A Digital Collections Management System
Based On Open Source Software

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ABSTRACT

Robust and flexible digital collections management and presentation software is essential for creating and delivering digital collections. But digital library technologies and contents are not static. Continual evolution and investment are required to maintain the digital library. Few commercial digital library products are comprehensive and extensible enough to support this evolution. Many of these systems are in early release and have not been used and tested widely. Some require an initial investment in license fees or staff time that we could not afford. None of the products covered the full range of functionality needed for our digital library.

An alternative for practical, real-world digital libraries is to build the infrastructure from a variety of distinct systems, including commercial products, components constructed with specialized tool kits, open source applications, and homegrown programs. Open source applications in particular allow developers and users to modify the system and tailor it to their own particular needs. Like commercial software, open source software will not be a perfect solution. But open systems at least give developers and users the opportunity to modify functionality and create interfaces for integration with other software. With close collaboration between programmers and digital library staff, many creative features can be identified and added to the system. That is the approach taken by the Digital Collections Production Center at the Washington Research Library Consortium, where we integrated the Greenstone digital library software and DC-dot Dublin Core generator into a powerful and flexible digital collections management system.

Our demonstration presents a comprehensive digital collections management and presentation system built by customizing and integrating freely available open source software. We adapted the DC-dot Dublin Core generator for metadata creation and management, and integrated it with the Greenstone digital library software to present our digital collections on the Web. Additional functions were implemented using freely available scripting tools. The result is a highly extensible system, tailored to our local environment and requirements, with easy-to-use tools for data entry and collections administration and a powerful and attractive user interface.

The features of the metadata creation tool include:
- Digital object identification.
- Local authority control.
- Metadata editing.
- Template creation.
- Digital object access.

The features of the administration tool include:
- Collection configuration.
- Importing Dublin Core records.
- Global changes.
- Nightly rebuilds.

The Greenstone user interface was customized to highlight the unique features of the individual digital collections. The metadata description is presented in a standard library OPAC format with a thumbnail image. The full-size images in the digital object can be viewed with Image Viewer in another browser window. Full-text transcriptions in any formats are linked within the record and can be viewed through appropriate applications.

Extensibility was a key goal for the DCPC digital collection management and presentation system so it can evolve and expand. Currently we are integrating EAD-encoded finding aids into the digital collections. We also plan to implement additional interfaces to the metadata to facilitate the construction of virtual collections.

URL: http://www.aladin.wrlc.org/dl/