



**The Road to Discovery is Paved with Standards**  
**Metadata Standards & Applications for Digital Resources**

**Middle East Librarians Association**

**November 17, 2017**

**Washington, D.C.**

**by**

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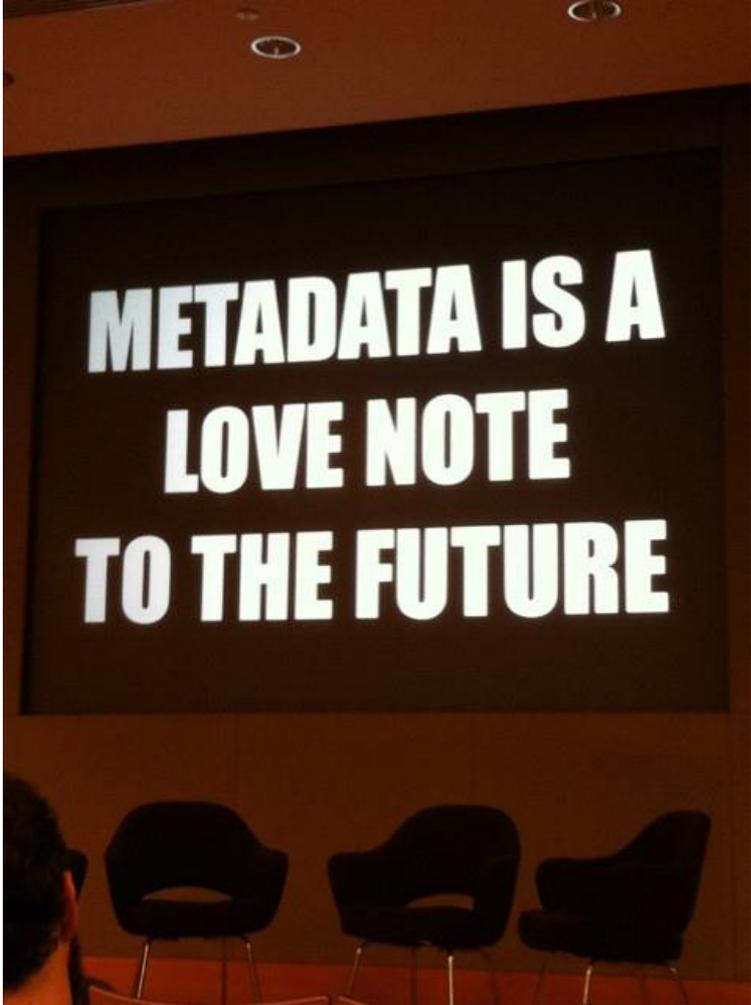
**UCLA Library Cataloging & Metadata Center**

<https://flic.kr/p/aLAZWW>

# Goals for today's session

This workshop will introduce the concept of bibliographic control for digital resources, with a particular focus on visual resources such as photographs and posters. The workshop will explore the following topics:

- Importance of standards
- Standards for and types of metadata
- Metadata application profiles
- Metadata interoperability and quality issues
- Principles, best practices, and tools
- Metadata as data



**METADATA IS A  
LOVE NOTE  
TO THE FUTURE**

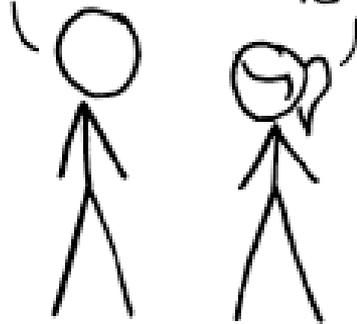
“Standards are like  
toothbrushes.  
Everybody wants one  
but nobody wants to  
use anybody else’s.”

*Generally attributed to Connie Morella, 2006 ANSI World Standards Day*

HOW STANDARDS PROLIFERATE:  
(SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC)

SITUATION:  
THERE ARE  
14 COMPETING  
STANDARDS.

14?! RIDICULOUS!  
WE NEED TO DEVELOP  
ONE UNIVERSAL STANDARD  
THAT COVERS EVERYONE'S  
USE CASES.



YEAH!

SOON:

SITUATION:  
THERE ARE  
15 COMPETING  
STANDARDS.

# Types of Metadata Standards

- Data structure standards (i.e. metadata schemas)
- Data value standards (e.g. controlled vocabularies, thesauri, pick lists, etc.)
- Data content standards (i.e. cataloging rules)
- Data exchange standards

## PUBLIC SERVICE ANNOUNCEMENT:

OUR DIFFERENT WAYS OF WRITING DATES AS NUMBERS CAN LEAD TO ONLINE CONFUSION. THAT'S WHY IN 1988 ISO SET A GLOBAL STANDARD NUMERIC DATE FORMAT.

THIS IS *THE* CORRECT WAY TO WRITE NUMERIC DATES:

2013-02-27

THE FOLLOWING FORMATS ARE THEREFORE DISCOURAGED:

02/27/2013 02/27/13 27/02/2013 27/02/13

20130227 2013.02.27 27.02.13 27-02-13

27.2.13 2013. II. 27.  $2\frac{7}{2}$ -13 2013.158904109

MMXIII-II-XXVII MMXIII  $\frac{\text{LVII}}{\text{CCCLXV}}$  1330300800

$((3+3) \times (111+1) - 1) \times 3 / 3 - 1 / 3^3$  ~~2013~~ 

10/11011/1101 02/27/20/13  $\begin{matrix} 2 & 3 & 1 & 4 \\ 0 & 1 & 2 & 3 & 7 \\ 5 & 6 & 7 & 8 \end{matrix}$

# Types of Metadata

- Descriptive
- Administrative
  - Technical
  - Digital provenance
  - Rights/Terms and conditions
- Structural
- Preservation
- Meta-metadata

# Functions of Metadata

**DISCOVER RESOURCES**

**MANAGE DOCUMENTS**

**CONTROL IP RIGHTS**

**IDENTIFY VERSIONS**

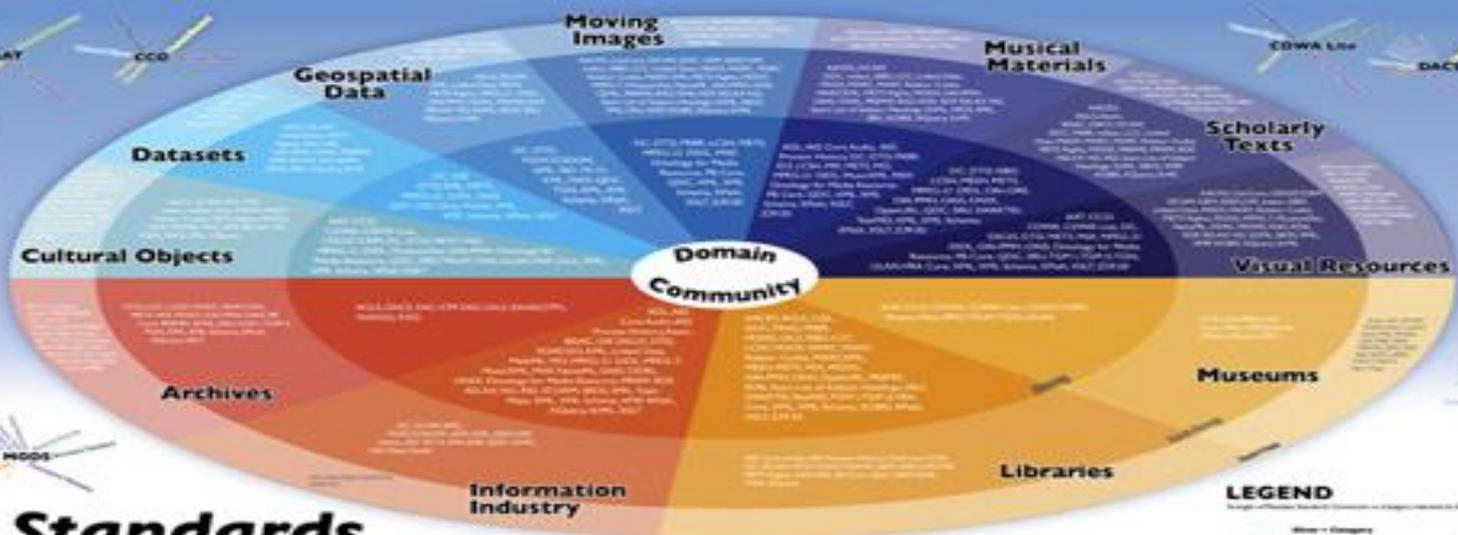
**CERTIFY AUTHENTICITY**

**INDICATE STATUS**

**MARK CONTENT  
STRUCTURE**

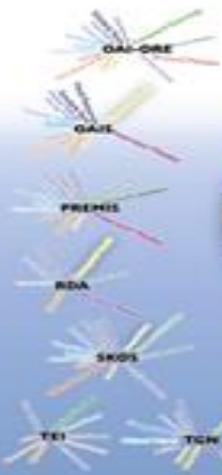
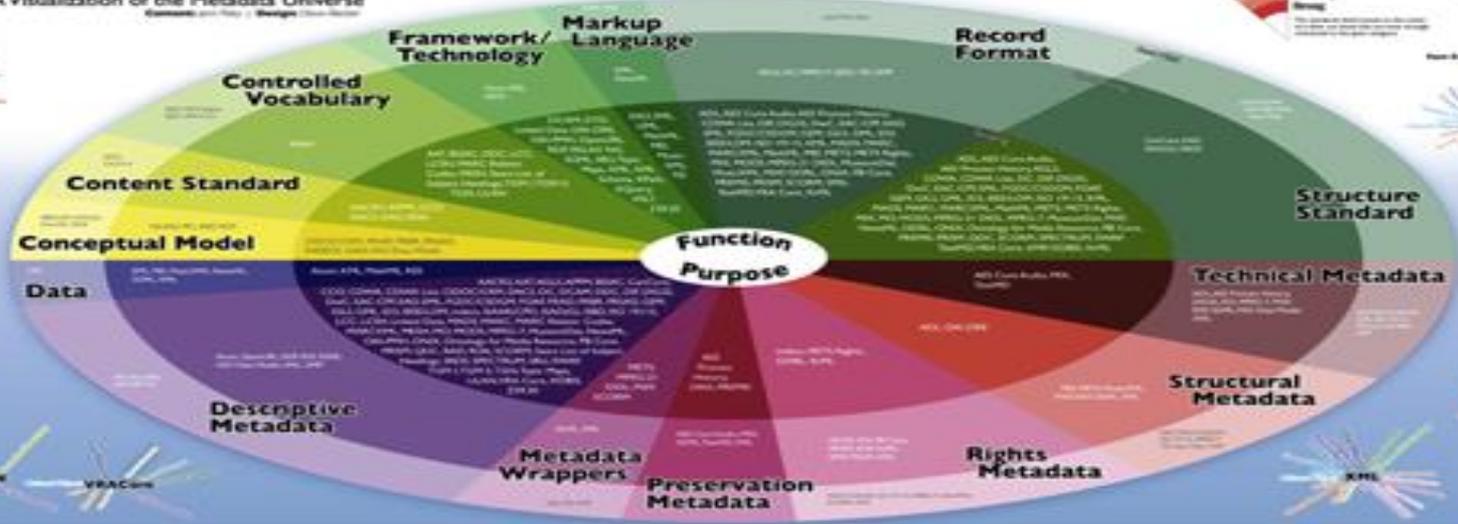
**SITUATE GEOSPATIALLY**

**DESCRIBE PROCESSES**



# Seeing Standards

A Visualization of the Metadata Universe

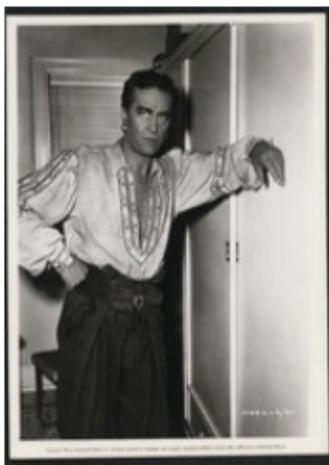


# Levels of Description

- Minimal: Allows users to cite the resource
- More useful: Allows users to perform basic searches and filtering
- Advanced: Allows users to browse and group search results
- More advanced: Allows users to perform more precise searches & evaluate resources

# Example: minimal level description

## IMAGE CONTENT



Status unknown

May be protected by the U.S. Copyright Law (Title 17, U.S.C.). Distribution or reproduction beyond that allowed by fair use requires the written permission of the copyright owners. Responsibility for obtaining permissions, and for any use rests exclusively with the user.

## Metadata

|          |   |
|----------|---|
| TITLE    | GOLDEN EARRINGS   |
| ALT ID   | pasc_195_191_4_5 [Local]  |
| FORMAT   | 8 x 10 in. [Dimensions]   |
|          | 1 photograph : b&w [Extent]   |
| LANGUAGE | <b>zxx</b>  |
| NAME     | <b>University of California, Los Angeles. Library. Performing Arts Special Collections</b> [Repository] |
| SUBJECT  | <b>Golden Earrings (Motion picture)</b> [Uniform Title]   |
| TYPE     | <b>still image</b> [Type Of Resource]   |
|          | <b>Black-and-white photographs</b> [Genre]  |

**Title:** Golden Earrings  
**Director:** Mitchell Leisen (Dir)  
**Release Date:** 31 Oct 1947

**Premiere Information:**

**Cast:**

|                   |                          |
|-------------------|--------------------------|
| Ray Milland       | (Colonel Ralph Deniston) |
| Marlene Dietrich  | (Lydia)                  |
| Murwyn Vye        | (Zoltan)                 |
| Bruce Lester      | (Byrd)                   |
| Dennis Hoey       | (Hoff)                   |
| Quentin Reynolds  | (Himself)                |
| Reinhold Schunzel | (Professor Otto Krosigk) |

**Production Company:** Paramount Pictures, Inc.

**Distribution Company:** Paramount Pictures, Inc.

**Director:** Mitchell Leisen (Dir)  
Johnny Coonan (Asst dir)

**Producer:** Harry Tugend (Prod)

**Writer:** Abraham Polonsky (Scr)  
Frank Butler (Scr)  
Helen Deutsch (Scr)

**Genre:** Drama  
Drama

**Sub-Genre:** World War II  
with songs

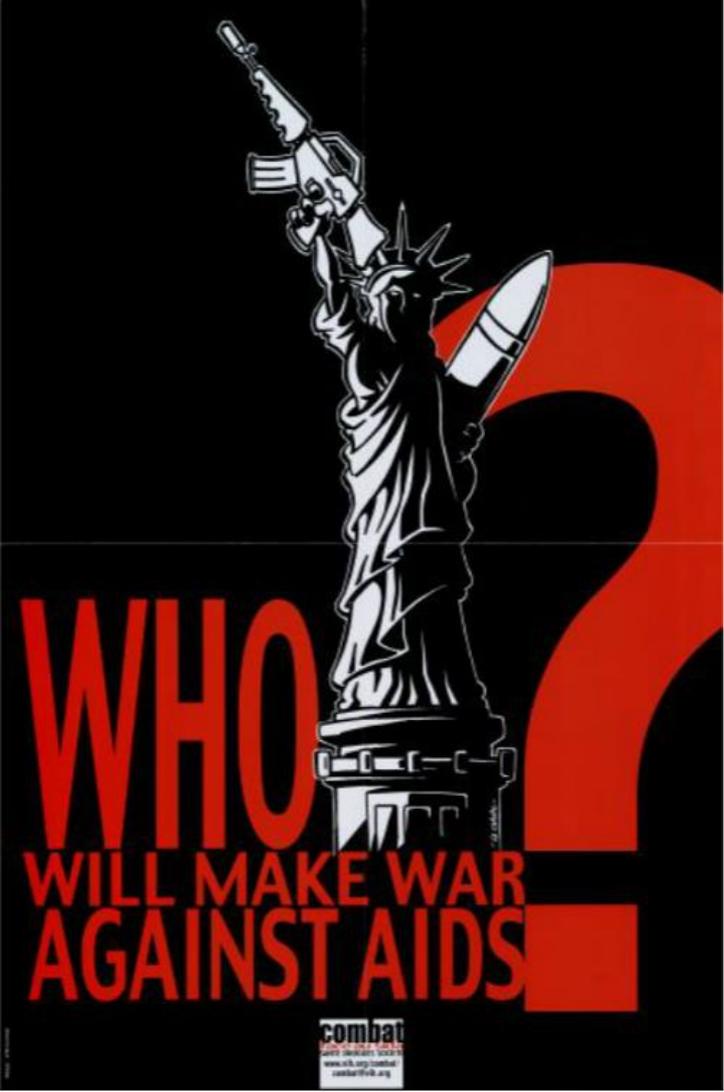
Movie  
information  
freely available  
from AFI Film  
Catalog

# Metadata Application Profiles

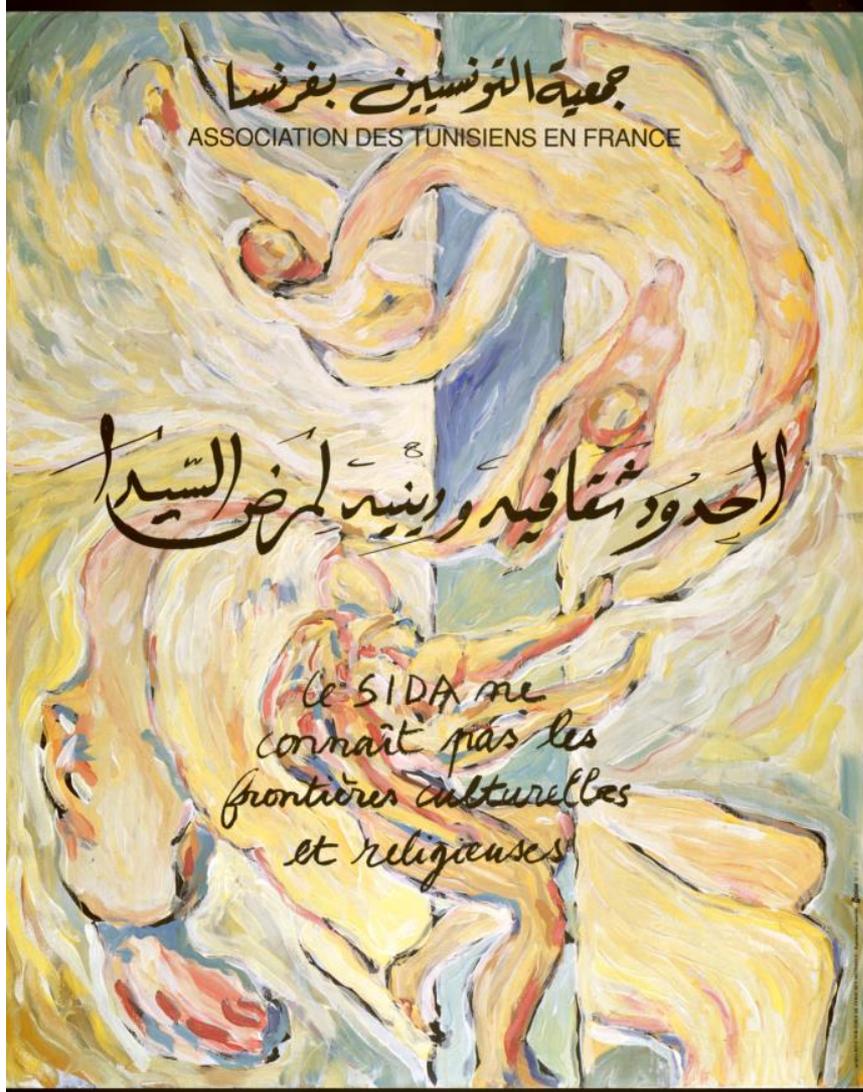
- MAPs describe the set of metadata elements, policies and guidelines defined for a particular project or object type
- MAPs are useful during the life of a project, and also after the fact
- Include information on schemas, controlled vocabularies, policies, required elements, etc.

# Challenges for Visual Resources

- Determining title
- *Ofness*
- *Isness*
- *Aboutness*



- What is the title?
- What is this *of*?
- What *is* this?
- What is this *about*?



- What is the title?
- What is this *of*?
- What *is* this?
- What is this *about*?

الأحدود الثقافية ودينية لمرض السيدا

Le SIDA ne  
connaît pas les  
frontières culturelles  
et religieuses



FILM

KODAK SAFETY

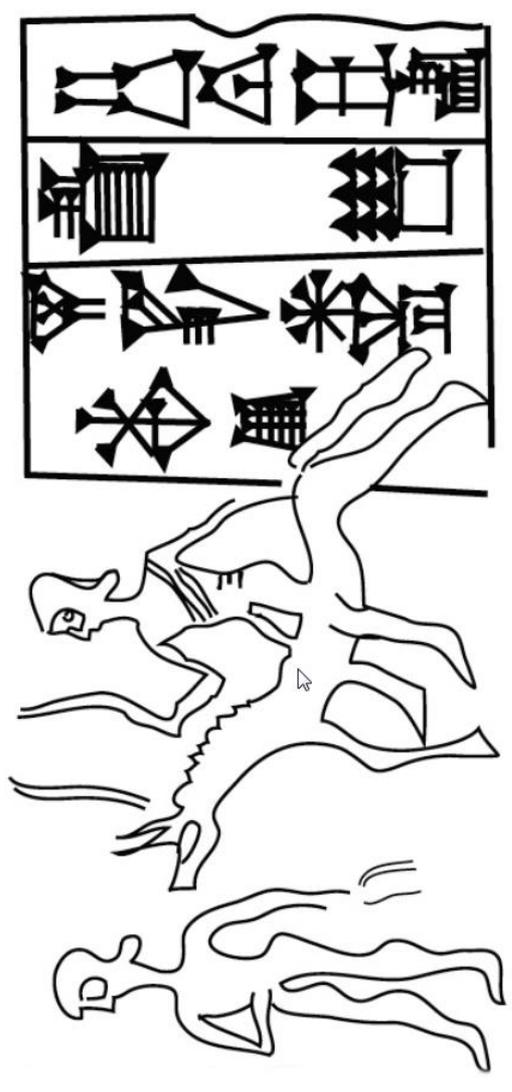
FILM

- What is the title?
- What is this *of*?
- What *is* this?
- What is this *about*?

velalat\_1429\_b.656\_264225A



- What is the title?
- What is this *of*?
- What *is* this?
- What is this *about*?



- What is the title?
- What is this *of*?
- What *is* this?
- What is this *about*?

# Questions to Ask

- What type of material(s)?
- How rich/structured does metadata need to be?
- Is there an existing “community of practice” for this resource type?
- What information is already available?
- What is the audience? How will they use the resources?
- Does your metadata need to interact with metadata from other institutions/in other databases?

# Questions to Ask (cont.)

- What are your core research questions & goals, and what metadata is needed to support them?
- Do you need a data model and if so, what would it look like?
- What metadata already exists, and what will you need to create?
- How will you manage/store your metadata?
- How will you document your metadata?
- What resources are available?

# Challenges and Risks

- Time
- Expertise
- Resources (funding & staff)
- Presentation of results
- Audience
- Finalizing

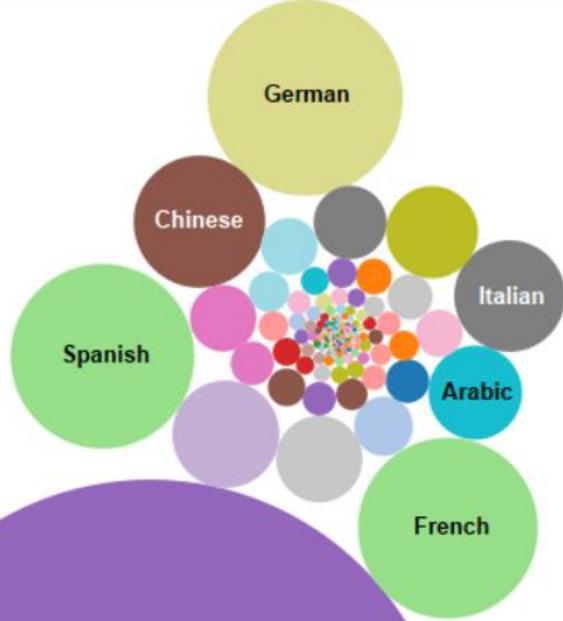
# Metadata as Data

Rich, structured metadata can be used for

- Textual analysis
- Image analysis
- Spatial analysis
- Network analysis

# What languages do UCLA Library collections speak?

- How many languages are represented in the UCLA Library?
- What is their relative size?



## The 10 List (exactly ten items in the collection)

|             |    |
|-------------|----|
| Pampanga    | 10 |
| Kru (Other) | 10 |
| Frisian     | 10 |
| Fang        | 10 |
| Duala       | 10 |

<https://ucla.in/2ihNrQD>

# Linked Open Data (LOD)

Data that is structured and published so that it can be both interlinked with other LOD datasets and made openly accessible, shareable, and re-usable on the Semantic Web, with no/few restrictions

# Ontology

Structured/formal machine-readable specification with entities/ attributes/ interrelationships explicitly defined.

Representing a particular domain of knowledge.

Identifying existing ontology/ies or developing one is necessary first step to turn data sets into LOD.

# To Learn More

- The Getty's Introduction to Metadata  
<http://goo.gl/5L5SQy>
- Stanford's Data Best Practices  
<http://goo.gl/1ChJQQ>
- NISO's Understanding Metadata:  
<http://goo.gl/T3BCKX>

# Questions?

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