

## Narrative

### Assessment of Need

All libraries play an important role in developing a 21st century workforce, but the nation's 81,920<sup>1</sup> public school libraries might have the greatest access to a captive audience eager to learn and apply 21st century skills. As outlined in "Museums, Libraries, and 21st Century Skills" by the Institute of Museum and Library Services (IMLS), the 21st century library should "focus on audience engagement and experiences" as well as offer content that is created by diverse audiences and accessible in a variety of ways.<sup>2</sup> That direction also applies to public schools serving students in prekindergarten through grade 12 (PK-12).

Through the daily use of technology in the classroom, North East ISD (NEISD) students collaborate with other students, gain a deeper understanding of content and find tools to demonstrate creativity. Teachers use technology to engage students and access additional instructional materials. While many resources are available to today's students and teachers, finding the right fit between information and medium to create an authentic learning experience is a universal challenge facing school districts.

NEISD's Library Services department is actively engaged in overcoming that challenge to support 21st century learning strategies taking place in the classroom and entice a love for reading. District librarians participate in regular and meaningful collaboration with teachers in order to align library instruction with content areas (with a focus on the use of non-fiction texts) and differentiate instruction to meet the needs of learners. Additionally, they model and promote the effective integration of technology and student-centered strategies to support the access, use, evaluation and creation of information. However, library support doesn't end here. It must extend to sharing and archiving the reading experience for the entire community.

Unfortunately, the intellectual work generated from these 21st century classroom experiences is not centralized nor connected with NEISD's library system for the entire district to benefit. Therefore, the campus libraries are not fulfilling their roles as "powerful places for learning 21st century skills and promoting 21st century skills" as discussed in the 21st Century Skills Podcast by Marsha L. Semmel, Acting Director, IMLS.<sup>3</sup> Student and teacher work is often posted to individual class web logs (blogs) and teacher web pages, which create a "search and find" environment for learners. This is counter to the principles published by the American Library Association to improve information access and delivery.<sup>4</sup> The absence of a centralized collection system is not a unique problem to NEISD – most school districts and their libraries share this dilemma.

To address this problem, NEISD can incorporate a best practice from university libraries. An Institutional Repository (IR) is commonly used at the collegiate level as a collection point for student and staff work. Unfortunately, the practice of using an IR has not been widely implemented at PK-12 institutions. NEISD would like to become a leader in the field and offer a way for students to share their reading experiences across a larger community. The district would share its innovation with other public school districts – ultimately benefiting more library patrons of students and teachers.

### Project Design

Currently, NEISD students cannot share their reading experiences in a single digital location for others to conveniently access. This hinders the 21st century learner who should be analyzing, creating and sharing to gain

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<sup>1</sup> "ALA Library Fact Sheet 1 - Number of Libraries in the United States." *ALA | Home - American Library Association*. Web. 27 Oct. 2010.

<sup>2</sup> *Museums, Libraries, and 21st Century Skills*. Rep. Washington, D.C.: Institute of Museum and Library Services, 2009. Print.

<sup>3</sup> Semmel, Marsha L. "21st Century Skills Podcast." Audio blog post. Institute of Museum and Library Services, 11 Aug. 2010. Web. 22 Oct. 2010.

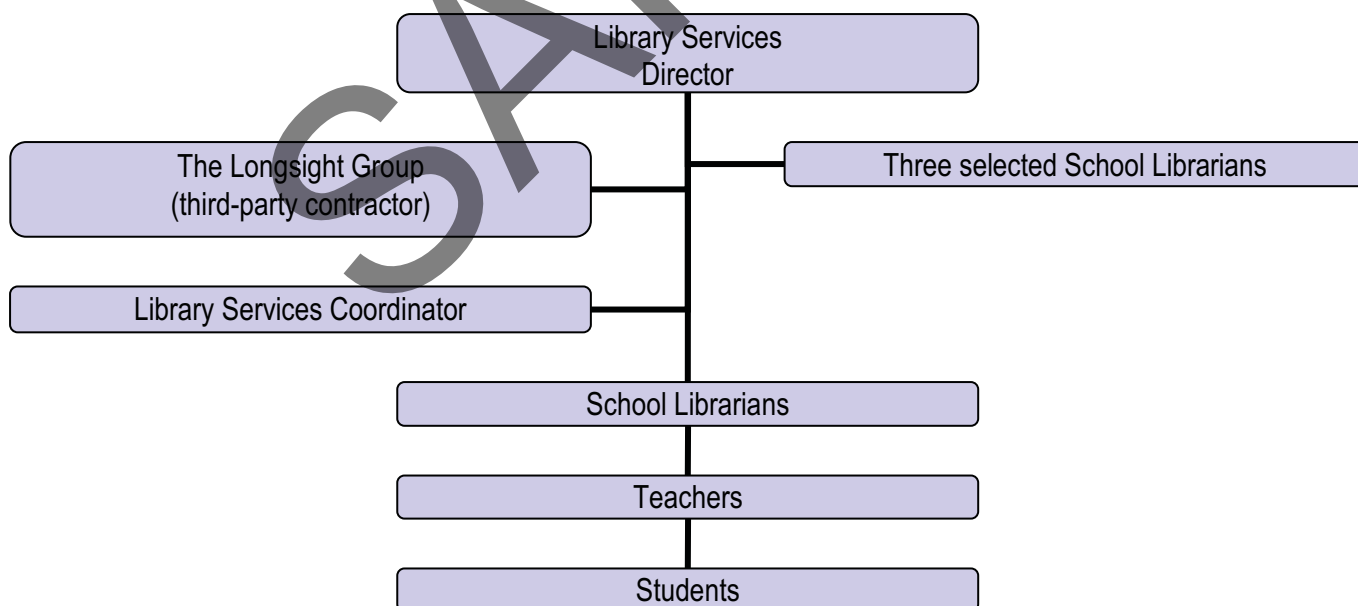
<sup>4</sup> *Information Power: Building Partnerships for Learning*. Chicago: American Library Association, 1998.

knowledge. In order to address this issue, the district proposes to implement the NEISD Book Network (NBN) project between June 1, 2011 and May 31, 2012 with funds from the Sparks! Ignition Grant.

The NBN project will create an Institutional Repository (IR) through DSpace, an open-source program used globally to store data. With an IR, student- and staff-created digital book reviews, reports and trailers (promotional videos) can be linked across all school libraries through the district’s catalog system. The IR also provides expansion potential for the district to collect and preserve its own materials, such as school yearbooks, lesson plans and staff work. This innovation was chosen for its ability to: support 21st century learning and nurture readers; centralize and manage electronic resources; and connect with the district’s library catalog.

The focus of this project will be on student-created work related to library resources. The written book report assignment of years past has morphed into 21st century assignments such as Book Talks that are video recorded and posted to campus blogs. As reported in the Huffington Post, “Students are also trying their hand in creating book trailers with burgeoning enclaves of video creators springing up at the Springston School in Christchurch, New Zealand and the McKillop Elementary School in Melissa, TX.”<sup>5</sup> These electronic resources often live in cyberspace with no real connection back to libraries. Providing a common avenue for students to share their work, regardless of physical location, is the main goal of the NBN project and essential in 21st century learning.

NBN will be administered through the district’s Library Services department and supported by all campus librarians. The Director of Library Services will serve as the Project Manager. He will manage the grant budget, monitor implementation of NBN, schedule training, and report on results. A third-party contractor, The Longsight Group, will provide management and hosting services of the IR during the grant period. The district’s Library Services Coordinator will serve as the liaison for the third-party contractor and NEISD to oversee the functionality between the IR and the Sirsi software system used by the district’s libraries to manage operations. Three selected school librarians representing the elementary, middle and high school levels will work over the summer to develop user, submission and quality guidelines. In addition, they will create video book trailers to test NBN and design marketing materials to promote the project. During the 2011-2012 school year, each campus librarian will serve as the local point of control by reviewing, approving and uploading student- and staff-content to the IR. Teachers and students will be the end-users creating and viewing the electronic resources in the IR. Following is a diagram displaying the NBN participants.



<sup>5</sup> Staino, Rocco. “Developing Buzz and Cultivating Readers.” Web log post. Huffington Post, 6 Oct. 2010. Web. 12 Oct. 2010.

Using a third-party contractor to manage and host the IR is an efficient solution in today's public school environment. Many districts, like NEISD, have decreased costs by reducing staff positions and administrative budgets. The Longsight Group offers a solution that requires no in-house technical support staff, no software installation or maintenance, and no district servers. Compared to other vendors, Longsight offered a less expensive cost estimate with an exit strategy to migrate hosting services if needed.

Longsight will utilize an effective resource to create the IR – DSpace. Used by more than 800 organizations, DSpace was the preferred IR system software identified during a 2007 survey conducted by the Council on Library and Information Resources (CLIR).<sup>6</sup> Longsight will provide the most current version of DSpace and customize the environment based on the district's needs, to include branding it to represent the NBN project and credit the Sparks! Ignition Grant. Technical support, upgrades and patches, backup strategy, unlimited bandwidth and 100 Gb of mass storage are also included in the Longsight proposal.

NBN would collect the book-related projects that NEISD students are already completing and link them to the corresponding book entry in the library catalog. A student's video or audio file will be saved in DSpace and a unique URL address will be assigned to it. This URL address can then be added in the Machine-Readable Cataloging (MARC) record. The typical designation for a URL in the MARC record is the 856 \$u; however, many of the district's eBooks already use this designation. NEISD will opt to use a local notes field instead (590) so not to confuse our users.

The 590 \$r and \$t in the MARC record have been selected and reserved to use for this project. Subfield r will be reserved for digital book reviews also known as book talks, and subfield t will be reserved for book trailers. These designations enable Sirsi to index the metadata to be displayed in the Online Public Access Catalog (OPAC) with the URL next to the words "Book Talk" or "Book Trailer." This allows users to directly access the digital content stored in the IR. Since the 590 \$r and \$t are repeatable fields and searchable, Sirsi is able to accommodate the display of multiple book talks and/or trailers for a single title on the OPAC search results page.

Prior to allowing others access to the IR, the Library Services Coordinator and the Director of Library Services will work together in the testing phase. A decision about which metadata to include in the IR will be based on many of the elements in the International Standard Bibliographic Description (ISBD) – title, author, ISBN, publishing date, etc. Further testing will include uploading and assigning tags to files within the IR including those associated with the person submitting his/her finished product.

A test of Sirsi will be conducted by adding the new book trailers to the IR, copying the persistent URL and placing it in the 590 \$r or \$t. The Library Services Coordinator will then edit the OPAC template to display the words "Book Talk" and "Book Trailer" and display the URL that is in the appropriate 590 subfield. A search for the book will be conducted in the OPAC and followed by testing the newly created URL. The expected result is that the book talk/trailer will open in a new window allowing the user to view and/or listen to more information about the book. Based on previous work with references in the local notes subfields, we are confident this will work; however, minor tweaking may need to take place throughout implementation.

Communicating the expectations and benefits of NBN is key to successful implementation. The following communication plan is based on the assumption that the district will receive a Notice of Grant Award in mid-May 2011.

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<sup>6</sup> "Top Reasons to Use DSpace - Why Use - [Www.dspace.org](http://www.dspace.org)." [Www.dspace.org](http://www.dspace.org) - [Www.dspace.org](http://www.dspace.org). Web. 04 Nov. 2010.

<b>Timeframe</b>	<b>Audience</b>	<b>Message(s)</b>	<b>Delivery Medium</b>
June 6, 2011	All School Librarians	<ul style="list-style-type: none"> <li>• Announce grant award</li> <li>• Introduce three librarians selected to work over the summer on grant materials</li> </ul>	End-of-year librarian luncheon
Wk of June 13, 2011	Three selected Librarians	<ul style="list-style-type: none"> <li>• Expectations and responsibilities for their involvement</li> </ul>	Face-to-face meeting
Wk of Aug. 1, 2011	Campus Leadership Teams—principals, assistant principals, counselors, deans	<ul style="list-style-type: none"> <li>• Introduce NBN</li> <li>• Demonstrate technology</li> <li>• Highlight guidelines</li> <li>• Discuss project goals</li> <li>• Review training schedule for librarians and teachers</li> </ul>	August Leadership (yearly administrative training event)
Aug. 8, 2011	District administrators, campus leadership teams, librarians, teachers	<ul style="list-style-type: none"> <li>• Introduce NBN</li> <li>• Provide training schedule for librarians and teachers</li> </ul>	Excellence By Design (internal e-newsletter focused on instruction)
Aug. 15- Sep. 26, 2011	District administrators, campus leadership teams, librarians, teachers	<ul style="list-style-type: none"> <li>• Provide training schedule for librarians and teachers (repeat announcement)</li> </ul>	Excellence By Design
Aug. 15, 2011	All district employees	<ul style="list-style-type: none"> <li>• First-person account of working on project over the summer (“I am North East” article written by a key project staff member)</li> <li>• Introduce NBN</li> </ul>	North East Notes (employee e-newsletter)
January 2012	Texas Library Association (TLA)	<ul style="list-style-type: none"> <li>• Submit project as program topic for 2012 TLA Conference</li> </ul>	Established submission process for conference topics
January 2012	NEISD residents (more than 170,000 addresses)	<ul style="list-style-type: none"> <li>• Technology spotlight on NBN</li> </ul>	North East Connections (community newsletter)
Spring 2012	All School Librarians	<ul style="list-style-type: none"> <li>• Feedback on progress of NBN</li> </ul>	Regularly scheduled Librarian meeting
Spring 2012	Principals	<ul style="list-style-type: none"> <li>• Report on progress of NBN</li> <li>• Show student examples</li> </ul>	Regularly scheduled Principals’ meeting
June 2012	IMLS White Paper	<ul style="list-style-type: none"> <li>• Original project goals and design</li> <li>• Analysis of results</li> </ul>	Established IMLS guidelines
July 2012	School Library Journal (k-12 librarians)	<ul style="list-style-type: none"> <li>• Original project goals and design</li> <li>• Analysis of results</li> </ul>	Established article submission process

### Innovation and Impact

The NEISD Book Network (NBN) would rely on an Institutional Repository (IR) to permanently store the electronic resources developed by students and staff. While IRs are commonly used by universities, public school districts have not widely adopted this innovation.

In a recent search on the DSpace web site, no school district or single PK-12 school was registered among more than 800 users. An IR that can centrally store electronic resources and link to the library catalog would greatly improve the district's current practice of posting the resources to individual blogs and web pages. In addition to addressing the "search and find" environment, an IR would provide new functionality to search for electronic resources based on several factors such as student name or book title.

By establishing an IR, NBN would collect and preserve student and staff work that is related to library records. A student book review, report or trailer – either in video or audio format – would appear as a link in the related book's catalog record. The library user could view this student creation as he/she analyzes the book selection. This intellectual sharing would take place virtually so that 66,000 students and patrons of the public branches at Roosevelt and Reagan high schools would benefit regardless of campus location. NBN also has the ability to expand beyond the district's use since an IR is online and accessible through an Internet connection. NEISD would be interested in sharing NBN with other PK-12 institutions if the project is successful.

The Project Manager would discuss the NBN design and outcomes with other local PK-12 library services directors through a professional network known as Cave Bexar. Additionally, the Project Manager would submit a session proposal for the 2012 Texas Library Association (TLA) annual conference attended by more than 7,000 exhibitors and librarians representing academic, public, school and special libraries.<sup>7</sup>

Since NBN will simply require an Internet connection, it should be accessible to a broad audience and easily replicated by other libraries. NBN's electronic resources will include a Creative Commons license so that they can be used by other institutions.

#### Evaluation Plan

The number of student- and staff-created records in the IR will demonstrate the effectiveness of NBN. The goal for the first year of implementation (2011-2012 school year) will be an average of 25 submissions from each school, which would yield at least 1,625 electronic resources. Other ways to evaluate effectiveness include tracking the number of visits or "hits" a student-created record generates.

Once established and if successful, the district will maintain the IR and continuously add intellectual output to its library collection. The IR offers expansion capability to add other district-created resources such as school yearbooks. The Project Manager would also be interested in exploring the possibility of migrating library lesson plans currently stored in a Cold Fusion database to the IR.

#### Project Resources: Budget, Personnel, and Management

One of the significant benefits of the NEISD Book Network (NBN) project is that it supports classroom practice currently in place. The district's 65 schools already have the necessary software and equipment to produce book reviews, reports and trailers (promotional videos) in audio and video format. With the addition of an Institutional Repository (IR), these student- and staff-created electronic resources will be linked within the existing Sirsi software system used by the district's libraries.

The largest portion of the grant budget is dedicated to the IR, which involves the expertise of The Longsight Group to provide hosting and support services. This collaboration with Longsight will allow NEISD librarians to focus on student-created content rather than technology maintenance. This involvement includes DSpace Management Services, DSpace Hosting Services and customized training (with travel) for a cost of \$18,080.

The next largest component of the grant budget covers the supplemental pay and associated fringe benefits for key project staff. Three school librarians are needed to work off contract to create: user, submission and quality

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<sup>7</sup> "About TLA | Texas Library Association." *Welcome to the Texas Library Association!* | Texas Library Association. Web. 04 Nov. 2010.

guidelines; book trailers (promotional videos); and marketing materials. These librarians were chosen for their experience with creating book trailers, reports or reviews as well as for their leadership qualities. One librarian was selected from the elementary, middle and high school level. In addition, the Library Services Coordinator will be used during an off contract period to serve as a technical intermediary between Longsight and NEISD. This staff member has extensive technical training and experience – including DSpace – and is the district’s system administrator for Sirsi. The benefit of working these four employees off contract is that the grant project responsibilities will not interfere with their regular duties. These four professionals will be compensated at a district-approved supplemental rate of \$25 per hour. The calculation for fringe benefits is based on two percent of supplemental pay. The total of grant funds for salary is \$5,000 and for fringe benefits is \$100.

Marketing the NEISD Book Network (NBN) is the third largest cost in the grant budget. Posters and brochures will be printed by NEISD Print Services to encourage and inform potential users. Grant funds will also be used to print the parental permission forms in English and Spanish, which are needed to upload the student-created content to a public space. The grant funds dedicated to Print Services will be \$1,783.

The district will also share in some of the costs associated with implementing the project. This will include the Project Manager’s salary and fringe benefits, the lodging and meals for the Longsight trainer, and the supplies needed to print student bookmarks. The total cost sharing for the district is \$5,036.10.

**Timeline of Major Activities**

Phase	Days	Start	End
<b>Technology Deployment</b>			
Design database structure	7	6/1/2011	6/8/2011
Install software and customize database	14	6/8/2011	6/22/2011
Brand database and map domain service to www.neisd.net	7	6/22/2011	6/29/2011
In-house test with staff-created records	5	8/1/2011	8/6/2011

<b>Guidelines and Marketing Development</b>			
Draft guidelines for librarians, submitters and quality control	46	6/15/2011	7/31/2011
Create book trailers to test system	10	7/18/2011	7/28/2011
Develop marketing materials	14	7/18/2011	8/1/2011
Send marketing materials to print	10	8/1/2011	8/11/2011

<b>Staff Training</b>			
Onsite training for key project staff	1	7/12/2011	7/13/2011
Administrative presentations	11	8/1/2011	8/12/2011
Training opportunities for librarians and teachers	46	8/15/2011	9/30/2011

<b>Implementation</b>			
Students, teachers and librarians contributing content	241	10/3/2011	5/31/2012
Submit project as program topic for 2012 Texas Library Assoc. Conference	29	1/2/2012	1/31/2012
Gather measurement data	150	1/2/2012	5/31/2012
Draft White Paper	30	5/1/2012	5/31/2012