

Week 5: Metadata 2

Controlled Vocabularies & Metadata

2024-09-27

What are Controlled Vocabularies?

- A controlled vocabulary is “any standardized list of terms that have been selected for **consistent** use in *describing* or *indexing* information resources” (Miller, 2022, p. 165).
- Also include:
 - Synonym control
 - Ambiguity control
 - Semantic relationships
 - Cross references

Relationship to Metadata

Consistent, Standardized Values



- Metadata {property: value}
- Enable information retrieval functions of metadata
 - Searching
 - Browsing
 - Sorting
 - Faceting/filtering

Properties	Values
Author	Dwyer, Jim, 1949- 
Title	Where the wild books are : a field guide to ecofiction / Jim Dwyer.
Format	Book
Published	Reno : University of Nevada Press, c2010.
Description	xii, 264 p. ; 22 cm.
Notes	Includes bibliographical references and index.
Contents	<ul style="list-style-type: none">• Ecocriticism and ecofiction: definitions and analyses• Ecofiction's roots and historical development• Contemporary ecofiction• Native American and Canadian ecofiction• Ecofiction from all around the world• Ecoromance: doin' the wild thing• The real West• Green speculative fiction• Mysteries.
Subject headings	Ecofiction--History and criticism.  Ecology in literature. Ecocriticism.
ISBN	9780874178111 (pbk. : alk. paper) 0874178118 (pbk. : alk. paper)

Searching

Ecofiction Collection

A collection of contemporary ecofiction

Home About Data Browse Subjects Locations Map Timeline

Search

Full metadata search:

Adams

2 Result(s) found

[Watership Down](#)
1975-06-01
Photographic image of the book by Richard Adams
books

[Interview of Richard Adams, Watership Down author, at Whitchurch Arts show \(Nov 2012\)](#)
2012-11-07
Video of an interview with Richard Adams on the book Watership Down
interviews

Fuzzy search powered by [Lunr.js](#). May take a second to load large collections!

Browsing

Ecofiction Collection

A collection of contemporary ecofiction

[Home](#) [About](#) [Data](#) [Browse](#) [Subjects](#) [Locations](#) [Map](#) [Timeline](#)

Search



Browse Subjects

Use this word cloud visualization to browse terms and subjects. Word size is determined by frequency and all words link to a corresponding collection search.

arenas entertainment

books

edward abbey

interviews

isabel allende

margaret atwood

richard adams

rudolfo anaya

wendell berry

whitchurch hampshire

Sorting

Home About Data Browse Subjects Locations Map Timeline

Search

Browse Items

Filter ...

Search

Reset

Sort by Random ▾

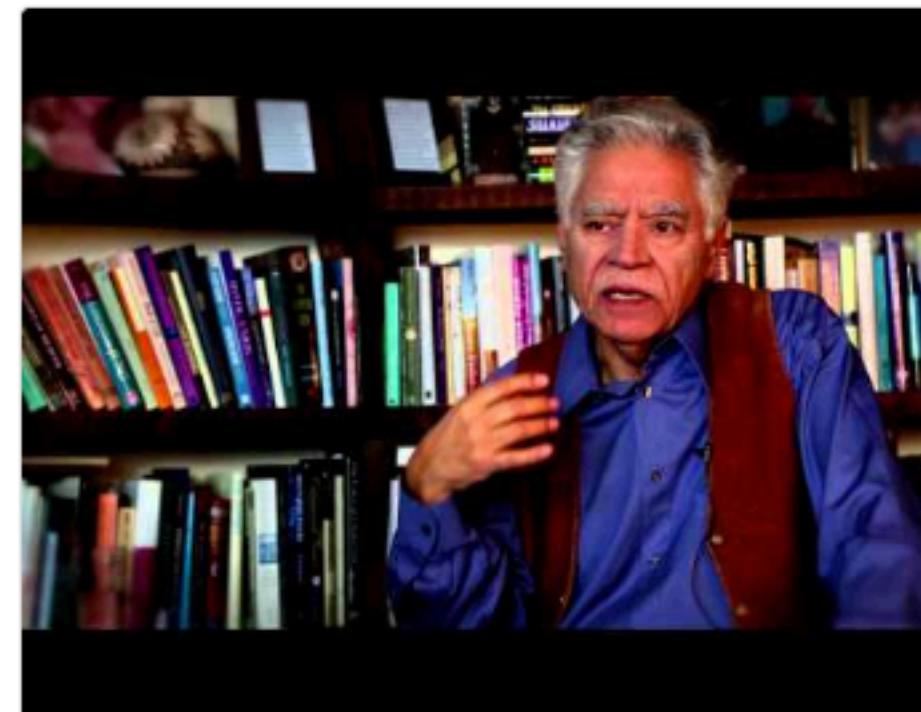
Random

Title

Date



8 of 8 items



Rudolfo Anaya Interview Bless
Me, Ultima Movie

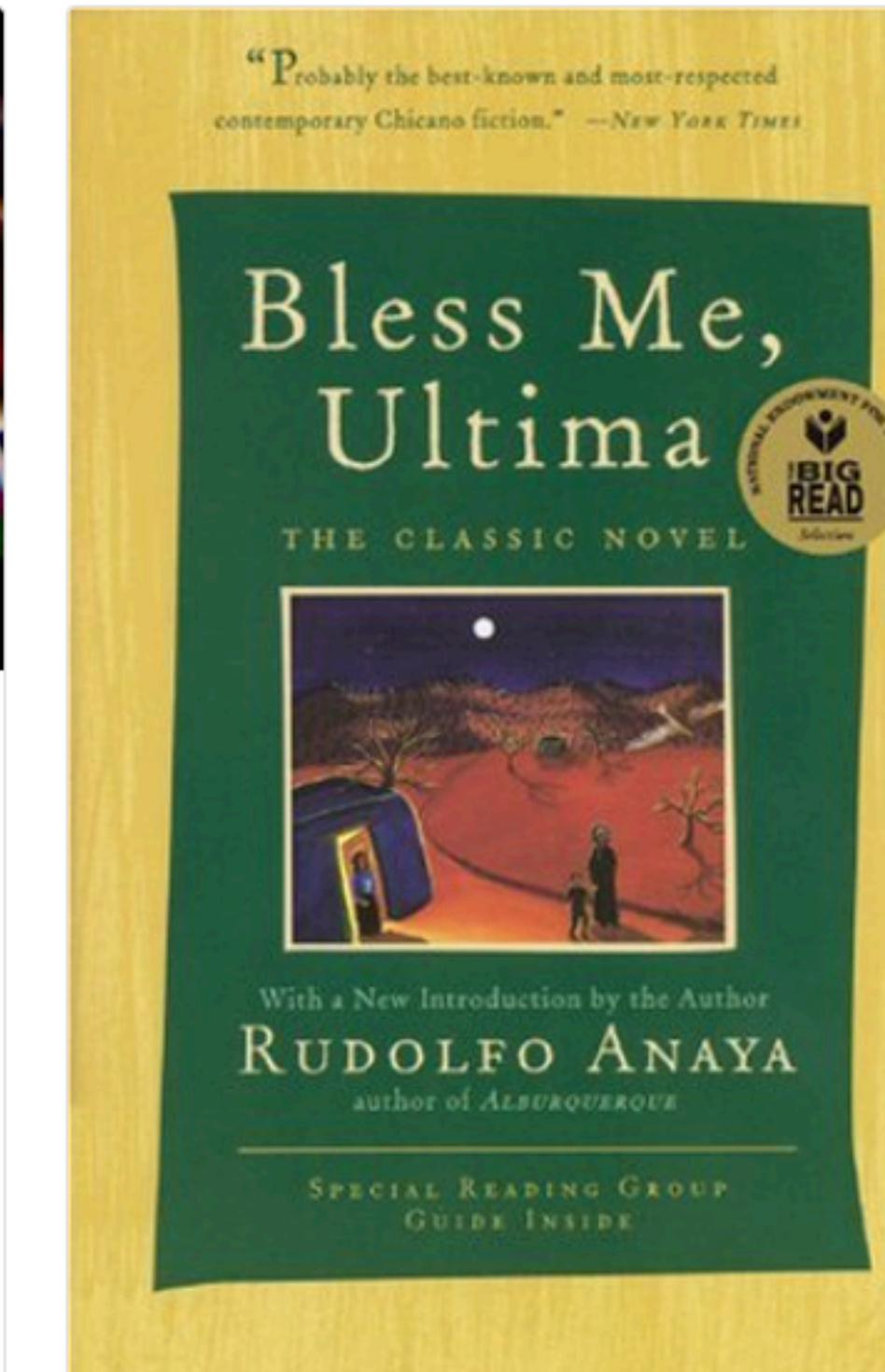
Date: 2013-03-18

Creator: Arenas Entertainment

interviews

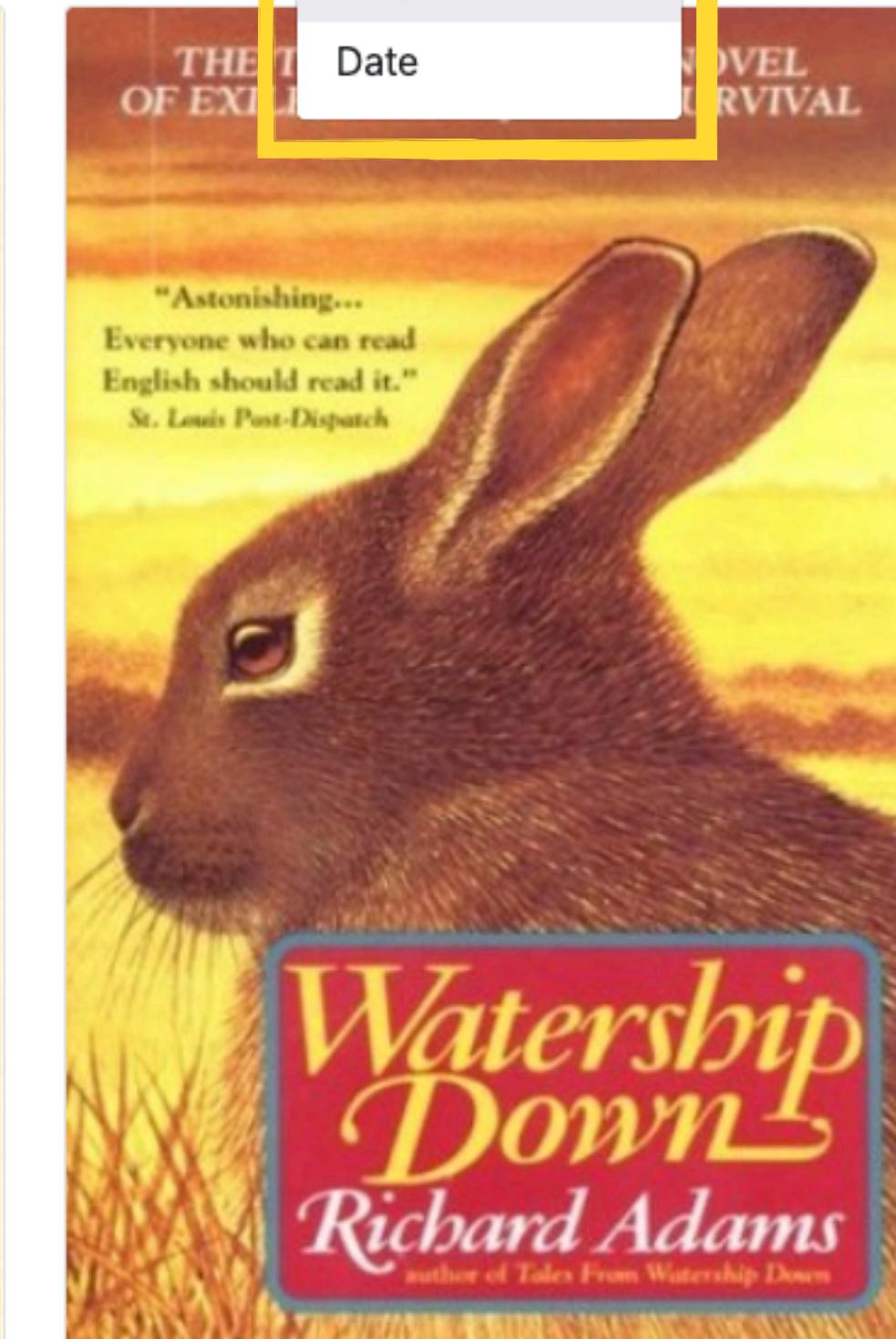
MP4

[View Full Record](#)



Bless Me, Ultima

Date: 1999-04-01



Watership Down

Date: 1975-06-01

Faceting/filtering

INDIANA UNIVERSITY
IUCAT /

CAMPUS ▾ HISTORY FOLDERS (1) ▾

BASIC SEARCH ADVANCED SEARCH BROWSE RESERVES MUSIC SEARCH

Find items with the following attributes

Online Only

Format

- Book
- E-Book
- Journal, Periodical
- Musical Recording
- Microfiche
- Streaming Video
- Streaming Audio
- Musical Score
- Microfilm
- Map
- CD
- DVD, Videodisc
- Manuscript

Search... all in All

AND OR NOT

all in All

Publication Year

Examples: 2000 - 2000 (single year), 2000 - 2011 (fixed range), (open range)

Sort results by

Relevance

Reset

Action

amazon Deliver to Gyuri Bloomington 47408 Children's Books Search Amazon

All Medical Care Customer Service Amazon Basics Prime Buy Again Household, Health & Baby Care Amazon

Books Kindle Rewards Advanced Search New Releases Best Sellers & More Categories Amazon Book Clubs Children's Books

Filters

Age Range 1

Clear

- Baby to Age 2
- Ages 3 to 5
- Ages 6 to 8
- Ages 9 to 12

Book Type 1

Clear

- Beginning Readers
- Board Books
- Chapter Books
- Coloring Books
- Picture Books
- Pop-Up & Lift-the-Flap
- Press & Cut Outs
- Sound Books
- Sticker Books
- Touch & Feel Books

Format

- Paperback
- Hardcover
- Kindle Edition
- Large Print
- Board Book
- Spiral-bound

Language 1

Clear

- English
- German
- French
- Spanish

Giraffes Can't Dance (Board Book)
by Giles Andreae and Guy Parker-Rees | Mar 1, 2012
★★★★★ 29,530
Board book Ages: 1 - 3 years
\$6.90
FREE delivery Sun, Sep 22 on \$35 of items shipped by Amazon
Or Prime members get FREE delivery Thu, Sep 19
More Buying Choices \$1.21 (15+ used & new offers)

Hardcover
\$12³⁹ List: \$17.99
FREE delivery Sun, Sep 22 on \$35 of items shipped by Amazon
Or Prime members get FREE delivery Thu, Sep 19
More Buying Choices \$1.61 (28+ used & new offers)

Paperback
No featured offers available
\$12.21 (9 used & new offers)

Peek-a Who? (Lift the Flap Books, Interactive Books)
Part of: Peek-A Who? (5 books) | by Nina Laden | Feb 1, 2000

Controlled Vocabularies

The Library of Congress

>> Go to Library of Congress Online Catalog



LIBRARY OF CONGRESS AUTHORITIES



Help New Search Search History Headings List Start Over

SOURCE OF HEADINGS: Library of Congress Catalog

YOU SEARCHED: Name Authority Headings = Adams, Richard, 1920-2016

SEARCH RESULTS: Displaying 1 through 100 of 100.

◀ Previous Next ▶

#	Bib Records	select icon in first column to... View Authority Headings/References	Type of Heading
1	47	Adams, Richard, 1920-2016	personal name
2	0	Adams, Richard, 1924-2018	personal name
3	1	Adams, Richard, 1938-	personal name
4	0	Adams, Richard, 1940-	personal name
5	0	Adams, Richard, 1946-	personal name
6	1	Adams, Richard, 1951-	personal name
7	0	Adams, Richard, 1957-	personal name
8	0	Adams, Richard, 1960-	personal name
9	0	Adams, Richard, 1962-	personal name
10	3	Adams, Richard, 1963-	personal name
11	0	Adams, Richard, 1964-	personal name
12	1	Adams, Richard, 1964 June 19-	personal name
13	0	Adams, Richard, 1964 June 20-	personal name
14	2	Adams, Richard, 1967-	personal name
15	2	Adams, Richard A.	personal name

Controlled Vocabularies

Search Results

You searched for:

Keyword > "Adams, Richard, 1920-2016"



« Previous | 1 - 25 of 54 | Next »

Limit your search

Format

Publication Year

Author

Adams, Richard, 1920-2016 52

Rosen, Martin 5

Guy, Tony 4

Hurt, John, 1940-2017 4

Mostel, Zero, 1915-1977 4

Richardson, Ralph, Sir, 1902-1983 4

Ackland, Joss, 1928-2023 3

Bayley, Nicola 3

Briers, Richard 3

Elliott, Denholm 3

more »

Subject

1. Papers 1968-1984

Publication Details

Availability

Author: Adams, Richard, 1920-2016
Language: English
Format: Mixed Materials
Copies At: Bloomington Lilly Library

Filter your search

Current Filters

Author: "Adams, Richard, 1920-2016"

Search results

1 to 13 of 13 results

Sort by Relevance

Shardik / Richard Adams.

Published 1975
Author Adams, Richard, 1920-2016.

Catalog Record

Multiple Items

The legend of Te Tuna / Richard Adams.

Published 1986
Author Adams, Richard, 1920-2016.

Catalog Record

Limited (search only)

Watership Down [by] Richard Adams.

Published 1974
Author Adams, Richard, 1920-2016.

Catalog Record

Limited (search only)

Clear filters

Item Viewability

All Items

13

Full View

Viewability

Subject

Author

[Adams, Richard, 1920-2016](#)

13

[Bayley, Nicola](#)

2

[Dohm, Janice](#)

2

[Campbell, Jennifer](#)

1

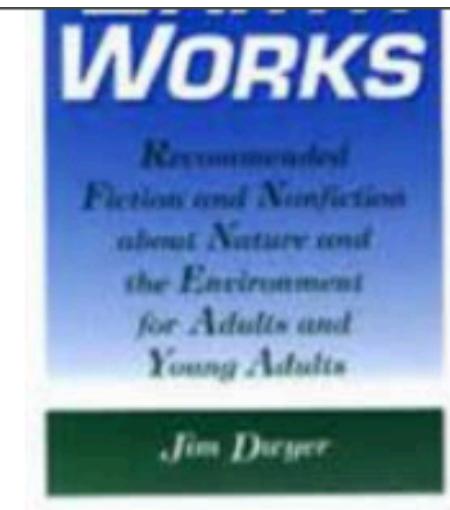
[Gilbert, Yvonne](#)

1

Uncontrolled Values

Author	^
Dwyer, Jim, 1949-	4
Subject	^
Ecocriticism.	3
Ecofiction	3
Ecology in literature.	3
Ecofiction.	1
Environmental sciences	1
LITERARY CRITICISM	1
TRAVEL	1
Language	▼
Call Number	^
G - Geography, Anthropology, Recreation	1
P - Language & Literature	1
Z - Bibliography, Library Science, Information Resources	1
Campus	▼
Library	▼

Author: Dwyer, Jim, 1949-
Published: New York : Neal-Schuman Publishers, c1996
Language: English
Format: Book
Copies At: Indianapolis and Bloomington

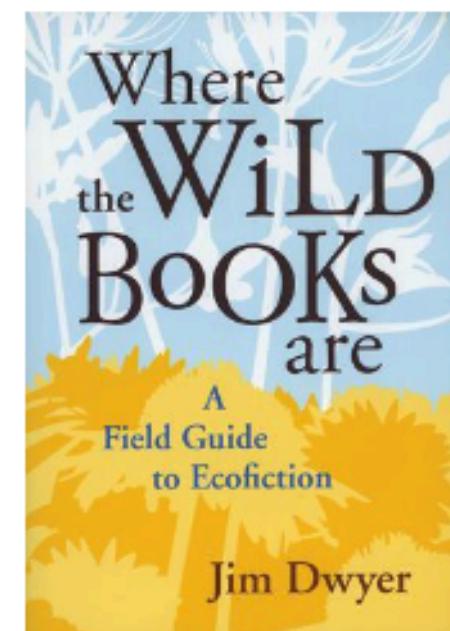


Jim Dwyer

2. Where the wild books are : a field guide to ecofiction

[Publication Details](#) [Availability](#)

Author: Dwyer, Jim, 1949-
Published: Reno : University of Nevada Press, c2010
Language: English
Format: Book
Copies At: Bloomington

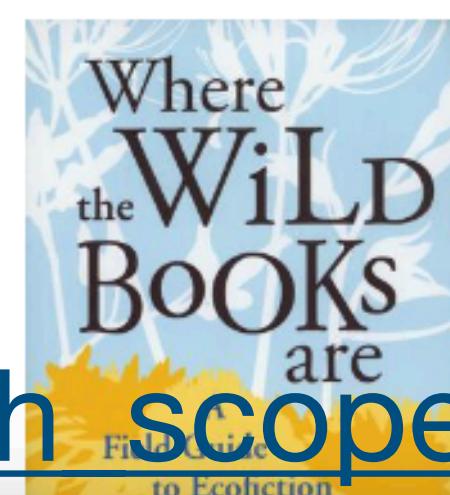


Jim Dwyer

3. Where the wild books are : a field guide to ecofiction

[Publication Details](#) [Availability](#)

Author: Dwyer, Jim, 1949-
Published: Reno : University of Nevada Press, ©2010
Language: English
Format: E-Book
Copies At: Bloomington, Kokomo, Columbus, East, Indianapolis, Northwest, South Bend, and Southeast



Find Guide to Ecofiction

https://iucat.iu.edu/?q=%22Dwyer+Jim+1949%22&search_field=author_link&search_scope=catalog

Uncontrolled Values

Author

[Adams, Richard Newbold, 1924-](#)

[Adams, Richard N. \(Richard Newbold\), 1924-](#)

[Adams, Richard E. W., 1931-](#)

[Adams, Richard H](#)

[Adams, Richard, 1920-2016](#)

[Adams, Richard Laban, 1883-](#)

[Adams, Richard M](#)

[Adams, Richard, 1920-](#)

[Adams, Richard](#)

37

17

13

13

13

9

9

9

7



Watership Down [by] Richard Adams.

Published 1974

Author Adams, Richard, 1920-
2016.

[Catalog Record](#)

Limited (search only)



The plague dogs / Richard Adams ; with illustrations and diagrams by A. Wainwright.

Published 1977

Author Adams, Richard, 1920-
2016. Wainwright, A.

Dohm, Janice,

[Catalog Record](#)

Limited (search only)



Watership Down / Richard Adams

Published 2001

Author Adams, Richard, 1920-

[Catalog Record](#)

Limited (search only)



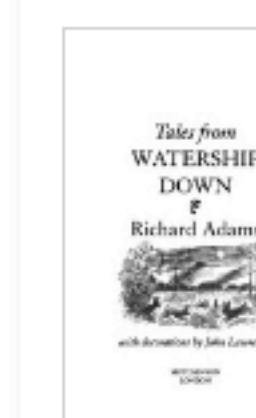
The plague dogs / Richard Adams.

Published 1983

Author Adams, Richard, 1920-

[Catalog Record](#)

Limited (search only)



Tales from Watership Down / Richard Adams ; with decorations by John Lawrence

Published 1996

Author Adams, Richard, 1920- Lawrence, John, 1933-

[Catalog Record](#)

Limited (search only)

[https://catalog.hathitrust.org/Search/Home?
lookfor=%22Adams%2C+Richard%22&searchtype=author](https://catalog.hathitrust.org/Search/Home?lookfor=%22Adams%2C+Richard%22&searchtype=author)

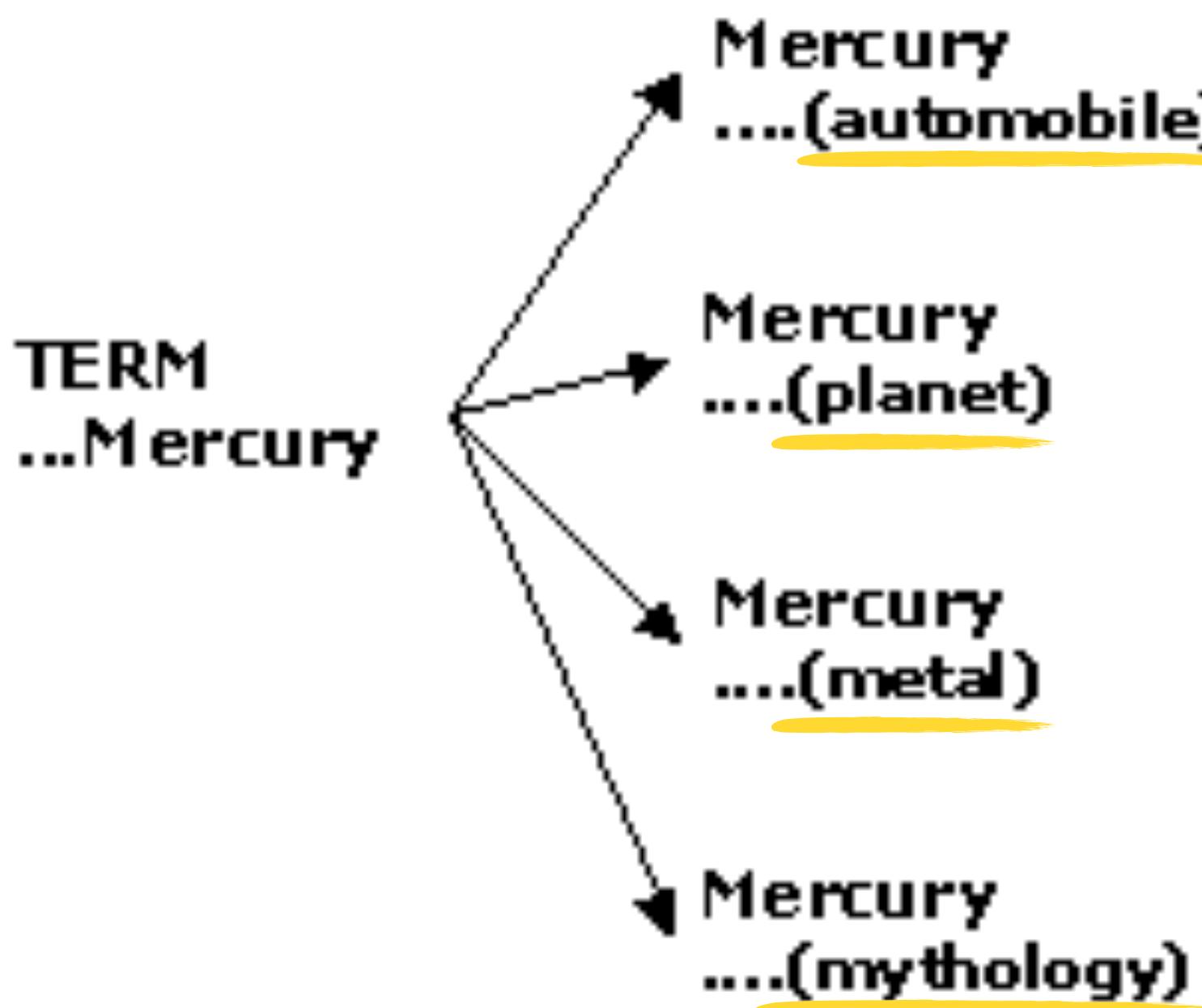
Consistency is Key!

- Split files: when a vocabulary term is written more than one way
- Hinders information retrieval functions
- Examples:
 - Book **vs.** Books **vs.** book
 - Barca, Pedro Calderón de la, 1600-1681
vs. Calderón, Pedro, 1600-1681
vs. De la Barca, Pedro Calderón, 1600-1681

Ambiguity and Synonymy

Ambiguity

- Same word, different concepts
- Solution: Qualifiers



Synonymy

- Same concept, different words
- Solution: Equivalence relationships

The screenshot displays a search result from the Library of Congress Linked Data Service (LCNAF). The main heading is "Newcastle, Margaret Cavendish, Duchess of, 1624?-1674". Below it, under "URI(s)", is a link to <http://id.loc.gov/authorities/names/n83206596>. A section titled "Variants" lists several alternative names and titles, many of which are highlighted with yellow boxes:

- Cavendish, Margaret, Duchess of Newcastle, 1624?-1674
- Lucas, Margaret, 1624?-1674
- Margaret, Duchess of Newcastle, 1624?-1674
- Margareta, Duchess of Newcastle, 1624?-1674
- Newcastle, Duchess of, 1624?-1674
- Newcastle, Marchioness of, 1624?-1674
- Newcastle, Margaret, Lady, 1624?-1674
- Newcastle, Margaret Lucas Cavendish, Duchess of, 1624?-1674

Hierarchical Relationships

Ambiguity and Synonym Control

Great Britain	
[Used For]	
[Broader Terms]	
<input type="checkbox"/>	GB
[Narrower Terms]	
<input type="checkbox"/>	UK
<input type="checkbox"/>	England
<input type="checkbox"/>	Scotland
<input type="checkbox"/>	Wales

Example of a thesaurus term and its relations from the thesaurus of CAB Abstracts in the OvidSP search system

Browsing: PsycINFO -- Thesaurus

autism

Term Begins With Term Contains Relevancy Ranked

Page: [◀ Previous](#) | [Next ▶](#)

Select term, then add to search using: OR

(Click term to display details.)

<input type="checkbox"/> Autism	controlled vocabulary
Autism Spectrum Disorders Use Pervasive Developmental Disorders	
Autistic Children Use Autism	
Autistic Psychopathy Use Aspergers Syndrome	
<input type="checkbox"/> Autistic Thinking	
<input type="checkbox"/> Autobiographical Memory	
<input type="checkbox"/> Autobiography	

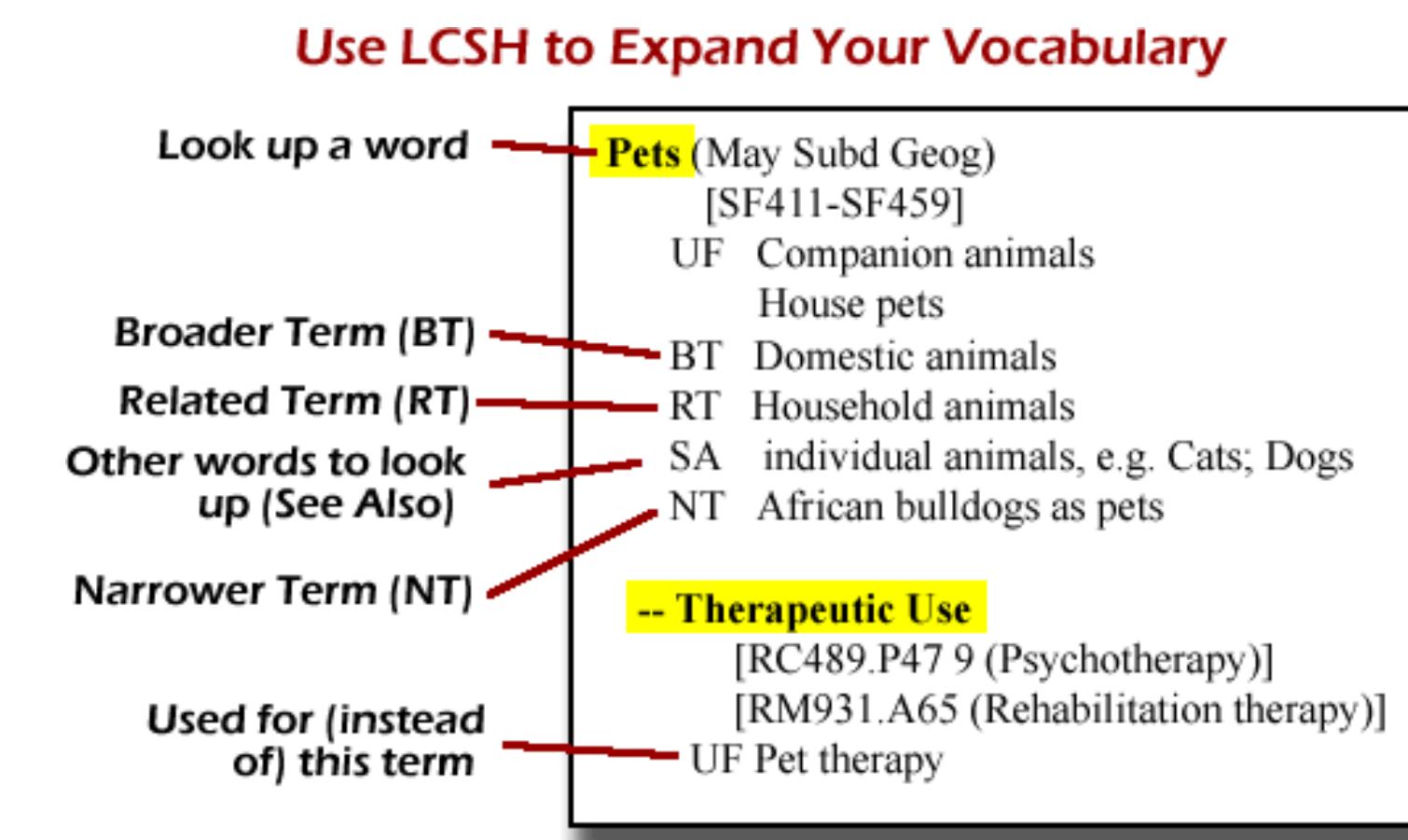
Example of a thesaurus from the PsycINFO database

- Broader Term (BT): go up the hierarchy (more general)
- Narrower Term (NT): go down the hierarchy (more specific)

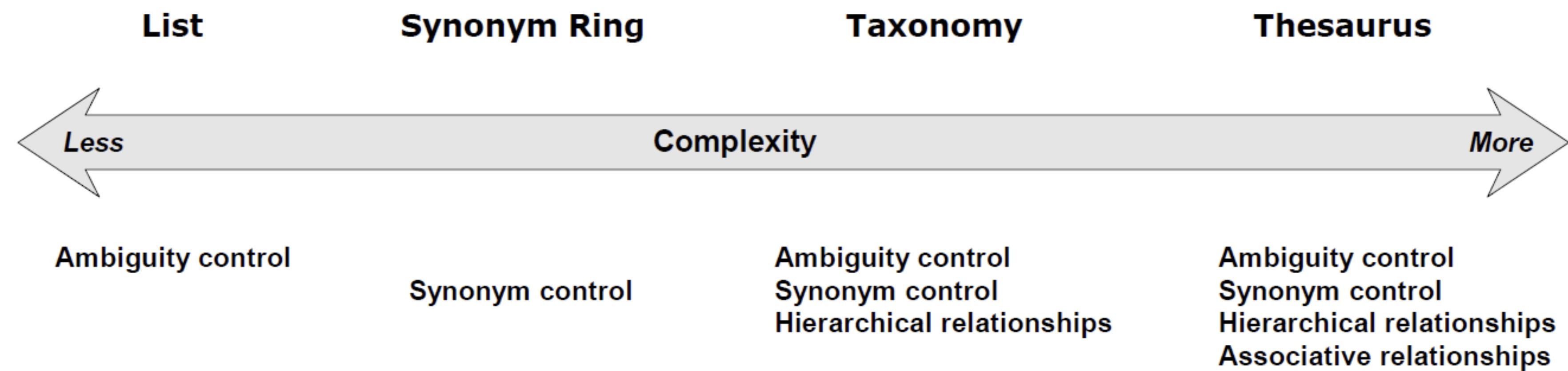
Associative Relationships

- Related Terms (RT): additional terms that might be of interest to users
 - Near synonyms
 - Overlapping meanings
 - Discipline and the object of study
 - Persons and their occupations
 - Products and industries
 - Whole/part relationships

Game industry	NOT	Game industry
RT Games		RT Games
		Board games
		[a narrower term to Games]



Types of Controlled Vocabularies



Lists

- Do not include any of the semantic relationships.
- Lists of topical terms (in addition to established lists of terms)

Cross References: Lists

Categories	Sub-Categories	Details
animals	amphibian	Ayrshire
Art	aquarium fish	beef cattle
Aviation	birds	black angus
Birds	cat	brangus
Boats	cattle	charolais
Buildings	dog	cow
Business	goat	dairy cattle
Celebrations	horse	Devon
Civics	laboratory animal	Guernsey
Communications	livestock	Holstein
Computers	pets	Jersey
Construction	pig	longhorn
Crime	poultry	shorthorn
Disasters	reptile	simmental
Education	rodent	steer
eee	sheep	
Energy	undomesticated	
Entertainment	wildlife	
Environment		
Fish		
Flags		
Food		
Foreign Countries		
Housing		
Industry		
Medical		
Military		

- Arts
 - [Fantasy](#)
 - [Architecture](#)
 - [Art Instruction](#)
 - [Art History](#)
 - [Dance](#)
 - [Design](#)
 - [Fashion](#)
 - [Film](#)
 - [Graphic Design](#)
 - [Music](#)
 - [Music Theory](#)
 - [Painting](#)
 - [Photography](#)
- History
 - [Brazil](#)
 - [Ancient Civilization](#)
 - [Archaeology](#)
 - [Anthropology](#)
 - [World War II](#)
 - [Social Life and Customs](#)
- Health & Wellness
 - [Cooking](#)
 - [Cookbooks](#)
 - [Mental Health](#)
 - [Exercise](#)
 - [Nutrition](#)
 - [Self-help](#)
- Textbooks
 - [History](#)
 - [Mathematics](#)
 - [Geography](#)
 - [Psychology](#)
 - [Algebra](#)
 - [Education](#)
 - [Business & Economics](#)
 - [Science](#)
 - [Chemistry](#)
 - [English Language](#)
 - [Physics](#)
 - [Computer Science](#)
- Books by Language
 - [English](#)
 - [French](#)
 - [Spanish](#)
 - [German](#)
 - [Russian](#)
 - [Italian](#)
 - [Chinese](#)
 - [Japanese](#)
 - [See more...](#)
- Science & Mathematics
 - [Biology](#)
 - [Chemistry](#)
 - [Mathematics](#)
 - [Physics](#)
 - [Programming](#)
- Biography
 - [Autobiographies](#)
 - [History](#)
 - [Politics and Government](#)
 - [World War II](#)
 - [Women](#)
 - [Kings and Rulers](#)
 - [Composers](#)
 - [Artists](#)
- Social Sciences
 - [Anthropology](#)
 - [Religion](#)
 - [Political Science](#)
 - [Psychology](#)
- Children's
 - [Kids Books](#)
 - [Stories in Rhyme](#)
 - [Baby Books](#)
 - [Bedtime Books](#)
- Places

Synonym Rings

- No preferred/authorized term (equivalent to each other)

DIGITAL libraries

Scope Note

Here are entered works on archived collections of digital materials.

Used for

DIGITAL archives
DIGITAL curation
DIGITAL media collections
DIGITAL media libraries
ELECTRONIC libraries
ELECTRONIC publication collections
ELECTRONIC publication libraries
ELECTRONIC text collections
VIRTUAL libraries

Authority Files

- Preferred/authorized term

The Library of Congress

LIBRARY OF CONGRESS AUTHORITIES

Help New Search Search History Headings List Start Over

>> Go to Library of Congress Online Catalog

SOURCE OF HEADINGS: Library of Congress Catalog

YOU SEARCHED: Name Authority Headings = Cavendish, Margaret, Duchess of Newcastle, 1624?-1674

SEARCH RESULTS: Displaying 1 through 100 of 100.

#	Bib Records	View Au
1	0	Cavendish, Margaret, Duchess of Newcastle, 1624?-1674
2	2	Cavendish, Mark
3	0	Cavendish, Marshall
4	0	Cavendish, Mary, 1557-1632

select icon in first column to...
 View Authority Headings/References
 SOURCE OF HEADINGS: Library of Congress Catalog
 YOU SEARCHED: Name Authority Headings = Newcastle, Margaret Cavendish, Duchess of, 1624?-1674
 SEARCH RESULTS: Displaying 1 through 100 of 100.

#	Bib Records	Type of Head
1	36	Newcastle, Margaret Cavendish, Duchess of, 1624?-1674
2	0	Newcastle, Margaret, Lady, 1624?-1674
3	0	Newcastle, Margaret Lucas Cavendish, Duchess of, 1624?-1674
4	0	Newcastle, Marquess of (William Cavendish), 1592-1676

<https://authorities.loc.gov/cgi-bin/Pwebrecon.cgi?>

Search Arg=Cavendish%2C+Margaret%2C+Duchess+of+Newcastle%2C+1624%3F-1674&Search Code=NHED &PID=tJsySX7F-KaqmB3QMusqcS8votCEH&SEQ=20240926212608&CNT=100&HIST=1

Taxonomies

Classification Schemes

- Can drill down into subcategories
 - *Equivalence*
 - *Hierarchical*



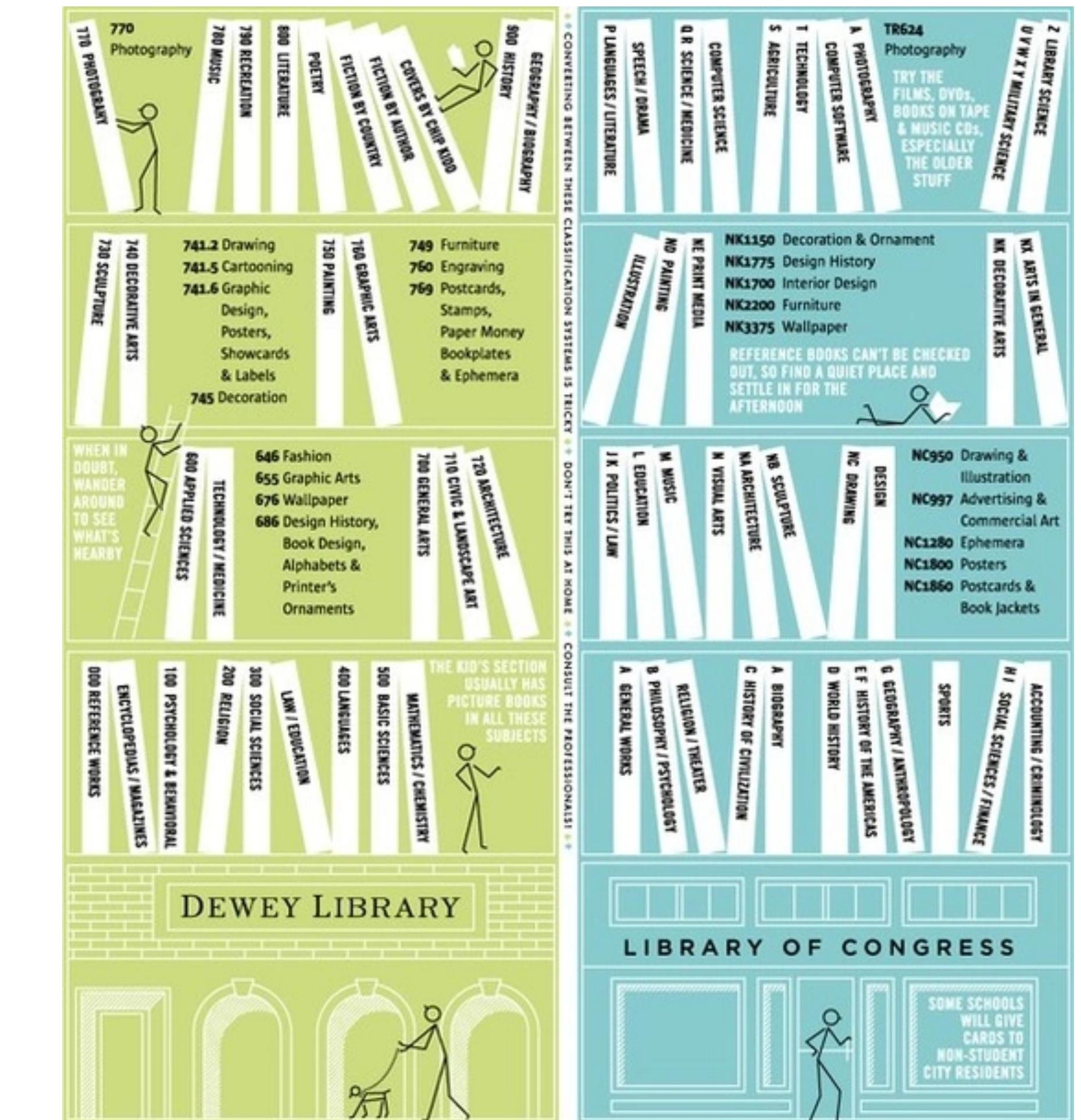
A red fox in Algonquin Provincial Park Ontario

Scientific classification

Domain:	Eukaryota
Kingdom:	Animalia
Phylum:	Chordata
Class:	Mammalia
Order:	Carnivora
Family:	Canidae
Subfamily:	Caninae

Groups include

- Some Canini species:
 - †*Dusicyon cultridens*
 - *Cerdocyon*
 - *Cerdocyon thous*
 - *Lycalopex*
 - *Lycalopex culpaeus*
 - *Lycalopex fulvipes*
 - *Lycalopex griseus*
 - *Lycalopex*
gymnocercus
 - *Lycalopex sechurae*
 - *Lycalopex vetulus*
 - All Vulpini species
 - *Vulpes*
 - *Vulpes lagopus*
 - *Vulpes vulpes*
 - *Vulpes velox*
 - *Vulpes macrotis*
 - *Vulpes corsac*
 - *Vulpes chama*
 - *Vulpes pallida*
 - *Vulpes bengalensis*
 - *Vulpes ferrilata*
 - *Vulpes cana*
 - *Vulpes rueppelli*
 - *Vulpes zerda*



Thesauri

- Includes all three types of semantic relationships (*equivalence, hierarchical, and associative*)
- Particular subject areas
- Examples:
 - Library of Congress Thesaurus for Graphic Materials (TGM)
 - Getty Art & Architecture Thesaurus (AAT)
 - Getty Thesaurus of Geographic Names (TGN)

Subject Heading Lists

- Dublin Core Type Vocabulary (DCMIType)
- Library of Congress Authorities
- Library of Congress Subject Headings (LCSH)
- Library of Congress Classification (LCC)

CONTROLLED VOCABULARIES FOR DIGITAL COLLECTIONS COMMONLY RECOMMENDED FOR USE WITH DC, MODS,* AND VRA

Resource Types, Genre, Format, Material, Technique

- Art & Architecture Thesaurus (AAT)
- Dublin Core Type Vocabulary (DCT or DCMIType)
- MIME Internet Media Types (MIME or IMT)
- Thesaurus for Graphic Materials (TGM or LCTGM II)

Names and Roles

- Library of Congress/NACO Name Authority File (LCNAF or NAF)
- MARC Relator Terms and Codes (MARC Relator)
- Union List of Artist Names (ULAN)

Subjects (Topical, Geographic, Temporal, Form/Genre)

- Art & Architecture Thesaurus (AAT)
- Getty Thesaurus of Geographic Names (TGN)
- Library of Congress Subject Headings (LCSH)
- Medical Subject Headings (MeSH)
- Thesaurus for Graphic Materials (TGM or LCTGM)

Classification (Subject)

- Dewey Decimal Classification (DDC)
- Library of Congress Classification (LCC)
- National Library of Medicine Classification (NLM)
- Universal Decimal Classification (UDC)

Controlled Vocabulary Lab

Submission Due Oct. 1 at 11:59 pm

- In groups of 2-3 (you may choose your groups), you will be researching controlled vocabularies. If you want to be strategic, look for controlled vocabularies that would potentially be useful to your prospective final projects.
- Collectively, you need to identify and describe at least 4 controlled vocabularies.

Creating Controlled Vocabularies

- Top-down
 - Start from existing vocabularies to inspire your own system
- Bottom-up
 - Analyze your own content to create preliminary list of terms

Types of vocabulary terms

Classification: antiquities **AAT**
Work Type: amphora **AAT**
Creators:
Painter of the Wedding Procession (*Greek vase painter, active ca. 360s BCE*) **ULAN**
Nikodemos (Attic potter, active ca. 362 BCE) **ULAN**
Repository: J. Paul Getty Museum **TGN**
Geographic Locations:
Los Angeles, California, USA (*repository location*)
Athens, Greece (*creation location*) **TGN**
Culture: Greek (Attic) **AAT**
Materials & Techniques: terracotta, turning, sintering, vase painting **AAT**
Specific Subjects:
Athena Promachos
Nike
boxers (athletes) **IA**
prize
competition (event) **AAT**
Panathenaia
kionedon (writing style)



Linked Data (LD)

- Library of Congress Linked Data Service (<https://id.loc.gov/>)
- Human-readable LD -> machine-readable encoding syntaxes
- The Getty vocabularies as LD:
 - AAT
 - CONA
 - TGN
 - ULAN

Possible implementations of CONA

LINKS

IA ID **1000045**
Names
• Xibalba
• Place of Fear

AAT ID **300191778**
Terms
• skeleton [English]
• beendergestel [Dutch]
• esqueleto [Spanish]
• squelette [Italian]
• 骨架 [Chinese]

CONA ID **70000012** Class: Pre-Colombian art

General Subject:
• religion and mythology [General Subject ID 31801]

Specific Subjects:
• Xibalba (Maya underworld) [IA 1000045]
• Baby Jaguar (Maya character) [IA 901002211]
• Chahk (Maya deity) [IA 901002210]
• man (male human) [AAT 300025928]
• skeleton (animal component) [AAT 300191778]
• ax (weapon) [AAT 300024664]
• altar [AAT 300003725]
• death [AAT 300151836]
• celebration [AAT 300152441]

Works linked to subjects depicted
Value added: Contributions to CONA may be indexed for subject depicted access
OCLC survey, of core fields missing is subject depicted
Mining titles and text for subjects depicted, missing from museum data
Controlled by AAT, ULAN, TGN, CONA, and IA



Introduction to Controlled Vocabularies

AAT

Art & Architecture Thesaurus

Terms:

still lifes (preferred, C,U,D,American English-P)
still life (C,U,AD,American English)
still-life (C,U,UF,American English)
still-lifes (C,U,UF,American English)
still lives (C,U,UF,American English)
nature morte (C,U,UF,French-P)
nature mortes (C,U,UF,French)
natura morta (C,U,UF,Italian-P)
stilleven (C,U,UF,Dutch-P)
stilleben (C,U,UF,German-P)
vie coye (H,U,UF,French)

ontbijtje (H,U,UF,Dutch)
vanitas (H,U,UF)

banketje (H,U,UF)
bodegones (H,U,UF,Spanish)

- ⚒ Top of the AAT hierarchies
- ⚒ Styles and Periods Facet
- ⚒ Styles and Periods
- ⚒ <styles and periods by region>
- ⚒ <Early Western World>
- ⚒ Mediterranean
- ⚒ Aegean
- ⚒ <Aegean styles>
- ⚒ <Aegean pottery styles>
- ⚒ <Greek vase painting styles>
- ⚒ Red-figure
- ⚒ Florid Style
- ⚒ Kerch Style
- ⚒ Ornate Style
- ⚒ Simple Style

..... French for "silent life"; this French term was later replaced by "nature morte"
..... Dutch for "small breakfast"
..... term used to refer to such images in the Netherlands in the 17th century
..... Dutch for "little banquet"
..... term initially used in Spain to describe such images, referring to the lower-class inns and eating-places for which they were painted



All lower case

Hierarchical Position display



AAT, the Art & Architecture Thesaurus®

Sample record

ID: 300132869

Terms:

bobbin lace (pref, en)
bone lace (en)
cushion lace (en)
梭心蕾絲 (zh)
線軸編織花邊 (zh)
kloskant (nl)
dentelle aux fuseaux (fr)
encaje de bolillos (es)
encaje de bolillo (es)
Klöppelspitze (de)
Klöppelspitzen (de)

Associative Relationships
requires ... lace pillows (<textile fabricating tools and equipment>...Objects Facet) [300132869]

Hierarchical Relationships (poly)
.Objects Facet
... Visual & Verbal Communication
.... Visual Works
..... visual works (works)
..... <visual works by material>
..... needlework (visual works)
..... lace (needlework)
..... bobbin lace

Contributors: VP,CHIN,AS,RKD,IfM-SMB-PK,CDPB-DIBAM
Sources: Earnshaw, Claburn, Needleworker's Dictionary (1976); Identification of Lace, 2d ed. (1984); Ginsburg, Illustrated History of Textiles (1991)

Different facets

TGN

Getty Thesaurus of Geographic Names



TGN, the Getty Thesaurus of
Geographic Names®

Focus on hierarchical links

Sample record

Linked to other vocabularies

Controlled by TGN

Names:
München (preferred, C,V,N,German-P)
Munich (C,O,N,English-P)
Monaco (C,O,N)
Monaco di Baviera (C,O,N)
Munichen (H,O,N)

..... meaning "Home of the Monks," name used in some form since 12th century

<p>ID: 7011179</p> <p>Names:</p> <p>Siena ✓ (it,en,es,fr,nl,de) Σιένα (el) Siyanah 锡耶纳 (zh) シエーナ (ja) Sienese (en-adj) Sienna (h-en) Sena Julia (h-la) Sanna (h) Saena (h)</p>	<p>Hierarchical Rel. (polyhier.)</p> <p>World (facet) .. Europe (continent) ... Italy (nation) Tuscany (region) Siena (province) Siena (inhabited place)</p> <p>World (facet) .. Europe (continent) ... Italian Peninsula (peninsula) Etruria (former confederation) Siena (inhabited place) Historical: Late Etruscan</p> <p>Associative Rel.</p> <p>ally of Pisa ..(inhabited place) [7006082] Ghibelline allies, 13th-14th centuries</p>	<p>Place Types</p> <p>inhabited place settled by Etruscans (flourished by 6th century BCE)</p> <p>city archiepiscopal see commune (administrative) since 1125 cultural center university center world heritage site</p> <p>Lat: 43 19 07 N (43.3180) Long: 011 19 50 E (11.3300) Elevation: 1056.430 feet (322.0000 meters)</p> <p>Note: Siena was founded as an Etruscan hill town; later was the Roman city of Sena Julia (3rd century BCE). It flourished under the Lombard kings (6th century CE) and was Medieval self-governing commune ...</p>
---	---	---

Equivalent otherwise "preferred"

ULAN

Union List of Artist Names

Vernacular flag

Names:
Schiavone, Andrea (preferred, index, V, Italian-P)
Andrea Schiavone (display, V)
Medulic, Andrija (V, Serbo-Croatian)
Meldolla, Andrea (V)
Andrea Meldolla (V)
Meldola, Andrea (V)
Andrea Schiavone veneziano (V)
André Schiavon (V)
Andrea Esclabon (V)
Andrea Schiavoni (V)
Schavione, Andrea (V)
Andrea Shiavoni (V)
Schiavoni, Andrea (V)

Equivalent otherwise "preferred"



Getty

ID: 500060426
Names:
Hokusai, Katsushika (pref, en, ja-trans, de)
Katsushika Hokusai (en, ja-trans)
Hokusai (en, ja-trans)
葛飾 北斎 (ja)
Shunrō (en, ja-trans)
Tawaraya Sōri (en, ja-trans)
Kakō (en, ja-trans)
Tatsumasa (en, ja-trans)
Gakyōjin (en, ja-trans)
Taito (en, ja-trans)
Iichi (en, ja-trans)
Manji (en, ja-trans)
Tokitarō (en, ja-trans)
時太郎 (ja)
葛飾北濟 (ja)
Nationalities:
Japanese (pref)
Roles: AAT
artist
printmaker
painter
designer
calligrapher
draftsman
landscapist
marine artist
figure artist
ukiyo-e artist
Gender: male

ULAN, the Union List of Artist Names®

Sample record

Birth and Death Places:
Born: Tokyo (Kanto, Japan) (inhab place)
Died: Tokyo (Kanto, Japan) (inhab place)
Events: AAT
active: Tokyo (Kanto, Japan) (inhab place)
..... in Edo, modern-day Tokyo
Associative Relationships:
teacher of Taito, Katsushika, II
..... (Japanese printmaker, active ca. 1820-1850)
child of Nakajima Ise
..... (Japanese mirror maker, 18th century)
possibly identified with ... Tōshūsai Sharaku
..... (Japanese printmaker, active 1794-1795)
Contributors:
VP, Avery, GRL, BHA, CCA
Sources: Bowie, Drawings of Hokusai (1964);
Grove Dictionary of Art online (1999-2002); Library
of Congress Authorities database (n.d.);
Metropolitan Museum of Art [online] (2003-);
Bouquillard, Hokusai: First Manga Master (2007)

Introduction to Controlled Vocabularies

Mapped to TGN
Controlled by AAT

Persistent Identifiers

- “A long-lasting digital reference to an object, contributor, or organization”
(National Transportation Library)
- Examples
 - Open Researcher and Contributor ID (ORCID)
 - Digital Object Identifier (DOI)
 - Virtual International Authority File (VIAF)

Interoperability

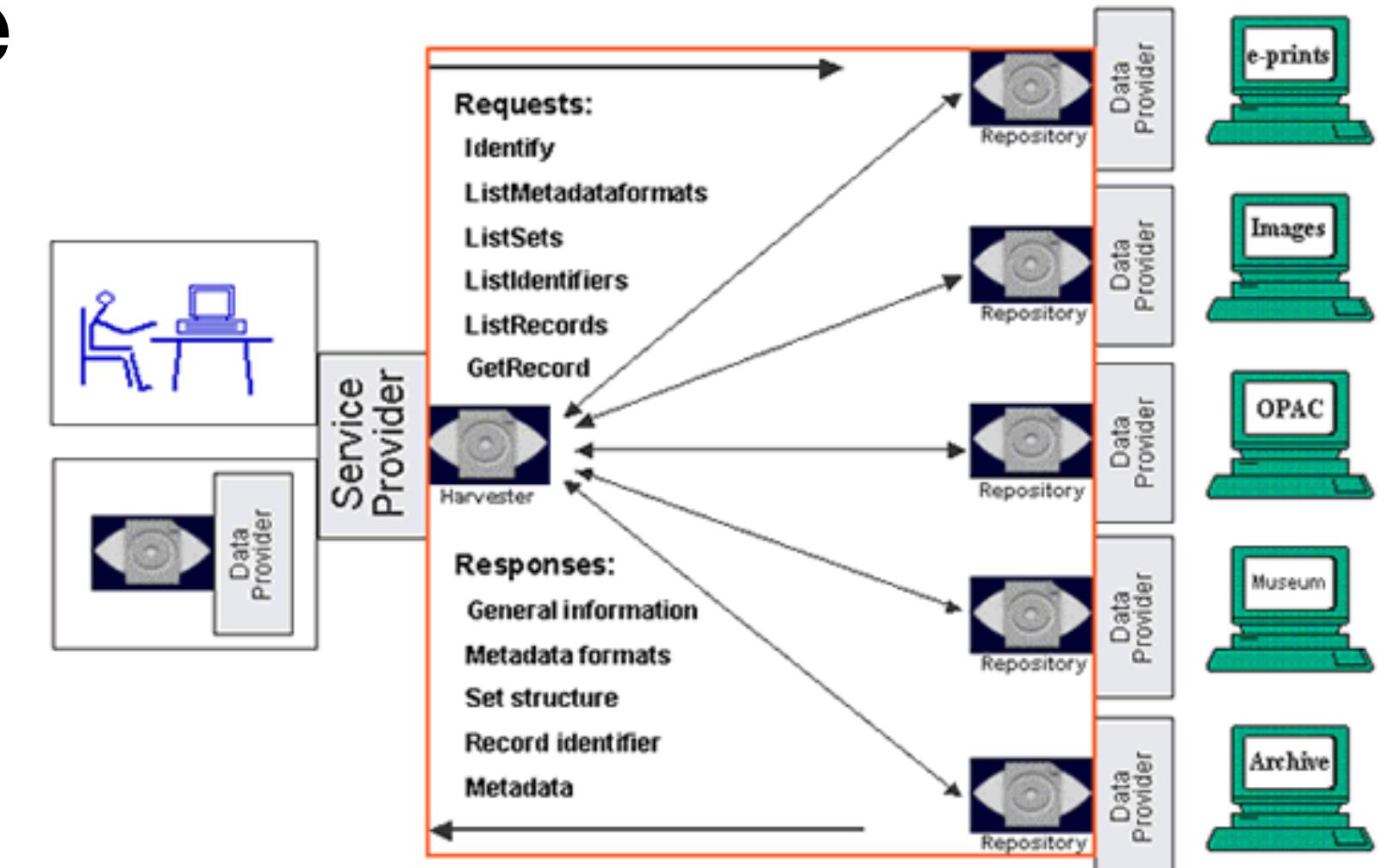
Using multiple vocabularies

- Interoperability refers to “the ability of two or more vocabularies and their systems or components of their systems to map to each other’s data with the goal of exchanging information or enhancing discovery” (Harping, 2023, *Introduction to Controlled Vocabularies*).
- Faster indexing, better retrieval

OAI-PMH

Open Archives Initiative-Protocol for Metadata Harvesting

- Use HTTP to provide a framework, in which requests are encoded in URLs
- Results are returned as XML records.
- Document identifiers are expressed using Dublin Core metadata.
- URL encoding -> HTTP dispatch -> XML response



```
Request Arguments:  
    verb=GetRecord  
    identifier=oai:nzdl:hdl/018cf2f4256b4c8827e747b8  
    metadataPrefix=oai_dc  
  
Encoded URL:  
    http://www.nzdl.org/cgi-bin/oai/request?verb=GetRecord  
        &identifier=oai%3Anzdl%3Ahd1%2F018cf2f4256b4c8827e747b8  
        &metadataPrefix=oai_dc  
  
Response:  
  
<?xml version="1.0" encoding="UTF-8"?>  
<GetRecord  
    xmlns="http://www.openarchives.org/OAI/1.0/OAI_GetRecord"  
    xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance"  
    xsi:schemaLocation="http://www.openarchives.org/OAI/1.0/OAI_GetRecord  
                        http://www.openarchives.org/OAI/1.0/OAI_GetRecord.xsd">  
<responseDate>2001-06-16T13:15:42+00:00</responseDate>  
<requestURL>http://www.nzdl.org/cgi-bin/oai/request?verb=GetRecord  
    &identifier=oai%3Anzdl%3Ahd1%2F018cf2f4256b4c8827e747b8  
    &metadataPrefix=oai_dc</requestURL>  
<record>  
    <header>  
        <identifier>oai:nzdl:hdl/018cf2f4256b4c8827e747b8</identifier>  
        <datestamp>1986-01-01</datestamp>  
    </header>  
    <metadata>  
        <dc xmlns="http://purl.org/dc/elements/1.1/"  
            xmlns:xsi="http://www.w3.org/2000/10/XMLSchema-instance"  
            xsi:schemaLocation="http://purl.org/dc/elements/1.1/  
                                http://www.openarchives.org/OAI/dc.xsd">  
            <title>Farming Snails</title>  
            <description>Learning about snails; Building a pen; Food  
                and shelter plants</description>  
            <creator>Food and Agriculture Organization of the United Nations</creator>  
            <type>Text</type>  
            <format>text/html</format>  
            <date>1986-01-01</date>  
            <identifier>  
                http://www.nzdl.org/cgi-bin/library?a=d&c1=search&d=HASH018cf2f4256b4c8827e747b8  
            </identifier>  
        </dc>  
    </metadata>  
    </record>  
</GetRecord>
```

Figure 7.1: OAI *GetRecord* request and XML response

Metadata and Documentation Lab Part II

Submission Due Oct. 1 at 11:59 pm

- In this lab, we'll be practicing the following:
 1. analyzing potential context, content, and users
 2. creating functional requirements for a digital library
 3. creating a MAP for metadata creation
 4. following documentation to create metadata
 5. creating good documentation

[https://jawalsh.github.io/z652-Digital-Libraries-FA24/
assignment metadata practice 2.html](https://jawalsh.github.io/z652-Digital-Libraries-FA24/assignment metadata practice 2.html)

Metadata Application Profile Assignment

First draft due Oct. 4 at 11:59 pm

- Description of context, content, users, and functional requirements

2. Metadata Application Scenario Example 2: North American Architecture Digital Image Collection

A) Application Scenario for the North American Architecture Collection

- Context:** Hagen Digital Library (HDL), a unit within Hagen University, a privately-funded, medium-sized university in the Midwestern United States. Two professors from Hagen University's Architecture Department have worked with HDL staff to create this collection, tailored for use in an upper-level undergraduate and lower-level graduate courses on the work of famous architects in North America.
- Content:** This collection will include a combination of digitized photographs and born-digital images taken with a digital camera. The focus is on famous buildings in the United States and Canada designed by famous architects. This collection is planned as an ongoing collection, with no definite end date.
- Users:** Primary users: professors and students in Hagen University's Architecture Department, for instructional purposes. Secondary users: potentially very diverse, including scholars, researchers, architects, university and K-12 students and educators, and the general public.

B) Functional requirements:

- Browse by:**
 - Geographic location: (a) city or region; and (b) state or province
 - Name of architect
 - Type of building
- Fielded Search by:**
 - Architect
 - Name of building
 - City/Region
 - State/Province
- Limit searches by:**
 - Date of building construction
- Identify and obtain resources (in addition to the above) by:**
 - Rights information, including restrictions on use and reproduction;
 - Name of collection
 - Name of institution publishing the resources to the Web
 - Additional description, if useful
- For cross-collection and aggregated searching and identification, also include:**
 - Type of resource (i.e., still image);
 - Digital format

c) Application Profile (or Data Dictionary):

The following table documents the metadata scheme devised for this collection, including elements and their specifications. The decision was made to use local elements mapped to qualified Dublin Core and to also expose these for output as simple OAI-DC XML.

Element Name	Dublin Core Mapping	Value Scheme	Obligation	Occurrence	Input Guidelines	Examples
Title	Title		M	R	Name of building, followed by location (city/region and state/province. Add brief descriptive information to distinguish one image of the same building from another if needed.)	Dana-Thomas House, Springfield, Illinois Walt Disney Concert Hall, Los Angeles, California Le Clos Jordan Winery, Lincoln, Ontario, Canada
Architect	Creator	LCNAF	MA	NR	Use LCNAF. If name not present, use common form of name found in reference sources, surname first for Western names	Wright, Frank Lloyd, 1867-1959 Pei, I. M., 1917- Calatrava, Santiago, 1951- Gehry, Frank O., 1929-
Building Name	Subject	LCNAF	MA	R	Give name of building in controlled vocabulary form, even if the same as that used for the title. Use LCNAF. If name not present there, use common form of name found in reference sources.	Dana-Thomas House Le Clos Jordan Winery Indiana University Art Museum
Building Type	Subject	AAT	MA	NR	Use terms from the Getty Art and Architecture Thesaurus (AAT)	apartment houses art museums (buildings) churches (buildings) concert halls dwellings theaters (buildings)
Date of Construction	Date	W3CDTF	MA	NR	Use date of completion of construction or dedication if available. Otherwise known or approximate date range. Use W3CDTF for single known dates. For date ranges, separate dates with hyphens. For uncertain or approximate dates, use question mark.	2005 1995-04 1855-1887 1748?
City/Region	Coverage Spatial	TGN	MA	R	Use TGN vocabulary for all place names.	Kansas City Toronto
State/Province	Coverage Spatial	TGN	MA	NR	Use TGN vocabulary for all place names.	Missouri Ontario
Description	Description		R	R	Compose a brief description of the content of the image if it contains aspects not represented in other metadata fields. Otherwise leave Description blank.	
Type of Resource	Type	DCMIType	M	NR	Use DCMI Type Vocabulary terms. For this collection, all will be "StillImage."	StillImage
Rights	Rights		M	NR	Use: Copyright 2009 Hagen Digital Library	Copyright 2009 Hagen Digital Library
Use and Reproduction	Rights		M	NR	Use this text: "Images may be reproduced solely for personal and educational purposes and must include the	

Useful Resources

- [www.getty.edu/research/tools/vocabularies/intro to vocabs.pdf](http://www.getty.edu/research/tools/vocabularies/intro_to_vocabs.pdf)
- <https://groups.niso.org/higherlogic/ws/public/download/12591/z39-19-2005r2010.pdf>
- <https://www.doi.org/the-identifier/resources/factsheets/identifier-interoperability>