Why libraries should embrace Linked Data

Anders Söderbäck
National Library of Sweden
Why LIBRIS likes Linked Data

Anders Söderbäck
National Library of Sweden
LIBRIS

- Swedish National Union Catalog
- 170 libraries
- 6 million bib records
- 20 million holdings
- 250k authority records
- National bibliography
LIBRIS

- Library directory
- Library infrastructure ("metadata switch")
- Online public access (for humans) since 1997
- Marc21 since 2001
- Linked Data since 2008
What is Linked Data?

From http://en.wikipedia.org/wiki/Linked_Data:

Linked Data is a term used to describe a method of exposing, sharing, and connecting data on the Web via dereferenceable URIs.
Four principles of Linked Data (TBL 2006)

- Use URIs as names for things.
- Use HTTP URIs so that people can look up those names.
- When someone looks up a URI, provide useful information.
- Include links to other URIs, so that they can discover more things.
Why use Linked Data for your library catalog?
New LIBRIS, dec 2007
Design a thing by considering it in its next largest context—a chair in a room, a room in a house, a house in an environment, environment in a city plan.

- Eliel Saarinen
This means...
A library catalog must be designed by considering its context of the Web.
The question is not "What is a catalog?" but "What can a catalog become?"
What is the Web?

- An infrastructure for moving bits
- An environment for communication, information dissemination, etc...
- The Web is social
- The Web is a network
- The Web is made of links
- Open system, anyone can join / link
Catalogs in Web context

- Need to be open (Get your data out!)
- Need to be linkable
- Needs to provide links
- Must be part of the network
- Can not be an end in itself
- Allow for hackability
Why APIs suck

• Context specific / differ from each other
• Too much control in the hands of the producer (too dependant of the producers world view)
• Not hackable enough
• Not really weaved into the Web

• Despite this, we have built some APIs...
Linked Open Data turns the Web into an API.

- Corey A. Harper
So what does it look like?
How do I find it?

- HTTP URI for every resource, ex:
  http://libris.kb.se/resource/bib/5059476
  http://libris.kb.se/resource/auth/220040
  http://libris.kb.se/resource/library/S
HTTP content negotiation

- HTTP 303 See other
- text/html -> http://libris.kb.se/bib/5059456
- text/rdf+n3 -> http://libris.kb.se/data/bib/5059456
The difference engine by William Gibson & Bruce Sterling

Gibson, William, 1948- (Author)
Sterling, Bruce, 1956- (Author)

London : Gollancz, 1990

Electronic book text.

The difference engine by William Gibson & Bruce Sterling

LibraryThing

Wikipedia on the authors:

William Gibson

Google Scholar

Google Book Search

LibraryThing

WikiHelm

The difference engine

Gibson, William, 1948- (Author)
Sterling, Bruce, 1956- (Author)

London : Gollancz, 1990

Electronic book text.

The difference engine by William Gibson & Bruce Sterling

LibraryThing

Wikipedia on the authors:

William Gibson

Google Scholar

Google Book Search

LibraryThing

WikiHelm

The difference engine

Gibson, William, 1948- (Author)
Sterling, Bruce, 1956- (Author)

London : Gollancz, 1990

Electronic book text.

The difference engine by William Gibson & Bruce Sterling

LibraryThing

Wikipedia on the authors:

William Gibson

Google Scholar

Google Book Search

LibraryThing

WikiHelm

The difference engine

Gibson, William, 1948- (Author)
Sterling, Bruce, 1956- (Author)

London : Gollancz, 1990

Electronic book text.

The difference engine by William Gibson & Bruce Sterling

LibraryThing

Wikipedia on the authors:

William Gibson

Google Scholar

Google Book Search

LibraryThing

WikiHelm

The difference engine

Gibson, William, 1948- (Author)
Sterling, Bruce, 1956- (Author)

London : Gollancz, 1990

Electronic book text.

The difference engine by William Gibson & Bruce Sterling

LibraryThing

Wikipedia on the authors:

William Gibson

Google Scholar

Google Book Search

LibraryThing

WikiHelm

The difference engine

Gibson, William, 1948- (Author)
Sterling, Bruce, 1956- (Author)

London : Gollancz, 1990

Electronic book text.
text/rdf+n3 again
Strategies

- Data first
- Represent ILS state
- Use existing vocabularies if possible (DC, SKOS, FOAF, Bibliontology, Geo)
- Make up vocabularies if needed
- Learn by doing
Read


Coming up next...

- Dbpedia links
- Open Source project for turning ILS:s into linked data (e-mail martin.malmsten@kb.se)
- Hope for network effects
Contact

• http://blog.libris.kb.se/semweb

• anders.soderback@kb.se
  martin.malmsten@kb.se