Introduction to Metadata

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Some definitions of metadata

- Data about data
- "Structured information about an information resource of any media type or format." (Caplan)
- "Structured information that describes, explains, locates, or otherwise makes it easier to retrieve, use, or manage an information resource." (NISO)
- "A relationship that someone claims to exist between two entities" (<indecs>)

Refining a definition

- Other characteristics
 - Structure
 - Control
- Origin
 - Machine-generated
 - Human-generated
- In practice, the term often covers data and meta-metadata

Metadata and cataloging

- Depends on what you mean by:
 - metadata, and
 - cataloging!
- But, in general:
 - Metadata is broader in scope than cataloging
 - Much metadata creation takes place outside of libraries
 - Good metadata practitioners use fundamental cataloging principles in non-MARC environments
 - Metadata created for many different types of materials

What metadata is not

- Just a new word for cataloging
- Only for Internet resources
- Necessarily in electronic form
- Only created by professionals
- A fundamentally new idea
- A reason to forget everything we know about describing and managing resources

Some forms of metadata in cultural heritage institutions

- Catalog cards
- OPACs
- Finding aids
- Inventories
- Registers
- Slide labels

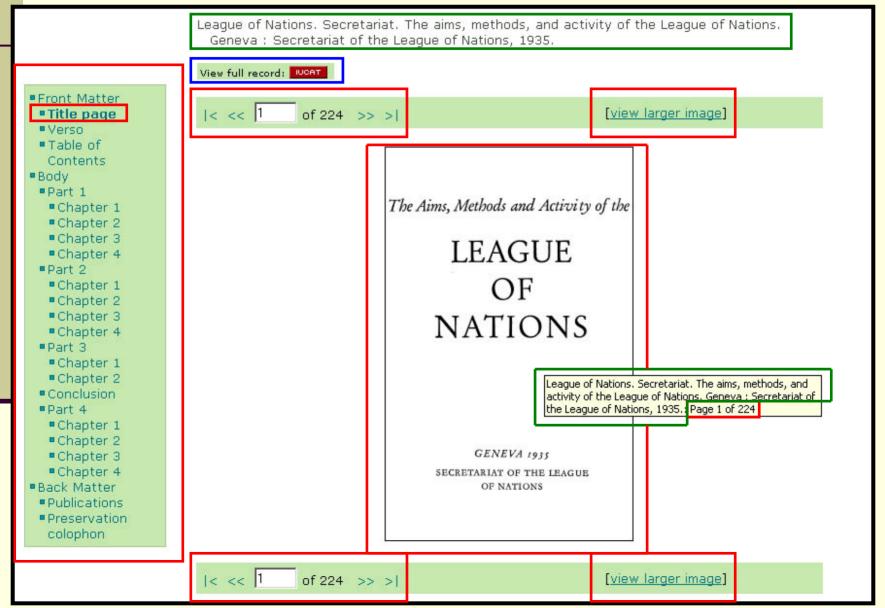
Uses of metadata in cultural heritage institutions

- Searching
- Browsing
- Display for users
- Interoperability
- Management of digital objects
- Preservation
- Navigation

Some types of metadata

Туре	Use		
Descriptive metadata	Searching		
	Browsing		
	Display		
	Interoperability		
Technical metadata	Interoperability		
	Digital object management		
	Preservation		
Preservation metadata	Interoperability		
	Preservation		
Rights metadata	Interoperability		
	Digital object management		
Structural metadata	Navigation		

How metadata is used



A taxonomy of standards

	Material Culture	<u>Bibliographic</u>	<u>Archival</u>
	Libraries	Libraries	Libraries
	Archives	Archives	Archives
	Museums	Museums	Museums
Data Structure	CDWA	MARC	EAD
Data Content	ссо	AACR2 (RDA)	DACS
Data Format	XML	XML/ISO2709	XML
Data Exchange	OAI	OAI Z39.50 SRU/SRW	OAI

Some data structure standards

- For general use
 - MARC and MARCXML
 - MODS
 - Dublin Core
- More specialized for this community
 - VRA Core
 - CDWA Lite

Brief display of LC MARC record with field labels

```
LC Control Number: 92005291
```

Type of Material: Book (Print, Microform, Electronic, etc.)

Brief Description: Sandburg, Carl, 1878-1967.

Arithmetic / Carl Sandburg : illustrated as an anamorphic adventure by Ted Rand.

1st ed.

San Diego: Harcourt Brace Jovanovich, c1993.

1 v. (unpaged): ill. (some col.); 26 cm.

ISBN: 0152038655:

CALL NUMBER: PS3537.A618 A88 1993

Copy 1

-- Request in: Jefferson or Adams Bldg General or Area Studies Reading Rms

- Status: Not Charged

CALL NUMBER: PS3537.A618 A88 1993 FT MEADE

Copy 2

-- Request in: Main or Science/Business Reading Rms - STORED OFFSITE

-- Status: Not Charged

"Classic" LC MARC record with field tags

```
01142cam 2200301 a 4500
 000
001 92005291
003 DLC
005 19930521155141 9
008 920219s1993 caua i 000 0 eng
010 la 92005291
020 a0152038655 : c$15.95
040 |aDLC|cDLC|dDLC
042 |alcac
050 00|aPS3537.A618|bA88 1993
082 00|a811/.52|220
100 1 a Sandburg, Carl, d1878-1967.
245 10|aArithmetic /|cCarl Sandburg : illustrated as an anamorphic adventure by Ted Rand
250 la1st ed.
260 |aSan Diego: |bHarcourt Brace Jovanovich.|cc1993.
300 |a1 v. (unpaged) :|bill. (some col.) :|c26 cm.
500 aOne Mylar sheet included in pocket.
520 aA poem about numbers and their characteristics. Features anamorphic, or distorted, drawings which can be restored to normal by
     viewing from a particular angle or by viewing the image's reflection in the provided Mylar cone.
650 0|aArithmetic|xJuvenile poetry.
```

MARCXML record

```
</datafield>
-<datafield tag="245" ind1="1" ind2="0">
     <subfield code="a">Arithmetic /</subfield>
  - <subfield code="c">
       Carl Sandburg; illustrated as an anamorphic adventure by Ted Rand
  </datafield>
-<datafield tag="250" ind1=" " ind2=" ">
     <subfield code="a">1st ed </subfield>
  </datafield>
-<datafield tag="260" ind1=" " ind2=" ">
    <subfield code="a">San Diego :</subfield>
    <subfield code="b">Harcourt Brace Jovanovich.</subfield>
     <subfield code="c">c1993 </subfield>
  </datafield>
- <datafield tag="300" ind1=" " ind2=" ">
    <subfield code="a">1 v. (unpaged) :</subfield>
    <subfield code="b">ill. (some col.);</subfield>
     <subfield code="c">26 cm.</subfield>
  </datafield>
-<datafield tag="500" ind1=" " ind2=" ">
    <subfield code="a">One Mylar sheet included in pocket.</subfield>
  </datafield>
- <datafield tag="520" ind1=" " ind2=" ">
  - <subfield code="a">
       A poem about numbers and their characteristics. Features anamorphic, or distorted, drawings which can be restored to normal by
       viewing from a particular angle or by viewing the image's reflection in the provided Mylar cone.
     </subfield>
```

Some data content standards

- Anglo-American Cataloging Rules, 2nd edition (AACR2)
- Describing Archives: A Content Standard (DACS)
 - Replaces APPM
- Cataloging Cultural Objects (CCO)

Also standards for individual fields

- Controlled vocabularies
 - Names: LCNAF, ULAN, etc.
 - "Subjects": LCSH, AAT, etc.
 - Geographic places: LCSH, TGN, etc.
- Classification schemes, e.g., LCC
- Encoding schemes, e.g., W3CDTF

Some fields may not be covered by a content standard, or you may choose to override the guidance of a content standard for a particular field

Creating descriptive metadata

- "Digital library" systems
 - ContentDM
 - ExLibris Digitool
 - Greenstone
- Library catalogs
- Spreadsheets & databases
- XML

Challenges for descriptive VR metadata

- No infrastructure for copy cataloging
- Often describe unique rather than massproduced works
- Description tends to be more subjective than traditional library cataloging
- Many whole/part and derivative relationships
- Generally describe surrogates rather than actual works

Work vs. image

Work = image content



Agent = Auguste Rodin, sculptor Title = The Thinker Work type = sculpture Descriptive metadata

Museum inventory # = R9876 Exhibition status = on display Administrative metadata

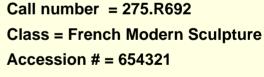
Image = view of a work





Agent = Joe Dokes, photographer
Title = Full view from front left
Work type = color transparency

Descriptive metadata



Administrative metadata

Measurements = 350 kb Work type = digital image *Technical metadata*

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The role of community

- There's no one "right way" to record descriptive metadata
- But we shouldn't each have to start from scratch with our own planning
- Collaboration within defined communities is the key to success