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*Wissen. Information. Innovation.*

# A Linked Data based index of library institutions

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National Technical Library, Prague

# Linked Data

- 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, using the standards (RDF\*, SPARQL)
- Include links to other URIs. so that they can discover more things.

## Triples of the Data Model

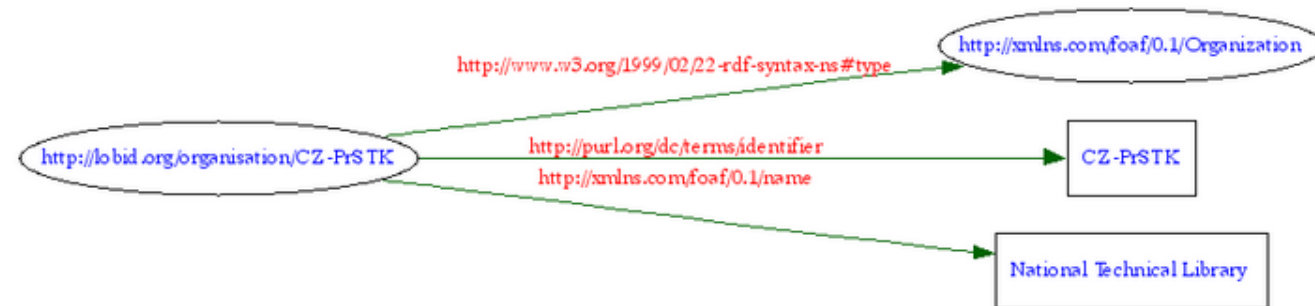
Number	Subject	Predicate	Object
1	<a href="http://lobid.org/organisation/CZ-PrSTK">http://lobid.org/organisation/CZ-PrSTK</a>	<a href="http://www.w3.org/1999/02/22-rdf-syntax-ns#type">http://www.w3.org/1999/02/22-rdf-syntax-ns#type</a>	<a href="http://xmlns.com/foaf/0.1/Organization">http://xmlns.com/foaf/0.1/Organization</a>
2	<a href="http://lobid.org/organisation/CZ-PrSTK">http://lobid.org/organisation/CZ-PrSTK</a>	<a href="http://purl.org/dc/terms/identifier">http://purl.org/dc/terms/identifier</a>	"CZ-PrSTK"
3	<a href="http://lobid.org/organisation/CZ-PrSTK">http://lobid.org/organisation/CZ-PrSTK</a>	<a href="http://xmlns.com/foaf/0.1/name">http://xmlns.com/foaf/0.1/name</a>	"National Technical Library"

## The original RDF/XML document

```
1: <rdf:RDF
2:   xmlns:dct="http://purl.org/dc/terms/"
3:   xmlns:foaf="http://xmlns.com/foaf/0.1/"
4:   xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#">
5:   <foaf:Organization rdf:about="http://lobid.org/organisation/CZ-PrSTK">
6:     <dct:identifier>CZ-PrSTK</dct:identifier>
7:     <foaf:name>National Technical Library</foaf:name>
8:   </foaf:Organization>
9: </rdf:RDF>
```

10:

## Graph of the data model



# Background

- For various reasons, we (will) need to link to libraries and related organisations
- Libraries don't have URIs
- Minting URIs is easy, since they have stable „non-web“ identifiers (**ISILs**):  
<http://lobid.org/organisation/DE-605>
- Domain + ISIL = Done!?

# What about some „useful information“?

- Convert existing databases to provide information „using the standards“:
  - Database of German libraries
  - MARC Organization Codes Search
  - UK National Agency for Organisation Codes
- Currently only very basic information (name, address and contact, using FOAF and vCard)
- In the long run, provide more details

lobid.org - Organisations - Mozilla Firefox  
Datei Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe  
http://lobid.org/organisation/DE-605/about.html  
lobid.org - Organisations

# hbz - Hochschulbibliothekszentrum des Landes Nordrhein-Westfalen

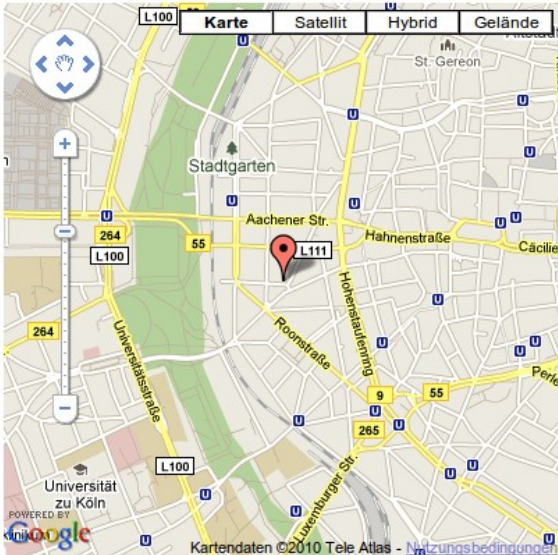
**ISIL: DE-605**

## Address



Street Jülicher Str. 6  
Postal Code 50674  
Place Köln  
Country

## Communication

Phone (0221) 4 00 75-0  
Fax (0221) 4 00 75-180  
Email [info-hbz@hbz-nrw.de](mailto:info-hbz@hbz-nrw.de)  
URL <http://www.hbz-nrw.de>



Eintrag im ISIL- und Sigelverzeichnis online  
W3C RDFa  
W3C XHTML + RDFa

Fertig  

lobid.org - Organisations - Mozilla Firefox  
Datei Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe  
http://lobid.org/organisation/EG-AIBA/about.html  
lobid.org - Organisations

# Bibliotheca Alexandrina

## Maktabah al-Iskandariyah


### ISIL: EG-AIBA

#### Address

Street  
Postal Code  
Place Alexandria  
Country Egypt

#### Communication

Phone  
Fax



[Eintrag im ISIL- und Sigelverzeichnis online](#)

W3C RDFa  
W3C XHTML + RDFa

Fertig

RDFa zotero

# How to enhance the quality of the data?

## → Source databases

- differ in detail

- are often outdated

## → Provide editing capabilities? No, because libraries have websites!

- Usually only human readable

- **RDFa** turns the website into a machine readable interface

- Further reading: **Nodalities** blog post



Home - Bibliotheca Alexandrina - Mozilla Firefox

Datei Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe

http://www.bibalex.org/Home/Default\_EN.aspx

Home - Bibliotheca Alexandrina

Bibliotheca Alexandrina  
The New Library of Alexandria

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  - Planetarium Science Center
  - Museums
  - Permanent Exhibitions
  - Conference Center
  - Dialogue Forum
  - CULTURAMA
  - VISTA
  - Internet Archive
  - Bookshops

**Home**

**HIGHLIGHTS**

**The BA Establishes a Cultural Center at El-Sennary House in Cairo**

The BA has taken tangible steps towards establishing a cultural, scientific, and artistic center in El-Sennary House in Sayeda Zeinab, Cairo. This center aims at reviving the role of *L'Institut d'Egypte*, which was established by Napoleon Bonaparte in El-Sennary House, where the famous *Le description de l'Egypte* was compiled. With the approval of the Permanent Committee for Islamic Antiquities, Mr. Farouk Hosni, Egyptian Minister of Culture, had issued a resolution by which El-Sennary House becomes an affiliate to the BA. El-Sennary House will witness various activities including a literary salon for youth, art exhibitions, concerts, educational courses in Calligraphy, Hieroglyphics and Coptic Language, and scientific roundtable discussions on different levels.



**NEWS EVENTS**

- The Narrative Review Series Holds a Short Story Contest
- Huckleberry Finn* in the New Phase of the "Big Read" Project
- The Senior Officials Meeting for the Regional Strategy of the Alliance of Civilizations in the Euro-Mediterranean at the BA

**FORTHCOMING**

**Life in Egypt during the Coptic Period: Towns and Villages, Laymen and Clergy, Bishops and Dioceses (21-23 September 2010)**

The BA Calligraphy Center organizes this conference in cooperation with the Ministry of Culture and the Society for Coptic Archaeology. The Conference tackles various themes, namely: History and Archeology in Egypt in the Byzantine Period; History and Archeology in the Coptic Period; Minor Art in Coptic Egypt;

Quick Access

Search for

- Books
- Digital Books
- Nasser Collection
- Sadat Collection
- Suez Canal Collection
- Memory of Modern Egypt

» Visiting the Library

**Opening Hours**

Saturday to Thursday:  
11:00 am to 7:00 pm

Friday:  
3:00 pm to 7:00 pm

BA in Press

Publications

Annual Reports

Photo Gallery

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```
1 <div xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
2   xmlns:foaf="http://xmlns.com/foaf/0.1/"
3   xmlns:dct="http://purl.org/dc/terms/"
4   xmlns:v="http://www.w3.org/2006/vcard/ns#"
5   xmlns:geo="http://www.w3.org/2003/01/geo/wgs84_pos#"
6   xmlns:xsd="http://www.w3.org/2001/XMLSchema#"
7   about="http://lobid.org/organisation/DE-605"
8   typeof="foaf:Organization">
9
10 <h1 property="foaf:name">Hochschulbibliothekszentrum des Landes Nordrhein-Westfalen (hbz)</h1>
11 <div rel="v:adr">
12   <p typeof="v:Work">
13     <span property="v:street-address">Jülicher Str. 6</span><br />
14     <span property="v:postal-code">50674</span>
15     <span property="v:locality">Köln</span><br />
16     <span property="v:country-name">Deutschland</span>
17   </p>
18 </div>
19 <p rel="v:tel">
20   <span typeof="v:Voice v:Work" property="rdf:value">+49(0)221 4 00 75-0</span><br />
21   <span typeof="v:Fax v:Work" property="rdf:value">+49(0)221 4 00 75-180</span>
22 </p>
23 <p>E-Mail: <a rel="v:email" href="mailto:info-hbz@hbz-nrw.de">info-hbz@hbz-nrw.de</a></p>
24 <p>Homepage: <a rel="v:url" href="http://www.hbz-nrw.de">http://www.hbz-nrw.de</a> </p>
25 <div rel="geo:location" class="location">
26   <span property="geo:lat" rdf:datatype="xsd:double" content="50.9341000" />
27   <span property="geo:long" rdf:datatype="xsd:double" content="6.9354900" />
28 </div>
29 <p>ISIL: <span property="dct:identifier">DE-605</span></p>
30 </div>
```

```
1 @prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
2 @prefix foaf: <http://xmlns.com/foaf/0.1/> .
3 @prefix dct: <http://purl.org/dc/terms/> .
4 @prefix v: <http://www.w3.org/2006/vcard/ns#> .
5 @prefix geo: <http://www.w3.org/2003/01/geo/wgs84_pos#> .
6 @prefix xsd: <http://www.w3.org/2001/XMLSchema#> .
7
8 <http://lobid.org/organisation/DE-605>
9   dct:identifizier "DE-605" ;
10  a foaf:Organization ;
11  geo:location _:bnode5 ;
12  v:adr [
13    a v:Work ;
14    v:country-name "Deutschland" ;
15    v:locality "Köln" ;
16    v:postal-code "50674" ;
17    v:street-address "Jülicher Str. 6"
18  ] ;
19  v:email <mailto:info-hbz@hbz-nrw.de> ;
20  v:tel [
21    a v:Voice, v:Work ;
22    rdf:value "+49(0)221 4 00 75-0"
23  ], [
24    a v:Fax, v:Work ;
25    rdf:value "+49(0)221 4 00 75-180"
26  ] ;
27  v:url <http://www.hbz-nrw.de> ;
28  foaf:name "Hochschulbibliothekszenrum des Landes Nordrhein-Westfalen (hbz)" .
29
30  _:bnode5
31    geo:lat "50.9341000" ;
32    geo:long "6.9354900" .
```

# Benefits

- Weniger Aufwand
- Standardization
- Remixability
- Separation of Concerns
- Next generation SEO
- ...