DEUTSCHE NATIONAL BIBLIOTHEK

Reinhold Heuvelmann

From enthusiasm to hesitation, and beyond

Some German remarks on BIBFRAME

European BIBFRAME Workshop, September 26 and 27, 2017
German National Library in Frankfurt

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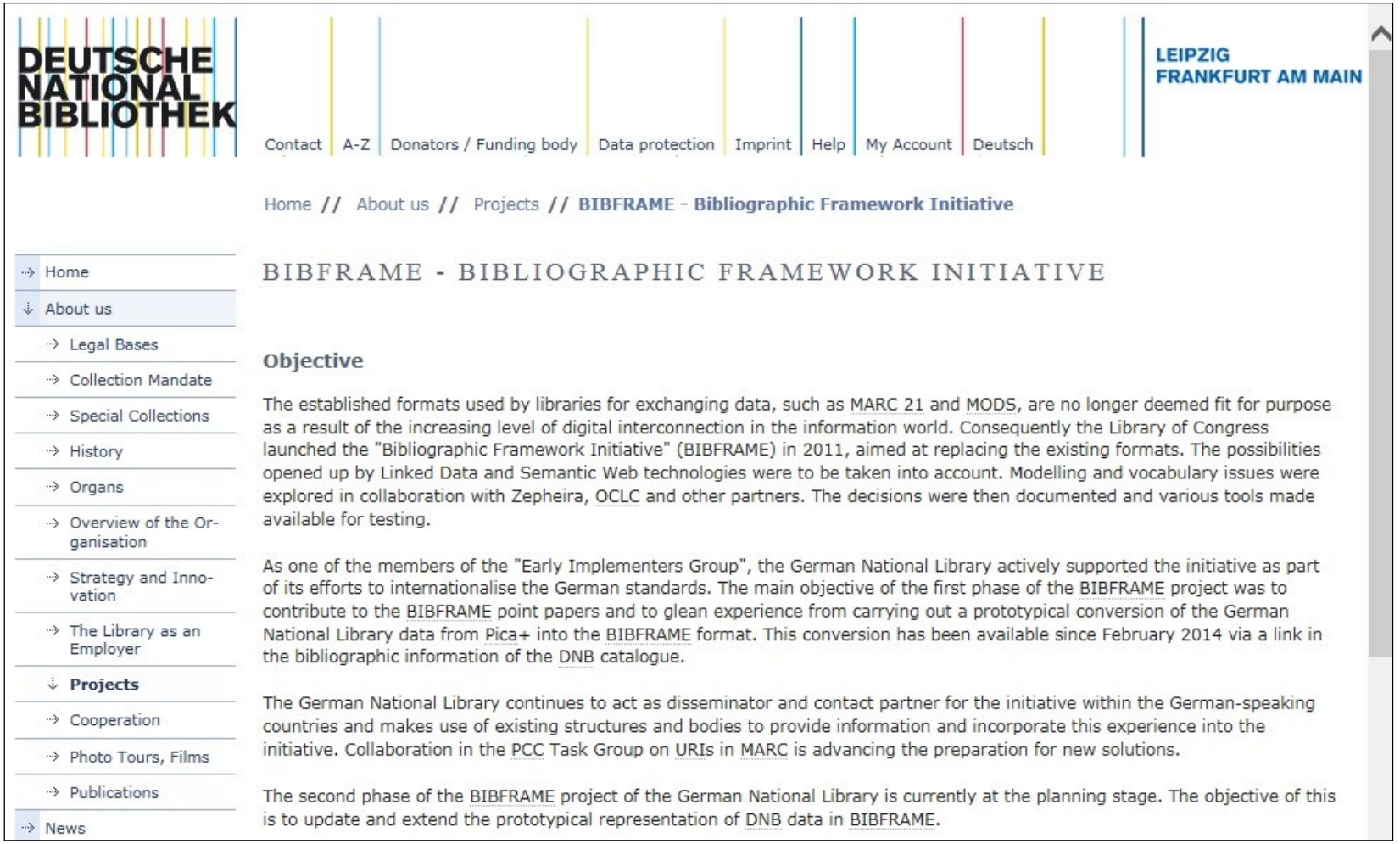

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BIBFRAME - BIBLIOGRAPHIC FRAMEWORK INITIATIVE

Objective

The established formats used by libraries for exchanging data, such as MARC 21 and MODS, are no longer deemed fit for purpose as a result of the increasing level of digital interconnection in the information world. Consequently the Library of Congress launched the "Bibliographic Framework Initiative" (BIBFRAME) in 2011, aimed at replacing the existing formats. The possibilities opened up by Linked Data and Semantic Web technologies were to be taken into account. Modelling and vocabulary issues were explored in collaboration with Zepheira, OCLC and other partners. The decisions were then documented and various tools made available for testing.

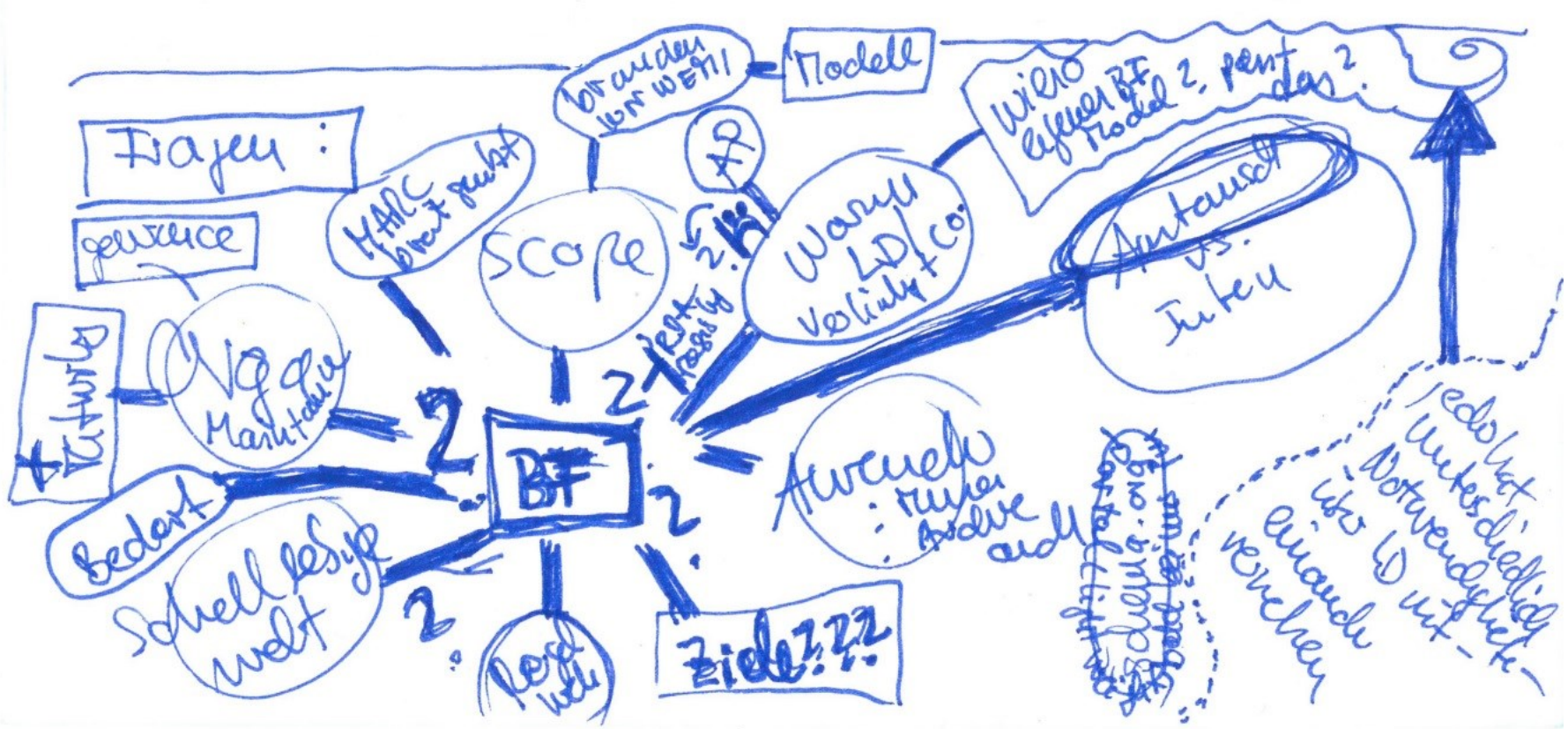
As one of the members of the "Early Implementers Group", the German National Library actively supported the initiative as part of its efforts to internationalise the German standards. The main objective of the first phase of the BIBFRAME project was to contribute to the BIBFRAME point papers and to glean experience from carrying out a prototypical conversion of the German National Library data from Pica+ into the BIBFRAME format. This conversion has been available since February 2014 via a link in the bibliographic information of the DNB catalogue.

The German National Library continues to act as disseminator and contact partner for the initiative within the German-speaking countries and makes use of existing structures and bodies to provide information and incorporate this experience into the initiative. Collaboration in the PCC Task Group on URIs in MARC is advancing the preparation for new solutions.

The second phase of the BIBFRAME project of the German National Library is currently at the planning stage. The objective of this is to update and extend the prototypical representation of DNB data in BIBFRAME.

http://www.dnb.de/EN/bibframe

Our views …



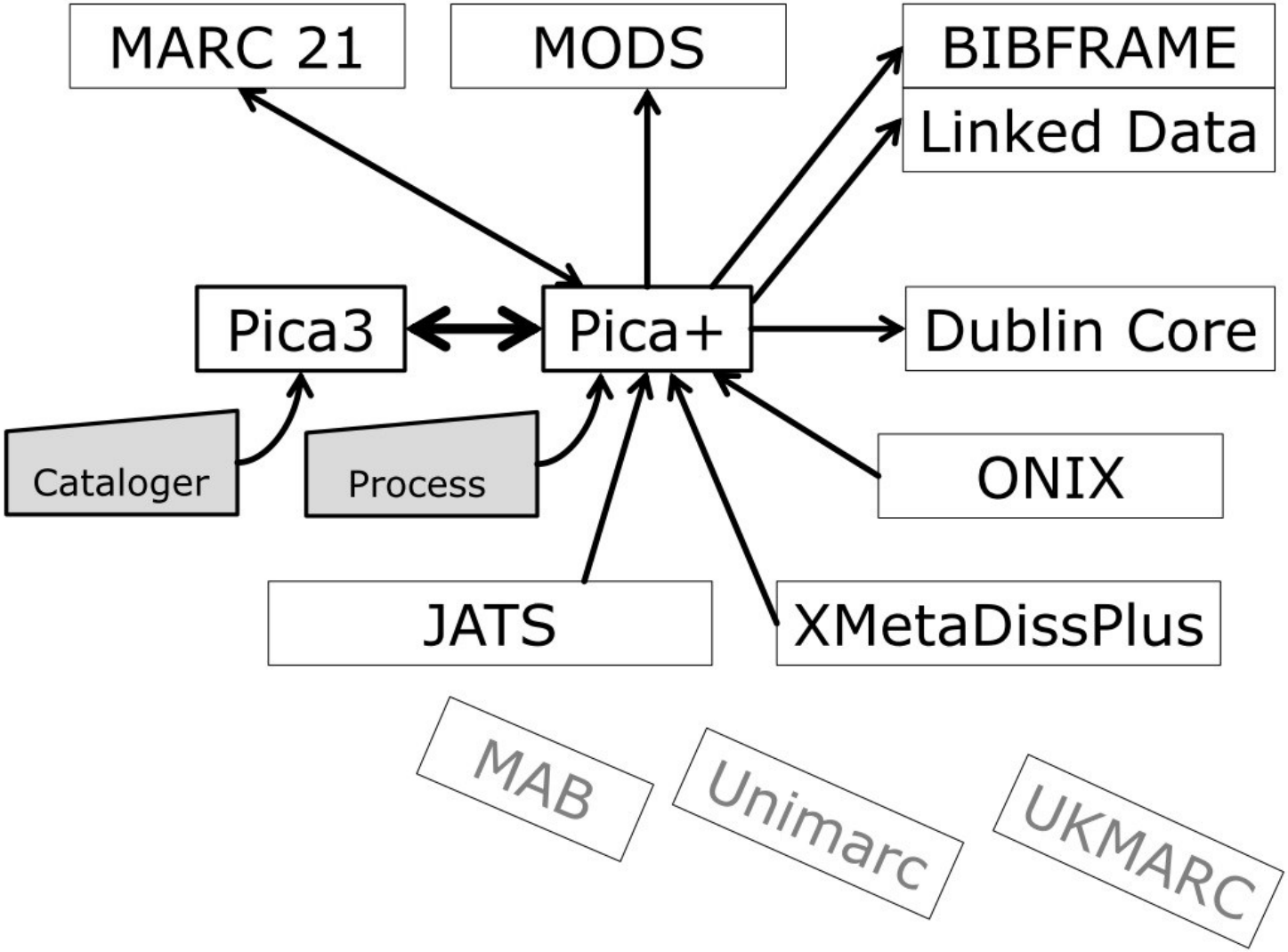
Some clarity ...

- A wide discussion is important.
- International cooperation is important.
- Standards and standardization are important.
- A good balance of top-down and bottom-up is important.
- A rich and consistent description is important.
- Linking is important.
- Authority control is important.
- Re-use of existing metadata is important.
- (Semi-)Automatic cataloging is becoming important.
- Provenance information is becoming important.

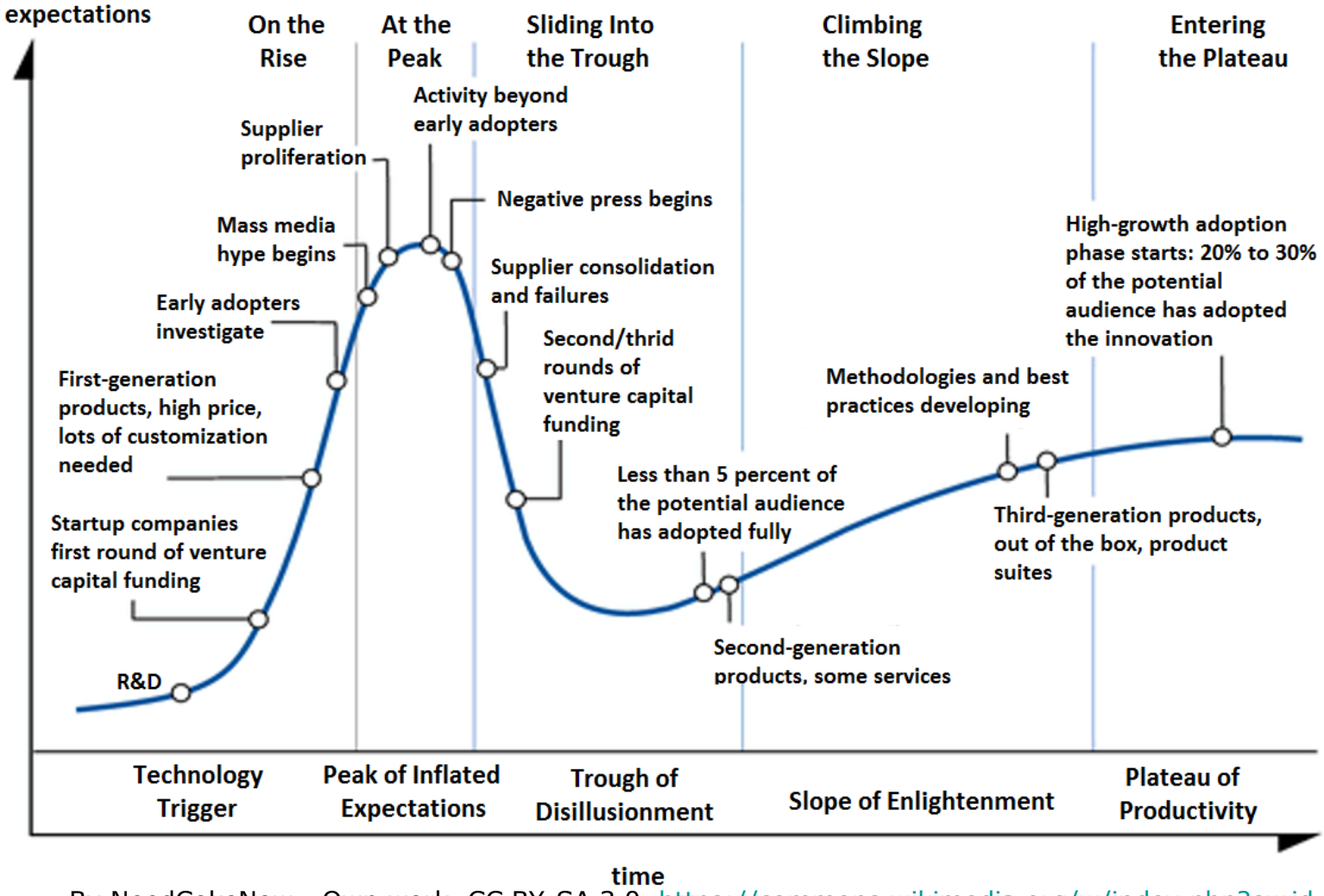
… and some open questions

- BIBFRAME in parallel with MARC?
- BIBFRAME as regular part of the DNB's Linked Data Service?
- What do we need BIBFRAME for? Is BIBFRAME usable already? Are there BIBFRAME users already?
- What's the relationship to RDA?
  Models? W-E-M-I? Registry? Development? IFLA-LRM?
- What maintenance and governance structure will BIBFRAME get?
- How will implementation and vendor participation work?
- What about schema.org?

Internal formats *and* communication formats



Where are we today?
And where will we be tomorrow?



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Thank you.

Questions?

Extra slides: an example

Treffer 1 von 1

Link zu diesem Datensatz	http://d-nb.info/1129818381
Titel	Linked data for libraries, archives and museums : how to clean, link and publish your metadata / Seth van Hooland, Ruben Verborgh ; Cilip, Chartered Institute of Library and Information Professionals
Person(en)	Hooland, Seth van (Verfasser) Verborgh, Ruben (Verfasser)
Verlag	London : Facet Publishing
Zeitliche Einordnung	Erscheinungsdatum: 2014
Umfang/Format	XVII, 254 Seiten : Illustrationen, Diagramme ; 24 cm
ISBN/Einband/Preis	978-1-85604-964-1 Broschur
Sprache(n)	Englisch (eng)
Schlagwörter	Linked Data ; Bibliothek ; Archiv ; Museum
DDC-Notation	025.0427 [DDC22ger]
Sachgruppe(n)	020 Bibliotheks- und Informationswissenschaft ; 060 Organisationen, Museumswissenschaft

Frankfurt	Handbibliothek Dienstbereich : 06.74.10/Hoo Signatur: HB 2017 A 19 Information zur Bestellung und Benutzung

Treffer 1 von 1 Gehe zu

Aktionen

- In meine Auswahl übernehmen
- Druckansicht
- Versenden
- MARC21-XML-Repräsentation dieses Datensatzes
- RDF (Turtle)-Repräsentation dieses Datensatzes
- Dokumentation Linked Data
- BIBFRAME-Repräsentation dieses Datensatzes
- Projekt BIBFRAME
- Korrekturanfrage

Lieferbar bei *buchhandel.de*?

http://d-nb.info/1129818381

a) in Pica+

```
001@ $02$a5
001A $01230:12-04-17
001B $01260:09-05-17$t09:47:40.000
001D $01240:21-04-17
001U $0utf8
001X $00
002@ $0Aa
002C $aText$btxt
002D $aohne Hilfsmittel zu benutzen$bn
002E $aBand$bnc
002N $a2$bi
003@ $01129818381
004A $0978-1-85604-964-1$fBroschur
006U $095,P02
007G $aDNB$01129818381
010@ $aeng
010E $erda
011@ $a2014
017A $asf
019@ $aXA-GB
021A $aLinked data for libraries, archives and museums$dhow to clean, link and publish your metadata$hSeth van
Hooland, Ruben Verborgh ; Cilip, Chartered Institute of Library and Information Professionals
028A $91058828320$7Tp1$Vpiz$Agnd$01058828320$dSeth$aHooland$cvan$BVerfasser$4aut
028C $91047630613$7Tp1$Vpiz$Agnd$01047630613$dRuben$aVerborgh$BVerfasser$4aut
033A $pLondon$nFacet Publishing
034D $aXVII, 254 Seiten
034I $a24 cm
034M $aIllustrationen, Diagramme
041A $91021290033$7Ts1$Vsaz$Agnd$07863462-3$aLinked Data
041A/01 $9040064395$7Ts1$Vsaz$Agnd$04006439-6$aBibliothek
041A/02 $9040028593$7Ts1$Vsaz$Agnd$04002859-8$aArchiv
041A/03 $9040407950$7Ts1$Vsaz$Agnd$04040795-0$aMuseum
041A/09 $eDE-101$rDE-101
045E $e020$f060
045F $eDDC22ger$a025.0427
045F/01 $a025.0427
045Q/01 $9150003889
047A $SERW$abec$cerstellt fü r HB
047A $SFE-F$aKer$cbeide Verf. Belgier, bevorzugte Namensform nach rda F 11.3
```

b) in MARC 21

```
LDR 02118nam a2200433 c 4500
001 1129818381
003 DE-101
005 20170509094740.0
007 tu
008 170412s2014\\\\xxk|||||\||||\00||||eng\\
016 7# $2DE-101$a1129818381
020 ## $a9781856049641$cBroschur$9978-1-85604-964-1
035 ## $a(DE-599)DNB1129818381
040 ## $a1230$bger$cDE-101$d1260$erda
041 ## $aeng
044 ## $cXA-GB
082 04 $81\u$a025.0427$qDE-101$222/ger
083 7# $a020$a060$qDE-101$223sdnb
084 ## $a020$a060$qDE-101$2sdnb
085 ## $81\u$b025.0427
090 ## $ab
100 1# $0(DE-588)1058828320$0http://d-nb.info/gnd/1058828320$0(DE-101)1058828320$aHooland, Seth ṽan
$eVerfasser$4aut
245 00 $aLinked data for libraries, archives and museums$bhow to clean, link and publish your
metadata$cSeth van Hooland, Ruben Verborgh ; Cilip, Chartered Institute of Library and Information
Professionals
264 #1 $aLondon$bFacet Publishing$c2014
300 ## $aXVII, 254 Seiten$bIllustrationen, Diagramme$c24 cm
336 ## $aText$btxt$2rdacontent
337 ## $aohne Hilfsmittel zu benutzen$bn$2rdamedia
338 ## $aBand$bnc$2rdacarrier
650 #7 $0(DE-588)7863462-3$0http://d-nb.info/gnd/7863462-3$0(DE-101)1021290033$aLinked Data$2gnd
650 #7 $0(DE-588)4006439-6$0http://d-nb.info/gnd/4006439-6$0(DE-101)040064395$aBibliothek$2gnd
650 #7 $0(DE-588)4002859-8$0http://d-nb.info/gnd/4002859-8$0(DE-101)040028593$aArchiv$2gnd
650 #7 $0(DE-588)4040795-0$0http://d-nb.info/gnd/4040795-0$0(DE-101)040407950$aMuseum$2gnd
689 00 $0(DE-588)7863462-3$0http://d-nb.info/gnd/7863462-3$0(DE-101)1021290033$Ds$aLinked Data
689 01 $0(DE-588)4006439-6$0http://d-nb.info/gnd/4006439-6$0(DE-101)040064395$Ds$aBibliothek
689 02 $0(DE-588)4002859-8$0http://d-nb.info/gnd/4002859-8$0(DE-101)040028593$Ds$aArchiv
689 03 $0(DE-588)4040795-0$0http://d-nb.info/gnd/4040795-0$0(DE-101)040407950$Ds$aMuseum
689 0# $5DE-101$5DE-101
700 1# $0(DE-588)1047630613$0http://d-nb.info/gnd/1047630613$0(DE-101)1047630613$aVerborgh, Ruben
$eVerfasser$4aut
850 ## $aDE-101b
```

c) in the Linked Data Service version (Turtle), part 1

```
@prefix schema: <http://schema.org/> .
@prefix gndo: <http://d-nb.info/standards/elementset/gnd#> .
@prefix lib: <http://purl.org/library/> .
@prefix marcRole: <http://id.loc.gov/vocabulary/relators/> .
@prefix owl: <http://www.w3.org/2002/07/owl#> .
@prefix skos: <http://www.w3.org/2004/02/skos/core#> .
@prefix dcmitype: <http://purl.org/dc/dcmitype/> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix geo: <http://www.opengis.net/ont/geosparql#> .
@prefix umbel: <http://umbel.org/umbel#> .
@prefix dbp: <http://dbpedia.org/property/> .
@prefix dnbt: <http://d-nb.info/standards/elementset/dnb#> .
@prefix rdau: <http://rdaregistry.info/Elements/u/> .
@prefix sf: <http://www.opengis.net/ont/sf#> .
@prefix dnb_intern: <http://dnb.de/> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix v: <http://www.w3.org/2006/vcard/ns#> .
@prefix dcterms: <http://purl.org/dc/terms/> .
@prefix ebu: <http://www.ebu.ch/metadata/ontologies/ebucore/ebucore#> .
@prefix bibo: <http://purl.org/ontology/bibo/> .
@prefix gbv: <http://purl.org/ontology/gbv/> .
@prefix isbd: <http://iflastandards.info/ns/isbd/elements/> .
@prefix foaf: <http://xmlns.com/foaf/0.1/> .
@prefix dc: <http://purl.org/dc/elements/1.1/> .

...
```

c) in the Linked Data Service version (Turtle), part 2

```
...
<http://d-nb.info/1129818381> a bibo:Document ;
          dcterms:medium <http://rdaregistry.info/termList/RDACarrierType/1044> ;
          rdau:P60049 <http://rdaregistry.info/termList/RDAContentType/1020> ;
          rdau:P60050 <http://rdaregistry.info/termList/RDAMediaType/1007> ;
          rdau:P60048 <http://rdaregistry.info/termList/RDACarrierType/1049> ;
          owl:sameAs <http://hub.culturegraph.org/resource/DNB-1129818381> ;
          dc:identifier "(DE-101)1129818381" ;
          bibo:isbn13 "9781856049641" ;
          rdau:P60521 "Broschur" ;
          dcterms:language <http://id.loc.gov/vocabulary/iso639-2/eng> ;
          rdau:P60327 "Seth van Hooland, Ruben Verborgh ; Cilip, Chartered Institute of Library
and Information Professionals" ;
          dc:title "Linked data for libraries, archives and museums" ;
          dcterms:creator <http://d-nb.info/gnd/1058828320> ;
          marcRole:aut <http://d-nb.info/gnd/1058828320> , <http://d-nb.info/gnd/1047630613> ;
          dc:publisher "Facet Publishing" ;
          rdau:P60163 "London" ;
          rdau:P60333 "London : Facet Publishing" ;
          isbd:P1053 "XVII, 254 Seiten" ;
          rdau:P60539 "24 cm" ;
          dcterms:subject <http://d-nb.info/gnd/7863462-3> , <http://d-nb.info/gnd/4006439-6> ,
<http://d-nb.info/gnd/4002859-8> , <http://d-nb.info/gnd/4040795-0> ;
          dc:subject "020"^^dnbt:ddc-subject-category , "060"^^dnbt:ddc-subject-category ;
          dcterms:subject <http://dewey.info/class/025.0427/e22/> ;
          dcterms:issued "2014" ;
          rdau:P60493 "how to clean, link and publish your metadata" .
```

d) in the BIBFRAME prototype version (RDF XML), part 1

```
<?xml version="1.0" encoding="UTF-8"?>

<rdf:RDF xmlns:bf="http://bibframe.org/vocab/"
xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
xmlns:skos="http://www.w3.org/2004/02/skos/core#"
xmlns:dcterms="http://purl.org/dc/terms/"
xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
xmlns:bfp="http://bibframe.org/bfp/"
xmlns:dc="http://purl.org/dc/elements/1.1/">

<bf:Instance rdf:about="http://d-nb.info/1129818381">
          <bf:modeOfIssuance>EinbÃ¤ndiges Werk</bf:modeOfIssuance>
          <bf:instanceOf rdf:resource="http://d-nb.info/bf_temp/work_1129818381" />
          <bf:isbn13>9781856049641</bf:isbn13>
          <bf:nbn>95,P02</bf:nbn>
          <bf:responsibilityStatement>Seth van Hooland, Ruben Verborgh ; Cilip, Chartered
Institute of Library and Information Professionals</bf:responsibilityStatement>
          <bf:extent>XVII, 254 Seiten</bf:extent>
          <bf:dimensions>24 cm</bf:dimensions>
          <bf:illustrativeContentNote>Illustrationen, Diagramme</bf:illustrativeContentNote>
          <bf:title>Linked data for libraries, archives and museums</bf:title>
          <bf:providerEntity>
                    <bf:providerName>Facet Publishing</bf:providerName>
                    <bf:providerPlace>London</bf:providerPlace>
                    <bf:providerDate>2014</bf:providerDate>
          </bf:providerEntity>
          <bf:frequency rdf:resource="http://marc21rdf.info/terms/continuingfre%23/u" />
</bf:Instance>
...
```

d) in the BIBFRAME prototype version (RDF XML), part 2

```
...
<bf:Work rdf:about="http://d-nb.info/bf_temp/work_1129818381">
          <bf:hasInstance rdf:resource="http://d-nb.info/1129818381" />
          <bf:associatedAgent>
                    <bf:Person>
                              <bf:hasGNDLink rdf:resource="http://d-nb.info/gnd/1058828320" />
                              <bf:label>Seth, Hooland, van</bf:label>
                              <bf:resourceRole
                                   rdf:resource="http://id.loc.gov/vocabulary/relators/aut" />
                    </bf:Person>
          </bf:associatedAgent>
          <bf:associatedAgent>
                    <bf:Person>
                              <bf:hasGNDLink rdf:resource="http://d-nb.info/gnd/1047630613" />
                              <bf:label>Ruben, Verborgh</bf:label>
                              <bf:resourceRole
                                   rdf:resource="http://id.loc.gov/vocabulary/relators/oth" />
                    </bf:Person>
          </bf:associatedAgent>
          <bf:subject rdf:resource="http://d-nb.info/gnd/7863462-3" />
          <bf:subject rdf:resource="http://d-nb.info/gnd/4006439-6" />
          <bf:subject rdf:resource="http://d-nb.info/gnd/4002859-8" />
          <bf:subject rdf:resource="http://d-nb.info/gnd/4040795-0" />
          <bf:class-ddc>025.0427</bf:class-ddc>
          <bf:class-ddc>025.0427</bf:class-ddc>
          <bf:title>Linked data for libraries, archives and museums</bf:title>
</bf:Work>

</rdf:RDF>
```

e) in the new BIBFRAME version

(to be done - please stay tuned)