

Position Description: DLF Aquifer

Position Title: Systems Architect/Analyst (Grant funded. Full-time. One year. April 2007-March 2008)

Title of Supervisor: Business Analyst/Assessment Expert

Position Summary

The Systems Architect/Analysts's role is to strategically design and implement information systems and networked software architectures that support DLF Aquifer. This individual will evaluate and select technologies required to realize DLF Aquifer goals for American Social History Online. He or she will gain approval for systems and software plans from the DLF Aquifer technology/architecture working group chair. The Systems Architect provides technical leadership for DLF Aquifer, from strategic decision-making down to the project planning level.

Principal Duties

Evaluate architectural models under review by the technology/architecture working group. Select a model or models for development and implementation. Work out data models and schema, in consultation with the DLF Aquifer technology/architecture working group, the developer and the data analyst. During the architectural development process, the systems architect/analyst will consult regularly with the technology/architecture working group and the technical advisory group.

Develop technical specifications, based on the architectural model selected, that implement the functional requirements as specified by the business analyst/assessment expert and the services working group. Revise and refine the specifications as required.

Insure that the work of the development team adheres to specifications developed by the business analyst/assessment expert and services working group.

Develop parts of the system where possible, to assist in the implementation and to ensure that key components are on specification.

Position Requirements**Education:**

Required: Degree in Information Technology or Computer Science or equivalent experience.

Preferred: Advanced degree in Information Technology, Computer Science or Library Science.

Experience:

Required: Three years professional experience as a systems architect or analyst. Five years professional experience in information technology. Experience with the design and development of digital library services.

Preferred: Experience working on architectural solutions in a collaborative or distributed environment.

Knowledge, Skills and Abilities:

Required: Excellent analytical ability. The ability to design systems that implement complex requirements within numerous technical and non-technical constraints. The ability to communicate designs to technical and semi-technical colleagues. The ability to document designs in a consistent and clear way. Knowledge of UML, METS, MODS, MARC, DC, XML, XSL, SRW/U, OAI-PMH, Z39.50. Knowledge of web technologies.

Preferred: Knowledge of web services (e.g. SOAP, REST). Knowledge of current activities in designing and implementing distributed digital library technologies. The ability to present designs and other finding to the digital library community.

Supplemental Information

Most Important Decisions or Judgments:

Making design decisions that best balance all of the functional requirements and project constraints.

Judging the suitability of technologies chosen to implement Aquifer functional requirements.

Contacts:

Contact: Business Analyst/Assessment Expert

Purpose: Reports to and advises. Seeks interpretation and clarification of functional requirements. Co-manages work on project.

Contact: DLF Aquifer Technology/Architecture working group.

Purpose: Seeks endorsement of design proposals and technology selection. Takes advice.

Contact: Aquifer developers

Purpose: Provides technical specifications and guidance.

Contact: Aquifer Data Analyst

Purpose: Consults regarding data issues as they affect the design.