#### Bibliographic Data: A New Context

Karen Coyle kcoyle@kcoyle.net

#### The Road to (and from) RDA

■ Panizzi's Rules (1839)

■ Cutter, Dewey, etc. (1876)

■ Paris Principles (1961)

■ ISBD (1971)

■ FRBR (1998)

■ **RDA** (2008)

■ FRAD (2009)

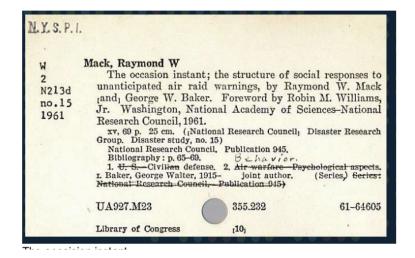
■ International Cataloging Principles (2009)

#### **RDA**

- Rules and decisions ("What is THE title?")
- **Data elements** ("title" "parallel title" "edition")
- **Data entry** ("1 audio disc" "Novels. Selections")
- **Vocabularies** ("film cartridge, film cassette, film reel...")

#### **RDA**

#### **AACR**



#### RDA

Author: Mack, Raymond W

pages: xv, 60 pages

series: National Research Council. Disaster study, no. 15

title: The occasion instant

#### **RDA**

#### Content

Title
Subjects
Author
Genre

#### Carrier

Format Size Manufacture

#### RDA and FRBR

#### **FRBR**

work
expression
manifestation
item

person family corporate body

concept object event place

#### **RDA**

**Section 1**: Recording Attributes of Manifestation and Item

**Section 2**: Recording Attributes of Work and Expression

**Section 3**: Recording Attributes of Person, Family and Corporate Body

**Section 4**: Recording Attributes of Concept, Object, Event, and Place

#### **FRBR**

Group 1

Bibliographic: Work, Expression, Manifestation, Item

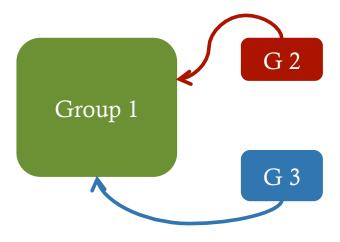
Group 2

Agents: Persons, Corporate bodies

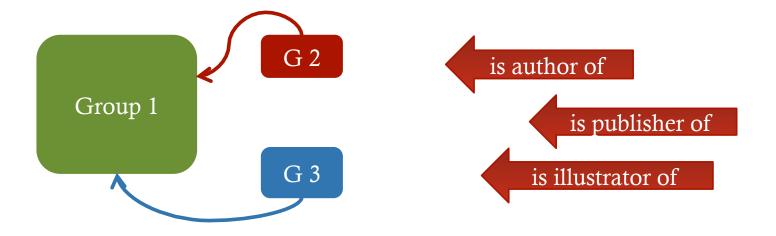
Group 3

Subjects

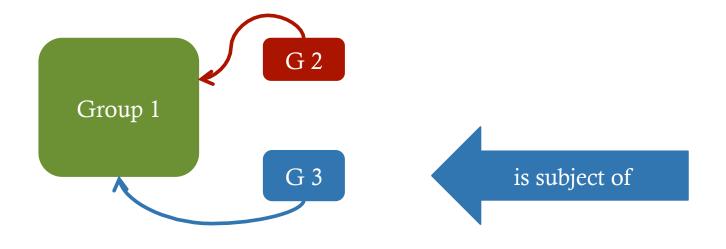
## FRBR: Entities and relationships



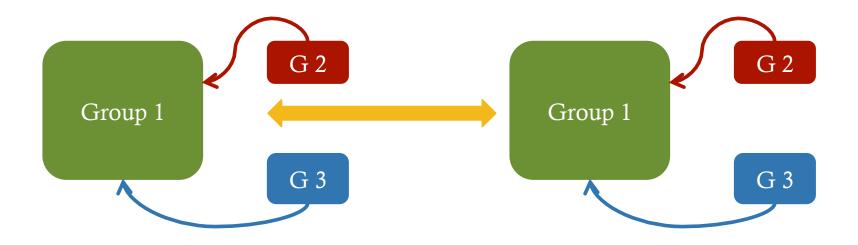
# FRBR: Entities and relationships



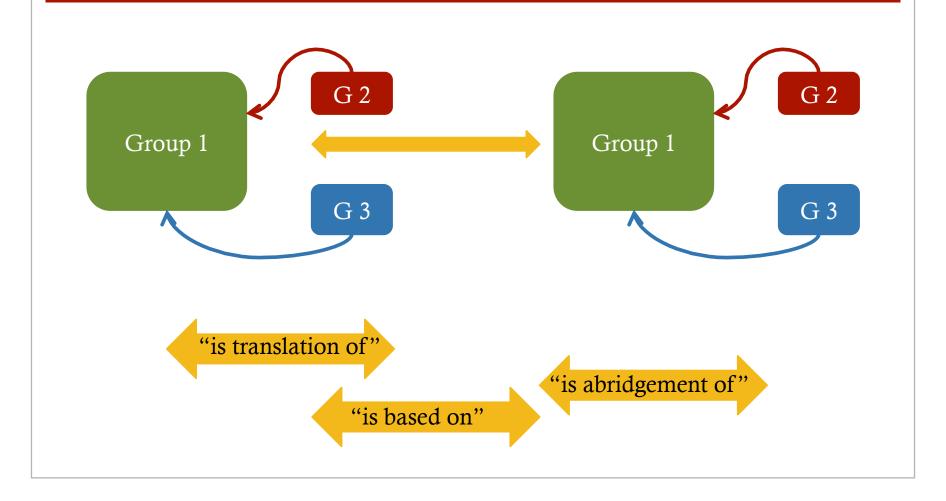
# FRBR: Entities and relationships



#### FRBR: Relationships!

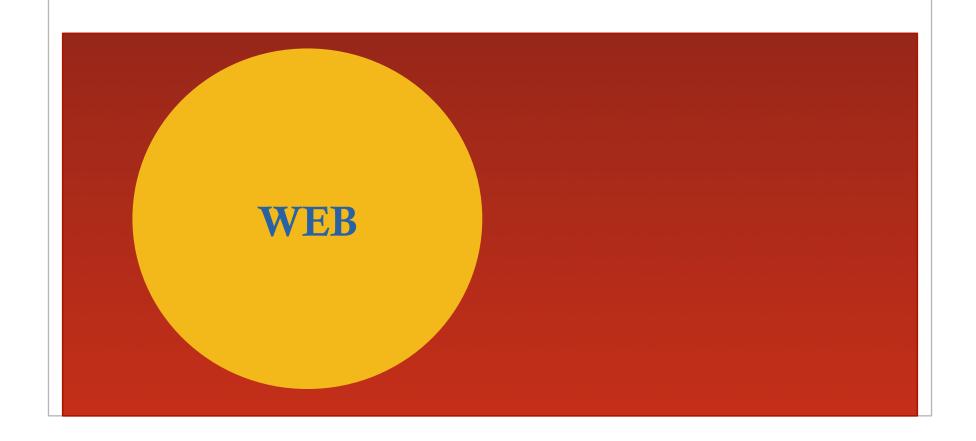


#### FRBR: Relationships!

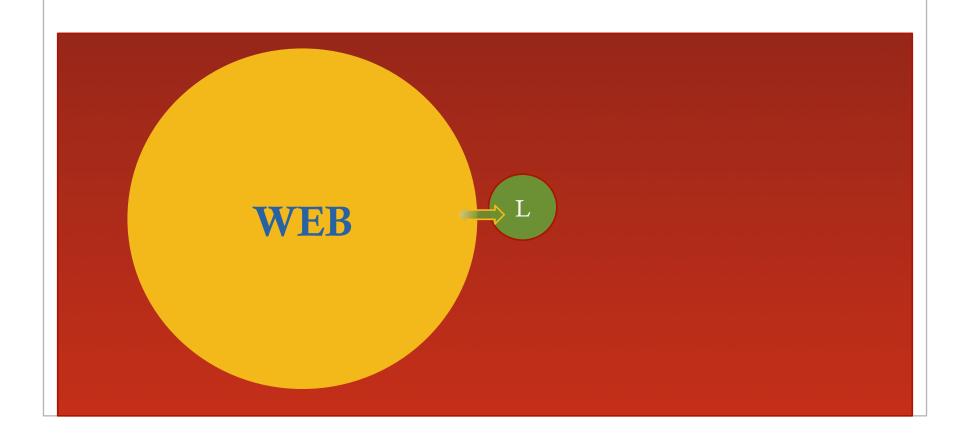


#### The Future

#### The Future Present



#### The Future Present



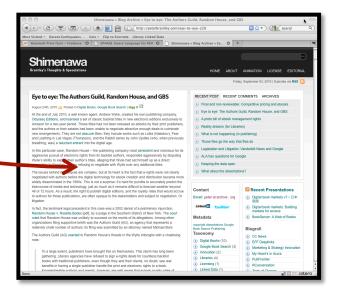
#### The Future



Semantic Web

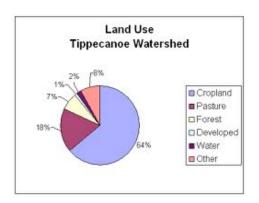
#### The "Regular" Web

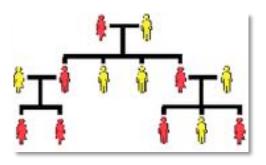




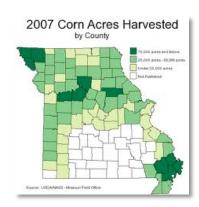
#### Semantic Web





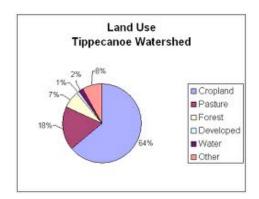


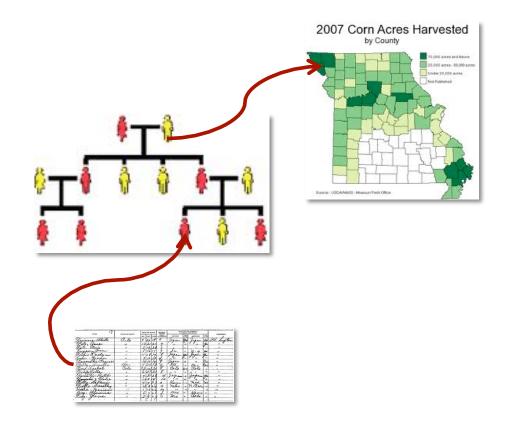
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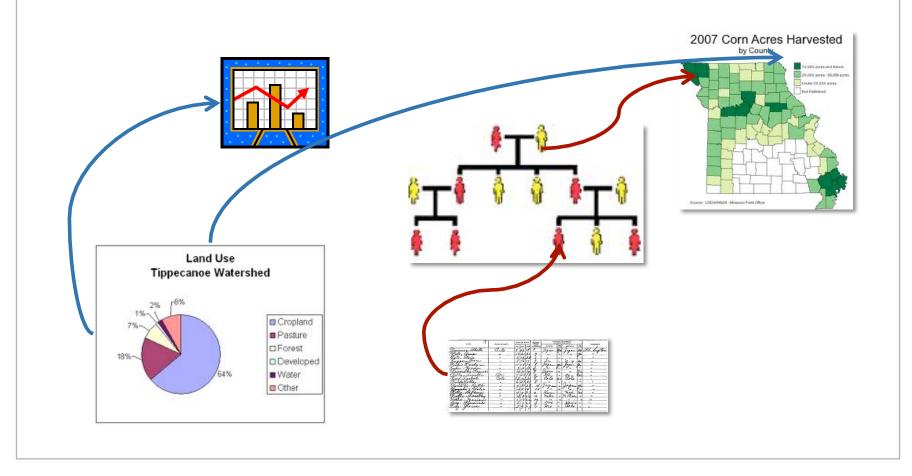
#### Linked Data

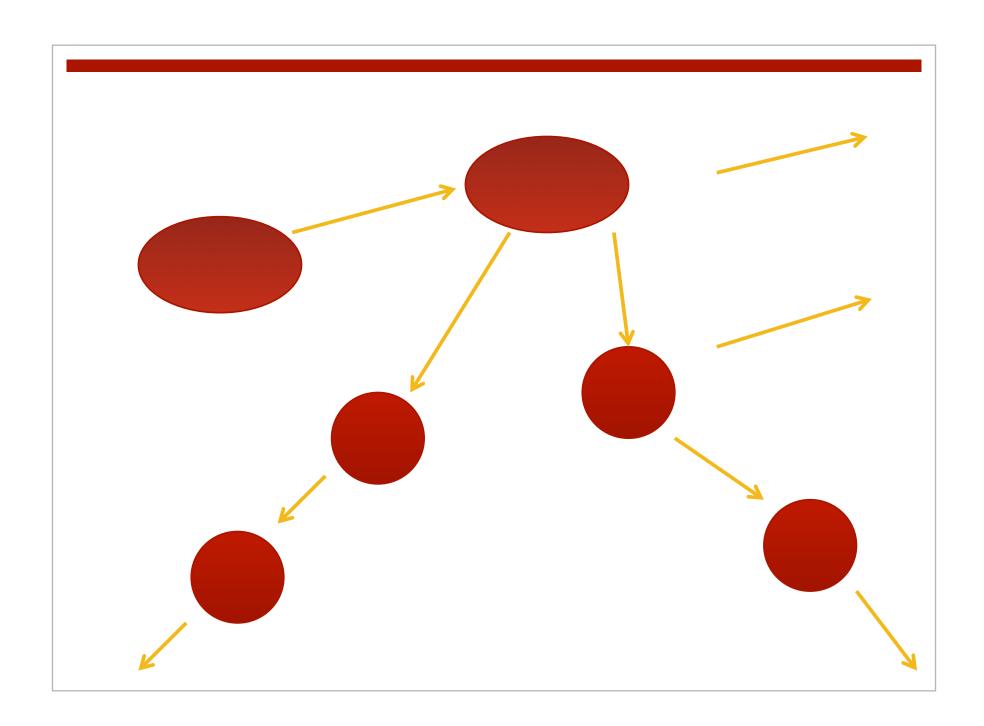


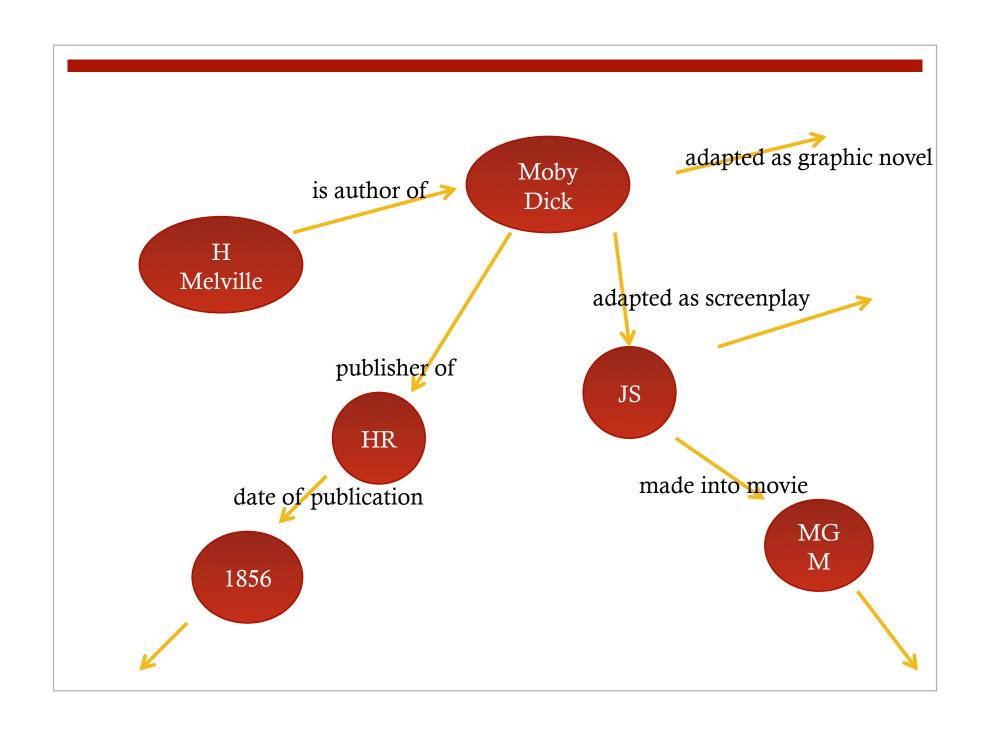




#### Linked Data







#### Basic Principles

- Data (not text)
- Identifiers (not words)
  - things
  - relationships
- Statements (not records)



#### What's data?

23 cm.



```
size:
height:
unit=centimeters
value=23
```



#### What's data?

#### Norwegian literature (Nynorsk)



http://id.loc.gov/authorities/sh85092728



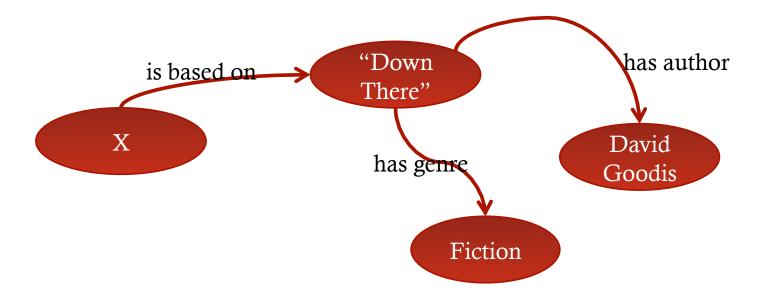
label=Norwegian literature (Nynorsk)

broader=http://id.loc.gov/authorities/sh92005396

narrower=http://id.loc.gov/authorities/sh85092717

#### Relationships are data, too

500 \$a Based on the novel "Down there" by David Goodis.



# Identifiers

#### **Things**



http://www.amazon.com/Nemesis-Jo-Nesbo/dp/B002SB8R0Y

http://books.google.com/ebooks?id=q-ZyntEIbEoC&d

http://openlibrary.org/works/OL5939025W/

#### Things



http://openlibrary.org/authors/OL1471661A

http://viaf.org/viaf/44460209/

http://www.amazon.com/Jo-Nesb-oslash;/e/B001JOJT6C/

#### Things



http://en.wikipedia.org/wiki/Norway

http://www.geonames.org/countries/NO/norway.html

http://id.loc.gov/vocabulary/countries/no

#### Data elements

**Dublin Core** 

http://purl.org/dc/elements/1.1/title

(Title)

Friend of a Friend (FOAF)

http://xmlns.com/foaf/spec/#term\_Person

(Person)

http://xmlns.com/foaf/spec/#term\_name

(Person name)

DBpedia

http://dbpedia.org/ontology/Place

(Place)

#### Relationships

http://rdvocab.info/RDARelationshipsWEMI/reproductionOfManifestation

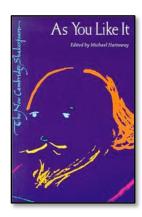
RDA: "is a reproduction of...."

http://iflastandards.info/ns/fr/frbr/frbrer/P2044

FRBR: "is successor to...."

# Statements "not records"

#### A record



#### a 822.3/3 |2 22

001 |a Shakespeare, William, |d 1564-1616.

24510 |a As you like it / |c edited by Michael Hattaway.

250 |a Updated ed.

260 |a Cambridge, UK; |a New York: |b Cambridge University Press, |c 2009.

300 |a xv, 240 p. : |b ill. ; |c 24 cm.

4901 |a New Cambridge Shakespeare

504 |a Includes bibliographical references (p. 240).

5050 |a Introduction. Journeys; Plays within the play; Theatrical genres; Pastoral; Counter-pastoral; The condition of the country; Politics; Between you and the women the play must please'; Gender; Nuptials; Sources; Date and occassion; Stage history; Recent critical and stage interpretations -- Note on the text -- List of characters -- The play -- Textual analysis -- Appendixes: 1. An early court performance?; 2. Extracts from Shakespeare's principal source, Lodge's Rosalind; 3. The songs.

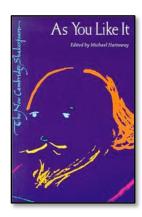
650 0 |a Fathers and daughters |v Drama.

650 0 |a Exiles |v Drama.

60010 |a Shakespeare, William, |d 1564-1616. |t As you like it.

7 |a Pastoral drama. |2 gsafd

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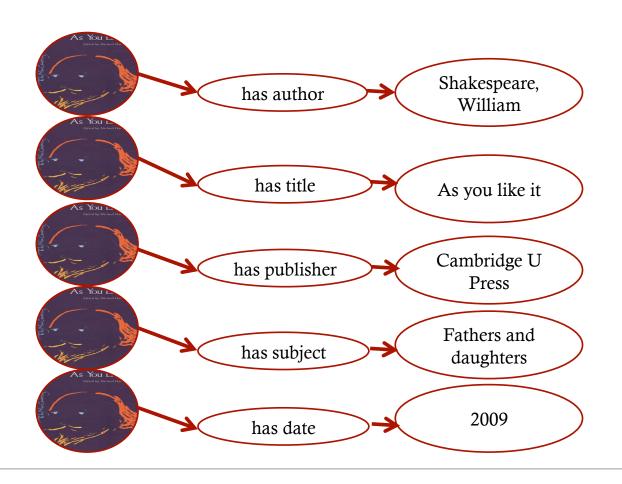
65 parly our performance : 2 Extracts from Shakespeare's principal source Lodge's Rosalind ; 3. The songs.
650 0 a Fathers and daughters by Drama.

650 0 |a Exiles |v Drama.

60010 |a Shakespeare, William, |d 1564-1616. |t As you like it.

7 |a Pastoral drama. |2 gsafd

### Statements



"Triples"

# **Triples**

http://lccn.loc.gov/2009025024 (the book)

http://RDVocab.info/roles/authorWork

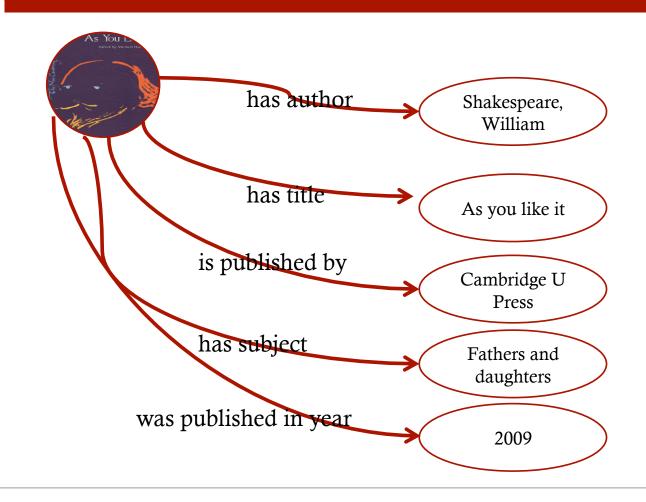
(has author)

http://lcna.loc.gov/n 78095332

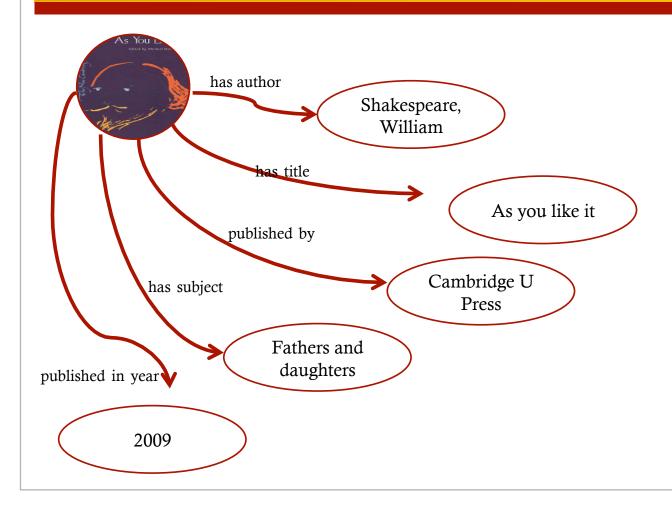
(the author)

< http://lccn.loc.gov/2009025024 > < http://RDVocab.info/roles/authorWork > < http://lcna.loc.gov/n~78095332 > < http://lccn.loc.gov/n~78095332 > < http://lccn.loc.gov/n~7809532 > < http://lccn.loc.gov/n~780952

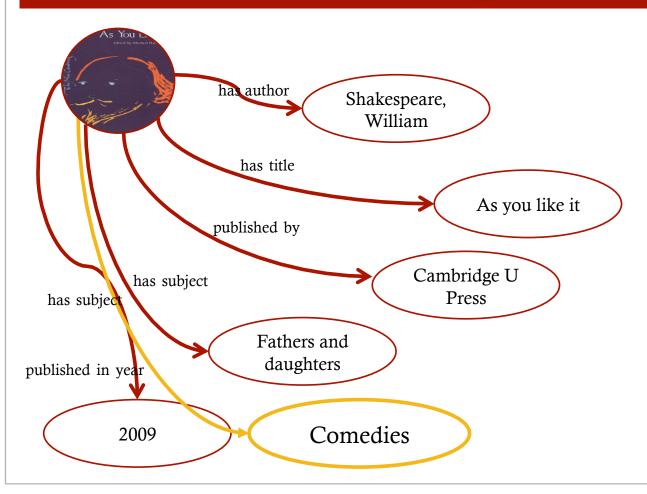
# Graphs



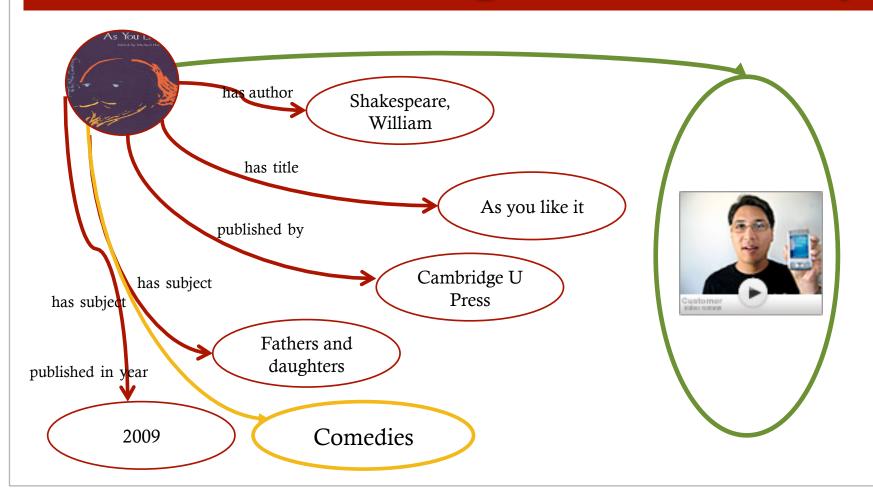
# Graphs



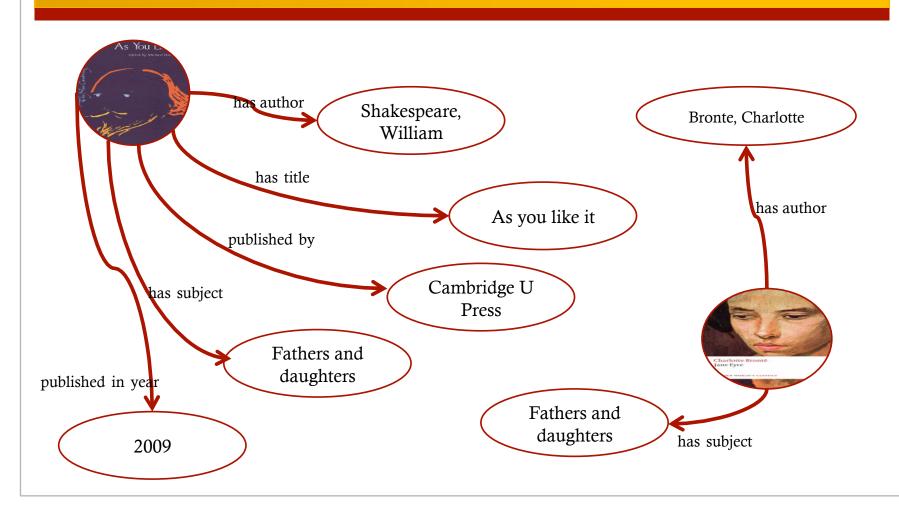
# Advantages: flexibility



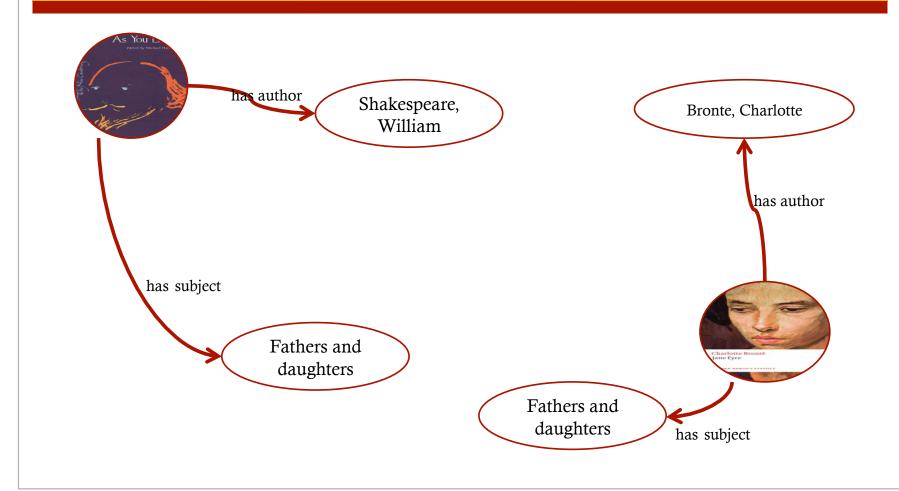
# Advantages: flexibility



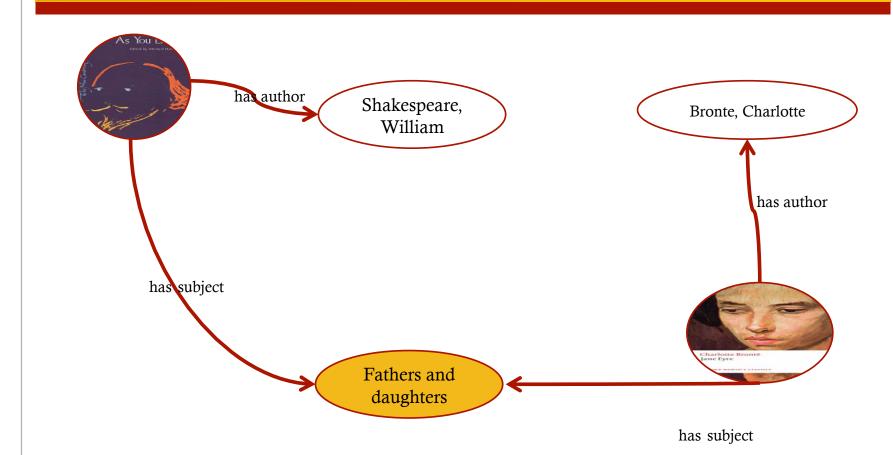
### Recombinant metadata



### Recombinant metadata



# Recombinant metadata



# Why? - Library users

**SUBJECTS** 

**AUTHORS** 

ADD A BOOK

LISTS RECENTLY

**ABOUT US** 



One web page for every book.

Only show ebooks

More search options

Search



### **Ever wanted to play librarian?** It's OK. We all do.

If you love books, why not *help build a library*?

#### **Browse the Catalog**

You can always search, but try jumping in to **subjects**, like Astronauts, Texas, Diaries, Riots, Assam, Pleistocene, Colette or Carpentry, Accessible books...

#### Add a Book

There are millions of records in Open Library, but nowhere near every book ever published! Would you like to **try adding a book** to the library?

### **Open an Account**

You can keep track of your edits if you **open an account**.

It's a wiki too, which means anyone can edit or correct it anytime.

### blog.openlibrary.org

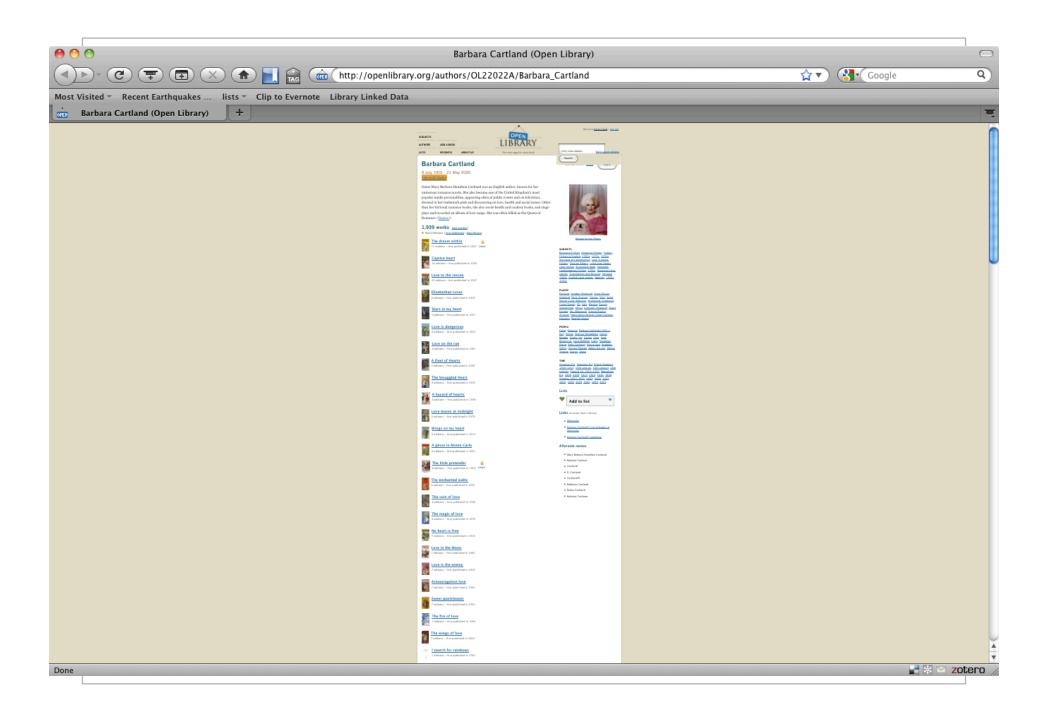
- Upgrading 'Accessible' to 'Fully
   Accessible' June 9, 2010
- Donate a book to the Book Drive!
  - May 26, 2010

Top | Home • Add a Book • Subjects | Authors | Lists • About Us | Help • Developers

Search

Only show ebooks

More search options





### **Barbara Cartland**

9 July 1901 - 21 May 2000

Dame Mary Barbara Hamilton Cartland was an English author, known for her numerous romance novels. She also became one of the United Kingdom's most popular media personalities, appearing often at public events and on television, dressed in her trademark pink and discoursing on love, health and social issues. Other than her fictional romance books, she also wrote health and cookery books, and stage plays and recorded an album of love songs. She was often billed as the Queen of Romance. (Source.)

### Books by this Author 376 books Add another?

Sorting by: Most Editions | First Published | Most Recent | Title









Last edited by George

January 13, 2010 | History

Edit

Manage Author Photos

#### Related...

#### SUBJECTS

Fiction in English, Large type books, History, Biography, Love stories, English, Historical fiction, English, Love, Nobility, Administration of estates, Authorship, Courts and courtiers, Inheritance and succession, Love stories, Man-woman relationships, Napoleonic Wars, 1800–1815, Novelists, English, Orphans, Veterans, Women, Actresses, Aged, Blind, British, Care and hygiene, Child labor

#### **PLACES**

England, Great Britain, London (England), Highlands (Scotland), Paris (France), Russia, Scotland, Austria, Bali Island (Indonesia), **SUBJECTS** 

AUTHORS ADD A BOOK

LISTS RECENTLY ABOUT US



A page on the web for every book.

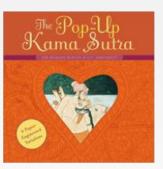
Only show eBooks

More search options

Search

Love 5,129 books published between 1492-2011



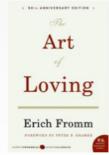




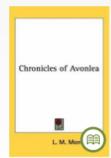








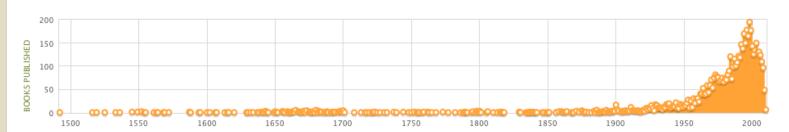








### Publishing History This graph is interactive. Click and drag to select a range, or click a single year and we'll load the books above.



### Publishing History This graph is interactive. Click and drag to select a range, or click a single year and we'll load the books above.



### Related...

#### SUBJECTS

Religious aspects, Christianit
Marriage, Interpersonal relati
God, Man-woman relationshi
Sex, History, Miscellanea, Ear
works to 1800, Women, Intin
(Psychology), Christian life,
Psychological aspects, Spiritu
Catholic Church, Psychology,
Worship and love, Conduct of
Biblical teaching

#### **Prolific Authors**

who have written the most books

Ruoquan Wu, 21 books

Plato., 11 books

Gregory J. P. Godek, 11 book

Julian of Norwich, 9 books

Laurie John, 8 books

Francis de Sales, Saint, 7 books

Rougemont, Denis de, 7 books

Emanuel Swedenborg, 7 books

Danru Wu, 7 books

William Shakespeare, 7 books

Bernard of Clairvaux, Saint, 6 books

Gary D. Chapman, 6 books

### **PEOPLE**

Jesus Christ, Plato, Thomas Aquinas, Saint (1225?-1274), Augustine Saint, Bishop of Hippo, Socrates, Sigmund Freud (1856-1939), William Shakespeare (1564-1616), Vātsyāyana, León Hebreo (b. ca. 1460), Søren Kierkegaard (1813-1855)

tury, 17th century, 19th Middle Ages, 600-1500, To 8th century, Early church, ca. Early works to 1800, 21st 16th century

Pocket Books, 33 books

Macmillan, 32 books

Doubleday, 31 books

Paulist Press, 27 books

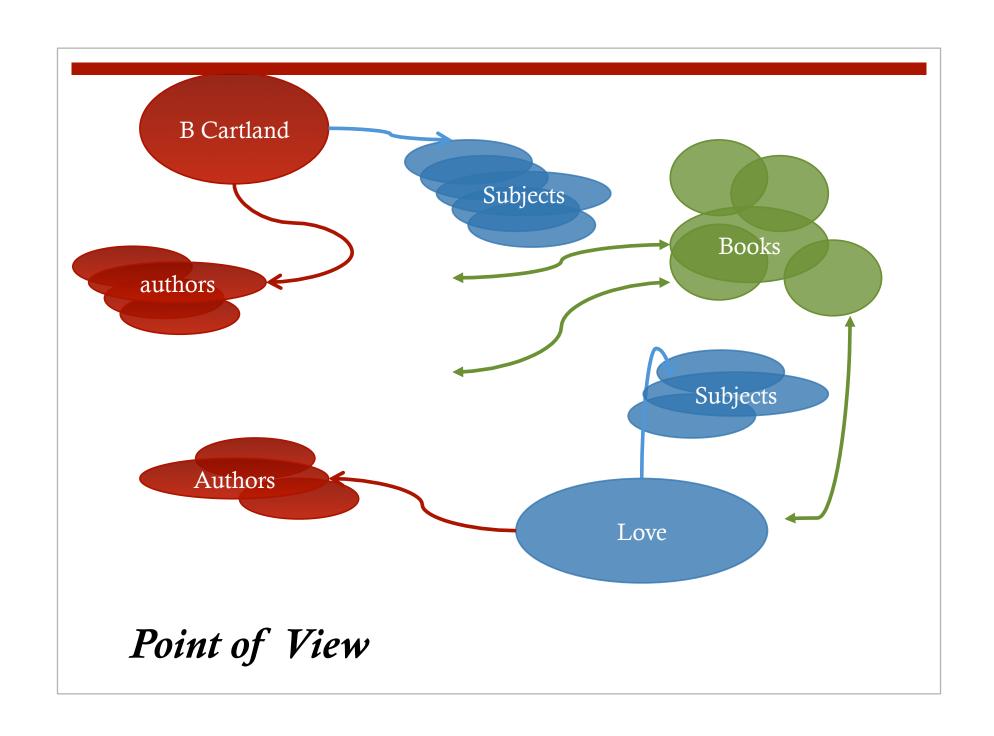
Gallimard, 25 books

Simon & Schuster, 24 books

St. Martin's Press, 24 books

Bantam, 23 books

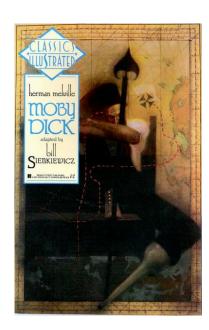
HarperCollins, 23 books

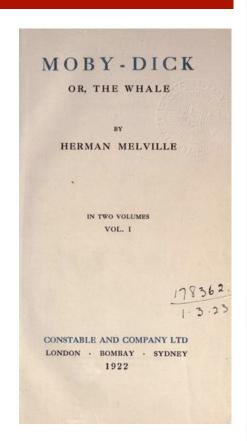


What is the earliest version of Moby Dick that this library has?

What year was Moby Dick first published? 1851

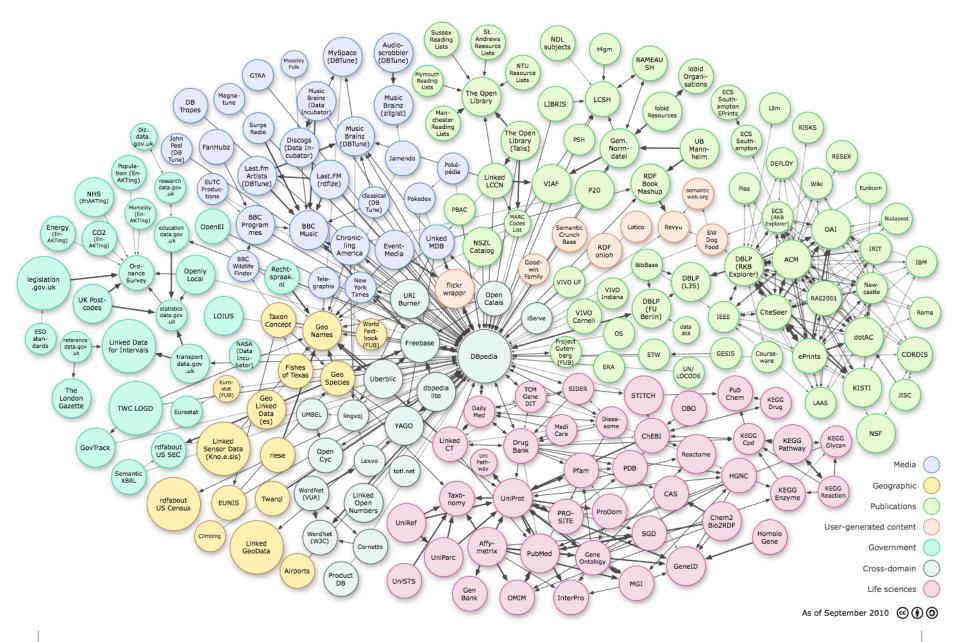
Is there a graphic novel version?



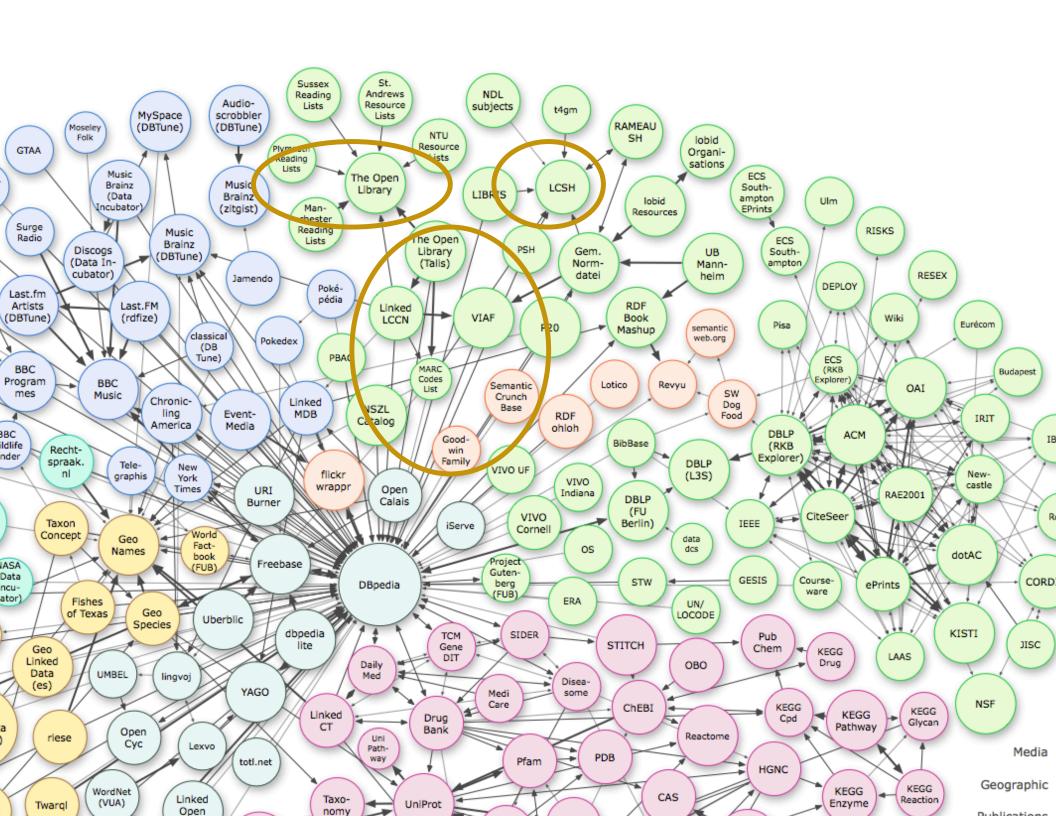


### More Good Reasons

- "Triples" are used by many communities, not just libraries
- Data in triples can interact on the Web, just like documents in HTML can interact on the Web
- Data in triples can interact with ANY other data in triples



Linked data "cloud" http://linkeddata.org



# Libraries and Linked Data



### Vocabularies

- Library of Congress
  - http://id.loc.gov/ -- LC Subject Headings, and more
- OCLC Dewey Summaries
  - http://dewey.info/
- RDA Vocabularies
  - http://metadataregistry.org/rdabrowse.htm
- MARC codes (informal)
  - http://marccodes.heroku.com/muscomp/

### Data Elements

- RDA
  - http://metadataregistry.org/rdabrowse.htm
- FRBRer
  - http://metadataregistry.org/schema/show/id/5.html
- ISBD
  - http://metadataregistry.org/schema/show/id/25.html

# RDA and Linked Data



Supporting Metadata Interoperability

http://metadataregistry.org/rdabrowse.htm

### The RDA (Resource Description and Access) Vocabularies

This page provides quick links for the Registered RDA Element Sets and Value Vocabularies. Each set of elements or vocabulary concepts has a link to the general description as well as a link to a list of elem

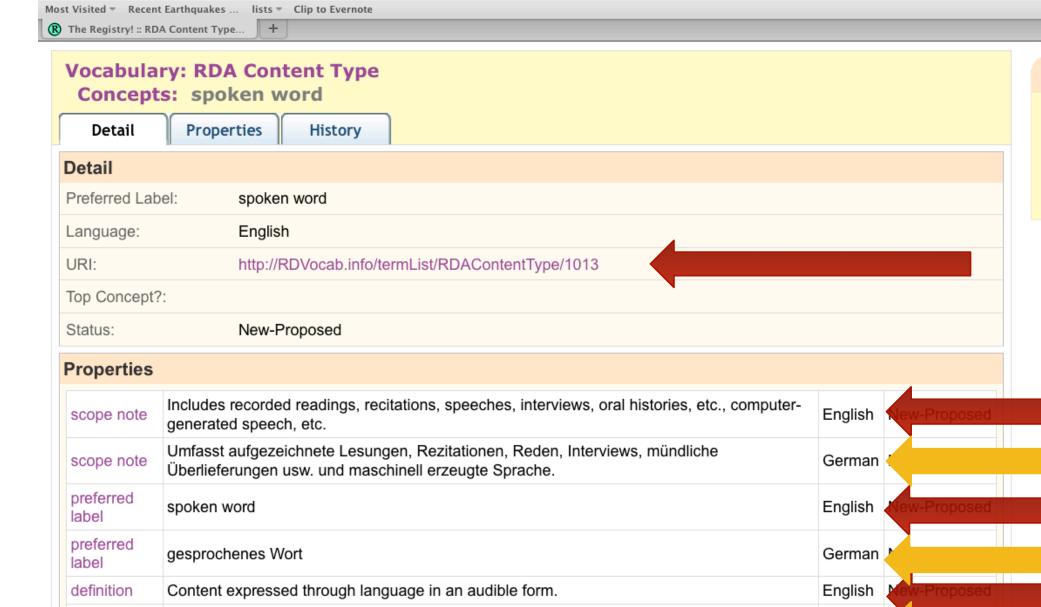
### **RDA Element Sets**

FRBR Entities for RDA	Class List
RDA Elements (Group 1)	Elements List
RDA Group 2 Elements	Elements List
RDA Group 3 Elements	Elements List
RDA Relationships for Concepts, Events, Objects, Places	Elements List
RDA Relationships for Persons, Corporate Bodies, Families	Elements List
RDA Relationships for Works, Expressions, Manifestations, Items	Elements List
RDA Roles	Elements List

#### **RDA Vocabularies**

RDA Applied Material	Concept List
RDA Aspect Ratio	Concept List
RDA Base Material	Concept List
RDA Base Material for Microfilm, Microfiche, Photographic Negatives, and Motion Picture Film	m Concept List
RDA Book Format	Concept List
RDA Broadcast Standard	Concept List
RDA Carrier Type	Concept List
RDA Choruses	Concept List
RDA Colour	Concept List
RDA Colour of Moving Image	Concept List
RDA Colour of Still Image	Concept List

ca	artographic dataset	
ca	artographic image	
ca	artographic moving image	RDA: Content Type
ca	artographic tactile image	31
ca	artographic tactile three-dimensional form	
ca	artographic three-dimensional form	
cc	omputer dataset	
cc	omputer program	
no	otated movement	
no	otated music	
ре	erformed music	
so	ounds	
sp	poken word	
st	till image	
ta	actile image	
ta	actile notated movement	
ta	actile notated music	
ta	actile text	
ta	actile three-dimensional form	
te	ext	



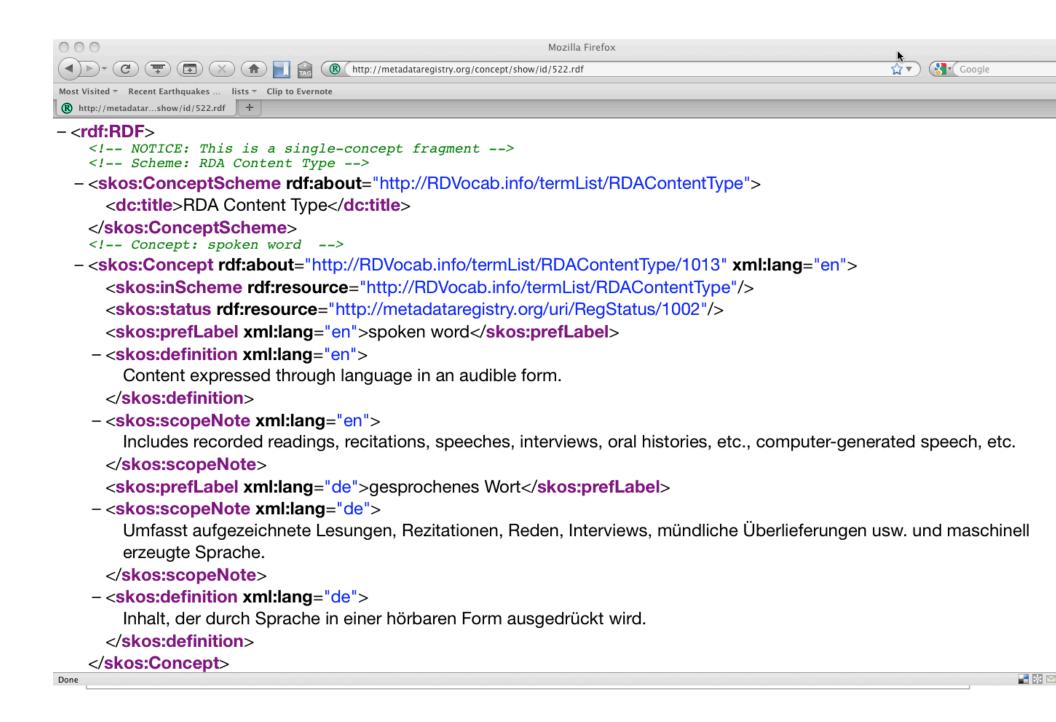
German

List det RDF

Inhalt, der durch Sprache in einer hörbaren Form ausgedrückt wird.

Done

definition



# We have...

- W3C Library Linked Data Incubator Group
  - http://www.w3.org/2005/Incubator/lld/
- ALA Library Linked Data Interest Group
  - http: to come
- Library linkable datasets
  - http://ckan.net/group/lld

# We do NOT (yet) have...

- A linked data creation system
- Linked data library catalog software
- A library linked data meeting place

### Thank You!

kcoyle@kcoyle.net



http://kcoyle.net/presentations/