

Preparing for linked data in digital repositories

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PREPARING FOR LINKED DATA IN DIGITAL REPOSITORIES



Sai Deng, University of Central Florida Libraries

How do digital repositories accommodate authority control?

CONTENTdm

- Allows **controlled vocabulary** to be defined for each field;
- **Look up and add** terms;
- Need to either **define the controlled list yourself**, or **choose to use a built-in thesaurus** (from OCLC Terminologies Service).

Dspace

- Fields can be configured to **allow authority control**;
- **Look up and add** terms;
- Need to define the controlled list, **keywords and subjects are not distinguished**, allow LCSH;
- Not linked to national or international authority database for control.

Digital Commons

- **Discipline thesaurus** functions as broad subjects;
- **Author Merge Tool:** merges various names but names are created based on author/submitter's email, not authority file;
- Allow fields to be defined as **link-friendly**.

Authority Control in Digital Repositories: a step towards a linked data world? A step away from the growing popular keyword search?

Authority Control in Digital Repositories and Related Linked Data Projects

- Myntti, J. & Cothran, University of Utah collaborated with Backstage Library Works. Authority control in a Digital Repository: Preparing for Linked data. Adapted the process for MARC 21 authority control for digital collections @ CONTENTdm.
- Tarver et al., University of North Texas Libraries: UNT Names (<http://digital2.library.unt.edu/name/>), link to other vocabularies such as VIAF, LC name authority file, Google Scholar author profile, LinkedIn profile.
- Ideally, the systems can accommodate linked data or you have the resources to help you create external linked data and implement data reconciliation. If not, what can be done as a metadata librarian or a cataloging librarian?

The UCF Libraries' Experiment of Adding Linked Data Fields to Its IR @ Digital Commons

Creator (Linked data)	Cassanello, Robert (VIAF); Cassanello, Robert (LC)
Contributor (Linked data)	Doran, Glen H. (VIAF); Doran, Glen H. (LC); Milanich, Jerald T. (VIAF); Milanich, Jerald T. (LC); Florida Memory Project (VIAF); Florida Memory Project (LC); Florida. Division of Historical Resources (VIAF) ; Florida. Division of Historical Resources (LC) ; Brevard Museum of History and Natural Science (Cocoa, Fla.) (VIAF) ; Brevard Museum of History and Natural Science (Cocoa, Fla.) (LC) ; Orange County (Fla.). Regional History Center (VIAF); Orange County Regional History Center (LC)
Collection	A History of Central Florida: Podcast
Geographic Coverage	Windover Pond Site (Fla.); Brevard County (Fla.)
Temporal Coverage	6000BC-5000BC
Contributor	Doran, Glen H.; Milanich, Jerald T.; Wentz, Rachel K.; Florida Memory Project; Florida. Division of Historical Resources; Brevard Museum of History and Natural Science (Cocoa, Fla.); Orange County Regional History Center; RICHES of Central Florida
Disciplines	Archaeological Anthropology History of Art, Architecture, and Archaeology Public History Social History
Description	In this episode of A History of Central Florida we spoke with Drs. Glen Doran , Jerald Milanich , and Rachel K. Wentz about the Windover Burial Site available in replica form at The Brevard Museum of History and Natural Science .

Linked to VIAF or LC name authority uri(s)

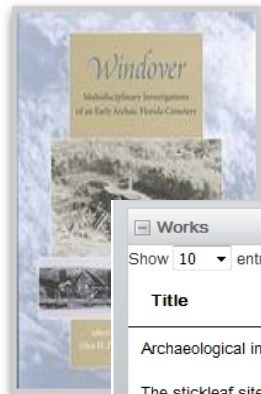
Linked data fields:





- Use Digital Commons memo fields which allow links, e.g., Creator (Linked data), Contributor (Linked data);
- Both VIAF and LC linked data uri(s) are added for the names.

Statement: Subject – Predicate - Object

This podcast – has contributor – [Doran, Glen H.](#)

The UCF Libraries' Experiment of Adding Linked Data Fields to Its IR @ Digital Commons



Doran, Glen H.    
VIAF ID: 20935114 (Personal)
Permalink: <http://viaf.org/viaf/20935114>
ISNI: [0000 0000 7142 3781](http://www.isni.org/0000_0000_7142_3781)

Virtual International
Authority File (VIAF):
[Doran, Glen H.](http://viaf.org/viaf/20935114)

Works

Show 10 entries

Title	Sources
Archaeological investigations at Naval Live Oaks : studies in spatial patterning and chronology in the gulf coast of Florida	
The stickleaf site, 1976 (a.e.)	
Windover : multidisciplinary investigations of an early archaic Florida cemetery	
Windover, 2002:	

Showing 1 to 4 of 4 entries

Previous 1 Next

- Selected Co-authors
1. Platek, Bruce J. (2)
 2. Milanich, Jerald T. (2)
 3. University of California, Davis (1)

- Countries of Publication (1)
- Publication Statistics
- Selected Publishers (3)
- About
- Record Views
- History of VIAF ID:20935114 (6)

Doran, Glen H.

From [Library of Congress Name Authority File](#)

Details Visualization

Doran, Glen H.

LC Name Authority File:
[Doran, Glen H.](#)

URI(s)

> <http://id.loc.gov/authorities/names/n77017496>

Instance Of

- > [MADS/RDF PersonalName](#)
- > [MADS/RDF Authority](#)
- > [SKOS Concept](#)

Scheme Membership(s)

> [Library of Congress Name Authority File](#)

Collection Membership(s)

- > [Names Collection - Authorized Headings](#)
- > [LC Names Collection - General Collection](#)

Exact Matching Concepts from Other Schemes

> <http://viaf.org/viaf/sourceID/LC%7Cn+77017496#skos:Concept>

Sources

- > found: Keller, John Esten. The stickleaf site, 1976 (a.e.) t.p. (Glen H. Doran)
- > found: Windover, 2002: CIP t.p. (Glen H. Doran) data sheet (b. 06-19-50)

Change Notes

- > 1977-12-12: new
- > 2001-09-20: revised

Alternate Formats

- > [RDF/XML \(MADS and SKOS\)](#)
- > [N-Triples \(MADS and SKOS\)](#)

The UCF Libraries' Experiment of Adding Linked Data Fields to Its IR @ Digital Commons

Title	Episode 01 Windover Burial Site
Series Producer	Robert Cassanello, <i>University of Central Florida</i>
Streaming Media	https://www.youtube.com/watch?v=-UYVBFHo-As
Media Format	embedly
Title - Alternative	Windover Burial Site
Preferred Title	A History of Central Florida: Podcast
Keywords	Archaic Indians; Archaic Florida Indians; Mortuary period; Archaic society; Death; Land; Preparation
Subjects	Windover Pond Site (Fla.); Paleo-Indians--Funerary Anthropometry--Florida--Brevard County; Burial--Florida--Brevard County; Brevard County (Fla.)--Antiquities; Tools; Tools, Prehistoric--Analysis; Bone implements, Prehistoric--Florida--Brevard County; Water-saturated sites (Archeology); Civilization
Type	Video; MovingImage

Keywords and Subjects:

- Separate fields;
- Some subjects have linked data uri(s), some subjects with subdivisions don't have individual uri(s);
- Both are only text fields; possible to add links;
- Digital Commons only display keywords as facets; need to request to add subjects as facets

Type, geographic coverage, etc.: can convert to linked data fields.

analysis; Prehistoric tools; Prehistoric bones; Prehistoric fabrics; Archaic in death; Bury ritual; Native Americans; Artifacts; Bury goods

More possible statements:

This podcast – has subject – Indians

This podcast – has type – MovingImage

This podcast – has geographic coverage – Brevard County (Fla.)

Cataloging Digital Collections @ CONTENTdm: Adding Linked Data Values/Labels

- **CONTENTdm: Adding linked data values** to some fields for some collections
 - CONTENTdm doesn't "fully" accommodate linked data;
 - **Trying to catalog using linked data values for various fields**, such as: Name, Place, State, Country, subjects... (terms uri(s) not added)
 - Use "Subject" and "Keyword" fields separately;
 - Always **search LC Linked Data services, FAST and other online thesauri.**
- **Non-MARC data in digital repositories can take advantage of controlled vocabularies** used in traditional library catalogs and furthermore, linked data lists;
- Is it deemed good practice for the catalogers to **use linked data values/labels** to prepare for the linked data in digital repositories?

Some Reflections

■ Limitations of Existing Authority Files:

- VIAF, LC Name Authority, Local Authority... (Inadequate)
- When automatic full validation and data reconciliation is not yet built-in to the systems, how much time can be spent checking and adding the linked data values?
- Is it the ideal world: Keywords co-exist with controlled vocabularies, especially linked data lists? (More freedom vs. more control?)

■ Reactions to Linked Data

- General initial reaction: Confusion, doubts;
- Support experiments will try and evaluate...

Some Reflections

■ Collaboration and Consensus Building

- Collaboration between Cataloging and Digital Initiatives;
- Collaboration between the library and other university units: The Regional Initiative for Collecting the History, Experiences, and Stories of Central Florida (RICHES), History Department...
- Consensus building, experiments and evaluation

■ Possibilities:

- **Name lists in linked data form** (to meet local needs)
 - **Personal Names:** (link to) VIAF; LC authority name; Google Scholar profile; DBpedia; ORCID...
 - **Organizational Names:** (link to) VIAF; LC authority name headings...
 - **Geographic names, places:** (link to) LC authority geographic names; GeoNames...
- **Create linked data from collections:** Create mapping between metadata elements and data model predicates; Implement reconciliation; Build interface for access and displaying of linked data

References and Readings

Lampert, Cory K. & Southwick, Silvia B. (2013). Transforming CONTENTdm metadata into linked open data. CONTENTdm Virtual Conference, December 2013.

Luyten, Bram. ORCID for DSpace (2014). <http://www.slideshare.net/bramluyten/orcid-identifiers-for-dspace>

Myntti, J. & Cothran N. (2013). Authority Control in a Digital Repository: Preparing for Linked Data. *Journal of Library Metadata*. Volume 13, Issue 2-3, 2013.

Tarver, H., Waugh, L., Philips, M. & Hicks W. (2013). Implementing name authority control into institutional repositories: A staged approach. UNT Digital Library. <http://digital.library.unt.edu/ark:/67531/metadc172365/>.

University of Central Florida Libraries (2015). STARS: Showcase of Text, Archives, Research & Scholarship. <https://library.ucf.edu/find/stars-digital-repository/>

Cover background photo: WorldCat Works linked data

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