Database-Driven Web Content Management System

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UCSD Libraries public site   http://libraries.ucsd.edu
Detailed project information   http://libnet.ucsd.edu/portalproj

UCSD Libraries Portal Initiative

The UCSD Libraries established the Portal development initiative in order to improve the web infrastructure for the delivery of library resources to UCSD primary clientele. A primary design goal was to reduce the need to understand the Libraries organizational structure as a prerequisite to the identification of useful resources. The Portal is an important step in moving away from the geographic boundaries of physical libraries toward a virtual library unfettered by physical constraints of buildings, hours, and physical collections. This integrated resource provides direct access to the suite of information resources that have been selected in support of instructional and research programs at UCSD. Content is not limited to digital resources, and a comprehensive effort has been made to bring all resources together regardless of format.

Value Added Database (VAD): the heart of "Sage"

An underlying relational database of selected resources provides the foundation. Subject specialists, bibliographers, and others provide content for the database. The substantive value of the database is created through the identification and selection of library wide resources and the addition of descriptive data elements to aid in the retrieval and display. Staff refer to the database as the VAD (Value Added Database). The public component, in conjunction with Netscape Compass which spiders for added value and provides the search engine, has been given the name "Sage".

Purpose of the Value Added Database

VAD records form the content for dynamically created web pages that are assembled "on the fly" when a user browses subjects or types. A database author may assign additional terms to drive the format and content of custom lists and pages. Each record in the VAD describes one resource (web site, key reference book, database, etc.) that would appear as part of a web page. Various elements of the data added by bibliographers and other web page authors assist in the retrieval and display of that resource for the user. The VAD also streamlines the creation and maintenance of web pages by reducing redundant keying and by facilitating the sharing of resource data among web authors.

Compass/Spider search engine

The VAD also "feeds" the Netscape Compass/Spider search engine. The result is a database of resources that includes:

> basic records for primary information resources (descriptions, subjects, and keywords)
> URLs and full text of web sites
> content from additional web pages as far as two levels further down for each web site

ROGER

ROGER is the catalog of record (INNOPAC) for the UCSD Libraries. It is the formal mechanism for bibliographic control and access to the collections. Electronic resources (web resources, databases, electronic journals, etc.) are represented by catalog records in ROGER.   Bibliographers may request cataloging for ROGER for any resource in the VAD.   Primary bibliographic control of electronic journals and newspapers is maintained in ROGER, and content from those records is exported regularly into the VAD.

It is important to understand that ROGER and the VAD serve distinct purposes. The "value added" aspect of the VAD is the provision of a mechanism that enables bibliographers to enhance the ability to browse or search for electronic resources. VAD records have fields that are not defined in MARC. This creates the option to provide additional description and more control over display options.

Usage of VAD records

The VAD is accessed directly via SQL queries. The creator of a VAD record uses the Record Selector tool to generate SQL queries that combine data elements.   The browse function on the public interface invokes these pre-determined SQL queries.

The text from each VAD record is also copied into the Netscape Compass Server full text index. URLs from VAD records become the starting point for spidering by Compass to find other potentially relevant resources. End users access the Compass database through the public interface search functions.