NISO/DCMI Webinar
February, 2012
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Here
There
LINKED DATA
On the web, open licenses
Machine-readable data
Non-proprietary format
RDF standards
Linked RDF

Is your data 5 ⭐️?
Linked Data

- Data, not text
- Identifiers for things
- Statements, not records
- Machine-readable schema
- Machine-readable lists
- + Open access on the Web

امية البيانات

- البيانات، لا النص
- مبرهنات للأشياء
- توجهات، لا الأعمدة
- خريطة قابلة للقراءة
- خريطة قابلة للقراءة
- + الوصول المفتوح على الإنترنت
Data
It is a Law of Nature with us that a child be born on the side than his father, so that each generation is no longer in the scale of development and not a Pentagon, the son of a Pentagon, the son of a Pentagon.

But this law applies not always to the Soldiers, and to the World, said to deserve the name of human. With them therefore there is the son of an Isosceles (i.e. a Triangle) and the son of an Isosceles still. Nevertheless, all hope Isosceles, that his posterity may unite in the essential equal condition. For, after a long series of skillful labours, it is generally found that the Artisan and Soldier classes manifest a condition, a shrinkage of the two opposite (by the Priests) between the sons and members of the lower classes generating still more to the type of the Pentagonal.
<table>
<thead>
<tr>
<th>Data</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine-readable</td>
<td>Human readable</td>
</tr>
<tr>
<td>Machine-actionable</td>
<td>Natural language</td>
</tr>
<tr>
<td>Computable</td>
<td>Ambiguous</td>
</tr>
</tbody>
</table>

- Machine-readable
- Machine-actionable
- Computable

- Human readable
- Natural language
- Ambiguous
TEXT

- 020 $a 0439064864 (hardcover)
- Concertos (Violin)
  Concertos (Violins (2))

- 300 $c 23 cm.

DATA

- ISBN:0439064864
- instrument: [violin]
  number: 1
  instrument: [violin]
  number: 2
- height: 23
  unit: [centimeters]
The Physical Object

**What sort of book is it?** Paperback; Hardcover, etc.

**How many pages?**
211

**Pagination?** Note the highest number in each pagination pattern.

x, 211 p.;

For example: xii, 346p.

**How much does the book weigh?**

<table>
<thead>
<tr>
<th></th>
<th>grams</th>
<th>kilos</th>
<th>ounces</th>
<th>pounds</th>
</tr>
</thead>
</table>

Data IS the information

008 711222s1961 dcu b 000 0 eng

Identifiers
dog =
dog =
Identifiers must be precise
Identifiers don’t change

Smith, John, 1946-

Smith, John, 1946-2006

*Change the identifier, change the identity*
Internationalization (i18n)

dog (lang=en)

chien (lang=fr)

perro (lang=sp)

hund (lang=de)
Strings are endpoints
Things can connect to other things

http://example.org/123

http://example.org/1793

http://example.org/AAbc

“name: William Shakespeare”
As You Like It

[Cover image of Shakespeare's 'As You Like It']

- As you like it. / c edited by Michael Hattaway.
- Updated ed.
- xvii, 240 p. ; ill. ; 24 cm.
- New Cambridge Shakespeare
- Includes bibliographical references (p. 240).
- Introduction. Journeys ; Playa 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 occasion ; Stage history ; Recent critical and stage interpretations. -- Note on the text -- List of characters -- The play -- Textual analysis -- Appendices: 1. An early court performance? ; 2. Extracts from Shakespeare's principal source, Lodge's Rosalind ; 3. The songs.

- Fathers and daughters / v Drama.
- Exiles / v Drama.
- Pastoral drama. [2 gasd]
100 $a Shakespeare, William
Statements

- Author: Shakespeare, William
- Title: As you like it
- Publisher: Cambridge U Press
- Subject: Fathers and daughters
- Date: 2009
Graphs

Shakespeare, William
As you like it
Cambridge U Press
Fathers and daughters
2009

has author
has title
published by
has subject
published in year
Advantages: flexibility
Entities/properties
What are the **things** in our metadata?

- people, corporate bodies, families
- places (as subjects, as locations, and other)
- events (conferences, legislative actions)
- topics (classification, subject headings)
- resources (books, sound recordings; works, expressions)
- physical formats, extents
- ...

How many are unique to library data?
Properties and linking

dc:title

“Moby Dick”
Properties and linking

dc:title

lib:title Proper

sub-property

“Moby Dick”

“Moby Dick”
British National Bibliography in RDF
Metadata elements in RDF

- RDA
- FRBRer
- MADS
- ISBD
- FRAD
Metadata elements in RDF

- RDA
- FRBRer
- MADS
- ISBD
- FRAD
Linked bibliographic metadata

SPAR
Semantic Publishing and Referencing

FaBiO
FRBR-Align Bibliographic Ontology

PRO
Publishing Roles Ontology

PSO
Publishing Status Ontology

PWO
Publishing Workflow Ontology

CiTO
Citation Typing Ontology

BiRO
Bibliographic Reference Ontology

C4O
Citation Counting and Context Characterization Ontology

DoCO
Document Components Ontology
Linked bibliographic metadata

Bibliographic Ontology (BIBO)

Dublin Core Metadata Terms
Controlled vocabularies & authorities
Controlled vocabularies & authorities

VIAF

Names

WIKIPEDIA
Open and on the Web
Open access on the Web
Open access on the Web

Europeana
Think Culture

LIBRIS

The British Library
Explore the world’s knowledge

OPEN
LIBRARY

BNE
Are we there yet?
A moment of opportunity

Let’s grab it

Karen Coyle

http://kcoyle.net/presentations/links.html