Getty Vocabularies
Why LOD? Why now?
A Brief History of the Project
September 9, 2014
The Beginning
International Terminology Working Group

Dresden, September 2014

August 2010

November 2011

January 2013
Setting the Stage

Dr. Marcia Lei Zeng
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Kent State University

Curriculum Vitae: http://marciazeng.slis.kent.edu/vita.htm
The Challenge

Provide proof that the concept for “rhyta” in AAT could be represented as LOD without losing any of its rich content.

[Link to Getty Museum page for rhyta]
Terms in multiple languages

- Unique and persistent term IDs
- Languages are attributes of term
- Same term in multiple languages
- Parts of speech

**Term:** rhyta
- **Preferred:** rhyta
- **Languages:**
  - Greek
  - Spanish
- **Parts of speech:**
  - Noun

**Record Type:** concept

**ID:** 300198841

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Scope notes in multiple languages

ID: 300198841

**rhyta** (drinking vessels, <vessels for serving and consuming food>, ... Furnishings and Equipment (Hierarchy Name))

**Note:** Refers to vessels from Ancient Greece, eastern Europe, or the Middle East that typically have a closed form with two openings, one at the top for filling and one at the base so that liquid could stream out. They are often in the shape of a horn or an animal's head, and were typically used as a drinking cup or for pouring wine into another vessel. Drinking was done by holding the rhyton above the drinker's head and catching the stream of liquid in the mouth.

**Additional Notes:**

**Chinese (traditional)** ..... 指古希臘、東歐或中東的容器，一般呈封閉狀，但有兩個開口處，其一位於頂端供注入液體，其二位於底部讓液體流出。多數狀如獸角或動物頭形，最常在飲酒或倒酒時使用，飲用時需握住杯子高舉過頭再以口接酒。指古希臘、東歐或中東的容器，一般呈封閉狀，但有兩個開口處，其一位於頂端供注入液體，其二位於底部讓液體流出。多數狀如獸角或動物頭形，最常在飲酒或倒酒時使用，飲用時需握住杯子高舉過頭再以口接酒。

**Dutch** ..... Vaten uit de Griekse oudheid in de vorm van een dierenkop, werden vaak gebruikt als drinkgerei of om wijn in een ander vat te gieten.

**German** ..... Verweist auf ein Gefäß aus dem antiken Griechenland, Osteuropa oder dem Mittleren Osten, das typischerweise eine geschlossene Form mit zwei Öffnungen hat, eine auf der Oberseite zum Einfüllen, eine auf der Unterseite, damit die Flüssigkeit herauslaufen kann. Es hat oft die Form eines Horns oder Tierkopfes und wurde typischerweise als Trinkgefäss oder zum Ausgießen von Wein in ein anderes Gefäß benutzt. Getrunken wurde, indem das Rhyton über den Kopf des Trinkenden gehalten und die Flüssigkeit mit dem Mund aufgefangen wurde.

**Spanish** ..... Refiérase a vasijas de la Antigua Grecia, Europa del Este, o del Medio Oriente, que típicamente son cerradas pero con dos aberturas, una en el extremo superior para poder llenarlas, y otra en la base para que el líquido pudiera salir. A menudo tienen la forma de un cuerno o una cabeza de animal y eran por lo común usadas como copas para beber o para vaciar vino en otras vasijas.
Relationships

- Multiple parents
- Multiple other relationships

For the full list see “Crosswalk by Concept”
http://www.getty.edu/research/tools/vocabularies/crosswalk_aat_assoc_rels.pdf
<table>
<thead>
<tr>
<th>Source ID</th>
<th>Title</th>
<th>Citation</th>
</tr>
</thead>
</table>
| 20000079740 | [AS-Academia Sinica] | Brief Citation: AS-Academia Sinica  
Full Citation: Academia Sinica (Academia Sinica; Nankang, Taiwan) |
| 20000079883 | [Staatliche Museen zu Berlin Preussischer Kulturbesitz database] | Brief Citation: Staatliche Museen zu Berlin Preussischer Kulturbesitz database (2014-)  
Full Citation: Database of the Staatliche Museen zu Berlin Preussischer Kulturbesitz (Berlin, Germany) (2014-) |
| 2000077523 | [AT-AAT database] | Brief Citation: AT-AAT database (1994-)  
Full Citation: AAT: Dutch AAT Translation Project coordinated by RKD (Netherlands Institute for Art History). The Hague, Bureau AAT, 1994- |
| 2000051034 | [TAA database] | Brief Citation: TAA database (2000-)  
Full Citation: Tesoro de Arte & Arquitectura database. Centro de Documentación de Bienes Patrimoniales, DIBAM. Santiago, Chile: 2000- |

**Sources and Contributors:**
- Chinese
- Dutch
- Spanish

**Note:**
- English
- Chinese (traditional)
- Dutch
- German
- Spanish

**Subject:**
- J. Paul Getty Museum, collections online (2000-)
- AS-Academia Sinica
- [Staatliche Museen zu Berlin Preussischer Kulturbesitz database] (2014-)
- [AT-AAT database] (1994-)
- [TAA database] (2000-)

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Revision History

• **Subject**
  • Created
  • Updated
  • Term added
  • Term deleted
  • Note created
  • Note updated
  • Moved
  • Parent added
  • Relation deleted
  • Merged
  • Issued

• **Source**
  • Created
  • Updated
  • Merge

**Obsolete Subjects**

• When, for some reason the concept is deleted, we also provide continuity.
The way data is being published on the web is currently in transition.

A current trend in managing art information is to increasingly make data about art, architecture, and cultural objects available as Linked Open Data.

This applies to the information directly describing the objects, but also to the vocabularies used in the descriptions.

For several years, the Getty Vocabulary team had been receiving legitimate requests to publish our thesauri as LOD.

Dr. Zeng’s 62-page report convinced us that it was possible to publish all of our data as LOD. It was time to stop asking “why” and to start exploring “how” to make it happen.
The Analysis Phase

Some facts and links that helped us take the leap into the LOD world
• Tim Berners-Lee is the director of the World Wide Web Consortium (W3C).

• Semantic Network Model was formed in the early 60s as a form to represent semantically structured knowledge.

• In 1998 Tim Berners-Lee created this “attempt to give a high-level plan of the architecture of the Semantic WWW.”
  http://www.w3.org/DesignIssues/Semantic.html

• The original 2001 Scientific American article by Berners-Lee described an expected evolution of the existing Web to a Semantic Web.

• He defined the Semantic Web as a “web of data that can be processed directly and indirectly by machines.”

• By 2010, it was a reality
  http://www.ted.com/talks/tim_berners_lee_the_year_open_data_went_worldwide.html
Other Research and Links

- Europeana Video
  - Sometimes a picture is worth a thousand words — in this case, it’s a video
  - [http://vimeo.com/36752317](http://vimeo.com/36752317)

- Semantic Technology & Business Conference

- Linked Open Data in Libraries Archives and Museums (LODLAM)
  - [http://lodlam.net/](http://lodlam.net/)

- Virtual International Authority File (VIAF)
  - Hosted by OCLC (Online Computer Library Center)
  - [http://www.viaf.org/](http://www.viaf.org/)
Linked Documents vs Linked Data

- **Linked Documents on the Web**
  - Connected by hypertext
  - Allows users to traverse via Web browsers
  - Data is made available in formats such as CSV, XML, or marked up as HTML tables

- **Linked Data on the Web**
  - Connects data from diverse domains such as people, books, scientific publications, films, genes, drugs and clinical trials, online communities, statistical and scientific data.
  - Enables new generation of search engines that follow the links between data sources to deliver more complete answers as new data sources appear
  - Operate on top of an unbound, global data space.
  - Uses the Web to create typed links between data from different sources.
Linked Open Data (LOD)

- **Linked Data**
  - A set of best practices for publishing and connecting structured data on the Web to enable the interlinking possibilities.
  - It builds upon standard Web technologies such as HTTP and URIs.
  - But, rather than using them to serve web pages for human readers, it extends them to share information in a way that can be read automatically by computers.

- **Open Data**
  - The idea that certain data should be freely available to everyone to use and republish as they wish, without restrictions from copyright, patents or other mechanisms of control.

- **Linked Open Data (LOD)**
  - A community project, sponsored by the Semantic Web Education and Outreach group of the W3C, to extend the Web with a data commons by publishing various open datasets as RDF on the WEB and by setting RDF links between data items from different data sources.
  - Both linked and open.
Cultural Heritage LOD

Cultural Heritage has its own LOD cloud:

Rijksmuseum

- Artworks: 31,659
- Locations: 11,328
- People: 55,323
- Concepts: 53,525

WordNet Fr (Wolf) 31,822

WordNet UK (Princeton) 115,424

WordNet NL (Cornetto) 70,434

Locations (TGN) 890,000

Locations 22,109

IconClass 24,331+

People (ULAN) 130,000

People 331,465

Artworks 82,781

Artworks (joconde) 12,762

Concepts (joconde) 31,000

Concepts 11,985

Louvre

- Artworks: 11,327
- Concepts: 53,525
Our Goal

To offer the Getty Vocabularies as Conduits to connect resources
Linking Possibilities: Getty Vocabularies

http://vocab.getty.edu
The Getty Vocabularies acts as a conduit to connect the projects to each other.
Linking Possibilities: Our Partners

- Chinese AAT
- Dutch AAT
- Spanish AAT
- Swiss AAT Project
- German AAT
- LCSH

AAT

ULAN

TGN

CONA

VIAF

Arches

http://vocab.getty.edu

Roles
Nationalities
Event Terms
Work Type
Place Types
Event Terms
Cultural Style
Event Places
Repository
Artist, Creator

Getty Museum

Getty Wide Search

Provenance Index

AATA Online

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Linking Possibilities: Our Partner’s Partners
Linking Possibilities: Others

http://vocab.getty.edu

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The Result
Open Content Program

Finally, our time had come!
General information site

- Target audience: Anyone interested in general information about the project
- http://www.getty.edu/research/tools/vocabularies/lo/}

The Getty Vocabularies

Welcome to the SPARQL endpoint vocab.getty.edu

NOW Available:

- The Art & Architecture Thesaurus (AAT)
- The Getty Thesaurus of雕樭perative Names (TGN)
- Linked in Art & Architecture, the AAT is a structured vocabulary for art and other cultural objects, including works, descriptions, and other information for general concepts related to art and architecture.

Ontology Changes:
- There are changes to the thesaurus, and more information and links are available. Visit the Changes section for more information.

Documentation and Downloads:
- SPARQL Query Language (used for querying the vocabulary)
- RDFa for linking (used for linking)
- Entrez XML (used for export)
- CSV (used for export)
- JSON (used for export)

Questions and Comments:
- For questions and comments, please post on the discussion forum on GET. For more information, visit the links below:
  - AAT: http://vocab.getty.edu/aat/ (for questions and comments)
  - TGN: http://vocab.getty.edu/tgn/ (for questions and comments)

Usage Notes:
- The AAT and TGN are available as LOD. They are published under the ODCs by the Getty Research Institute.

SPARQL Endpoint

- Target audience: Developers and programmers who are interested in consuming the data
- http://vocab.getty.edu/
Release of AAT as LOD

February 2014
Release of TGN as LOD

August 2014

In the first few days
1,700 hits / over 200 tweets

Art, Getty Research Institute, Research

GETTY THESAURUS OF GEOGRAPHIC NAMES RELEASED AS LINKED OPEN DATA

James Cuno | August 21, 2014

Second of four Getty Vocabularies now available for free download; two more to follow within a year

We’re delighted to announce that the Getty Research Institute has released the Getty Thesaurus of Geographic Names (TGN)® as Linked Open Data. This represents an important step in the Getty’s ongoing work to make our knowledge resources freely available to all.
A Few Examples of Usage
Integrating EADitor with the Getty linked data AAT

I've been following linked open data developments at the Getty pretty closely over the last few months, especially related to incorporating Getty AAT URIs (and eventually ids from other vocabulary systems) into Nomisma.org and my side-project Kerameikos.org, a LOD thesaurus geared specifically toward Greek pottery.

For some reason, it occurred to me only yesterday that I should adapt EADitor to incorporate Getty AAT identifiers into EAD finding aids. After all, XForms applications communicate nicely with other REST services (such as SPARQL), and I've already done SPARQL query work in XForms with Nomisma's backend. I spent about a half hour this afternoon improving the Genreform functionality in EADitor to make AAT (as opposed to the Library of Congress Genre/Format Terms) as the default lookup mechanism.

Here's how it works:

User Interface

1. Add a genreform element into your controlled access headings in your EAD finding aid.
2. Click the Getty AAT radio button (selected by default) to activate the query interface.
3. Type a term and click the search button.
4. A list of results (limited to 25, filtered by English labels, and arranged alphabetically) will appear in the select list. After clicking an option, click the "Select" button to set the text of the genreform node to the skos:prefLabel from the Getty SPARQL results and to set the @authfilenumber attribute of the genreform element to the Getty id.
Visualizing Hierarchies with d3js

Matthew Lincoln

http://matthewlincoln.net/2014/02/21/hierarchies-of-the-getty.html
Visualization of AAT "Rhyta" on en.lodlive.it

http://en.lodlive.it/?http://vocab.getty.edu/aat/300198841
NISO Webinar on LODLAM given by Jon Voss

Getty Vocabularies as LOD

A major 2014 milestone for the LODLAM community

LODLAM: Linked Open Data in Libraries Archives and Museums
Partage Plus
Digitising and Enabling Art Nouveau for Europeana

http://www.partage-plus.eu/

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Works done by painting on the front or the reverse of glass, whether or not the paint is then fired onto the glass. Painted glass mirrors and other glass decoration, and painted works in the manner of painting on canvas or wooden panels were known since ancient times. In the context of stained glass windows and panels, refers to parts of the image that are painted on glass (often stained glass), especially the smaller details.

General term for containers that store materials.
natuk's sandbox: Web Taxonomy plugin for Getty vocabularies

Experimental Project
This is a sandbox project, which contains experimental code for developer use only.

This is a plugin for the Web Taxonomy module. It allows the use of the terms from the Getty vocabularies:

- Art and Architecture Thesaurus (AAT)
- Thesaurus of Geographical Names (TGN)

These two have recently been made available as LOD. More Getty vocabularies will be added to this module once available as LOD. The module uses the JSON representations and the sample Full Text Search SPARQL Query (5.1.0) from the Getty which has been modified to limit results from the respective vocabularies.

This module has been based on jneubert's sandbox module for Wikipedia terms. An earlier version of this module for AAT only can be found here.

This module is sponsored by Ligatus and the University of the Arts London.

Project Information
Maintenance status: Actively maintained
Development status: Under active development
Module categories: RDF, Taxonomy

Maintainers for Web Taxonomy plugin for Getty vocabularies
natuk - 2 commits
last: 1 day ago, first: 1 day ago
View all committers
View commits

Issues for Web Taxonomy plugin for Getty vocabularies
To avoid duplicates, please search before submitting a new issue.

Advanced search
All issues
0 open, 0 total
Bug report
0 open, 0 total
Subscribe via e-mail

Resources
Read license
Using AAT LOD to bridge between the descriptions of the artworks in the Chen collection and those in other collections in the world.
2015 LOD Publications

Union List of Artist Names (ULAN)®

Cultural Objects Name Authority (CONA) ®

The J. Paul Getty Museum

AATA Online Abstracts of International Conservation Literature
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