Using Linked Data

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Current State of Affairs

• There is a lot of linked data currently available
  – Library of Congress
  – OCLC
  – DNB (Germany National Library)
  – The Getty
  – WikiData
  – DBpedia.org
  – GeoNames
But…

- There are few systems that publish linked data
- There are even fewer systems that are built on RDF
Why?

• RDF and linked data are still relatively new
• Tools are still relatively new
  – Triple Stores
  – SPARQL
• Libraries, Archives and Museums have well tested and long standing data formats
  – MARC
  – EAD
• There is little proven value for using linked data
Things to Remember

• RDF ≠ linked data
• Just because you are ON the Web does not mean you are OF the Web
• Implementing linked data does not mean replacing your existing infrastructure with RDF
  – Linked data can be separate
  – There are plenty of examples of organizations that do not use RDF as a data standard but still publish/use linked data
• This idea is starting to manifest itself in current applications
  – Hydra, Dspace, etc.
Looking Ahead

• We are interested in experimenting with applications and services that not only publish linked data but also use RDF as the data standard
  – Entity JS
  – Person Entity Lookup Pilot
Entity JS

- OCLC Research is experimenting with how to use linked data in an experimental discovery system we call “EntityJS”
Search across entities

**Person**
- Pres. U.S. Abraham Lincoln, 1797 - 1806
- Mrs. Mary (Todd) Lincoln, 1810 - 1878
- Lincoln Kirstein, 1907 - 1996
- Robert Todd Lincoln, 1843 - 1926
- Lincoln family
- Tad Lincoln, 1853 - 1943
- Nancy Hanks Lincoln, 1784 - 1818
- Lincoln Steffens, 1866 - 1936
- Levi Lincoln, 1782 - 1868
- George Lincoln Burr, 1857 - 1938

**Organization**
- William E. Barton Collection of Lincolniana (University of Chicago)
- Abraham Lincoln Presidential Library and Museum.
- Chamber Music Society of Lincoln Center.
- Jazz at Lincoln Center (Organization)
- United States President (1861-1865; Lincoln).
- Lincoln Center Jazz Orchestra.
- McLellan Lincoln Collection (Brown University)
- Lincoln Memorial University
- Lincoln University (Pa.)
- Ford Motor Company. Lincoln-Mercury Division.

**Concept**
- Abraham Lincoln's political career before 1861
- Lincoln automobile
- Lincoln automobile
- Funeral journey of Abraham Lincoln to Springfield
- Lincoln Memorial (Washington, D.C.)
- Lincoln-Douglas Debates, Ill., 1858
- Lincoln Continental automobile
- Lincoln Continental automobile
- Lincoln Day
- Lincoln (Bomber)

**Place**
- Nebraska—Lincoln.
- Massachusetts—Lincoln.
- Maine—Lincolnville.
- Illinois—Lincoln.
- England—Lincolnshire

**Event**
- Lincoln-Douglas Debates (Illinois : 1858)
- Lincoln Center Festival.
- Lincoln Center Festival.
- Lincoln Center Festival.
- Lincoln Center Festival.
- Lincoln Center Festival.

**Work**
- Gettysburg address (Lincoln, Abraham)
- Emancipation Proclamation (United States. President (1861-1865 : Lincoln))
- Lincoln Truck Rental photographs, 1947 Feb. 17-1958 April 19 : 73 Gilbert Street
- Fort Lincoln : history and construction
Show related entities
User-contributed “same as” relationships

Casablanca Conference

About
Is “Casablanca Conference” the same as one of these Wikipedia entries?

Casablanca Conference
The Casablanca Conference (codenamed SYMBOL) was held at the Anfa Hotel in Casablanca, French Morocco from January 14 to 24, 1943, to plan the Allied...

List of World War II conferences
This is a list of World War II conferences of the Allies of World War II. For the historical context see Diplomatic history of World War II...

Casablanca directive
The Casablanca directive was approved by the Combined Chiefs of

Related Works
As a Subject

[Address by Franklin D. Roosevelt at the dinner of the White House Correspondents’ Association, Washington, D.C. on February 12, 1943. Part 1]

[Address by Franklin D. Roosevelt at the dinner of the White House Correspondents’ Association, Washington, D.C. on February 12, 1943. Part 3].

[Address by Franklin D. Roosevelt at the dinner of the White House Correspondents’ Association, Washington, D.C. on February 12, 1943. Part 2]

[Address by Franklin D. Roosevelt at the dinner of the White House Correspondents’ Association, Washington, D.C. on February 12, 1943. Part 4].

[Address by Franklin D. Roosevelt at the dinner of the White House Correspondents’ Association, Washington, D.C. on February 12, 1943. Part 5]

[Gabriel Heatter news. 1943-02-23, part 1].

Related Media
We looked but didn’t find any related media for Casablanca Conference.

Related People
J David Goldin
Douglas Cornell
Joseph Stalin
Winston Churchill
Viscount Bernard Law Montgomery Montgomery of

Related Organizations
Marr Sound Archives.
Andrew W. Mellon Foundation.
White House Correspondents’ Association.
United States. Department of State.
United States. Army. Army. Third

Related Places
United States
Soviet Union
Italy
China
United States
User-contributed “same as” relationships

```
INSERT DATA { GRAPH
<http://id.worldcat.org/fast/1405559>  
<http://schema.org/sameAs>  
<http://www.wikidata.org/data/Q502093>;  
<http://schema.org/sameAs>  
}
```
User-contributed “same as” relationships
Continued Experimentation

• Extend the EntityJS application to incorporate additional Linked Data resources and support further entity relationship refining and editing
Person Entity Lookup pilot

• What’s the problem?
  – Libraries need a way to find and identify people using common identifiers
  – Many identifiers lack statements about relationships

• Answer
  – Develop an experimental service that allows user to lookup people based on identifiers or strings
  – Deliver that data as RDF via an API
  – Pilot test the service
Person Entity Lookup pilot

Janet A. Smith
Person Entity Lookup pilot

Janet A. Smith

Name Authority File 1
Person Entity Lookup pilot

ID “Same As” API

Janet A. Smith

Janet A. Smith
Name Authority File 1

Janet Adam Smith
Name Authority File 2

Janet B. A. Smith
Name Authority File 3

Janet B. Adam Smith
Name Authority File 4
Person Entity Lookup pilot

Text String “Search Service” API

Janet Smith
Person Entity Lookup pilot

Text String API -> <text string>
Person Entity Lookup pilot

Text String API

<text string>

Janet Smith

Janet A. Smith
Name Authority File 1

Janet Adam Smith
Name Authority File 2

Janet B. A. Smith
Name Authority File 3

Janet B. Adam Smith
Name Authority File 4
Next Steps

- The Pilot ended at the end of February
- We are evaluating the usage statistics and conducting exit interviews with the participants to see what worked and what did not
Conclusions

• Linked data can be pretty easy to implement
  – You already have data on the Web… Linked data will help you be of the Web!

• RDF is a bit more difficult due to current infrastructures and applications
  – “The future is already here – it’s just not very evenly distributed”
    - William Gibson
Using Linked Data

Contact us

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Because what is known must be shared.™