

The Distributed Library: OAI for Digital Library Aggregation

OAI Implementation: Administrative Planning

This handout reviews resource-allocation and planning concerns for OAI provider implementation, focusing on the following areas: (1) timeline, (2) budgeting, (3) personnel, and (4) technology. This handout deals only with OAI providers.

Once the local barriers to OAI implementation have been identified, administrators may better assess how to incorporate OAI into their current system. Planning concerns frequently revolve around *timing* (how long it will take to implement OAI, and how to place this effort within other or on-going projects), *budgeting* (the potential costs involved in implementation), *personnel* (what hiring or training is necessary to initiate and maintain this effort), and *technology* (what systems and resources can be updated, and whether or not purchasing new technology is necessary).

SEE ALSO: **OAI “Cheat Sheet”** (strategies for converting metadata formats into shareable OAI) and **OAI Tools** (technology available for generating, converting, managing, and harvesting metadata).

Requirements for OAI Implementation

Initial OAI implementation projects may be focused simply on sharing metadata on a specialized area of one’s collection, starting with little to no institutional support or organizational structure and run by only one or two people. Such projects may take from two weeks to one year to implement, requiring little to no extra allocated funding. Budgeting for time and funding increase dramatically if (1) the institution must acquire a server, and (2) the metadata is not stored in a parseable digital format.

In most cases free open-source tools are readily available for crosswalking metadata into shareable formats. Below, implementation steps and approximate resources needed, along with corresponding “Questions & Considerations,” offer general planning guidelines for a small-scale OAI project. Note that budget assumes salaries for System Administrators, Programmers, and Digital Collections Specialists, at approx. \$70,000 per year (including benefits).

STEP	TIME (hours)	BUDGET (dollars)	PERSONNEL	TECHNOLOGY
1. Initial planning, identify collections.	10+ (meetings)	+ \$350 (\$35 per hour, per person)	System Administrator, Digital Collections Specialists	--
2. Assess technical demands.	10+ (meetings & assessment)	+Server costs*	System Administrator, Digital Collections Specialists, Programmer	Server
3. Crosswalk metadata into Dublin Core (and other metadata formats if possible).	1+ (migration only) 5-20+ (XML training) 20-??+ (digitally formatting)	+ \$35-?? (\$35 per hour) + commercial vendor costs*	Digital Collections Specialists, Programmer	Data Provider Tools
4. Install and configure data provider.	10+	+ \$350 (\$35 per hour) + commercial vendor costs*	Programmer	Data Provider Tools
5. List repository in OAI registry.	1+	+ \$35 (\$35 per hour)	System Administrator or Programmer	--
6. Monitor and update records in repository.	2+ per year (depending on built-in automation)	+ \$70 (\$35 per hour)	Digital Collections Specialists	(existing system)

*optional, depends on local situation

related DLF projects:



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Additional Comments on Steps

1. This step potentially involves interested scholars or researchers, who would benefit from access to collection.
2. How is the collection's metadata formatted: Can it be crosswalked consistently into unqualified Dublin Core (DC) elements? Is it already formatted in an XML schema? Also, is a server available for hosting the data, or will you need to acquire one? If the metadata is not stored in a parseable digital format, significant additional time and expense may be necessary to enter metadata into a relational database.
3. If metadata is already in XML, it can be crosswalked into unqualified DC. If metadata is in a desktop computer database that exports to .dbase, .tab, or .csv, you can use the Metadata Migrator Tool (see **OAI Tools**) to simultaneously crosswalk data into unqualified DC and XML and create a registered repository (step 5). If the Digital Collections Specialist is not familiar with XML, some training may be required. If native formats cannot be easily modified or migrated and/or if systems cannot be adapted through other means, significant programming may be required.
4. Commercial vendor expenses may be required. Use of open source software removes this cost.
5. Best practices suggest that it is important to register your OAI data provider with the OAI Registry.
6. If the data provider tool does not automatically refresh repository, you will need to manually update the repository. If using a surrogate OAI data provider or a static repository, regular communication and collaboration with the data provider host is critical to ensure the integrity of the metadata.

REFERENCES

MetaScholar Initiative. (2004, March 1). *MetaArchive Project Final Report: A Project for the Development and Evaluation of an Open-Source OAI-Compliant Infrastructure for Surfacing Hidden Scholarly Resources*. <http://www.metascholar.org/pdfs/MetaArchive-FINAL-REPORT.pdf>