSF's Teacher Professional Continuum program, the non-profit group Net Day / Project Tomorrow will survey teachers about their use of digital materials in the classroom with an emphasis on science and math instruction. Net Day, which just recently merged with Project Tomorrow, has been a revered organization in the K-12 educational technology community, best known for their large-scale national Speak Up survey events which poll teachers and students on their use of technology in and out of the classroom. Over the past three years Net Day has collected the viewpoints of over 562,000 K-12 students from all 50 states, as well as 26,000 teachers. The Speak Up data represents the largest collection of authentic, unfiltered student views on technology and education ever assembled.

NSF-Funded Research Centers Education Network (NRCEN)
NRCEN is a collaborative of education and public outreach professionals representing the full spectrum of research centers and laboratories funded by NSF. We are in discussion with them about consulting as they build an educational object repository and about cataloging their educational materials in NSDL. We are also exploring opportunities for leveraging the involvement of materials sciences research centers in NRCEN to benefit the work of the MatDL Pathway.

The State Departments of Education in Pennsylvania and Colorado
We are in discussions with both states about providing a package of resources for their respective state educational web portals. These packages might include links to NSDL resources aligned to standards, tools such as Instructional Architect, and teacher professional development workshops.

Try Science at the New York Hall of Science / Association of Science and Technology Centers / Institute of Electrical and Electronics Engineers
Through a grant from the Institute for Museum and Library Services, NSDL is partnering with these organizations on a project known as VolTS (Volunteers – Try Science) which, among other things, will use Expert Voices blogs to support museum and science center staff who work with scientific professionals that volunteer at their institutions, as well as support scientists to volunteer as Expert Voices bloggers. This partnership will also involve the creation of several resources collections in NSDL.

Yahoo!
We are exploring points of mutual interest between NSDL and Yahoo's educational research group, and recently participated in a teacher institute hosted by Yahoo.