

AAT LOD Microthesauri

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International Terminology Working Group (ITWG)

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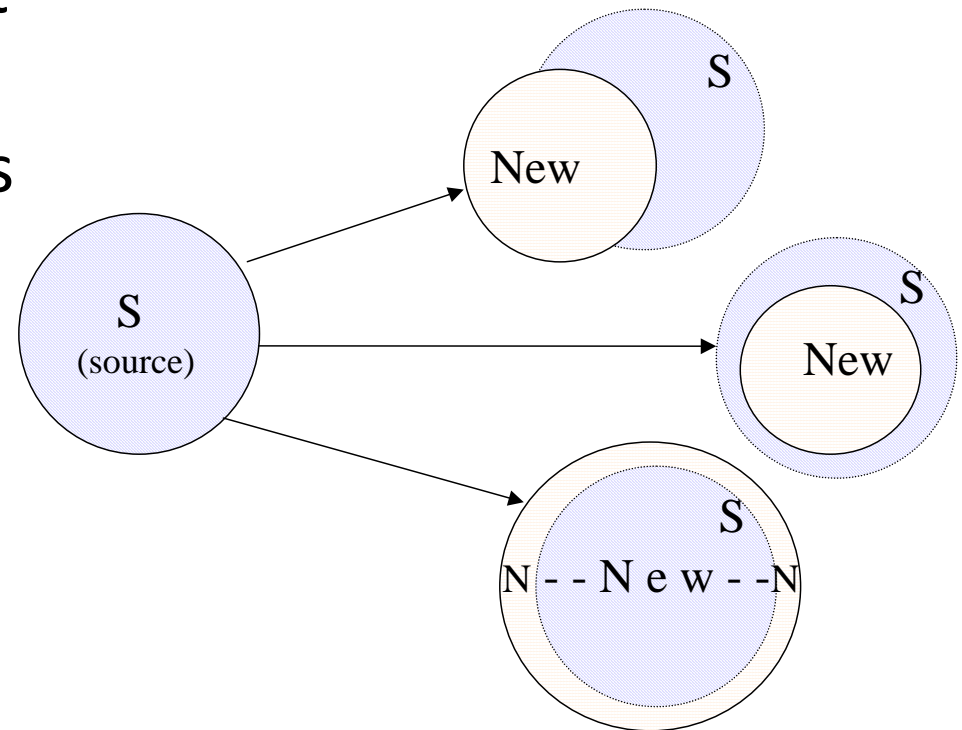
1. Definition

Microthesaurus: designated subset of a thesaurus that is capable of functioning as a complete thesaurus.

-- ISO25964-2:2013

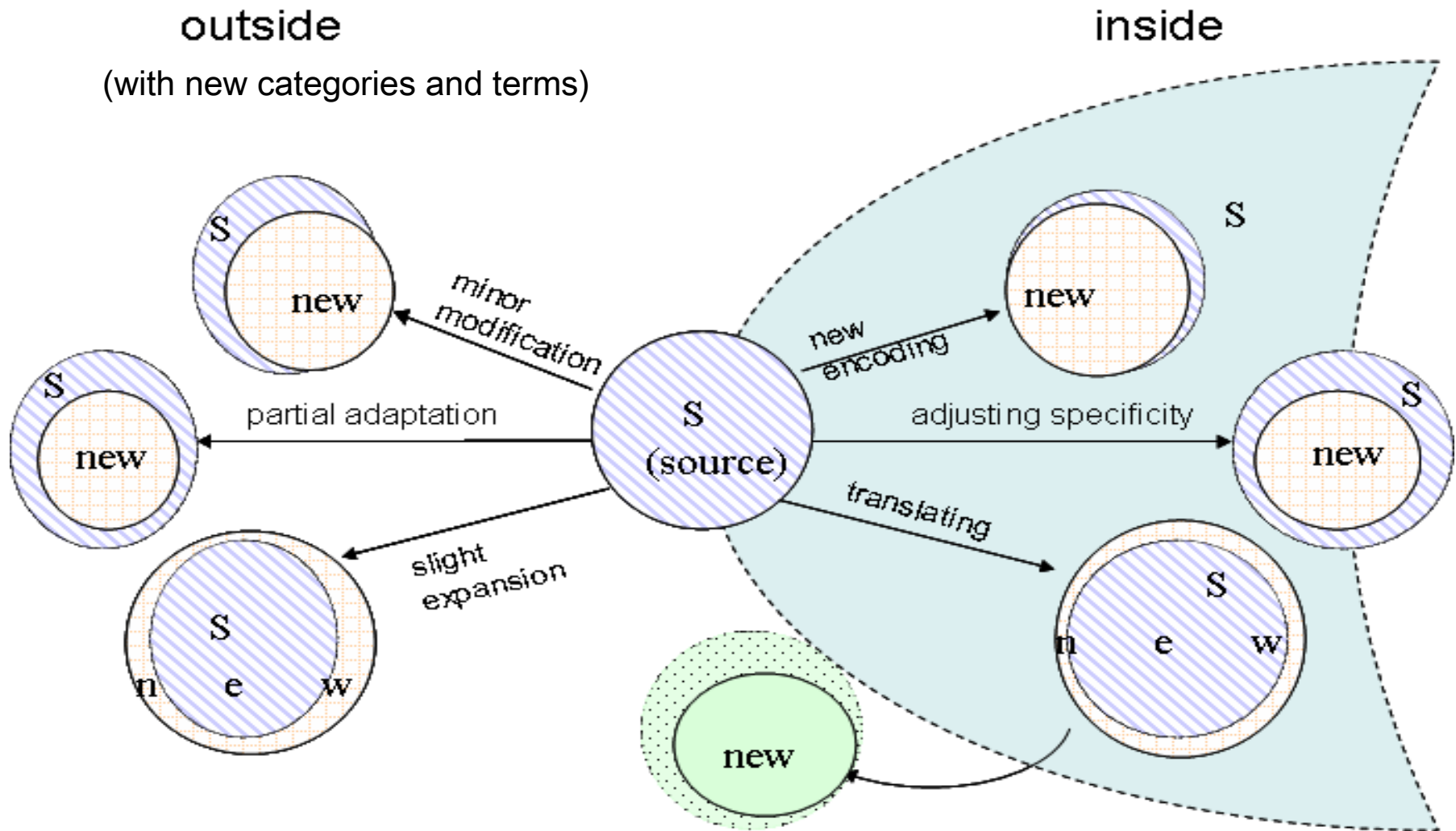
Microthesauri are different from:

- Derived vocabularies
 - adaptation
 - modification
 - expansion
 - partial adaptation
 - translation

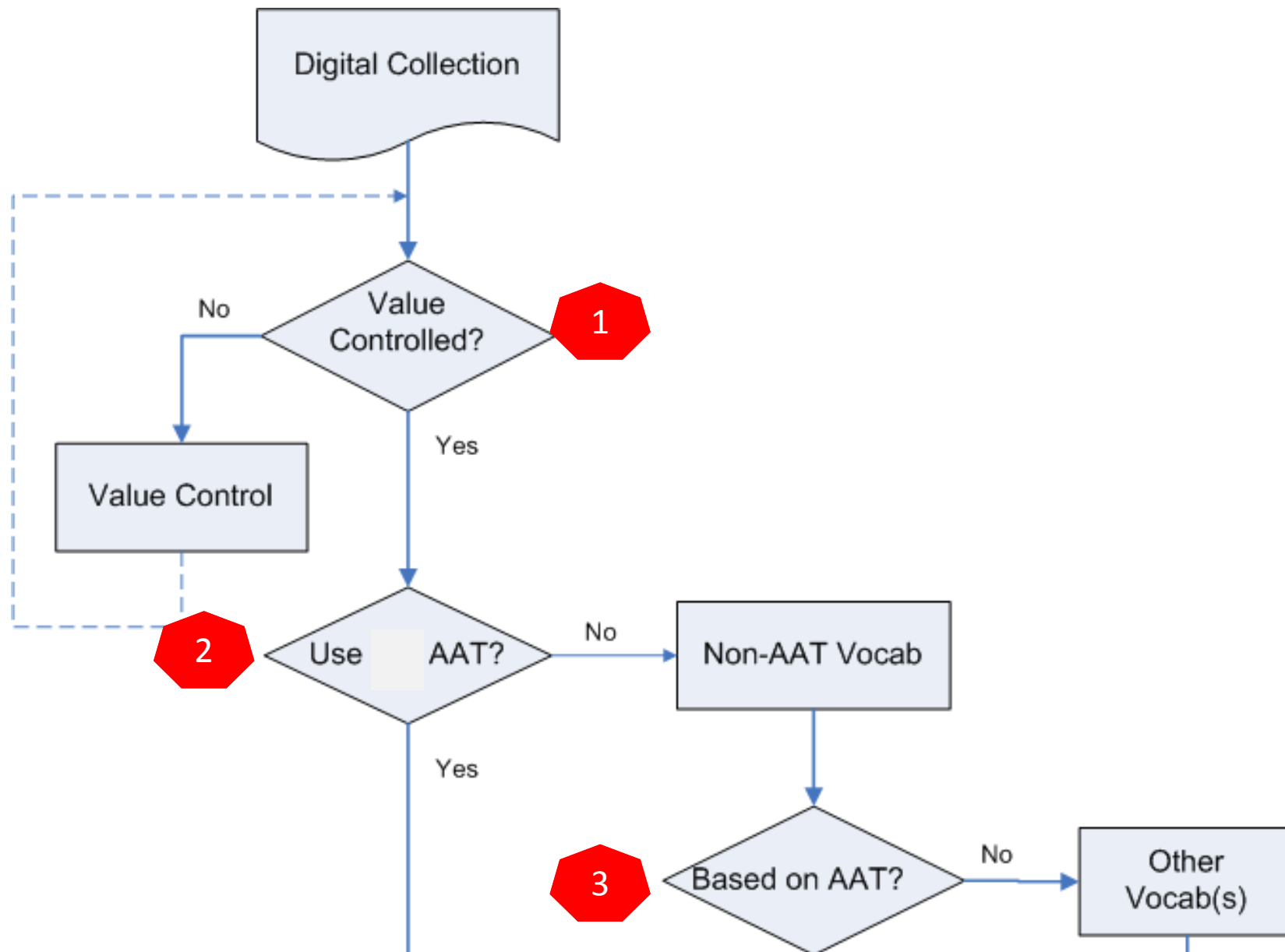


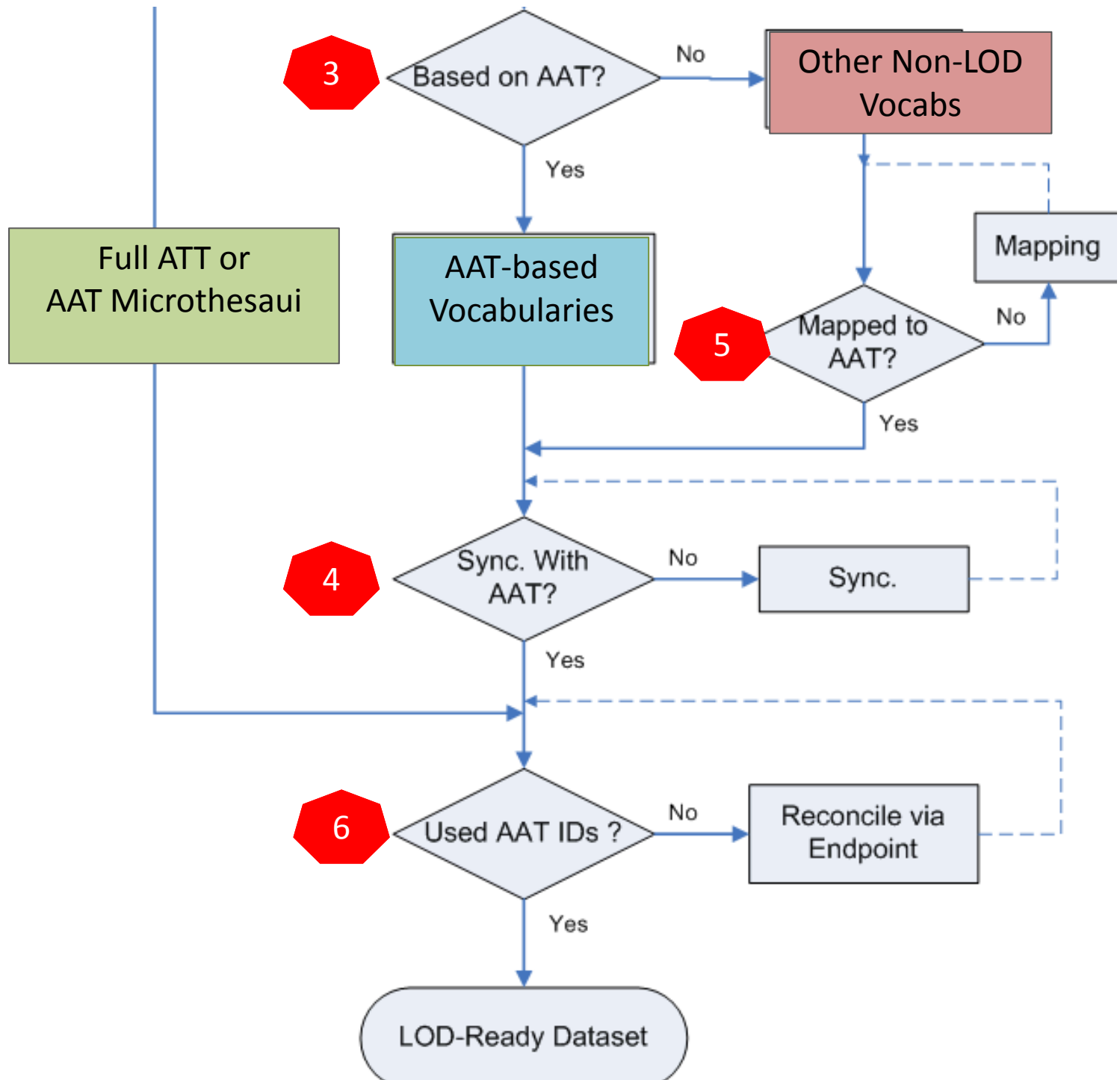
Deriving new vocabularies from a source vocabulary

New vocabularies depending on a source vocabulary

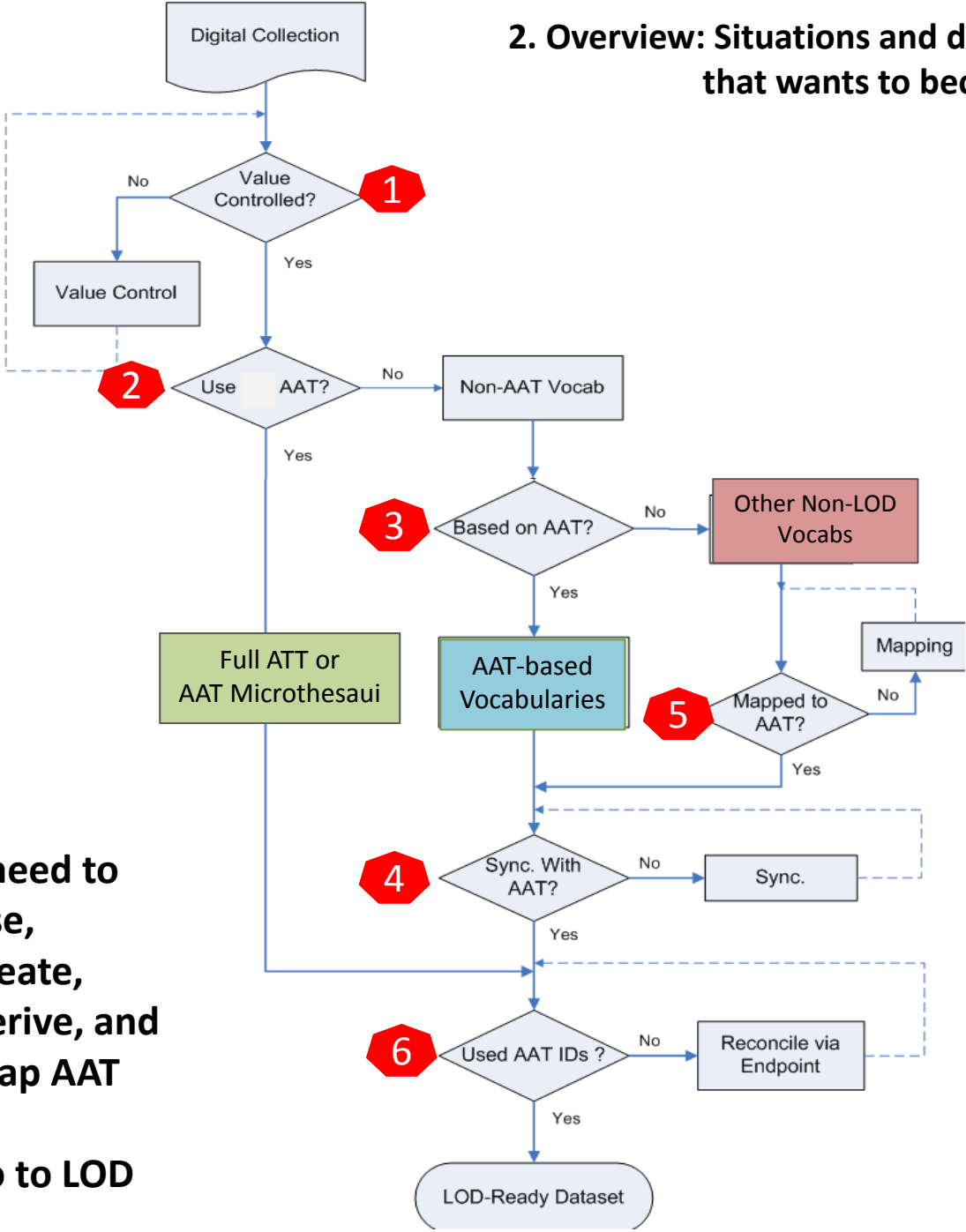


2. Overview: Situations and decisions for a digital collection that wants to become LOD dataset





2. Overview: Situations and decisions for a digital collection that wants to become LOD dataset



The need to

- use,
- create,
- derive, and
- map AAT
- &
- go to LOD

3. Can a microthesaurus be made from an existing thesaurus?

	Structure	Example
YES	Classificatory structure	<ul style="list-style-type: none"> • <i>EUROVOC</i> • <i>Chinese Classified Thesaurus</i> • [<i>English Heritage Thesauri</i>]
YES	Faceted structure	<ul style="list-style-type: none"> • AAT • FAST (Faceted Application of Subject Terminology)
YES	Deep hierarchies (family trees)	<ul style="list-style-type: none"> • AAT • NASA Thesaurus • INSPEC Thesaurus
NO	flat structure [alphabetically organized]	<ul style="list-style-type: none"> • LCSH • hundreds of thesauri

Microthesaurus: designated subset of a thesaurus that is capable of functioning as a complete thesaurus. -- ISO25964-2:2013

Eurovoc

Europa > EuroVoc homepage > Domains and MT

Content language:
(en) English

Simple search

■ Advanced search

Browse

■ Browse the subject-oriented version

Download

■ By domain
■ Permuted alphabetical
■ Multilingual list
■ Alphabetical index
■ EuroVoc SKOS/RDF
■ EuroVoc XML

Your proposals

■ Contribute

Domains

- ⊕ 04 POLITICS
- ⊕ 08 INTERNATIONAL RELATIO
- ⊕ 10 EUROPEAN UNION
- ⊖ 12 LAW
 - 1206 sources and branches of th
 - 1211 civil law
 - 1216 criminal law
 - 1221 justice
 - 1226 organisation of the legal system
 - 1231 international law
 - 1236 rights and freedoms
- ⊕ 16 ECONOMICS
- ⊕ 20 TRADE
- ⊕ 24 FINANCE
- ⊕ 28 SOCIAL QUESTIONS
- ⊕ 32 EDUCATION AND COMMUNICATIONS

"EuroVoc is split into 21 domains and 127 microthesauri.

Each domain is divided into a number of microthesauri.

A microthesaurus is considered as a concept scheme with a subset of the concepts that are part of the complete EuroVoc thesaurus."

<http://eurovoc.europa.eu/drupal/?q=node/555>

CHIN's Professional Exchange



Search

- Find Resources
- Jobs
- Funding
- Conferences & Training
- Artefacts Canada
- Add to Professional Exchange
- Help

Home > Find Resources > Summary "Art & Architecture Thesaurus (AAT) Processes and Techniques Hierarchy"

[Back to List](#)

[First](#) [Previous](#) [Next](#) [Last](#)

Summary "Art & Architecture Thesaurus (AAT) Processes and Techniques Hierarchy"

Created by the J.Paul Getty Trust, the AAT is a thesaurus of terms used in the cataloguing and indexing of art, architecture, artifactual, and archival materials.

The Processes and Techniques of the AAT contains terminology for "actions and methods performed physically on or with materials and objects, and for processes occurring in materials and objects."

CHIN recommends the use of the AAT for museums with broad humanities collections. The terminology found in the AAT Processes and Techniques Hierarchy is appropriate for use in the Technique and Decorative Technique fields of the Artefacts Canada: Humanities database, as well as some Condition fields within museum collections management systems.

CHIN has contributed approximately 2600 French terms to the AAT: these are now visible within the AAT as French language equivalents for the most common terms. This bilingual version of the AAT is used to assist with search.

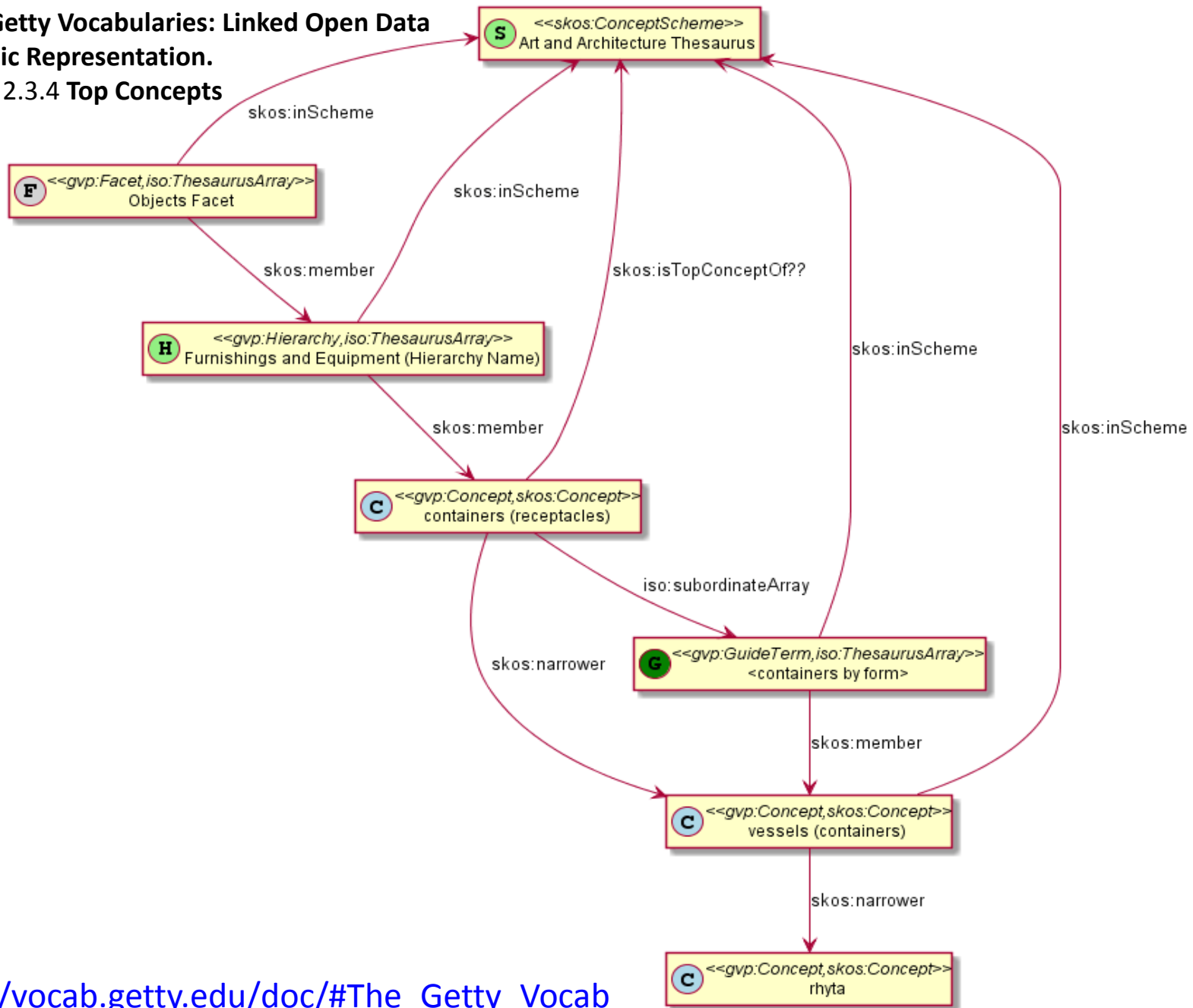
Institution / Organization:	CHIN
Submitted:	Canadian
Date:	2013-06
Collection:	Collection

- [Art & Architecture Thesaurus \(AAT\) Processes and Techniques Hierarchy](#) ←
- [Canadian Centre for Architecture Bilingual Term Lists](#)
- [Art & Architecture Thesaurus \(AAT\) Agents Facet](#) ←
- [Cultural Objects Name Authority \(CONA\)](#)
- [Art & Architecture Thesaurus \(AAT\) Materials Facet](#) ←
- [Art & Architecture Thesaurus \(AAT\) Physical Attributes Facet](#) ←
- [Art & Architecture Thesaurus \(AAT\)](#)
- [Art & Architecture Thesaurus \(AAT\) Disciplines Hierarchy](#) ←
- [Art & Architecture Thesaurus \(AAT\) Objects Facet](#) ←
- [Art & Architecture Thesaurus \(AAT\) Styles and Periods Facet](#) ←
- [The Info-Muse classification system for fine arts and decorative arts museums](#)
- [Testing a Vocabulary Standard Against Cataloguing Practice in Canadian Museums](#)
- [Guidelines for Forming Language Equivalents: A Model Based on the Art & Architecture Thesaurus](#)

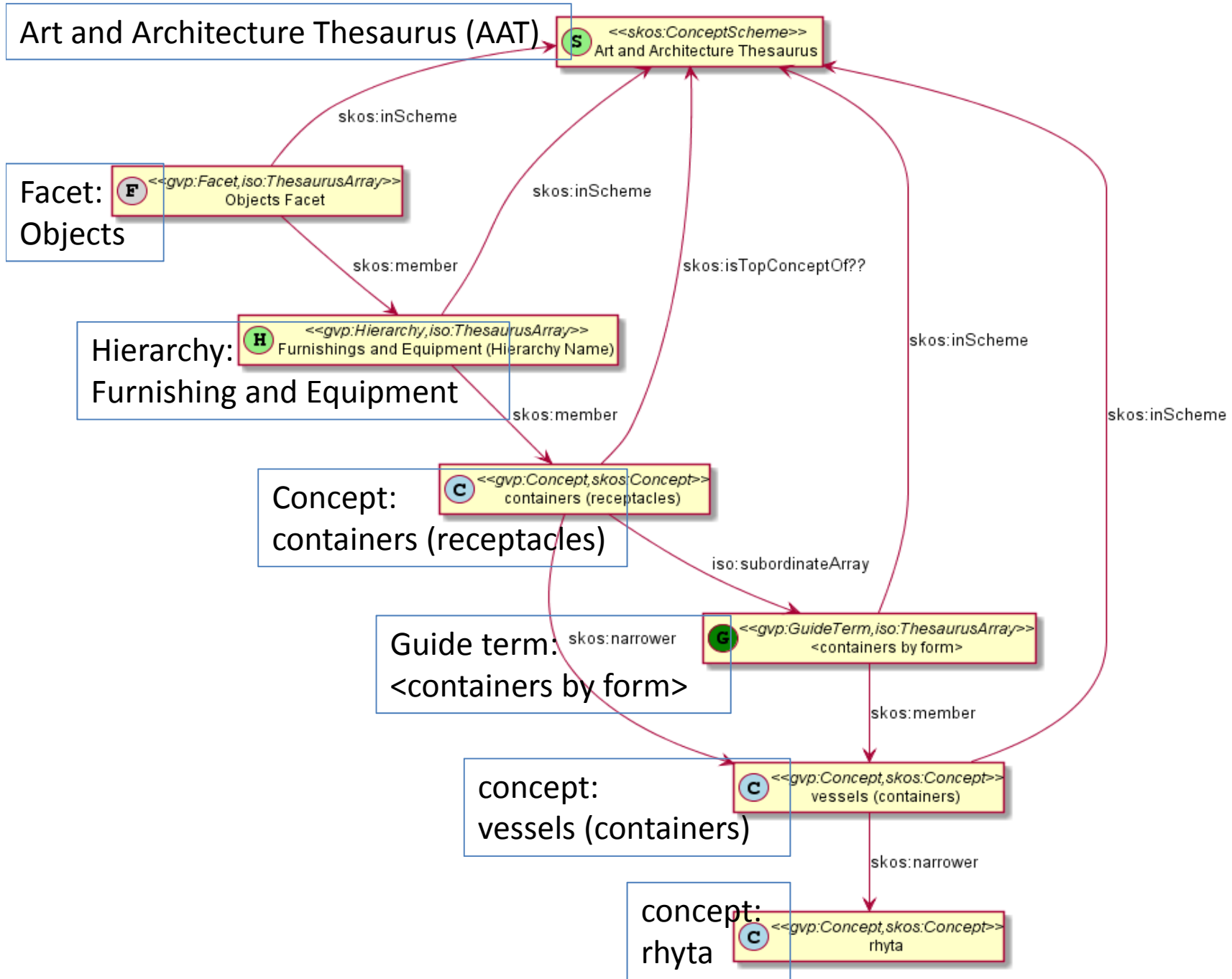
CHIN listed 891 recommended resources.

Only AAT has facets and hierarchies that are listed separately.

**From: Getty Vocabularies: Linked Open Data
Semantic Representation.
Section 2.3.4 Top Concepts**



[http://vocab.getty.edu/doc/#The Getty Vocabularies and LOD](http://vocab.getty.edu/doc/#The%20Getty%20Vocabularies%20and%20LOD)



Art and Architecture Thesaurus (AAT)

Facet:
Objects

Hierarchy:
Furnishing and Equipment

Concept:
containers (receptacles)

Guide term:
<containers by form>

concept:
vessels (containers)

concept:
rhyta

The units were recommended to use by projects such as The Canadian Heritage Information Network (CHIN)

Facets

[large] Hierarchies
(full coverage, deep layer)

Sub-facets
(Indicated by node labels)


What are special in AAT

Vases

URI(s)

- > <http://id.loc.gov/authorities/subjects/sh85142374>
- > info:lc/authorities/sh85142374
- > <http://id.loc.gov/authorities/sh85142374#concept>

Instance Of

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

Scheme Membership(s)

- > [Library of Congress Su](#)





Collection Membership(s)

- > [LCSH Collection - Auth](#)
- > [LCSH Collection - Gen](#)
- > [LCSH Collection - May](#)

Broader Terms

- >  [Containers](#)

Narrower Terms

- >  [Flower vases](#)
- >  [Presentation vases](#)
- >  [Stone vases](#)
- >  [Vase-painting](#)

Related Terms

- >  [Urns](#)

Closely Matching Concepts from Other Schemes

- >  [Vase](#) 
- >  [Vase](#) 

What are usually available in a flat structured LOD thesauri

```
<rdf:RDF>
- <rdf:Description rdf:about="http://id.loc.gov/authorities/subjects/sh85142374">
  <rdf:type rdf:resource="http://www.w3.org/2004/02/skos/core#Concept"/>
  <skos:prefLabel xml:lang="en">Vases</skos:prefLabel>
  <skos:broader rdf:resource="http://id.loc.gov/authorities/subjects/sh85031520"/>
  <skos:narrower rdf:resource="http://id.loc.gov/authorities/subjects/sh85142364"/>
  <skos:narrower rdf:resource="http://id.loc.gov/authorities/subjects/sh2012001607"/>
  <skos:narrower rdf:resource="http://id.loc.gov/authorities/subjects/sh2007001063"/>
  <skos:narrower rdf:resource="http://id.loc.gov/authorities/subjects/sh2004005300"/>
  <skos:related rdf:resource="http://id.loc.gov/authorities/subjects/sh85141432"/>
- <skos:closeMatch>
  - <rdf:Description rdf:about="http://d-nb.info/gnd/41265">
    <rdf:type rdf:resource="http://www.w3.org/2004/02/skos/core#Concept"/>
    <skos:prefLabel xml:lang="DE">Vase</skos:prefLabel>
  </rdf:Description>
</skos:closeMatch>
```

<http://id.loc.gov/authorities/subjects/sh85142374.skos.rdf>

Concept

BT

concept

NT

concept:

Easy to get an immediate family members.
This is true for all thesauri, LCSH, AGROVOC, etc.

-  Styles and Periods
-  <styles, periods, and cultures by region>
-  Asian
-  East Asian
-  Chinese (culture or style)
-  <Chinese dynastic styles and periods>
- Xia (culture, period)
- Erlitou
-  Shang
-  Zhou (culture)
- Qin (style and period)
- Han (Chinese)
- Three Kingdoms (Chinese)
- Southern and Northern Dynasties
- Sui
- Tang (Chinese style)
- Five Dynasties
- Liao
- Jin (Golden Tartars)
- Song (Chinese style)
- Yüan
- Ming
- Qing
- Xiongnu
- Xixia
- Chinese prehistoric periods
- Chinese Paleolithic periods
- Chinese Mesolithic periods

Getty Vocabularies: LOD SPARQL Search... Search Brief

<Chinese dynastic styles and periods>

Source: <http://vocab.getty.edu/aat/300018353>

Subject (64) Predicate Object All Website Hierarchy Download in: JSON | RDF | N3/Turtle | N-Triples Inference Explicit only

Statements in which the resource exists as a subject.

Predicate	Object
rdf:type	gvp:GuideTerm , skos:OrderedCollection
rdfs:seeAlso	http://www.getty.edu/vow/AATFullDisplay?find=&logic=AND&note=&subjectid=300018353
dcterms:contributor	aat_contrib:10000000 , aat_contrib:10000131 , aat_contrib:10000159 , aat_contrib:10000205
skos:inScheme	aat
skos:prefLabel	<Chinese dynastic styles and periods>@en, <Chinese dynastieke stijlen en perioden>@nl, <estilos y periodos dinásticos chinos>@es, <périodes et styles des dynasties chinoises>@fr
skos:changeNote	aat_rev:5000006961 , aat_rev:5001058485 , aat_rev:5001681606 , aat_rev:5001685357 , aat_rev:5001694391 , aat_rev:5002063243 , aat_rev:5002257476 , aat_rev:5002257481 , aat_rev:5002854758 , aat_rev:5002854764
skos:member	aat:300018354 , aat:300018356 , aat:300018372 , aat:300018383 , aat:300018385 , aat:300018393 , aat:300018419 , aat:300018420 , aat:300018422 , aat:300018425 , aat:300018427 , aat:300018436 , aat:300018438 , aat:300018478 , aat:300106389 , aat:300106415 , aat:300264899 , aat:300386727 , aat:300387413
skos:memberList	aat:300018353-list-300018354

Art and Architecture Thesaurus (AAT)

Facet:
Objects

Hierarchy:
Furnishing and Equipment

Concept:
containers (receptacles)

Guide term:
<containers by form>

concept:
vessels (containers)

concept:
rhyta

What are special in AAT
& are available as LOD

Facets

[large] Hierarchies
(full coverage, deep layer)

Concept

Sub-facets
(Indicated by
node labels)

concept

concept:

4. An example

- Use a <Guide Term> to obtain all concept URIs in a facet or hierarchy

Part 1. Get Data

ID: 300117143

 **<object genres by function>** (object genres (object Name)) ←

Terms:

object genres by function (preferred,C,U,English-f)
objectgenres naar functie (C,U,Dutch-P,D,U,U)
categorías de objetos por función (C,U,Spanish-P,

Facet/Hierarchy Code: V.PE

Hierarchical Position:

 Objects Facet
 Object Genres (Hierarchy Name) (G)
 object genres (object classifications) (G)
 <object genres by function> (G)

Sources and Contributors:

categorías de objetos por función..... [CDBP-DIBAM, RGD, AAT-Ned, VP]
..... TAA database
objectgenres naar functie..... [RKD, AAT-Ned Pre
..... AAT-Ned (1994-)

Subject: [CDBP-DIBAM, RKD, AAT-Ned, VP]


-  Top of the AAT hierarchies
-  Objects Facet
-  Object Genres (Hierarchy Name)
-  object genres (object classifications)
-  <object genres by function>
- accessories
-  aids to navigation
-  beacons [N]
- buoys [N]
- lighthouses [N]
- light stations [N]
-  navigational instruments [N]
-  amulets
- Thor's hammers (amulets) [N]
- armrests (object genre)
- backdrops
- backrests
-  ceremonial objects
- baptismal syringes
- bow stands [N]
- brush aspergilla [N]
- calumets [N]
-  ceremonial chairs [N]
-  ceremonial containers [N]
-  ceremonial costume [N]
-  ceremonial sound devices [N]
-  ceremonial watercraft [N]
-  ceremonial weapons [N]
- déblés [N]

After choosing a facet or a hierarchy...

- 1. Get the ID**
- 2. Go to SPARQL Endpoint**
→next slide

← → vocab.getty.edu/sparql

Most Visited Twitter / Home Analytics Settings... DCM Advisory Bo... Wiki Concept Exp... Terms - Linked O... Ext

 **Getty Vocabularies: LOD** SPARQL Any Search...

SPARQL Query

Query:

```

1 # 5.1.2 Descendants of a Given Parent
2 select * {?x gvp:broaderExtended aat:300117143; skos:inScheme aat: }

```

- ! SPARQL Select template, 5.1.1 Top-level Subjects, 5.1.2 Descendants of a Given Parent, 5.1.3 Subjects by Contributor Id, 5.1.4 Subjects by Contributor Abbrev, 5.1.5 Preferred Ancestors, 5.1.6 Full Text Search Query, 5.1.7 Find Person Occupations by broaderExtended, 5.1.8 Find Person Occupations by Double FTS, 5.1.9 Find Quartz Timepieces by Double FTS, 5.1.10 Find Subject by Exact English PrefLabel, 5.1.11 Find Subject by Language-Independent PrefLabels, 5.1.12 Find Subject by Any Label, 5.1.13 Find Terms by Language Tag, 5.1.14 Find Ordered Subjects, 5.1.15 Find Ordered Hierarchies, 5.1.16 Get Subjects in Order, 5.1.17 Find Contributors by Vocabulary, 5.1.18 Find Sources by Vocabulary, 5.2.1 Subject Preferred Label, 5.2.2 All Data for Terms of Subject, 5.2.3 Preferred and Vernacular Terms, 5.2.4 Scientific Names by Language, 5.2.5 Scientific Names not in English and Latin, 5.2.6 All Data For Subject, 5.2.7 Historic Information on Relations, 5.2.8 Historic Information of Terms, 5.2.9 Preferred Terms for Contributors, 5.2.10 Preferred Terms for Sources, 5.2.11 Concepts Related by Particular Associative Relation, 5.2.12 Languages and ISO Codes, 5.2.13 Language URLs, 5.3.1 Places by Type, 5.3.2 Places, with English or GVP Label, 5.3.3 Places by Direct and Hierarchical Type, 5.3.4 Breakdown of Sovereign States by Type, 5.3.5 Inhabited Places That Were Sovereign States, 5.3.6 Places by Type and Parent Place, 5.3.7 Places by Type, with placeTypePreferred, 5.3.8 Places by Triple FTS, 5.3.9 Places by FTS Parents, 5.3.10 Capitals by Type, 5.3.11 <http://vocab.getty.edu/sparql>, 5.3.12 Members of the European Union, 5.3.13 Members of the United Nations, 5.3.14, 5.3.15, 5.3.16 Countries and Capitals By Type and Containment, 5.3.17 Places by Type, 5.3.18, 5.3.19 Places by Type Within Bounding Box, 5.3.20 Places Outside Bounding Box, 5.4.1 Descriptive Info from VOID, 5.4.2 Number of Entities from VOID, 5.4.3, 5.4.4 Number of Global Sources (Dynamic), 5.4.5 Number of Terms per Label, 5.5.1 Ontology Classes and Properties, 5.5.2 Ontology Values
- 2. Go to SPARQL Endpoint**
3. Choose "Descendants of a Given Parent"

4. Replace the ID in the Query template
5. Submit
6. Get all URIs and labels under this guide term.

SPARQL Query

Query:

```
1 # 5.1.2 Descendants of a Given Parent
2 select * {?x gvp:broaderExtended aat:300117143.
3   ?x gvp:prefLabelGVP [xl:literalForm ?l]; skos:inScheme aat:
4     } order by ?l
5
```

Note: Here is the text of the query.

I replaced the aat ID, also inserted a line to get the labels, and sort by label:

```
# 5.1.2 Descendants of a Given Parent
select * {?x gvp:broaderExtended aat:300117143.
  ?x gvp:prefLabelGVP [xl:literalForm ?l];
  skos:inScheme aat:
  } order by ?l
```

SPARQL Query

Results for # 5.1.2 Descendants.. (100 of 525)

Download SPARQL Results in: [JSON](#) | [XML](#)

x	l
aat:300391225	<religious visual works by related event>@en
aat:300391082	Advent candleholders@en
aat:300391224	Advent wreaths@en
aat:300178242	Andachtsbilder@en
aat:300265145	Bhagavad-gītās@en
aat:300263184	Bible stories@en
aat:300264513	Bibles@en
aat:300263411	Bibles historiales@en

- Top of the AAT hierarchies
- Objects Facet
- Object Genres (Hierarchy Name)
- object genres (object classifications)
- <object genres by function>
- accessories
- aids to navigation
- beacons [N]
- buoys [N]
- lighthouses [N]
- light stations [N]
- navigational instruments [N]
- amulets
- Thor's hammers (amulets) [N]
- armrests (object genre)
- backdrops
- backrests
- ceremonial objects
- baptismal syringes

(Below: Checked if the results are at multiple levels in the hierarchy; display did not sort.)

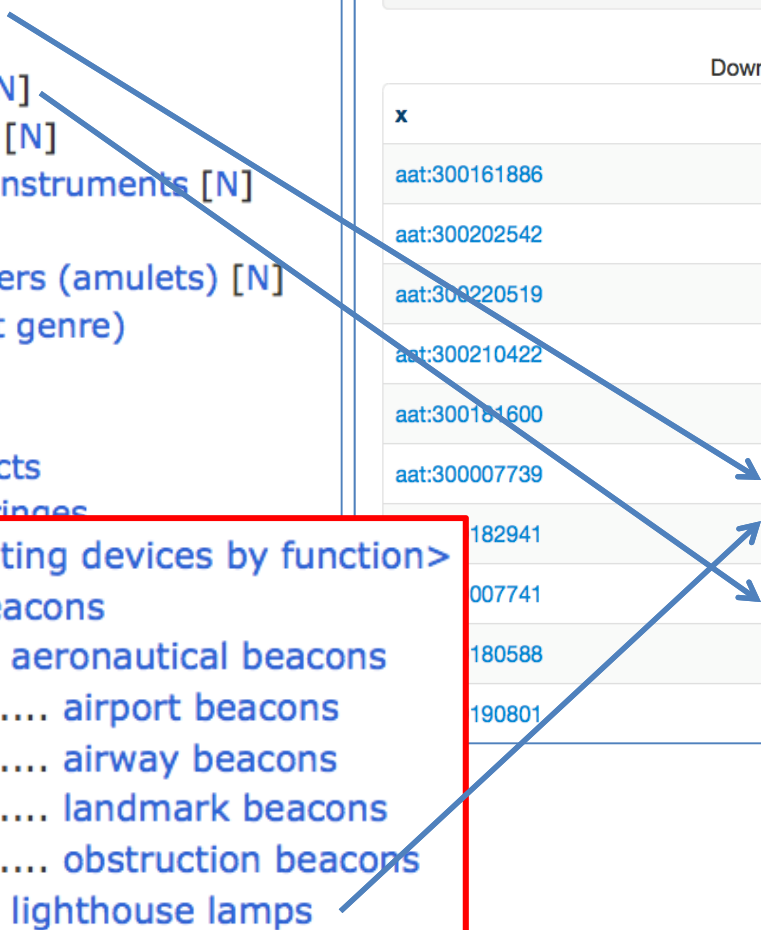
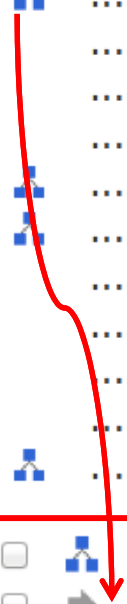
SPARQL

Results for **Sparql gave me:**

Download SPARQL Results in: [JSON](#) | [XML](#)

x	l
aat:300161886	striking blocks@en
aat:300202542	keepsakes (books)@en
aat:300220519	religious texts@en
aat:300210422	buskins (stockings)@en
aat:300181600	aeronautical beacons@en
aat:300007739	beacons@en
182941	lighthouse lamps@en
007741	lighthouses@en
180588	Hanukkah lamps@en
190801	votive lamps@en

- <lighting devices by function>
- beacons
- aeronautical beacons
- airport beacons
- airway beacons
- landmark beacons
- obstruction beacons
- lighthouse lamps
- lightships [N]

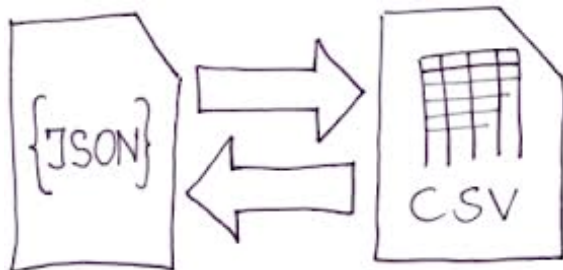


7. Download JSON format data, now I have a dataset.

Download Options:

- (1) JSON*
- (2) XML

*JSON (JavaScript Object Notation) is a lightweight data-interchange format.



SPARQL Query

Results for # 4.1.2 Descendants... (100 of 523)

Download SPARQL Results in: [JSON](#) | [XML](#)

x	l
aat:300161886	striking blocks@en
aat:300202542	keepsakes (books)@en
aat:300220519	religious texts@en
aat:300210422	buskins (stockings)@en
aat:300181600	aeronautical beacons@en
aat:300007739	beacons@en
aat:300182941	lighthouse lamps@en
aat:300007741	lighthouses@en
aat:300180588	Hanukkah lamps@en
aat:300190801	votive lamps@en

AAT URIs and preferred labels under one facet or hierarchy

```
{
  "head" : {
    "vars" : [ "x", "l" ]
  },
  "results" : {
    "bindings" : [ {
      "x" : {
        "type" : "uri",
        "value" : "http://vocab.getty.edu/aat/300217935"
      },
      "l" : {
        "xml:lang" : "en",
        "type" : "literal",
        "value" : "'ūds"
      }
    }, {
      "x" : {
        "type" : "uri",
        "value" : "http://vocab.getty.edu/aat/300264679"
      },
      "l" : {
        "xml:lang" : "en",
        "type" : "literal",
        "value" : "8mm (size: videotape)"
      }
    }, {
      "x" : {
        "type" : "uri",
        "value" : "http://vocab.getty.edu/aat/300055897"
      },
      "l" : {
        "xml:lang" : "en",
        "type" : "literal",

```

5.1.2 Descendants of a Given Parent
 select * {?x gvp:broaderExtended
 aat:300117143.
 ?x gvp:prefLabelGVP
 [xl:literalForm ?l]; skos:inScheme aat:
 } order by ?l

AAT URIs and labels according to a Contributor

```
{
  "head" : {
    "vars" : [ "x", "l" ]
  },
  "results" : {
    "bindings" : [ {
      "x" : {
        "type" : "uri",
        "value" : "http://vocab.getty.edu/aat/300391225"
      },
      "l" : {
        "xml:lang" : "en",
        "type" : "literal",
        "value" : "<religious visual works by related event>"
      }
    }, {
      "x" : {
        "type" : "uri",
        "value" : "http://vocab.getty.edu/aat/300391082"
      },
      "l" : {
        "xml:lang" : "en",
        "type" : "literal",
        "value" : "Advent candleholders"
      }
    }, {
      "x" : {
        "type" : "uri",
        "value" : "http://vocab.getty.edu/aat/300391224"
      },
      "l" : {
        "xml:lang" : "en",
        "type" : "literal",

```

#5.1.3 Subjects by Contributor
 select * {
 ?x a gvp:Subject; dct:contributor
 aat_contrib:10000178.
 ?x gvp:prefLabelGVP [xl:literalForm ?l]
 } order by ?l

Part 2. Viewing the dataset by a non-techy person

Acknowledgement: Thanks to a
Visiting Scholar En-bo Jiang for
helping the testing.

How to manage by a non-techy person?

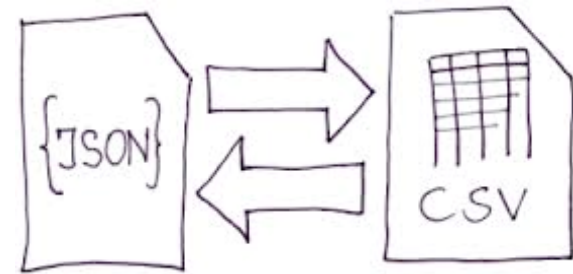
Non-techy person's wish:

I can see what are in the dataset;

I can use a spreadsheet to open and manage it.

Techy-person can prepare the file as:

1. From a JSON* file → convert to CSV** file (can be opened as spreadsheet) using an open source converter



*JSON = (JavaScript Object Notation), a lightweight data-interchange format.

**CSV = Comma Separated Value file format

Using an online converter, turn JSON to CSV.

"Form" view online

The screenshot shows the Code Beautify website's JSON Viewer interface. The browser's address bar displays `codebeautify.org/view/jsonviewer`. The page title is "JSON VIEWER".

JSON Input: The left panel contains a JSON array of objects. The visible portion is as follows:

```
5208     "type": "uri",
5209     "value": "http://vocab.getty.edu/aat/300256965"
5210   },
5211   "l": {
5212     "xml:lang": "en-us",
5213     "type": "literal",
5214     "value": "navigational instruments"
5215   }
5216 }, {
5217   "x": {
5218     "type": "uri",
5219     "value": "http://vocab.getty.edu/aat/300210830"
5220   },
5221   "l": {
5222     "xml:lang": "en-us",
5223     "type": "literal",
5224     "value": "parade armors"
5225   }
5226 }, {
5227   "x": {
5228     "type": "uri",
5229     "value": "http://vocab.getty.edu/aat/300214161"
5230   },
5231   "l": {
5232     "xml:lang": "en-us",
5233     "type": "literal",
5234     "value": "scepters"
5235   }
5236 } ]
5237 }
5238 }
```

Result mode: A dropdown menu is set to "form". Below it are several buttons: "Load Url", "open", "Tree Viewer", "Beautify", "Minify", "Validate", "JSON To XML", "Export To CSV", and "Download".

Result : Tree Viewer: The right panel shows a tree view of the JSON structure. The visible portion is as follows:

```
▼ root {1}
  ▼ array {2}
    ► head {1}
    ▼ results {1}
      ▼ bindings [523]
        ► 0 {2}
        ▼ 1 {2}
          ▼ x {2}
            type : uri
            value : http://vocab.getty.edu/aat/300391082
          ▼ 1 {3}
            xml:lang : en
            type : literal
            value : Advent candleholders
        ► 2 {2}
        ► 3 {2}
        ► 4 {2}
        ► 5 {2}
        ► 6 {2}
```

A blue arrow points to the right side of the Tree Viewer panel.

<http://codebeautify.org/view/jsonviewer>

JSON file "Form" view

```
▼ root {1}
  ▼ array {2}
    ▶ head {1}
    ▼ results {1}
      ▼ bindings [523]
        ▶ 0 {2}
        ▼ 1 {2}
          ▼ x {2}
            type : uri
            value : http://vocab.getty.edu/aat/300391082
          ▼ 1 {3}
            xml:lang : en
            type : literal
            value : Advent candleholders
        ▶ 2 {2}
        ▶ 3 {2}
        ▶ 4 {2}
        ▶ 5 {2}
```

<http://codebeautify.org/view/jsonviewer>

"Tree" view online

The screenshot shows the Code Beautify JSON Viewer interface. The main content area is divided into three sections:

- JSON Input:** A text area containing a JSON snippet with line numbers 4668 to 4692. The JSON includes properties like "type", "value", "l", "xml:lang", and "x".
- Result mode:** A central panel with a dropdown menu set to "tree" and several buttons: "Load Url", "open", "Tree Viewer", "Beautify", "Minify", "Validate", "JSON To XML", "Export To CSV", and "Download".
- Result : Tree Viewer:** A tree view of the JSON data. The root is "root {1}", which contains an "array {2}" with "head {1}" and "results {1}". The "results" object has a "bindings {523}" array. The first binding (index 0) is a "type : uri" with a "value" of "http://vocab.getty.edu/aat/300207778". The second binding (index 1) is a "type : literal" with a "value" of "tabernacles (liturgical container s)".

<http://codebeautify.org/view/jsonviewer>

How to manage by a non-techy person?

Non-techy person's wish:

I can see what are in the dataset;

I can use a spreadsheet to open and manage it.

Techy-person can prepare the file as:

1. From a JSON* file → convert to CSV** file (can be opened as spreadsheet) using an open source converter, or

2. From a JSON file → export to spreadsheet from OpenRefine

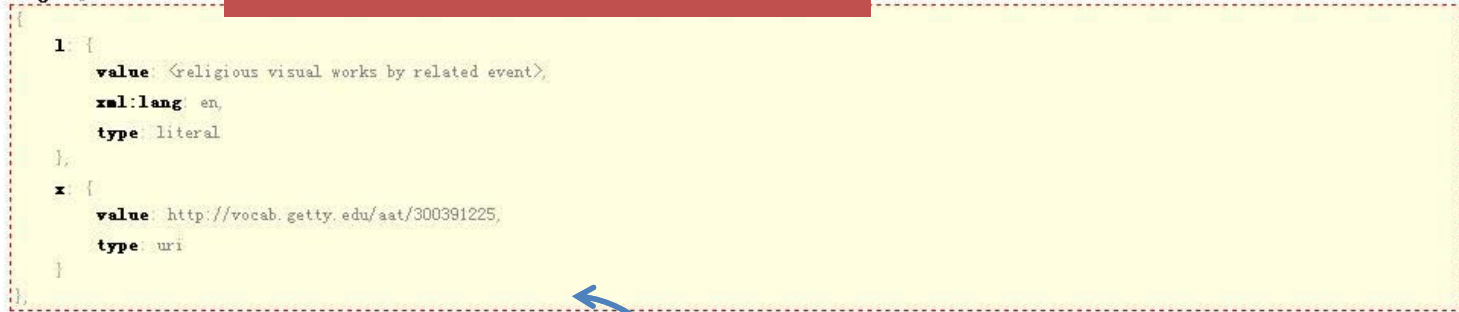
- Create Project
- Open Project
- Import Project
- Language Settings

« Start Over Configure Parsing Options

Project name: sparql.json Create Project »

When uploaded the JSON file to OpenRefine, **highlight** the first enter in order for the software to tell the structure.

```
results: {
  bindings: [
    1: {
      value: <religious visual works by related event>,
      xml:lang: en,
      type: literal
    },
    x: {
      value: http://vocab.getty.edu/aat/300391225,
      type: uri
    }
  ]
}
```



Parse data as

Please specify a record path first. Update Preview

JSON files

Load at most

row(s) of data

Parse data as

JSON files

Line-based text files

CSV / TSV / separator-based files

Fixed-width field text files

PC-Axis text files

RDF/N3 files

XML files

Please specify a record path first.

- Load at most
- Preserve empty strings
- Trim leading & trailing whitespace from strings
- Parse cell text into numbers, dates, ...
- Store file source (file names, URLs) in each row

Establish a 'Project',
then ready to edit.

Using facets and filters

Use facets and filters to select subsets of your data to act on. Choose facet and filter methods from the menus at the top of each data column.

Not sure how to get started?
[Watch these screencasts](#)

	▼ All	▼ _ - l - type	▼ _ - l - value	▼ _ - l - xml:lang	▼ _ - x - type	▼ _ - x - value
1.		literal	<religious visual works by related event>	en	uri	http://vocab.getty.edu/aat/300391225
2.		literal	Advent candleholders	en	uri	http://vocab.getty.edu/aat/300391082
3.		literal	Advent wreaths	en	uri	http://vocab.getty.edu/aat/300391224
4.		literal	Andachtsbilder	en	uri	http://vocab.getty.edu/aat/300178242
5.		literal	Bhagavad-gītās edit	en	uri	http://vocab.getty.edu/aat/300265145
					uri	http://vocab.getty.edu/aat/300263184
					uri	http://vocab.getty.edu/aat/300264513
					uri	http://vocab.getty.edu/aat/300263411
					uri	http://vocab.getty.edu/aat/300211640
					uri	http://vocab.getty.edu/aat/300026456

▼ _ - l - value

<religious visual works by related event>	en
Advent candleholders	en
Advent wreaths	en
Andachtsbilder	en
Bhagavad-gītās edit	en
Bible stories	en
Bibles	en
Bibles historiales	en
Bibles moralisées	en

Facet / Filter Undo / Redo 0

523 rows

Show as: rows records Show: 5 10 25 50 rows

All	_ - l - type	_ - l - value	_ - l - xml:lang	_ - x - type	_ - x - value	
1.	literal	<religious visual works by related event>	en	uri	http://vocab	
2.	literal	Advent candleholders	en	uri	http://vocab	
3.	literal	Advent wreaths	en	uri	http://vocab	
4.	literal	Andachtsbilder	en	uri	http://vocab	
5.	literal	Bhagavad-gītās	en	uri	http://vocab	
6.	literal	Bible stories	en	uri	http://vocab	
7.	literal	Bibles	en	uri	http://vocab	
8.	literal	Bibles historiques				
9.	literal	Bibles moralisées				
10.	literal	Biblia pauperum				

Using facets and filters

Use facets and filters to select subsets of your data to act on. Choose facet and filter methods from the menus at the top of each data column.

Not sure how to get started?
[Watch these screencasts](#)

- Export project
- Tab-separated value
- Comma-separated value
- HTML table
- Excel
- ODF spreadsheet
- Triple loader
- MQLWrite
- Custom tabular exporter...
- Templating...

Open... Export

- Export project
- Tab-separated value
- Comma-separated value
- HTML table
- Excel
- ODF spreadsheet
- Triple loader
- MQLWrite
- Custom tabular exporter...
- Templating...



	A	B	C	D	
1	_ - l - type	_ - l - value	_ - l - xml:la	_ - x - type	_ - x - value
2	literal	<religious visual works by related event>	en	uri	http://vocab.getty.edu/aat/300391225
3	literal	Advent candleholders	en	uri	http://vocab.getty.edu/aat/300391082
4	literal	Advent wreaths	en	uri	http://vocab.getty.edu/aat/300391224
5	literal	Andachtsbilder	en	uri	http://vocab.getty.edu/aat/300178242
6	literal	Bhagavad-gītās	en	uri	http://vocab.getty.edu/aat/300265145
7	literal	Bible stories	en	uri	http://vocab.getty.edu/aat/300263184
8	literal	Bibles	en	uri	http://vocab.getty.edu/aat/300264513
9	literal	Bibles historiales	en	uri	http://vocab.getty.edu/aat/300263411
10	literal	Bibles moralisées	en	uri	http://vocab.getty.edu/aat/300211640
11	literal	Biblia pauperum	en	uri	http://vocab.getty.edu/aat/300026456
12	literal	Bifwebe	en	uri	http://vocab.getty.edu/aat/300262593
13	literal	Buddhas	en	uri	http://vocab.getty.edu/aat/300262950
14	literal	Christmas trees	en	uri	http://vocab.getty.edu/aat/300264822
15	literal	DNA microarrays	en	uri	http://vocab.getty.edu/aat/300387460
16	literal	Easter eggs	en	uri	http://vocab.getty.edu/aat/300380312
17	literal	Hanukkah lamps	en	uri	http://vocab.getty.edu/aat/300180588
18	literal	Korans	en	uri	http://vocab.getty.edu/aat/300265128
19	literal	Passionskrippen	en	uri	http://vocab.getty.edu/aat/300266359
20	literal	Schnitzaltars	en	uri	http://vocab.getty.edu/aat/300264823
21	literal	Stations of the Cross	en	uri	http://vocab.getty.edu/aat/300265130
22	literal	Thor's hammers (amulets)	en	uri	http://vocab.getty.edu/aat/300265347
23	literal	Torah shrines	en	uri	http://vocab.getty.edu/aat/300375669
24	literal	Transylvanian carpets	en	uri	http://vocab.getty.edu/aat/300185969
25	literal	Vedas	en	uri	http://vocab.getty.edu/aat/300386788
26	literal	ablution basins	en	uri	http://vocab.getty.edu/aat/300391285
27	literal	ablution chalices	en	uri	http://vocab.getty.edu/aat/300391079
519	literal	favors	en-us	uri	http://vocab.getty.edu/aat/300257628
520	literal	incense boats	en-us	uri	http://vocab.getty.edu/aat/300198818
521	literal	miters (headgear)	en-us	uri	http://vocab.getty.edu/aat/300212995
522	literal	navigational instruments			/300256965
523	literal	parade armors			/300210830
524	literal	scepters			/300214161

Open the JSON file from spreadsheet on my laptop

To do: need to double check if all node labels and preferred terms are in.

If open the XML file from spreadsheet, it looks like:

	B	C	D	E	F
1	result - binding	result - binding - name	result - binding - uri	result - binding - literal	result - binding - literal - xml:lang
2		x	http://vocab.getty.edu/aat/300391225		
3					
4		l		<religious visual works by r	en
5					
6		x	http://vocab.getty.edu/aat/300391082		
7					
8		l		Advent candleholders	en
9					
10		x	http://vocab.getty.edu/aat/300391224		
11					
12		l		Advent wreaths	en
13					
14		x	http://vocab.getty.edu/aat/300178242		
15					
16		l		Andachtsbilder	en
17					
18		x	http://vocab.getty.edu/aat/300265145		
19					
20		l		Bhagavad-gītās	en
21					
22		x	http://vocab.getty.edu/aat/300263184		
23					
24		l		Bible stories	en
25					
26		x	http://vocab.getty.edu/aat/300264513		
27					

Summary of the steps

1. Choose the facet or hierarchy you like to start;
2. Find the ID of that concept.
3. Use this template to get the URIs and labels:

```
# 5.1.2 Descendants of a Given Parent
select * {?x gvp:broaderExtended
aat:300117143.
      ?x gvp:prefLabelGVP
[xl:literalForm ?l]; skos:inScheme aat:
      } order by ?l
```

- **Replace the ID in the Query template**
- **Submit**
- **Get the URIs and labels in under this guide term.**
- **Sort by order (column x)**

4. Use a tool that can treat JSON to view and manage.

Additional: Using RelFinder to Visualize

Interactive Relationship Discovery in RDF Data

<http://www.visualdataweb.org/refinder.php>

Example: Find relations between Leonardo da Vinci and Renaissance (based on DBpedia dataset) -1

- 1. Pointing to a SPARQL end point
- 2. Type two terms to find matching entries

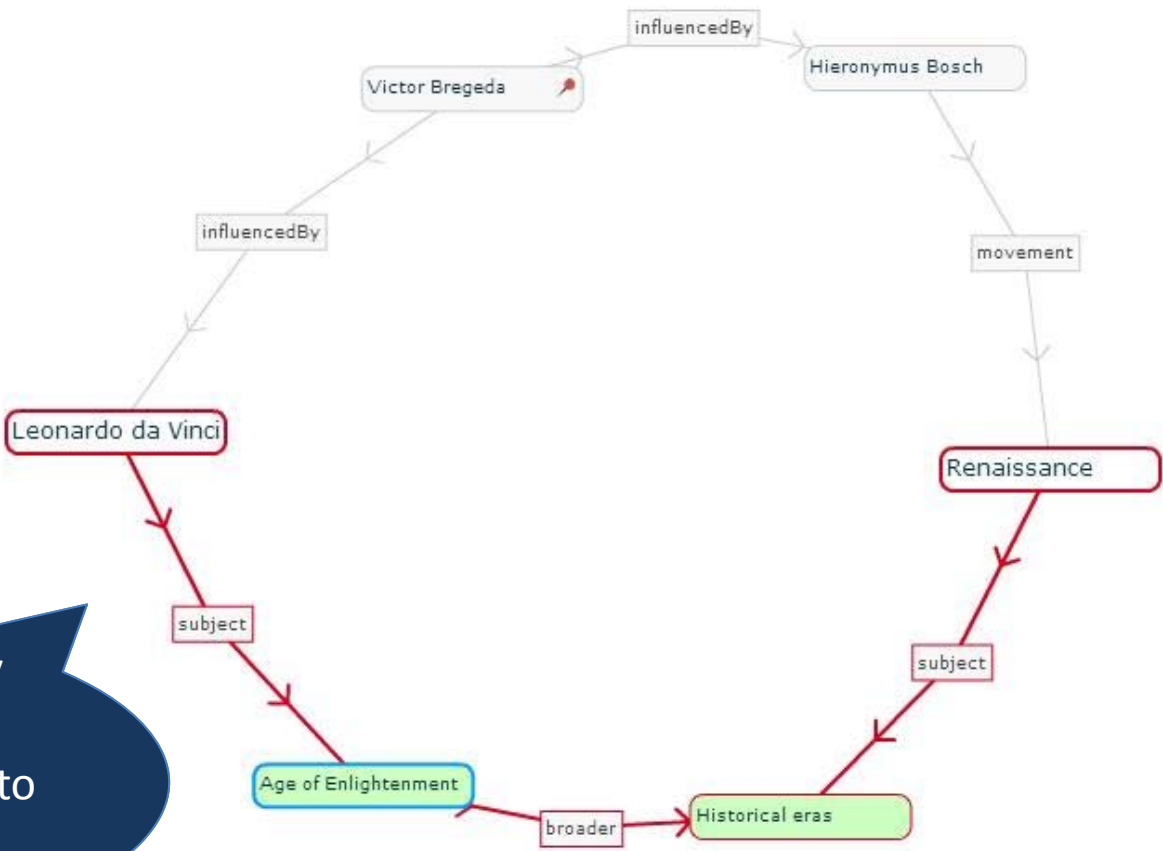
The screenshot shows the RelFinder interface with the following elements:

- Input fields: (1) Leonardo da Vinci, (2) Renaissance
- Buttons: add, clear, Find Relations
- Filter by: relations: (2/2)
- Table of results:






object class	num	vi
http://www.w3.org/2004/02/skos/core#Concept	2/2	👁
http://schema.org/Person	2/2	👁

Age of Enlightenm... en

- 3. The tool will display the triples one by one
- 4. Click on any concept to highlight the relations



Leonardo da Vinci and Renaissance (based on DBpedia dataset) 2

RelFinder  URL    

between examples

(1)


(2)

add clear Find Relations


Filter by: relations: (2/2)

length class link conne...

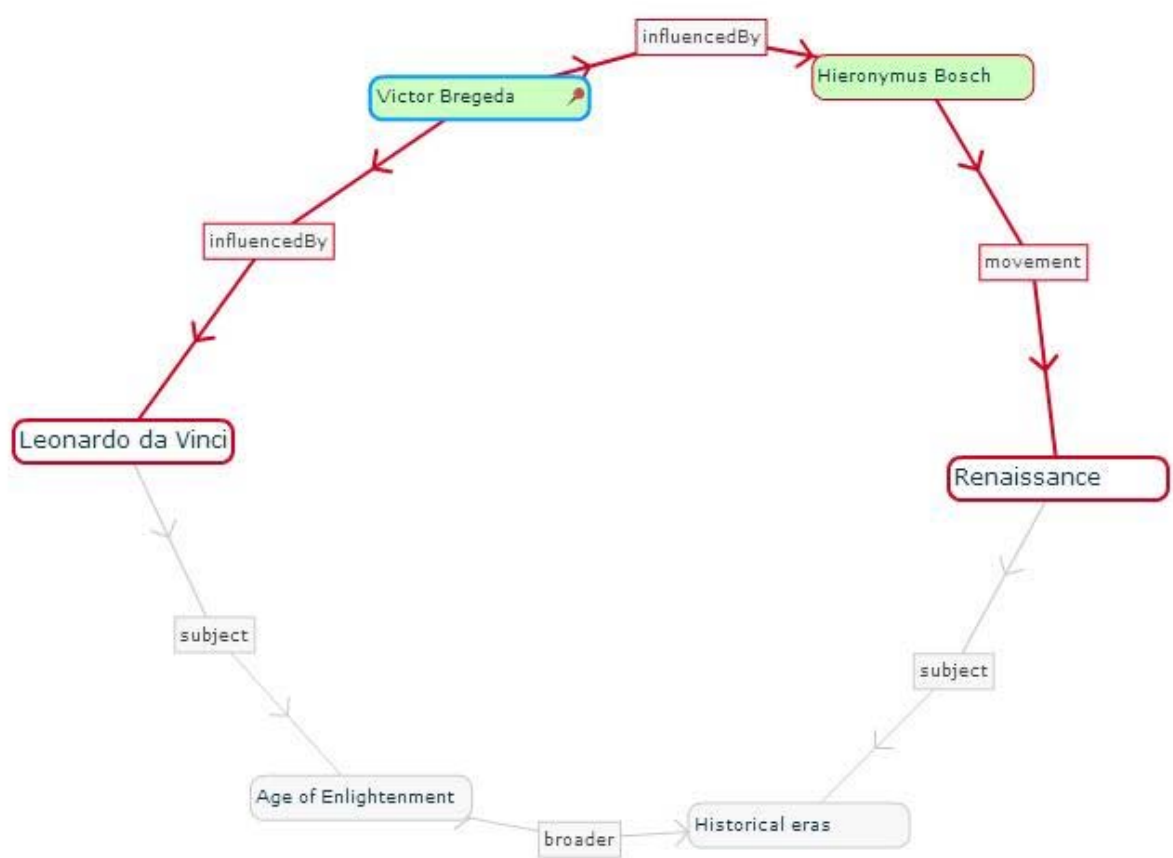
object class	num	vi
http://www.w3.org/2004/02/skos/core#Concept	2/2	<input type="checkbox"/>
http://schema.org/Person	2/2	<input type="checkbox"/>

Victor Bregeda en 

More Infos: dbpedia.org



Victor Bregeda (born 1 July 1963) is a Russian painter. He was born in the Russian city of Taganrog into a family of painters. He was



```
graph TD; Leonardo[Leonardo da Vinci] -- influencedBy --> Victor[Victor Bregeda]; Victor -- influencedBy --> Bosch[Hieronymus Bosch]; Bosch -- movement --> Renaissance[Renaissance]; Renaissance -- subject --> Eras[Historical eras]; Eras -- broader --> Enlightenment[Age of Enlightenment]; Enlightenment -- subject --> Leonardo; Eras -- subject --> Renaissance;
```

My Plan: to create a friendly SPARQL query creator for generating AAT Microthesauri

SPARQL Query Creator [Beta]

marciazeng.slis.kent.edu/metadata/sparqlTemp.html

Select Category* (please select:)

(Note: Consult <http://mappings.dbpedia.org/server/ontology/classes/> for other Classes.)

Filter by Birth Place
& Select Birth Place (please select:)

Use filter: Influenced By | Influenced | Do not use influence filter

- **Further filter according to individuals**
 - **Name 1**
E.g., Pablo_Picasso (Note: Name must be exactly same as that in dbpedia or wikipedia URI. See Picasso at http://dbpedia.org/page/Pablo_Picasso or http://en.wikipedia.org/wiki/Pablo_Picasso.)
 - **Name 2 (optional)**
E.g., Henri_Matisse

Limit Number of Results

Output data will contain :

URI
 Name

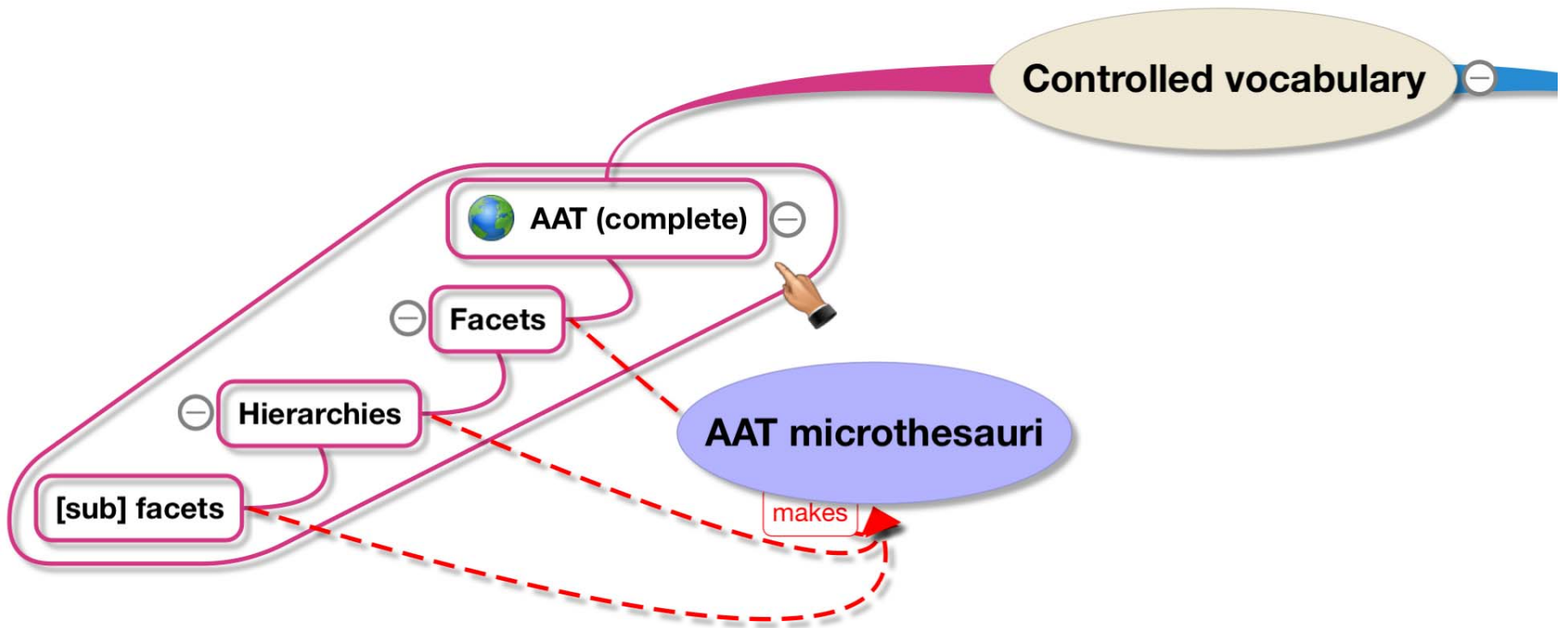
* = required

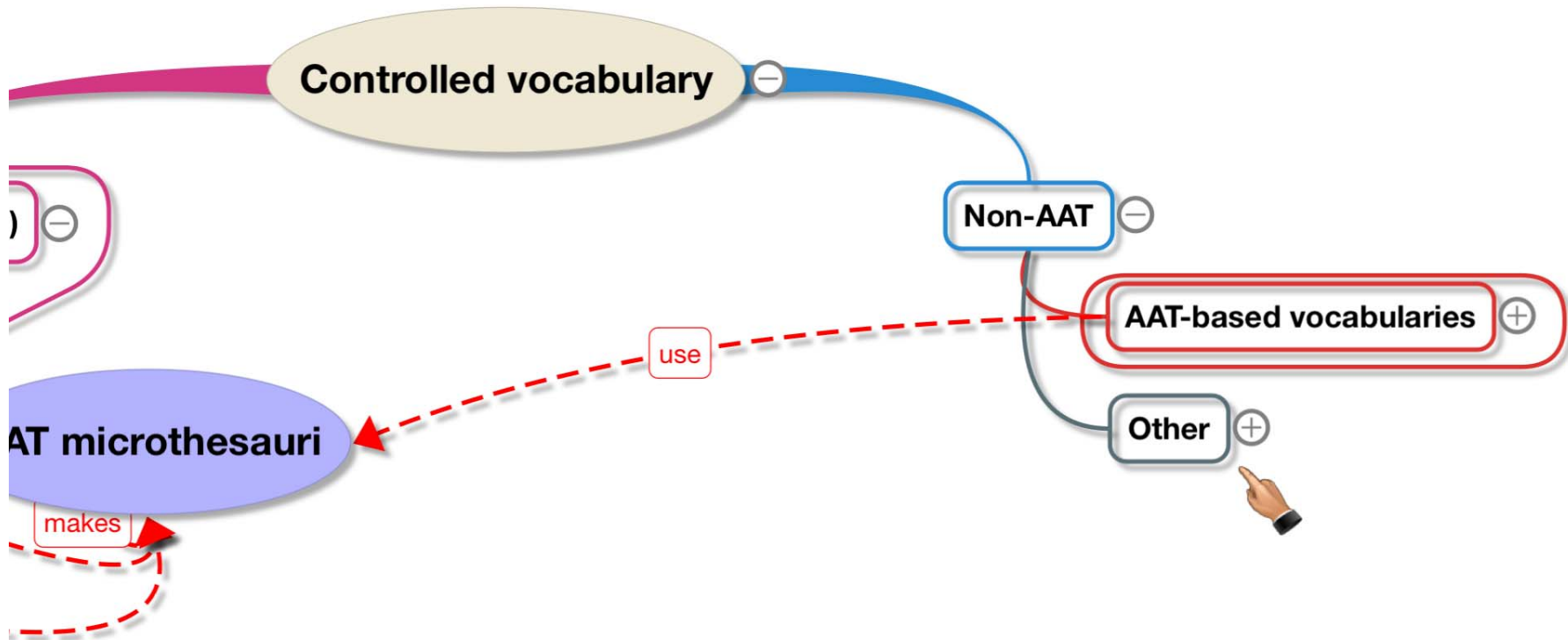
© Designed and coded by *Marcia Lei Zeng* , Kent State University, 2013-03-01.

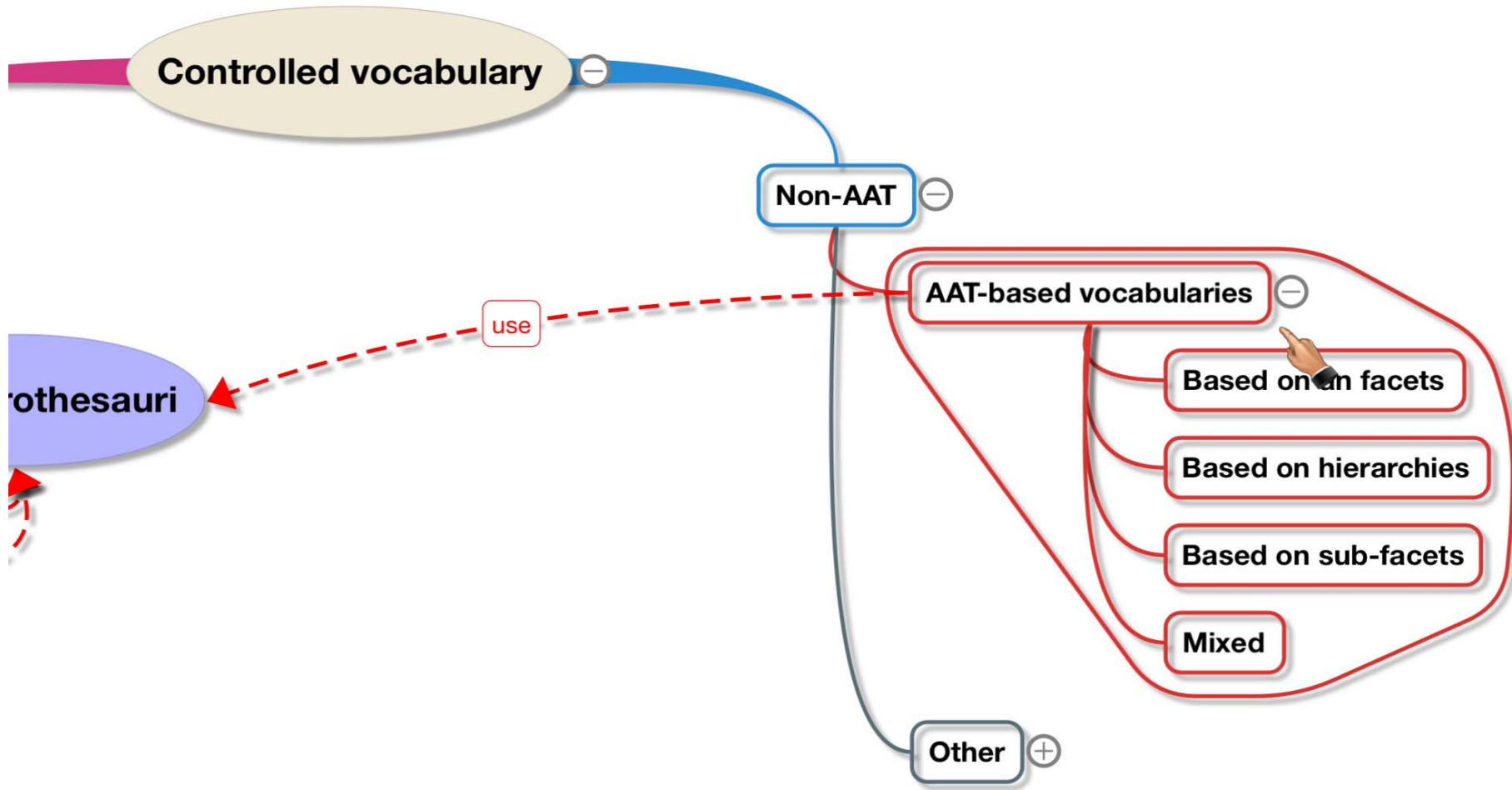
5. Conclusion

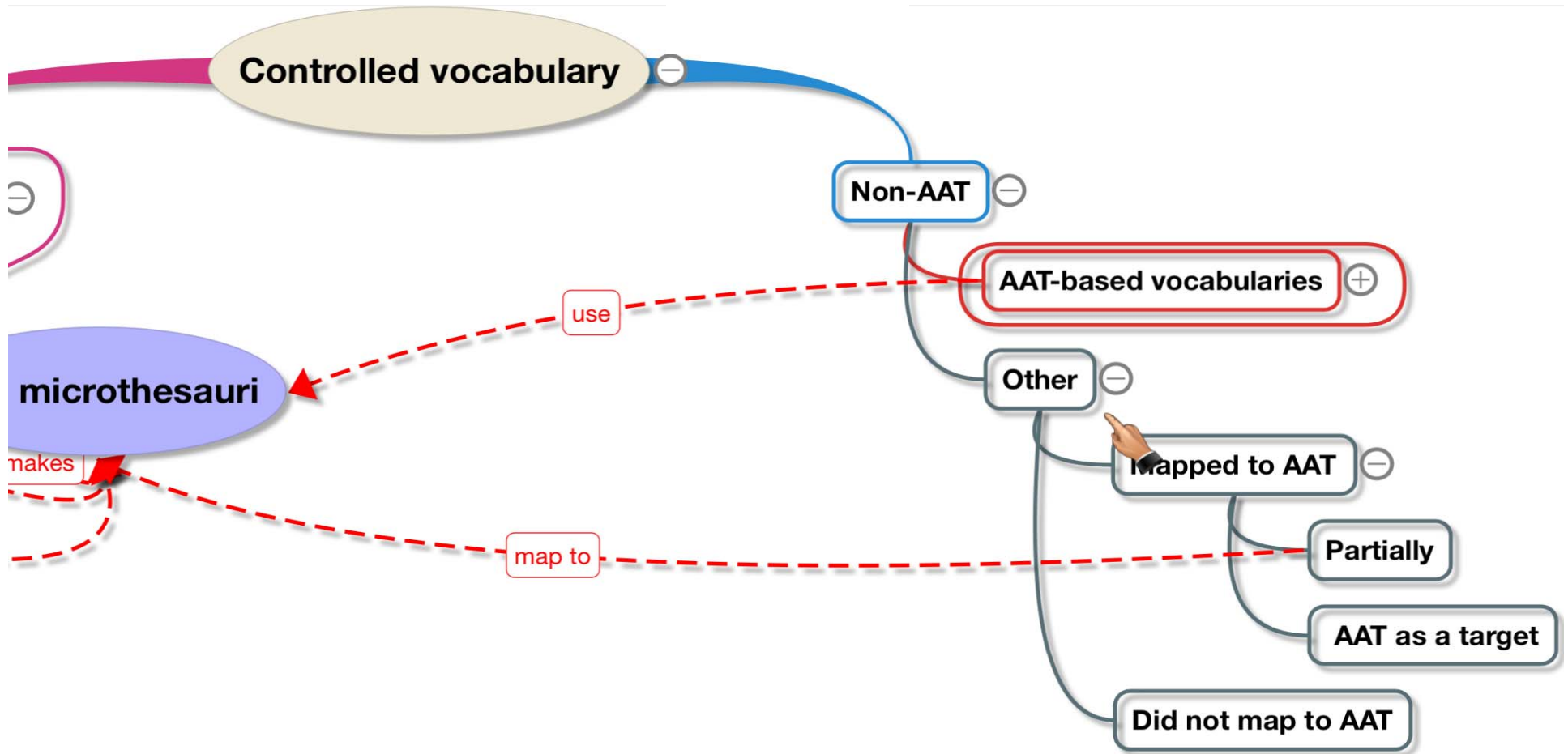
LOD AAT Microthesauri's importance in the Non-AAT World



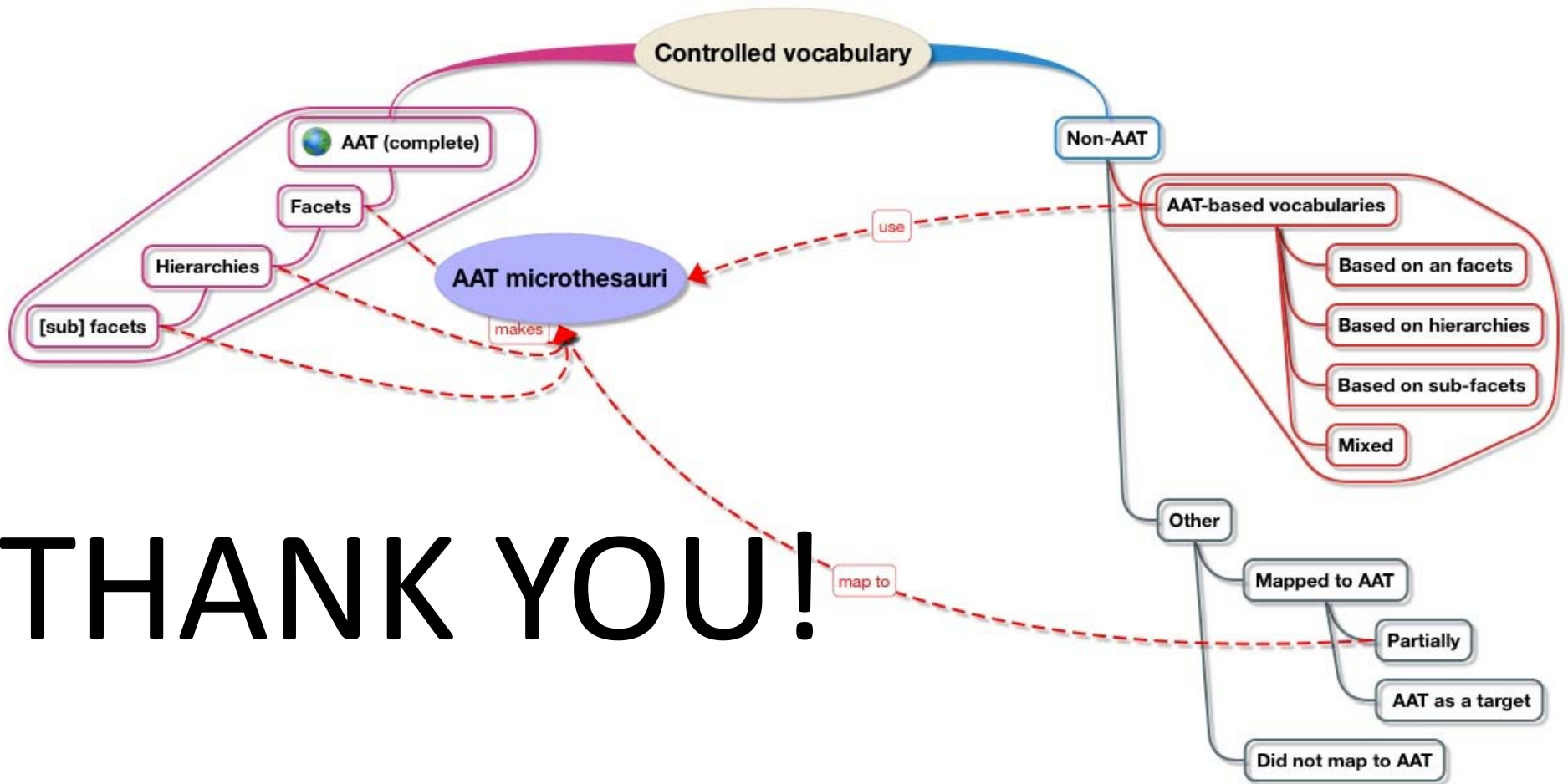








AAT's importance in the Non-AAT World



THANK YOU!

Wish: Provide better SPARQL template interfaces, allowing all kinds of explorations

The screenshot shows a SPARQL query editor interface. At the top, there is a toolbar with various icons. Below the toolbar, the 'Dataset' is set to 'Legislation', 'Mode' is 'SPARQL 1.0', and 'Output' is 'Plain text'. The main area is divided into two panes. The left pane, titled 'Query 1', contains a SPARQL query:

```
1 PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
2 PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
3
4
```

The right pane is a function palette with tabs for 'SPARQL', 'Properties', 'Classes', 'Prefixes', and 'Samples'. The 'SPARQL' tab is active, showing a grid of functions categorized by 'ALL', 'MODIFIER', 'STRING', and 'TERM'. A tooltip labeled 'functions group' is visible over the 'DESCRIBE' button. The status bar at the bottom indicates 'Line: 4; Position: 1; Query is invalid' and 'Query Results'.

ALL	MODIFIER	STRING	TERM
BASE	PREFIX	SELECT	
ASK	CONSTRUCT	DESCRIBE	
DISTINCT	REDUCED	FROM	
NAMED	WHERE	GRAPH	
UNION	FILTER	OPTIONAL	
ORDER	LIMIT	OFFSET	
BY	ASC	DESC	
STR	LANG	LANGMATCHES	
DATATYPE	BOUND	SAMETERM	
ISIRI	ISURI	ISBLANK	
ISLITERAL	REGEX		