Institute of Museum and Library Services National Leadership Grant

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Realizing the Vision of Networked Access to Library Resources

An Applied Research and Demonstration Project to Establish and Operate a Z39.50 Interoperability Testbed



Six Month Status Report to The Institute of Museum and Library Services

December 1, 2000 through April 30, 2001

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Introduction

This document provides a status report on the Z39.50 Interoperability Testbed Project (Z-Interop) covering the period of December 1, 2000 through April 30, 2001. We highlight activities and accomplishments to communicate to IMLS progress on our project. This period can be considered a project startup period.

Accomplishments and Challenges

This section summarizes the key accomplishments and challenges. Subsequent sections discuss these in more detail.

Accomplishments:

- Established preliminary project website (October 2000)
- Issued Call for Applications for project research assistants (November 2000)
- Identified and selected four research assistants (December 2000)
- Invited approximately 20 experts and stakeholders to participate on the Z-Interop Project Advisory Board (December 2000 – January 2001)
- Developed preliminary Project Management Plan (December 2000 – February 2001)
- Developed preliminary Project Evaluation Plan (February – March 2001)
- Received test dataset of 400,000 MARC records from OCLC (March 2001)
- Developed preliminary analysis methodology for test dataset (February – April 2001)
- Publicized the testbed through presentations and articles (Fall 2000 – Spring 2001)
- Had paper on interoperability accepted for presentation at the Joint Conference on Digital Libraries (June 2001).

Challenges

- Research assistant turnover
- Delay in acquisition of appropriate computer platform for interoperability testing.

Project Personnel

The Principal Investigator (PI) has committed time to the project since the announcement of the award in September 2000. In Spring 2001, he committed 20% effort (approximately 10 hours/week) on the project. In Summer 2001, he will commit 50% effort.

The PI chose four graduate students to participate as Project Research Assistants (called the Z-Team). Each student brought specific skills and abilities to the project. The PI assumed these four students would continue for the duration of the project working 15 hours a week and receiving tuition support.

These students reported for duty in the middle of January 2001 (the beginning of the spring semester). We began a series of weekly Z-Team meetings for orientation to the project, training on Z39.50, and other related topics.

Unfortunately, two Z-Team members withdrew from the project in April. One of these was the research assistant designated as the project manager. This has had an impact on project work and unanticipated additional work for the PI.

The PI has hired one doctoral student to work part-time on the project for Summer 2001 and that student may continue as a full member of the Z-Team beginning in Fall 2001. The PI plans to identify another graduate student to become a member of the Z-Team for Fall 2001.

Project Management

The PI tasked one of the research assistants as the Project Manager. Together we developed an initial project management plan. This plan uses Work Areas and Work Packages to identify key activities and responsibilities. Each Work Package describes a set of tasks, deliverables, timeline, and a lead person. This seems to be an appropriate project management approach for this multi-faceted research and demonstration project. For each Work Package, a research assistant (or the PI) is charged with the responsibility for carrying out the tasks and delivering the product for a Work Package.

When the Project Manager withdrew from the Z-Team, the PI changed the how the project would be managed. Beginning in April, he assumed direct project management responsibilities and changed from weekly Z-Team meetings to weekly individual meetings with each Z-Team member. This seems to be a more productive approach since the students needed more hands-on management and guidance than the PI had initially assumed.

Because of the change of personnel, the PI will be revising the Project Management Plan in June 2001 to reflect these changes. He intends to have a revised Plan ready by the first part of July 2001.

Project Evaluation Plan

Two Z-Team members attended the IMLS evaluation workshop in February. That experience provided the basis for developing a preliminary Project Evaluation Plan. We submitted a draft of the plan to IMLS for review in April. A final version of the plan needs to be submitted. The PI intends to have this ready for June 2001.

Project Websites

As soon as IMLS announced the award in September 2000, the PI established a project website to provide an initial public presence for the project <http://www.unt.edu/zinterop/>. The PI also used the site to issue the Call for Application for the research assistantships. Candidates applied online.

A Z-Team member had the responsibility for redesigning the public website. The redesigned website was ready by the end of April. The redesigned website is still at: <http://www.unt.edu/zinterop/>. The PI will be adding new content to this site during Summer 2001.

The Z-Team member developed new graphics for the project, and specifically a project logo. A copy of the project logo is on the title page of this report. We think it represents what this project is about: Research, Test, & Improve

During Spring 2001, the Z-Team member also developed a private website for use by the Z-Team and participants in the interoperability testing (scheduled to begin in late Summer 2001). Z-Team members use an online form on the private website to submit updates on their work. The PI see this website as an important project management tool and a tool for administering the testbed.

Project Technology

The project uses several computing platforms for various activities. Currently, we have the following computers provided by UNT as part of its contribution to the project:

- One PC running Linux configured as a development platform for Z39.50 client and server, for development of the new websites, and other tasks. This machine hosts the Z-Team website for internal Z-Team use.
- Two PCs running Windows 2000 as general utility computers for website design, presentation development, documentation, etc.
- One research laptop running Windows 2000.

The PI also applied to Sun Microsystems for server and software through its Academic Equipment Grant program. This activity was indicated in the project proposal. The application, however, was not approved by Sun Microsystems. We continued to pursue a Sun server, and through the Sun MindPrint Program we finally, in May, received appropriate hardware for the project. The School of Library and Information Science purchased this machine for the use of the Z-Interop project.

This delay in acquiring the server has put the project somewhat behind in loading the software contributed by SIRSI Corporation. We plan for the SIRIS software installation in June, with

training on that system provided in July. The PI estimates that interoperability testing will likely be moved to September/October 2001 rather than the August 2001 period initially planned.

Test Dataset

OCLC has provided a test dataset of MARC records from its WorldCat database. These were selected based on a sampling procedure agreed to by the PI and OCLC. OCLC sent a small sample of records to ensure that we could read them and that SIRSI could load the records into its system. OCLC then delivered a 1% sample (approximately 400,000 records) from WorldCat.

A Z–Team member and the PI have developed analysis requirements for these records and identifying the tools needed for analysis. OCLC has agreed to provide the project with additional manipulation of the records for further analysis by the team. This analysis will be carried out during June and July 2001. However, developing this controlled test dataset is presenting methodological challenges given the size of the dataset and the complexity of the MARC records.

Project Partners

At the time the grant proposal was submitted, the PI had confirmed with SIRSI and OCLC that they would partner with the PI, and they made commitments of resources to the project. The PI has also lined up the participation of Sea Change Corporation as a partner in the testbed. Sea Change will provide the project with its Z39.50 client product, Bookwhere 2000, to serve as a reference implementation client for the first phase of interoperability testing.

Project Advisory Group

The PI established a Project Advisory Group of approximately 20 people. The roster of Advisory Group members represents Z39.50 experts, integrated library system vendors, and other stakeholder groups (e.g., NISO, state libraries, etc.). We have set up a listserv for communication with the Advisory Group. During the project's start–up phase with the Z-Team (January through May) and with the changes in personnel on the Z-Team, the PI has not communicated with the Advisory Group. One of the first communications with that group will announce the availability of this six-month report. We will also bring to their attention the Project Evaluation Plan and two documents under development related to analyzing the test dataset and the procedures and policies for interoperability testing. We view the Advisory Group as an essential source for input and advice on both methods and policies of the testbed project.

Project Information Dissemination

The PI has made numerous presentations since Fall 2000 in which he included discussions about the project (and acknowledged IMLS funding in all cases). These have occurred in national and international meetings including: the Access Y2K conference, St. John's Newfoundland; the Library of Congress Bibliographic Control Conference, Washington, DC; the international Z39.50 Implementors Group meeting, Washington, DC; the Third Annual GILS Conference, Springfield, IL; the Coalition for Networked Information Task Force Meeting, Washington, DC; and others.

A paper by the PI, "Mapping the Interoperability Landscape for Information Retrieval," was accepted for presentation at the Joint Conference on Digital Libraries to be held in June 2001. He developed a presentation on the interoperability testbed project for presentation at a two-day European Union Digital Library All Projects Concertation Meeting in February 2001. A colleague from Denmark made the presentation. We also provided this presentation to Carrol Lunua at the National Library of Canada for her use in presentations on the Bath Profile and Z39.50 interoperability.

The January 2001 issue of D-Lib Magazine contained a description of the project, as did the University of North Texas Alumni magazine. Our project was on display in the University of North Texas, School of Library and Information Sciences booth at the Texas Library Association Annual meeting in San Antonio.

We submitted a proposal for a poster session for the ASIST Conference in November 2001 in Washington, DC. This was accepted. The poster session will focus on the project's activities related to interoperability assessment methodologies.

Summary and Next Steps

This startup period has gone relatively smoothly, although the change in graduate student personnel has affected the pace of some of the work. The PI has put in place a project management plan and the technical infrastructure for the project. He also used opportunities for presentations to build awareness of and interest in the testbed.

During the next four months, the PI and Z-Team will finalize the test dataset, develop testbed procedures and policies, issue the first call for participation in the testbed, complete the installation of the reference implementations, and establish benchmarks for interoperability testing. We plan to have the first phase of interoperability testing start in September/October 2001.