BIBFRAME: Libraries can lead Linked Data

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Libraries are increasingly exchanging data with other cultural heritage institutions
Everyone here knows that this is both an opportunity and a challenge

“It is not the strongest of the species that survives, nor the most intelligent, but rather the one most adaptable to change”

Paraphrase of Darwin by Leon C. Megginson
Non-libraries have a problem with data encoded in MARC (and so do some librarians...)
We need a format that allows for easier data reuse – inside and outside of libraries
BIBFRAME is an attempt to achieve that

There won't be any Semantic Web that any mortal can understand until librarians help build it!

Uche Ogbuji on Twitter, 2013-01-27
BIBFRAME will determine a transition path from MARC 21 to an exchange format based on linked data principles.
Important requirements are:

- Model agnostic
- Support RDA, and other cataloging rules
- Extensible for new kinds of library material
The model is based on four core classes:

- Work
- Instance
- Authority
- Annotation
Interoperability with other models is achieved through community profiles
The DNB has an experimental implementation of the BIBFRAME model
The instance data is mainly based on strings

<bf:Instance rdf:about="http://d-nb.info/102239648X">
  <bf:modeOfIssuance>Einbändiges Werk</bf:modeOfIssuance>
  <bf:instanceOf rdf:resource="http://d-nb.info/bf_temp/work_102239648X" />
  <bf:isbn13>9783866802476</bf:isbn13>
  <bf:ean>9783866802476</bf:ean>
  <bf:nbn>12,N22</bf:nbn>
  <bf:nbn>12,A36</bf:nbn>
  <bf:local>
    <bf:identifierScheme>VLB / Netzpublikationen</bf:identifierScheme>
    <bf:identifierValue>4039423</bf:identifierValue>
  </bf:local>
  <bf:responsibilityStatement>
    Peter Beenk und Uwe Wetzner
  </bf:responsibilityStatement>
  <bf:extent>127 S.</bf:extent>
  <bf:dimensions>24 cm, 310 g</bf:dimensions>
  <bf:illustrativeContentNote>zahlr. Ill., Kt.</bf:illustrativeContentNote>
  <bf:title>Hamburg-Wilhelmsburg</bf:title>
  <bf:providerEntity>
    <bf:providerName>Sutton</bf:providerName>
    <bf:providerPlace>Erfurt</bf:providerPlace>
    <bf:providerDate>2012</bf:providerDate>
  </bf:providerEntity>
  <bf:frequency rdf:resource="http://marc21rdf.info/terms/continuingfre%23/u" />
</bf:Instance>
The information about the work is more linked to other entities

<bf:Work rdf:about="http://d-nb.info/bf_temp/work_102239648X">
  <rdf:type rdf:resource="LanguageMaterial" />
  <bf:hasInstance rdf:resource="http://d-nb.info/102239648X" />
  <bf:associatedAgent>
    <bf:Person>
      <bf:hasGNDLink rdf:resource="http://d-nb.info/gnd/1025471474"/>
      <bf:label>Beenk, Peter</bf:label>
      <bf:resourceRole rdf:resource="http://id.loc.gov/vocabulary/relators/ctb"/>
    </bf:Person>
  </bf:associatedAgent>
  <bf:associatedAgent>
    <bf:Person>
      <bf:hasGNDLink rdf:resource="http://d-nb.info/gnd/132364107"/>
      <bf:label>Wetzner, Uwe</bf:label>
      <bf:resourceRole rdf:resource="http://id.loc.gov/vocabulary/relators/ctb"/>
    </bf:Person>
  </bf:associatedAgent>
  <bf:subject rdf:resource="http://d-nb.info/gnd/4094661-7"/>
  <bf:class-ddc>943.515087</bf:class-ddc>
  <bf:class-ddc>943.087</bf:class-ddc>
  <bf:title>Hamburg-Wilhelmsburg</bf:title>
</bf:Work>
For full integration into the linked data service we need to create profiles

GET /102239648X HTTP 1.1
Host: d-nb.info
Accept: application/rdf+xml
Link: <http://d-nb.info/standards/profiles/bibframe>; rel="profile"

Possible solution
Much work remains to be done
The BIBFRAME vocabulary must be enriched and then stabilised.
The model will be continually developed
The new BIBFRAME editor shall assist cataloguers working with the model.
DNB will continue to update its service
So can BIBFRAME replace MARC?
We need a format that allows for easier data reuse and MARC is a problem
BIBFRAME is an attempt to achieve that
The DNB will continue to explore the format and its possibilities

BIBFRAME + RDA = TRUE
BIBFRAME – Making library data more linked
More information at

- http://bibframe.org/
- http://www.dnb.de/EN/bibframe
- Mailing list: http://listserv.loc.gov/listarch/bibframe.html