

## Prospectus for the Aquifer Initiative

### DIGITAL LIBRARY FEDERATION

#### GENERAL INFORMATION

The Digital Library Federation (DLF) invites **applications** from organizations interested in assuming responsibility for the products and services that have been developed by the DLF Aquifer initiative. Active elements and potential areas of future growth for the initiative are outlined in Appendix I. Detailed information about the schemas, standards and software that have been developed through Aquifer (e.g. *Implementation Guidelines for Sharable MODS Records*, code for the *American Social History Online* website, and asset action schemas) is available from the [Aquifer page](#) on the DLF website. Information about the current technical configuration for *American Social History Online* is provided in Appendix II. Consortia or informal partnerships may submit joint applications. DLF anticipates that, based on its review and evaluation of the applications, it will select an organization or organizations and form an agreement or agreements whereby the responsibilities transfer from DLF to the selected organization(s). DLF may retain interest in the collaborative capacity that DLF Aquifer has generated, including the technical infrastructure for meeting future technology challenges.

The Digital Library Federation is an international association of libraries and allied institutions. Its mission is to enable new research and scholarship of its members, students, scholars, lifelong learners, and the general public by developing an international network of digital libraries. DLF relies on collaboration, the expertise of its members, and a nimble, flexible, organizational structure to fulfill its mission.

To achieve this mission, DLF:

- Develops and adopts technical standards
- Promotes best practices
- Leverages shared actions, resources, and infrastructures
- Encourages the creation of digital collections that can be brought together and made accessible across the globe
- Works with the public sector, educational, and private partners
- Secures and preserves the scholarly and cultural record

#### **Potential for Future Growth:**

Aquifer offers a range of opportunities to organizations in the digital library/scholarly communication arena through grant-funded development and sustainable business models. *American Social History Online* software provides an architectural framework with staging and production servers that offer both a sandbox for innovation and experimentation and capacity for robust service delivery. As suggested by the table in the Appendix, *American Social History Online* could continue to provide a cyberinfrastructure for the humanities and social sciences with:

- \* Service development for scholars
  - tagging, annotation, and sharing among scholars (e.g. convergence with Zotero 2.0)
  - ingestion of material by scholars (e.g. convergence with NINES Collex project)
- \* Service development for digital library development
  - promoting the *American Social History Online* architecture as a front-end solution that is optimized for use with Fedora
  - expanding *American Social History Online* administrative capabilities (e.g. convergence with Council of Library and Information Resources (CLIR) project to support special collections processing)
  - modeling digital collection curation for a scholarly audience (e.g. convergence with Institute of Museum and Library Studies collections registries work)

Community efforts on schemas, standards and best practices by the Aquifer working groups led to rapid development of *American Social History Online* through support from The Andrew W. Mellon Foundation. *American Social History Online* has attracted attention from scholars and digital library professionals and has good prospects for support for continued development. *American Social History Online* also has potential to develop into

a production level service that could be sustained under a membership based, fee for service, or mixed business model. A commercial interest might be motivated to create a service for those libraries not already engaged in offering high quality reproductions of the objects in the *American Social History Online* collections for commercial use. Consolidating a “print on demand” type of service would add value for the collection contributors and offer the possibility of a revenue stream to sustain the project.

The Aquifer community is as important as the products and services that the initiative has created. During the transition, DLF will evaluate which of the Aquifer distributed open digital library community efforts will remain a part of DLF programmatic activity and how they will be sustained.

#### **Schedule of Events:**

Distribution of the prospectus will begin in August-September 2008. Applications will be collected by survey response and will be reviewed on an ongoing basis by the Aquifer Implementation Group (AIG). Questions about the initiative, the project or the process may be sent to:

Katherine Kott  
Aquifer Director  
[kkott@diglib.org](mailto:kkott@diglib.org)  
(650) 725-1067

A question and answer session for interested organizations will be held at the DLF Fall Forum in Providence Rhode Island on Thursday, November 13<sup>th</sup> from 12:30-2:30pm. Organizations will be selected and functions will be transitioned on an ongoing basis, as negotiated between DLF and the successor organization(s).

**Evaluation of Applications:** The Aquifer Implementation Group (AIG) will review applications. The AIG will document the evaluations and provide the results to the DLF Executive Committee, which will make the final selection.

**Criteria for Evaluation:** Evaluation of applications and selection will be based on the following factors:

- Demonstrated ability of the organization to provide support;
- Stability and success of the organization's profile;
- Proposed levels of resources

**Organization Presentations:** Organizations may be invited to present their plan to the DLF Executive Committee at a mutually convenient time.

**Transition Period(s)** will be negotiated between DLF and the successor organization(s).

**Fiscal Responsibility:** DLF fiscal responsibility for products and services developed by the Aquifer initiative terminates March 31, 2009. DLF may provide bridge funding at a level negotiated between DLF and the new organizational host, for the transfer of organizational responsibility and to cover the operation of *American Social History Online* as the new organizational home develops its own business models and obtains funding in its own right.

**To Apply:** Complete the web-based form at <http://www.surveygizmo.com/s/61449/american-social-history-online-application-form>

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## Appendix I: Active Elements and Future Growth

The DLF Aquifer initiative can be described in terms of the products and services it has developed as well as the organizational capacity it has built, including active collaboration among participant library volunteers. DLF Aquifer serves the digital library community by creating and sharing methods such as search engine optimization to help digital libraries promote their material, schemas such as MODS for sharable metadata and asset actions for interoperability, and open source software that supports projects such as *American Social History Online*. DLF Aquifer also develops products and services for scholars, insuring that the development includes features scholars want and need, by including potential end-users in the development process.

By the end of March 2009, DLF will no longer support the products and services associated with *American Social History Online*. DLF support includes .75 FTE of the Aquifer Director's salary and benefits, and administrative and operational support from the DLF office in Washington, DC. Funding from The Andrew W. Mellon Foundation also terminates in March 2009. Mellon funds support .25 FTE of the Aquifer Director's salary and benefits, .25 FTE of the DLF Program Manager's salary and benefits and the other positions listed in the grid above (business analyst, data analyst, architect and developers). An organization with program management capacity and administrative support could expect to successfully integrate management of *American Social History Online* with existing program management activities without assuming the obligation for a director level position. A host library or libraries could expect to devote 2 FTE to continue development of *American Social History Online*, with roles distributed amongst project coordination, user support, programming, and systems administration.

Contributions from volunteer experts, both DLF member library staff and others who share interest in digital library development are fundamental to Aquifer. These volunteers form working groups, a traditional DLF approach to getting things done. They maintain links in the community, including writing and presenting about the initiative, developing schemas and advising the development team. As support for *American Social History Online* transitions to other organizations, DLF will evaluate which of the Aquifer distributed open digital library community efforts will remain a part of DLF programmatic activity and how DLF will sustain them.

| Service   | Host  | Current Resources  | Resources to Sustain | Potential for Future Development/Funding  |
|---|---|--|----------------------|---|
| Metadata harvesting (OAI-PMH/MODS)  | University of Michigan—will move to UIUC in 2008/09 | .50 FTE data analyst   | .50 FTE data analyst |   |
| Metadata re-exposure  |   |  |                      |   |
| Metadata remediation and enhancement (incl. Geo-gazer)  | UIUC  |  |                      | Significant potential. Web-based services potential revenue generator?                    |
| American Social History Online software (open source through University of Illinois/NCSA open source license) | University of Illinois at Urbana Champaign          | 1 FTE business analyst, .50 FTE developer                        | 1.5 FTE              | Significant potential. (digital library workflow potential; scholarly workflow potential) |
| Zotero integration  | No host   | Small % of .50 FTE developer time                                | Minimal support      | Significant potential. (Zotero 2.0 communities, tagging) Internet Archive?                |
| Collectus tool integration  | UIUC  | Minimal  | Minimal              | Potential to integrate other tools significant.   |
| Standardized rights management  |   | Informal conversations with Open Educational Resources community |                      | Potential for funded project to standardize rights information.                           |

|   |  |   |   |   |
|---|--|---|---|---|
| DLF/Aquifer Collections Registry and ASHO integration | University of Illinois at Urbana Champaign | % of .50 FTE developer time   | % of .50 FTE developer time                           | Significant potential. (Digital Collections and Content project at UIUC) IMLS, conversations started.                                     |
| Collection curation                                   | University of Michigan                     | Volunteer collection curator  | .05% FTE of collection curator                        | Some potential in relation to Digital Collections and Content project at UIUC/IMLS.   |
| Search engine optimization                            | No host                                    | .10 FTE architect plus technology/architecture working group community effort | .05 FTE technical attention                           |   |
| Open source federated search solution                 | University of Illinois at Urbana Champaign | .10 FTE developer   | .05 FTE developer                                     |   |
| Sakai integration                                     | Indiana University                         | .10 FTE developer   | .05 FTE developer                                     |   |
| SRU service   | UIUC                                       | Minimal architect time to develop   | Minimal support                                       | Promote to other services to pick up re-exposed, normalized metadata.   |
| Interoperability (e.g. ORE/Atom/extend Asset Actions) | UIUC/ distributed                          | Both volunteer and % of developer time  | Development resources, volunteer community engagement | Possible Fedora integration/collaboration with Fedora team on development. Possible asset action generation service as revenue generator. |
| Brokering access to high quality facsimiles           | University press or outsource              |   |   | Potential future revenue generator.   |



## Appendix II: Current Technical Configuration

Aquifer/American Social History Online is currently residing on VMware Infrastructure 3.5 farm consisting of three PowerEdge 2970 servers with a total CPU of 33.66 GHz and a total memory of 48 GB. In the farm, Aquifer/American Social History Online is assigned 11.968 GHz CPU (47% share) and 8 GB Memory (43% share).







Aquifer/American Social History Online OS is:

| General          |  |
|------------------|--|
| Guest OS:        | <b>Red Hat Enterprise Linux 5 (64-bit)</b> |
| CPU:             | <b>4 vCPU</b>                              |
| Memory:          | <b>8000 MB</b>                             |
| Memory Overhead: | <b>520.61 MB</b>                           |
| VMware Tools:    | <b>OK</b>                                  |
| IP Addresses:    | <b>128.174.36.2</b>                        |
| DNS Name:        | <b>nocoma.grainger.uiuc.edu</b>            |
| State:           | <b>Powered On</b>                          |
| Host:            | <b>gaoh.grainger.uiuc.edu</b>              |
| Active Tasks:    |  |

Additional Resource Data:

| Resources   |                 |           |
|---|-----------------|-----------|
| CPU usage:  | <b>3549 MHz</b> |           |
| Host memory usage:  | <b>7.68 GB</b>  |           |
| Guest memory usage:   | <b>4.30 GB</b>  |           |
| Datastore   |                 |           |
|   | Capacity        | Free      |
|  Grainger                | 1.57 TB         | 741.70 GB |
| Network   |                 |           |
|  Virtual Machine Network |                 |           |

Current Status information:

| Name  | State   | Status  | Host CPU - MHz   | Host Mem - MB  | Guest Mem - %  | Notes |
|---|---|---|--|--|--|-------|
|  Aquifer |  Powered ... |  | 3996  | 7872  | 62  |       |

Below is a map of Aquifer in relationship to the various components of the farm:

