

10-28-2013

Using Drupal as an Information Resource Platform: The Celebrating New Mexico Statehood Project

Kevin Comerford

Follow this and additional works at: https://digitalrepository.unm.edu/ulls_fsp

Recommended Citation

Comerford, Kevin. "Using Drupal as an Information Resource Platform: The Celebrating New Mexico Statehood Project." (2013). https://digitalrepository.unm.edu/ulls_fsp/109

This Presentation is brought to you for free and open access by the Scholarly Communication - Departments at UNM Digital Repository. It has been accepted for inclusion in University Libraries & Learning Sciences Faculty and Staff Publications by an authorized administrator of UNM Digital Repository. For more information, please contact disc@unm.edu.

Using Drupal as an Information Resource Platform: The Celebrating New Mexico Statehood Project

Kevin J. Comerford
University of New Mexico Libraries

CNMS: The New Mexico Cultural Resources Portal

This year New Mexico is celebrating its 100th year of statehood, and to commemorate the occasion the state's Centennial Foundation has organized a variety of educational initiatives to promote the state's long history and diverse cultural resources. One of the official projects of the Centennial is a web-based online information service entitled, *Celebrating New Mexico Statehood (CNMS)* (www.nmstatehood.unm.edu), which was designed to bring together catalog records, documents, and images from all of the major library and special collections across New Mexico. The site serves as a federated search engine and an electronic gateway to New Mexico's cultural heritage.

This project was implemented by the Center for Southwest Research, which is the special collections division of the University of New Mexico Libraries.

The site also offers educational content focused on issues surrounding New Mexico's journey toward statehood and entrance into the Union, as well as social media features that enable users to leave comments and contribute their own content.

The target audiences of the project include students and teachers from New Mexico's public school system, community colleges and universities. However, the site design and search capabilities are generalized enough to be attractive to both casual users and history enthusiasts alike.



Drupal: An Open Source Content Management System

Drupal was selected for Celebrating New Mexico Statehood because of its wide acceptance and overall maturity. Originally developed by Dries Buytaert in 2001, Drupal is a Content Management System designed to make it easy for non-technical users to build information-driven websites. There are over 300,000 Drupal websites world-wide, the most notable of which include sites for the Obama Administration Whitehouse (<http://whitehouse.gov>) and The Economist magazine (<http://economist.com>).

Drupal provides a core framework around which a website is created. Most aspects of a site can be easily customized, such as menu structure and visual themes, without writing program code. Additional functionality is available through the installation of Drupal modules, hundreds of which are available to extend a website's capabilities. Drupal represents elements of content as nodes.

"In Drupal, nodes hold the structured information pertaining to a blog post (such as title, content, author, date) or a news item (title, content, go-live date, take-down date), while the menu system, as well as taxonomy (tagging of content) and views, create the information architecture. Finally, the theme system, along with display modules like Panels, controls how all this looks to site visitors" (Drupal 2010).

The latest version of Drupal that was available during evaluation in 2011 was 7.1, however after careful review, it was decided to implement the CNMS site using version 6.X, to ensure the greatest software stability. A Drupal site installation requires a SQL database (like MySQL) and a web server, such as Apache or IIS. In all, Drupal has proven generally unproblematic to install and maintain, and very straightforward to work with, especially with regard to bulk loading of data records, images and document files.

Drupal Modules: Adding Functionality to the CNMS Website

One of the great advantages of using Drupal lies in the modular architecture of the application. Drupal software Modules enable new features and functions to be added to a site without requiring custom program development. Modules are developed and maintained by Drupal software contributors, and made freely available to system administrators on the Drupal website (<http://drupal.org>).

Drupal Modules Installed on the Celebrating New Mexico Statehood Site

- Biblio:** The Biblio module is designed to manage bibliographic records, and after testing it was found to work extremely well in handling heavy catalog and holdings data.
- CAPTCHA:** Protects against system abuse by "Spambots" - automated software that attempt to register as a user in order to post advertisements and collect site user information.
- Content Construction Kit (CCK):** The CCK module enables a variety of custom fields to be created to handle specialized data management needs.
- Faceted Search:** This module allows subject or data type facets to be created (e.g., Author, Genre, Media Type, etc.) from record data in a Drupal site. These facets can then be searched by users with the Drupal Advanced Search tool.
- Image/Image_Assist:** These modules enable digital images to be imported into Drupal as individual nodes or records. These records can contain text fields as well as image content, making the image records searchable by users.
- Fivestar:** This module allows users to rate content they discover on a Drupal site with one to five stars -- this rating method is found on movie catalog and commercial websites like Amazon.com.
- Views:** The Views module enables customized data pages to be created for content hosted on a Drupal website.

The screenshot shows the website's front page with various sections: 'User login', 'Welcome!', 'This Month in New Mexico History', 'Announcements', 'New Mexico Dance Music at the Center for Southwest Research', 'Who's online', 'Keyword Cloud', 'Featured Photos', and 'Centennial Journeys Radio Series Now Available on Celebrating New Mexico Statehood!'. The footer includes 'UNM UNIVERSITY LIBRARIES' and 'This project is funded by the Center for Regional Studies. All design copyright © 2011'.

Celebrating New Mexico Statehood Front Page

Social Media Features include Personal User Blogs, Online Forums, Opinion Polls, 5-Star Ratings and User Comments

Educational Modules include "This Day in History" panel, Keyword Cloud and Historical Timeline

Brief CNMS Records Link to External Online Resources with Extended Records

Site Users can Contribute Photos and Exchange Personal Histories and Experiences in Online Forums

Subject Category Educational Guides Include Digital Photos, Essays and Curriculum Guides for Teachers

Celebrating New Mexico Statehood Integrates Content from Library Catalogs and Repositories from 20 Partner Institutions Across New Mexico

Integrated Search Results Across Collections and Institutions

The screenshot shows search results for 'Salinas Pueblo Missions National Monument'. It includes a search bar, a list of search results with titles like 'Salinas Pueblo Missions National Monument' and 'Quaran Mission ruins, Salinas Pueblo Missions National Monument, New Mexico', and a 'Digital Content' section with a thumbnail image of a mission building.

Data Processing and Import into Drupal

Celebrating New Mexico Statehood (CNMS) is a multi-institutional catalog of library and museum collection resources. Its creation required a massive data processing, export and import effort. Collection data from four repositories was extracted, harmonized to be compatible with Drupal in both structure and content format, and then processed the finished data into Structured Query Language (SQL) scripts so they could be bulk loaded directly into the CNMS database. A separate ingest process matched digital images with data records. A brief synopsis of the conversion process for each type of collection data is provided below:

LIBROS Online Catalog Records

LIBROS (<http://libros.unm.edu>) is a consortium of New Mexico state, academic and museum libraries that includes bibliographic records from over 20 different library collections. LIBROS is an Innovative Interfaces, Inc. Millennium Integrated Library System that is hosted at the University of New Mexico. The CNMS implementation team selected a set of 18,800 bibliographic records consisting of books and other materials related to New Mexico and Southwest culture and history.

The extraction process for the LIBROS data was remarkably easy. At a cataloging terminal, the Innovative Interfaces "List" function was used to search for records with New Mexico subject headings. A basic set of fields were selected, exported and transformed into BIBTEX format. The records were then imported into CNMS using the Biblio import feature.

Rocky Mountain Online Archive (RMOA) Finding Aids

RMOA (<http://www.rmoa.unm.edu>) is an online repository of EAD (Encoded Archival Descriptions) finding aids of collections at 26 other archives and special collections in New Mexico and the Western United States. RMOA is hosted by the UNM Libraries.

The process of converting the EAD-encoded finding aids and processing them into abbreviated digest records was technically the most complex of the CNMS project's data handling tasks. To accomplish it, an XML Editor and Parser were used to create a XML Stylsheet (XSLT) template, through which the RMOA data records were processed. EAD finding aids records were passed through the XSLT template, transformed and output as SQL scripts which were imported directly into CNMS database. The end result of the conversion process yielded an easily readable and comprehensible summary of the full length RMOA records.

New Mexico Digital Collections (ContentDM) Records

The UNM Libraries ContentDM site (<http://contentdm.unm.edu>) is branded "New Mexico's Digital Collection." The site contains records for over 67,000 digital images of photographs and scanned documents, as well as audio and video resources. The Center for Southwest Research has additionally included extensive descriptive metadata for most ContentDM records.

ContentDM has an easy to use export utility on its site administration page. The metadata records were exported directly into tab-delimited format files, which were then converted into SQL scripts, which were then imported directly into the CNMS database. Additionally, each record required a corresponding thumbnail image, which were copied and reformatted at 30% of the original ContentDM image size. Thumbnails were ingested into CNMS using a separate import process.

LoboVault (DSpace) Records

UNM's DSpace institutional repository (<http://repository.unm.edu>) is locally branded LoboVault. LoboVault contains over 7,500 open access documents, including 620 electronic theses and dissertations which were slated for inclusion in the CNMS database. Fortunately, DSpace runs on top of a standard SQL-compliant database, so it was possible to extract all of the LoboVault record data as a SQL script, that only needed minor modifications in order to be imported directly into CNMS.

CNMS PARTNER INSTITUTIONS

- Albuquerque Museum
- Farmington Museum
- Fray Angelico Chavez History Library
- Institute of American Indian Arts
- Los Lunas Museum of Heritage and Arts
- Museum of International Folk Art
- National Hispanic Cultural Center
- New Mexico History Museum
- New Mexico Institute of Mining and Technology
- New Mexico Museum of Art
- New Mexico State Records Center & Archives
- New Mexico State University Library
- Palace of the Governors
- Roswell Museum
- School for Advanced Research
- Silver City Museum
- University of New Mexico Libraries
- University of New Mexico Center for Regional Studies
- University of New Mexico Center for Southwest Research
- University of New Mexico Health Sciences Library and Informatics Center
- University of New Mexico School of Law Library