



DLF Aquifer: Bringing Collections to Light

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What is DLF Aquifer?

- Collaborative effort amongst some Digital Library Federation (DLF) members
- Test-bed of library tools & services for faculty and graduate student researchers
- Quality content, initially focused on American culture and life

DLF Aquifer participant libraries

- California Digital Library
- Cornell University
- Emory University
- Indiana University
- Johns Hopkins University
- Library of Congress
- New York University
- Stanford University
- University of Illinois, Urbana-Champaign
- University of Michigan
- University of Minnesota
- University of Southern California
- University of Tennessee
- University of Virginia

DLF Aquifer Organization

- Director: Katherine Kott, based at Stanford University Libraries
- Four Working Groups
 - Collections
 - Metadata
 - Services
 - Technology & Architecture
- University of Michigan hosting the metadata harvesting service and the Aquifer Portal
- University of Illinois hosting the Asset Actions experiments
- Support from the DLF

Character of the initiative

- Institutions on an equal footing
- DLF is a federation, not a service provider
- DLF Aquifer participants are a subset of DLF
- Funding through DLF, in-kind contribution, outside support

DLF Aquifer problem space

- DLF Aquifer provides tools and services for pooling digital library content and piping to the user
- DLF Aquifer inter-operates with:
 - Repositories that preserve by “federating and deploying cross-repository services”
 - Content management systems that provide structure
 - E-learning systems that support the teaching and learning process
 - Citation management systems that support the scholar
- DLF Aquifer siphons content from and compliments a variety of digitization projects

Current Work

- Leveraging existing collections, tools and services
- Enhancing and developing tools, services and collections
- Implementing “deep sharing”—the ability to share digital objects across domains

Leveraging with OAI

- Leveraging existing collections and work done by a group of institutions under a DLF-coordinated IMLS grant.
- Using the OAI-Protocol for Metadata Harvesting - - a REST web service -- to aggregate collections.
- Improve the quality and consistency of harvested metadata with DLF MODS Profile implementation guidelines for shareable metadata meant for exposure via OAI-PMH.

Tools: Phase I Portal

- University of Michigan metadata harvesting service using OAI-PMH.
- Aggregation of records into a prototype portal using DLXS.
 - Demonstrates service possibilities enabled by the exposure and harvesting of MODS records

Deep Sharing: Asset Action Experiments

*Grainger Engineering Library Information Center, University of Illinois
at Urbana-Champaign*

- “Asset actions” experiment demonstration
- Exploits richness offered by actionable URIs to enable consistent user experience across collections
- In technical terms, allows a “functional view of a unit of content [to] be transported among services.”



DLF Aquifer - Asset action experimentation

Technical working group

Search Resources

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Northwestern



Chicago Plan Commission Subdivision Diagram, 1943

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Letter from Herbert Brown to Edward Brennan, 1934

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Edward Brennan, 1926

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Tufts

Indiana



Object Collector Tool
File Edit View Tools Help

Default Images

Cushman Collection image

Search: &newsearch=1&searchtype=all&p=1&view=thumbn
Go Links File Print FedEx

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Map of Chicago, Business District and Principal Transportation Lines
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"Chicago's Place In Industrial America," 1952
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Union Stock Yard Co., c.1910
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Asset Action next steps

- Text experiment
- Review and compare with unAPI
- Document (in process with October D-Lib article)
- Test within frameworks for interoperability in development (e.g. OAI extensions, Pathways, OCKHAM)
- Integrate with Michigan portal

Other Phase I activities

- Creating organizational capacity & communities of practice through working groups
 - Collection development policy
 - Collection submission agreement
 - Use cases
 - Definitions of prioritized services for Aquifer
 - MODS implementation guidelines
 - Functional requirements for Aquifer metadata harvesting
 - Architecture policy and principles

Now in the “enhancing” phase

- Learning more about what “content consumers” want and need
- Creating and implementing architectural framework
- Adding a SRU/SRW layer on top of Aquifer to support integration of collections into a variety of environments
- Building a metadata remediation and enhancement pipeline
- Continuing to clarify
 - Project, initiative, or program?
 - Target audiences
 - Implementation methods

Fit with other DLF initiatives

- Mapping DLF Aquifer “sub-projects” strategically within the DLF
- Building on standards and best practices (e.g. OAI-PMH)
- Collaborating on tools and registry development (e.g. OCKHAM)
- Operating within the digital library services framework (in development)

Where DLF Aquifer adds value

- Working on “institution specific needs that can be addressed effectively through collaboration.”
- Building enabling technologies (for use in local environments)
- Incubating innovation
- Collaboration enables results that are greater than the sum of the parts
 - Working together to pool collections makes sense
 - Identifying resources for collaboration
 - Prioritizing within individual institutions
 - Balancing collaboration with competition

How DLF Aquifer is sustained

- Distributed implementation builds in some sustainability
- Tied to DLF organizational sustainability, currently being modeled
- Working groups currently engaging questions
 - Where to register schemas, etc.
 - How much ongoing support will be needed and how to structure delivery

Thanks!
Questions or comments?

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<http://www.diglib.org/aquifer/>