



NCore technologies and standards provide the National Science Digital Library (NSDL) and other organizations with a framework for semantic digital library infrastructure. A common data model—a formal description of how data that may include digital text, images, data sets, lesson plans, video, and audio resources may be structured and accessed—is at the heart of NCore and is the basis for a suite of system components that are documented at <http://NCORE.nsdlib.org>. Together NCore tools for discovery, creation, annotation and organization form a dynamic information layer on top of library resources and metadata.

NCore Technologies and Standards

A Dynamic Information Layer on Top of Library Resources



■ **Repository**

The NCore Repository uses Fedora open source repository software to model and manage digital objects such as resources, metadata, and agents. NCore Repository objects are maintained through an application programming interface (API) that allows controlled access to the objects within the repository.

■ **Search**

The NCore Search Service based on Lucene allows users to search for and find resources in a digital library.

■ **Harvest**

The harvest components of NCore are the Collection Manager and the Harvest Manager, both of which are used to administer the collections within the repository.

■ **Digital Discovery Service (DDS)**

DDS provides search and retrieval services for resources in an NCore repository.

■ **NCORE Collection System (NCS)**

The NCore Collection System (NCS) is a tool to create and manage collections of metadata within an NCore repository.

■ **Developer Tool Kits**

One-stop packages for finding and installing server components on your server to help you develop new NCore applications for your communities (future availability).

■ **Expert Voices Blog System**

Utilizing Word Press Multi-user weblog technology, NSDL's implementation of Expert Voices supports collaborative STEM conversations, "speaking of some thing interesting," among content experts, scientists, teachers, and students from NSDL audience groups

■ **NSDL Wiki System**

Utilizing Media Wiki, NSDL's Wiki provides a collaborative online environment where users can organize, create, and annotate resources.

■ **OnRamp**

On Ramp is an extensible NSDL content and communications management system designed too bring editors, authors, reviewers, photographers and media specialists from scientific and educational communities together to create, manage and widely distribute content.

■ **Strand Maps**

The Strand Map Service is a tool that illustrates connections between concepts as well as how concepts build upon one another across grade levels. An example of the Strand Map Service (SMS) and can be viewed at NSDL.org's Science Literacy Maps.