



Linked Open Data in Alma

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EX LIBRIS
Knowledge Days

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Part of Clarivate

Agenda



- Why Linked Data
- Linked Data in Discovery Interface of an Alma Institution - Example 1
- Linked Data in Discovery Interface of an Alma Institution - Example 2
- Extracting Linked Data from Alma via APIs – Example 1
- Extracting Linked Data from Alma via APIs – Example 2
- Extracting Linked Data from Alma via general publishing profile
- Viewing the Linked Data in Alma



Why Linked Data

Why Linked Data

- Before we begin discussing Linked Data in Alma”, let’s first discuss why it is useful to use Linked Data in the first place.
- Linked data is not just a “fancy buzz word” or “academic exercise” for librarians curating, storing and displaying data.
- Linked data has real benefits for the library world.¹

¹ See also: Peter Neish (2015) Linked data: what is it and why should you care?, The Australian Library Journal, 64:1, 3-10, DOI: [10.1080/00049670.2014.974004](https://doi.org/10.1080/00049670.2014.974004)

Why Linked Data

- Linked Data can:
 - Enhance search results thereby making resources easier to find.
 - Be incorporated into online content relatively easily using well-known vocabularies.
 - Provide an open interactive system, with external links and the ability to make information easily accessible, re-usable and with the possibility of serendipitous discovery of other resources.²

² Alemu, G., Stevens, B., Ross, P., & Chandler, J. (2012). Linked Data for libraries: Benefits of a conceptual shift from library-specific record structures to RDF-based data models. *New Library World*, 113(11), 549-570. <http://dx.doi.org/10.1108/03074801211282920>

Why Linked Data

- Linked data in Alma brings references to a variety of sources, for example:

Vocabulary field

bibo:isbn10

bibo:isbn13

bibo:issn

bibo:oclcnum

dct:creator

dct:creator

dct:creator

dct:subject

dct:subject

dct:language

Linked data URI Label

<http://www.isbnsearch.org/isbn/>

<http://www.isbnsearch.org/isbn/>

<http://worldcat.org/issn/>

<http://www.worldcat.org/oclc/>

<http://viaf.org/viaf/sourceID/>

<http://id.loc.gov/authorities/names/>

<https://ld.ncl.edu.tw/authority/>

<http://id.loc.gov/authorities/subjects/>

<https://ld.ncl.edu.tw/subject/>

<http://id.loc.gov/vocabulary/iso639-2/>

Why Linked Data

- The linked data is typically used as a starting point to “crawl” to additional sources.
- In a Linked Data context, ideally one would simply follow the links and “crawl” from one data description to another.



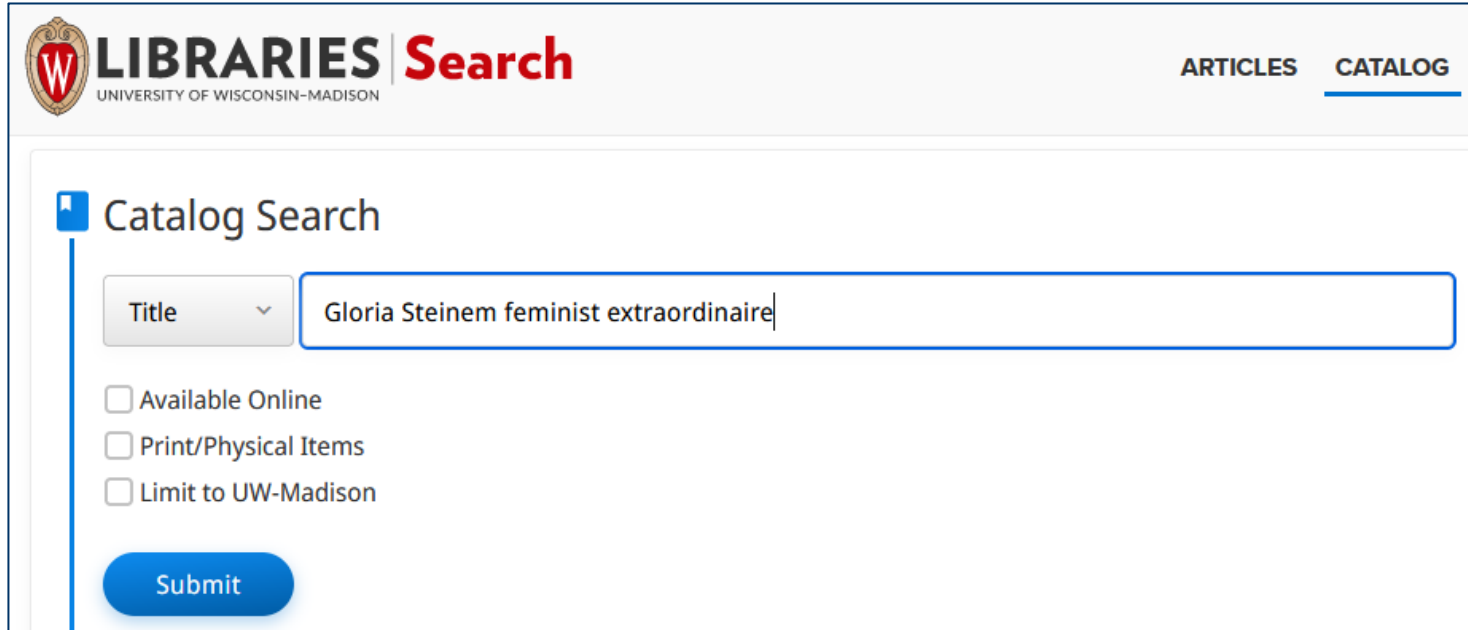


Linked Data in Discovery Interface of an Alma Institution - Example 1

- We will now look at an example whereby an Alma institution has included the linked data in the discovery results.
- Technical aspects are explained in the Tech Blog “Using the linked data integration API to enhance discovery from Steve Meyer of the University of Wisconsin:
<https://developers.exlibrisgroup.com/blog/Using-the-Linked-Data-Integration-API-to-Enhance-Discovery>

Linked Data in Discovery Interface of an Alma Institution - Example 1

- We will search <https://search.library.wisc.edu/search/system> for title “Gloria Steinem feminist extraordinaire”



The screenshot shows the University of Wisconsin-Madison Libraries Search interface. The header includes the library logo and the text "LIBRARIES | Search UNIVERSITY OF WISCONSIN-MADISON". Navigation links for "ARTICLES" and "CATALOG" are present, with "CATALOG" being the active tab. The main search area is titled "Catalog Search" and features a search box with the text "Gloria Steinem feminist extraordinaire" entered. A dropdown menu is set to "Title". Below the search box are three checkboxes: "Available Online", "Print/Physical Items", and "Limit to UW-Madison", all of which are currently unchecked. A blue "Submit" button is located at the bottom of the search area.

Linked Data in Discovery Interface of an Alma Institution - Example 1

- Now from results we will click the title for the “full view”.

1 result sorted by **Relevancy** ▾



BOOKS

1. **Gloria Steinem : féministe extraordinaire**

[Save to Lists](#)

PUBLICATION	AVAILABILITY
AUTHOR	Lazo, Caroline Evensen
DATE	[1998]

 Physical

Linked Data in Discovery Interface of an Alma Institution - Example 1

- In lower section of the “full view” in section “Information from the web” we see information from http://dbpedia.org/resource/Gloria_Steinem

Information from the Web

Steinem, Gloria

BORN March 25, 1934

Abstract

(Source: DBPedia)

Gloria Marie Steinem (/ˈstainəm/; born March 25, 1934) is an American feminist journalist and social political activist who became nationally recognized as a leader and a spokeswoman for the American feminist movement in the late 1960s and early 1970s. Steinem was a columnist for New York magazine, and a co-founder of Ms. magazine. In 1969, Steinem published an article, "After Black Power, Women's Liberation", which brought her to national fame as a feminist leader. In 1971, she co-founded the National Women's Political Caucus which provides training and support for women who seek elected and appointed offices in government. Also in 1971, she co-founded the Women's Action Alliance which, until 1997, provided support to a network of feminist activists and worked to advance feminist causes and legislation. In the 1990s, Steinem helped establish Take Our Daughters to Work Day, an occasion for young girls to learn about future career opportunities. In 2005, Steinem, Jane Fonda, and Robin Morgan co-founded the Women's Media Center, an organization that "works to make women visible and powerful in the media". As of May 2018, Steinem was traveling internationally as an organizer and lecturer, and was a media spokeswoman on issues of equality.

- There is also information from Wikidata and other sources

Education

(Source: [Wikidata](#))

Smith College (cited in [The Feminist Companion to Literature in English](#))

Waite High School

Identities on The Web

<http://id.loc.gov/authorities/names/n83074143>

<http://viaf.org/viaf/79036189>

<http://www.wikidata.org/entity/Q231178>

http://dbpedia.org/resource/Gloria_Steinem



Linked Data in Discovery Interface of an Alma Institution - Example 2

Linked Data in Discovery Interface of an Alma Institution - Example 2

- Now we will look at another example from a different Alma Institution: The Hong Kong University of Science and Technology.
- The Primo search is at <https://julac.hosted.exlibrisgroup.com/primo-explore/search?vid=HKUST>
- We will search the library catalog for title “Lean in women work and the will to lead”

Linked Data in Discovery Interface of an Alma Institution - Example 2

- From the results we will click the title to see the full view

The screenshot displays the HKUST PowerSearch interface. At the top, there are navigation links: HKALL, BROWSE SEARCH, HELP, and REQUEST PURCHASE. On the right, there are icons for QR code and a pin. The search bar contains the text "Lean in women work and the will to lead" and a dropdown menu set to "Library Catalog". To the right of the search bar is an "ADVANCED SEARCH" link. Below the search bar, the results section shows "0 selected" and "5 Results". A single result is displayed with a checkbox, a book cover for "LEAN IN" by Sheryl Sandberg, and the title "Lean in : women, work, and the will to lead" highlighted with a red box. The author is listed as "Sheryl Sandberg with Nell Scovell." and the publisher as "New York : Alfred A. Knopf, 2013". Below the title, it says "Available at Book Collection (HD6054.3 .S265 2013) >". On the left side, there are options to "Refine results", "Sort by Relevance", "Availability", and "Collection".

Linked Data in Discovery Interface of an Alma Institution - Example 2

- Now we have a link to the “Knowledge Card”

Knowledge Card

TOP

GET IT IN LIBRARY

DETAILS

VIRTUAL BROWSE

SEND TO

LINKS

KNOWLEDGE CARD

Found 2 knowledge card(s) associated with this title in Wikidata

LEAN IN

Sheryl Sandberg

Lean in : Sheryl Sandberg with Nell Scovell
1st ed. New York : Alfred A. Knopf, 2013.

Sheryl Sandberg W Wikidata
雪莉·桑德伯格 W Wikidata
American technology executive, activist, and author

lcnaf:n2012069729; viaf:298171473; wd:Q234653

cards titles

Link to Wikidata

Link to LC Name Authority record

Link to viaf



Extracting Linked Data from Alma via APIs

Extracting Linked Data from Alma via APIs

- Linked data can be extracted from Alma via APIs and via publishing
- After extracting it can be used in discovery for aiding the user.
- To use the APIs for linked data a Linked Data integration profile must be set active.

Integration Type : Linked Data ▾

	↕ Name	▲ Code	↕ Description	↕ Integration Type	Updated By	Status Date	
1	Linked Data Integration profile	LD	-	Linked Data	LauraJ613 	14/05/2018	

Extracting Linked Data from Alma via APIs

- The syntax to use APIs is as follows:
- For format JSONLD
 - <https://open-na.hosted.exlibrisgroup.com/alma/{Institution Code}/bibs/{MMSID}.jsonld>
- For format BIBFRAME
 - <https://open-na.hosted.exlibrisgroup.com/alma/{Institution Code}/bf/entity/instance/{MMSID}>
- For format RDA
 - <https://open-na.hosted.exlibrisgroup.com/alma/{Institution Code}/rda/entity/manifestation/{MMSID}>



Extracting Linked Data from Alma via APIs – Example 1

Extracting Linked Data from Alma via APIs – Example 1

- Our first example will be MMSID 99438286700121, title 挺身而進：女性、工作、抱負 / 雪柔.桑德伯格著；洪慧芳譯 = Lean In : women, work and the will to lead



挺身而進：女性、工作、抱負 / 雪柔.桑德伯格著；洪慧芳譯 = Lean In : women, work and the will to lead [Edit Record](#) [Holdings](#) [***](#)

/ Sheryl Sandberg

Book By Sandberg, Sheryl. (臺北市：天下雜誌, 2018)

Subject: 職場成功法. 女性. Taiwan Linked Data Example

Series: 天下財經 ; 352

Modification Date: 25/02/2022 04:05

Creation Date: 24/02/2022 08:37

Edition: 第三版

● [Physical \(1\)](#) [Other details](#)

Language: Chinese

ISBN: 4717211023808 and others

MMS ID: 99438286700121

Extracting Linked Data from Alma via APIs – Example 1

- The syntax for MMSID 99438286700121 in institution EXLDEV1_INST-eu is as follows:
- For format JSONLD
 - https://open-na.hosted.exlibrisgroup.com/alma/EXLDEV1_INST-eu/bibs/99438286700121.jsonld
- For format BIBFRAME
 - https://open-na.hosted.exlibrisgroup.com/alma/EXLDEV1_INST-eu/bf/entity/instance/99438286700121
- For format RDA
 - https://open-na.hosted.exlibrisgroup.com/alma/EXLDEV1_INST-eu/rda/entity/manifestation/99438286700121

Extracting Linked Data from Alma via APIs – Example 1

- Here is a partial screenshot of MMSID 99438286700121

084	__ a 494.35 2 ncsct
097	__ a 3905474 b c4t d 494.35 e 7722 2018 6 EBB
100	1_ a Sandberg, Sheryl. 4 aut 1 http://www.wikidata.org/entity/Q234653
	1_ a 桑德伯格 c (Sandberg, Sheryl) 4 aut
240	10 a Lean In. 中文
240	10 t Lean In : women, work and the will to lead. 中文
245	10 a 挺身而進 : b 女性、工作、抱負 / c 雪柔·桑德伯格著 ; 洪慧芳譯 = Lean In : women, work and the will to lead / Sheryl Sandberg
246	10 a 女性、工作、抱負
250	__ a 第三版
260	__ a 臺北市 : b 天下雜誌, c 2018
300	__ a 302面 ; c 23公分
490	0_ a 天下財經 ; v 352
500	__ a 本書譯自: Lean In : women, work and the will to lead.
650	_7 a 職場成功法. 2 lcstt
650	_7 a 女性. 2 lcstt

Extracting Linked Data from Alma via APIs – Example 1

- Here is the JSONLD part 1

← → ↻ 🏠 https://open-na.hosted.exlibrisgroup.com/alma/EXLDEV1_INST-eu/bibs/99438286700121.jsonld

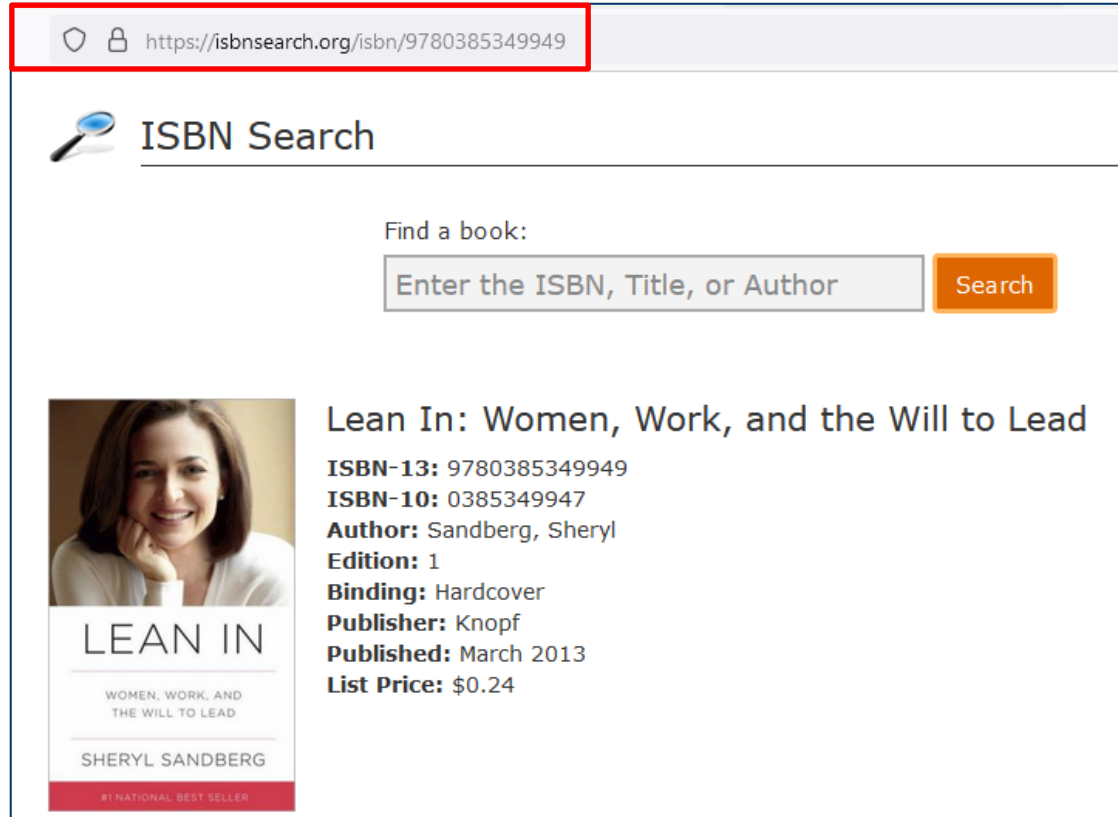
JSON Raw Data Headers

Save Copy Collapse All Expand All Filter JSON

```
date: "2018"
note: "本書譯自: Lean In : women, work and the will to lead."
▼ identifier:
  ▼ 0:
    @type: "bibo:isbn13"
    @id: "http://www.isbnsearch.org/isbn/9780385349949"
    label: "9780385349949"
    value: "9780385349949"
  ▼ 1:
    @type: "bibo:isbn13"
    @id: "http://www.isbnsearch.org/isbn/4717211023808"
    label: "4717211023808"
    value: "4717211023808"
```

On the next slide we will look at this URL from www.isbnsearch.org

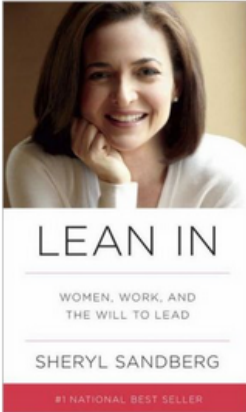
Extracting Linked Data from Alma via APIs – Example 1



The screenshot shows a web browser window with the URL <https://isbnsearch.org/isbn/9780385349949> highlighted in red. The page title is "ISBN Search" with a magnifying glass icon. Below the title is a search form with the text "Find a book:" and a search button labeled "Search". The search input field contains the text "Enter the ISBN, Title, or Author". Below the search form, the search results for the book "Lean In: Women, Work, and the Will to Lead" by Sheryl Sandberg are displayed. The book cover is shown on the left, and the metadata is listed on the right.

Find a book:

Enter the ISBN, Title, or Author

 **Lean In: Women, Work, and the Will to Lead**

ISBN-13: 9780385349949
ISBN-10: 0385349947
Author: Sandberg, Sheryl
Edition: 1
Binding: Hardcover
Publisher: Knopf
Published: March 2013
List Price: \$0.24

Extracting Linked Data from Alma via APIs – Example 1

- Here is the JSONLD part 2

On the next slide we will look at this URL from id.loc.gov

```
JSON Raw Data Headers
Save Copy Collapse All Expand All Filter JSON
▼ creator:
  ▼ 0:
    @id: "http://id.loc.gov/authorities/names/n2012069729"
    label: "Sandberg, Sheryl."
    sameAs: "http://viaf.org/viaf/sourceID/LC|n2012069729"
  ▼ 1:
    @id: "http://id.loc.gov/authorities/names/n2012069729"
    label: "Sandberg, Sheryl."
    sameAs: "http://viaf.org/viaf/sourceID/LC|n2012069729"
  @type: "Book"
```

Extracting Linked Data from Alma via APIs – Example 1

https://id.loc.gov/authorities/names/n2012069729.html

LIBRARY LIBRARY OF CONGRESS

Everything Search Loc.gov

The Library of Congress > Linked Data Service > LC Name Authority File (LCNAF)

Sandberg, Sheryl

URI(s)
- <http://id.loc.gov/authorities/names/n2012069729>

Instance Of
- MADS/RDF PersonalName
- MADS/RDF Authority
- SKOS Concept

Scheme Membership(s)
- Library of Congress Name Authority File

Collection Membership(s)
- Names Collection - Authorized Headings
- LC Names Collection - General Collection

Fuller Name
- Sheryl Kara

Subject Of Works
3 resources < Page 1 of 1 >
Foster, Dawn, Lean out ^
Pettinella, Amy. Sheryl Sandberg COO of Facebook and founder of the lean in movement
Sandberg, Sheryl. Lean in women, work, and the will to lead v

Contributor To Works
7 resources < Page 1 of 1 >
Lewis, Mike (Michael C.), When to jump if the job you have isn't the life you want ^
Lewis, Mike (Michael C.), When to jump if the job

Extracting Linked Data from Alma via APIs – Example 1

- Here is the JSONLD part 3

```
▼ subject:
  ▼ 0:
    @id: "https://ld.ncl.edu.tw/subject/88534"
    label: "女性."
  ▼ 1:
    @id: "https://ld.ncl.edu.tw/subject/88534"
    label: "女性."
  ▼ 2:
    label: "女性."
  ▼ 3:
    @id: "https://ld.ncl.edu.tw/subject/104027"
    label: "職場成功法."
  edition: "第三版"
  language: "http://id.loc.gov/vocabulary/iso639-2/chi"
  title: "挺身而出 : 女性、工作、抱負 /"
```

On the next slide we will look at this URL from Id.ncl.edu **Linked Open Data Taiwan**

Extracting Linked Data from Alma via APIs – Example 1

中文 | English

臺大圖書館 國家圖書館

LDT@LIBRARY
Linked Open Data Taiwan @ Library

連結資源服務 下載 登入

女性

URI(s):
- <https://id.ncl.edu.tw/subject/88534>

Instance Of:
- [MADS/RDF Authority](#)
- [MADS/RDF Topic](#)

Topic name:
- 女性

Variants:
- 婦女

Classification
- 544.5

Alternate Formats:
- [RDFXML](#)
- [Turtle](#)

Linked Open Data Taiwan



Extracting Linked Data from Alma via APIs – Example 2

Extracting Linked Data from Alma via APIs – Example 2

- Our second example will be MMSID 99438987800121, title “Better data visualizations : a guide for scholars, researchers, and wonks / Jonathan Schwabish”.

1



Better data visualizations : a guide for scholars, researchers, and wonks / Jonathan Schwabish.

[Edit Record](#)

[Holdings](#)



Book {Book - Physical} text; unmediated; volume By Schwabish, Jonathan A., (New York : Columbia University Press, [2021])

Language: English

MMS ID:

ISBN: 9780231193108 and others

99438987800121

Subject: Information visualization. Visual analytics.

Record number:
(OCoLC)1153011198

Creation Date: 10/03/2022 12:58

Modification Date: 10/03/2022 12:58

Physical (1)

Electronic

Digital

Other details

Extracting Linked Data from Alma via APIs – Example 2

- The syntax for MMSID 99438987800121 in institution EXLDEV1_INST-eu is as follows:
- For format JSONLD
 - https://open-na.hosted.exlibrisgroup.com/alma/EXLDEV1_INST-eu/bibs/99438987800121.jsonld
- For format BIBFRAME
 - https://open-na.hosted.exlibrisgroup.com/alma/EXLDEV1_INST-eu/bf/entity/instance/99438987800121
- For format RDA
 - https://open-na.hosted.exlibrisgroup.com/alma/EXLDEV1_INST-eu/rda/entity/manifestation/99438987800121

Extracting Linked Data from Alma via APIs – Example 2

- Here is a partial screenshot of MMSID 99438987800121

050	00 a QA76.9.I52 b S393 2021
082	00 a 001.4/226 2 23
100	1_ a Schwabish, Jonathan A., e author.
245	10 a Better data visualizations : b a guide for scholars, researchers, and wonks / c Jonathan Schwabish.
264	_1 a New York : b Columbia University Press, c [2021]
300	__ a xi, 449 pages : b illustrations (chiefly color), maps (chiefly color) ; c 24 cm
336	__ a text b txt 2 rdacontent
337	__ a unmediated b n 2 rdamedia
338	__ a volume b nc 2 rdacarrier
504	__ a Includes bibliographical references (pages [413]-429) and index.

Extracting Linked Data from Alma via APIs – Example 2

- Here is (part of) the JSONLD

```
▼ identifier:  
  ▼ 0:  
    @type: "bibo:isbn10"  
    @id: "http://www.isbnsearch.org/isbn/0231193114"  
    label: "0231193114"  
    value: "0231193114"  
  ▼ 1:  
    @type: "bibo:isbn13"  
    @id: "http://www.isbnsearch.org/isbn/9780231193115"  
    label: "9780231193115"  
    value: "9780231193115"  
  ▼ 2:  
    @type: "bibo:isbn10"  
    @id: "http://www.isbnsearch.org/isbn/0231193106"  
    label: "0231193106"  
    value: "0231193106"
```

ISBN Search

Find a book:

Better Data Visualizations: A Guide for Scholars, Researchers, and Wonks
ISBN-13: 9780231193115
ISBN-10: 0231193114
Author: Schwabish, Jonathan
Binding: Paperback
Publisher: Columbia University Press
Published: December 2021

Extracting Linked Data from Alma via APIs – Example 2

- Here is (another part of) the JSONLD

```
▼ subject:  
  ▼ 0:  
    @id: "http://id.worldcat.org/fast/fst01743387"  
    label: "Visual analytics."  
  ▼ 1:  
    @id: "http://id.worldcat.org/fast/fst00973185"  
    label: "Information visualization."  
  ▼ 2:  
    ▼ @id: "http://id.loc.gov/authorities/subjects/sh2007004134"  
      label: "Visual analytics."  
  ▼ 3:  
    ▼ @id: "http://id.loc.gov/authorities/subjects/sh2002000243"  
      label: "Information visualization."
```

FAST Linked Data
FAST Authority File

Information visualization

INFORMATION ABOUT THE RESOURCE

SCHEMA.ORG NAME(S):

CONTROLLED HEADING IDENTIFIER:
<http://id.worldcat.org/fast/973185>

IDENTIFIER:
973185

TYPE:
[Intangible](#)

SKOS PREFERRED LABEL:
Information visualization

SKOS ALTERNATIVE LABEL:
Data visualization
Visualization of information

IS IN SKOS SCHEME:
<http://id.worldcat.org/fast/ontology/1.0/#fast>

Extracting Linked Data from Alma via APIs – Example 2

- Here is (part of) the BIBRAME

```
<bf:contribution>
<bf:Contribution>
  <rdf:type rdf:resource="http://id.loc.gov/ontologies/bflc/PrimaryContribution"/>
<bf:agent>
  <bf:Agent rdf:about="http://id.loc.gov/authorities/names/n2002090315">
    <rdf:type rdf:resource="http://id.loc.gov/ontologies/bibframe/Person"/>
    <bflc:name00MatchKey>Schwabish, Jonathan A.</bflc:name00MatchKey>
    <bflc:primaryContributorName00MatchKey>Schwabish, Jonathan A.</bflc:primaryContributorName00MatchKey>
    <bflc:name00MarcKey>
      1001 $aSchwabish, Jonathan A.,$author.$0http://id.loc.gov/authorities/names/n2002090315$0http://viaf.org/loc/names/n2002090315
    </bflc:name00MarcKey>
    <rdfs:label>Schwabish, Jonathan A.</rdfs:label>
```

LIBRARY LIBRARY OF CONGRESS

The Library of Congress > Linked Data Service > LC Name Authority File (L

Schwabish, Jonathan A.

URI(s)

- <http://id.loc.gov/authorities/names/n2002090315>

Instance Of

- MADS/RDF PersonalName
- MADS/RDF Authority
- SKOS Concept ↗

Scheme Membership(s)

- Library of Congress Name Authority File


Collection Membership(s)

- Names Collection - Authorized Headings
- LC Names Collection - General Collection

Extracting Linked Data from Alma via APIs – Example 2

- Here is (part of) the RDA

```
–<rdaw:titleOfWork>  
  Better data visualizations : a guide for scholars, researchers, and wonks /  
</rdaw:titleOfWork>  
<rdaw:SubjectRelationshipOf rdf:resource="http://id.worldcat.org/fast/fst01743387"/>  
<rdaw:SubjectRelationshipOf rdf:resource="http://id.worldcat.org/fast/fst00973185"/>  
<rdaw:SubjectRelationshipOf rdf:resource="http://id.loc.gov/authorities/subjects/sh2007004134"/>  
<rdaw:SubjectRelationshipOf rdf:resource="http://id.loc.gov/authorities/subjects/sh2002000243"/>  
<rdaw:creator rdf:resource="http://id.loc.gov/authorities/names/n2002090315"/>
```



FAST Authority File

Visual analytics

INFORMATION ABOUT THE RESOURCE

SCHEMA.ORG NAME(S):

CONTROLLED HEADING IDENTIFIER:
<http://id.worldcat.org/fast/1743387>

IDENTIFIER:
1743387

TYPE:
[Intangible](#)

SKOS PREFERRED LABEL:
Visual analytics



Extracting Linked Data from Alma via general publishing profile

Extracting Linked Data from Alma via general publishing profile

- Here is the Data Enrichment tab of the General Publishing profile

The screenshot shows a web interface for 'Publishing Profile Details'. At the top, there is a back arrow and the title 'Publishing Profile Details'. Below this, there are two tabs: 'Profile Details' and 'Data Enrichment'. The 'Data Enrichment' tab is highlighted with a red rectangular box. Underneath the tabs, there is a section titled 'Bibliographic Normalization'. This section contains two rows of settings. The first row is 'Correct the data using normalization rules', which has an empty text input field to its right. The second row is 'Linked Data enrichment', which has a checked checkbox (a blue square with a white checkmark) to its right. A red arrow points from the right towards this checked checkbox.

Extracting Linked Data from Alma via general publishing profile

- In the example here we are publishing to format MARC21 with Linked Data.

Content

Set name * **99438987800121 and 9943828670012** X ☰ ↺

Additional set name **Select from a list** ☰

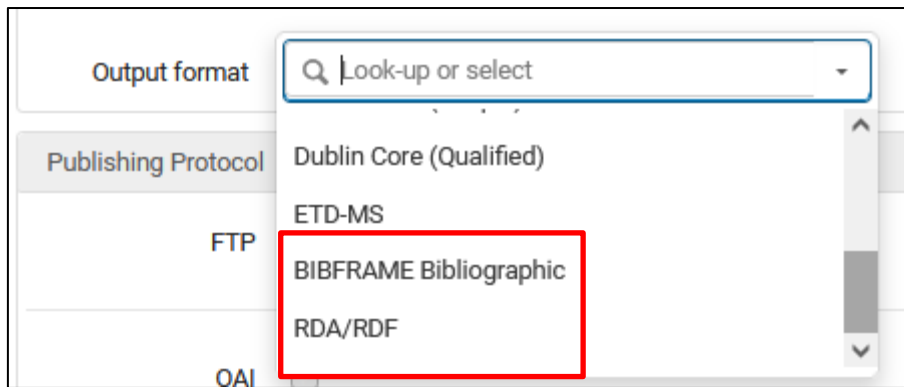
Filter out the data using ▼ ⓘ

Publish on: **Bibliographic level**

Output format **MARC21 Bibliographic**

Extracting Linked Data from Alma via general publishing profile

- We could have published to BIBFRAME or RDA



Extracting Linked Data from Alma via general publishing profile

- The records get published with the linked data (part 1 of 5)
- Example 1 MMSID 99438286700121, title 挺身而進：女性、工作、抱負 / 雪柔. 桑德伯格著；洪慧芳譯 = Lean In : women, work and the will to lead

```
<datafield tag="084" ind1=" " ind2=" " >
  <subfield code="a">494.35</subfield>
  <subfield code="2">ncsclt</subfield>
  <subfield code="0">http://ld.ncl.edu.tw/classification/145957</subfield>
</datafield>
```

Linked Open Data Taiwan

Extracting Linked Data from Alma via general publishing profile

- The records get published with the linked data (part 2 of 5)

```
<datafield tag="100" ind1="1" ind2=" " >
  <subfield code="6">880-01</subfield>
  <subfield code="a">Sandberg, Sheryl.</subfield>
  <subfield code="4">aut</subfield>
  <subfield code="1">http://www.wikidata.org/entity/Q234653</subfield>
  <subfield code="0">http://id.loc.gov/authorities/names/n2012069729</subfield>
  <subfield code="0">http://viaf.org/viaf/sourceID/LC|n2012069729</subfield>
</datafield>
```

Extracting Linked Data from Alma via general publishing profile

- The records get published with the linked data (part 3 of 5)

```
<datafield tag="650" ind1=" " ind2="7">
  <subfield code="a">職場成功法.</subfield>
  <subfield code="2">lcstt</subfield>
  <subfield code="0">https://ld.ncl.edu.tw/subject/104027</subfield>
</datafield>
<datafield tag="650" ind1=" " ind2="7">
  <subfield code="a">女性.</subfield>
  <subfield code="2">lcstt</subfield>
  <subfield code="0">https://ld.ncl.edu.tw/subject/88534</subfield>
</datafield>
```

Linked Open Data Taiwan

Extracting Linked Data from Alma via general publishing profile

- The records get published with the linked data (part 4 of 5)
- Example 2 MMSID 99438987800121, title “Better data visualizations : a guide for scholars, researchers, and wonks / Jonathan Schwabish”.

```
<datafield tag="100" ind1="1" ind2=" " >
  <subfield code="a">Schwabish, Jonathan A.,</subfield>
  <subfield code="e">author.</subfield>
  <subfield code="0">http://id.loc.gov/authorities/names/n2002090315</subfield>
  <subfield code="0">http://viaf.org/viaf/sourceID/LC|n2002090315</subfield>
</datafield>
```

Extracting Linked Data from Alma via general publishing profile

- The records get published with the linked data (part 5 of 5)

```
<datafield tag="650" ind1=" " ind2="0">
  <subfield code="a">Information visualization.</subfield>
  <subfield code="0">http://id.loc.gov/authorities/subjects/sh2002000243</subfield>
</datafield>
<datafield tag="650" ind1=" " ind2="0">
  <subfield code="a">Visual analytics.</subfield>
  <subfield code="0">http://id.worldcat.org/fast/fst01743387</subfield>
</datafield>
<datafield tag="650" ind1=" " ind2="7">
  <subfield code="a">Information visualization.</subfield>
  <subfield code="2">fast</subfield>
  <subfield code="0">(OCoLC) fst00973185</subfield>
  <subfield code="0">http://id.loc.gov/authorities/subjects/sh2002000243</subfield>
</datafield>
<datafield tag="650" ind1=" " ind2="7">
  <subfield code="a">Visual analytics.</subfield>
  <subfield code="2">fast</subfield>
  <subfield code="0">(OCoLC) fst01743387</subfield>
  <subfield code="0">http://id.worldcat.org/fast/fst01743387</subfield>
</datafield>
```



Viewing the Linked Data in Alma

Viewing the Linked Data in Alma

- The linked data can be viewed in Alma from a variety of places:
 - The repository search results page
 - The “record view”
 - The metadata editor

Viewing the Linked Data in Alma

- From the repository search results

1  **挺身而進：女性、工作、抱負 / 雪柔·桑德伯格著；洪慧芳譯 = Lean In : women, work and the will to lead / Sheryl Sandberg** [Edit Record](#) [Holdings](#) [...](#)

Book {Book - Physical} By Sandberg, Sheryl. (臺北市：天下雜誌, 2018) **Language:** Chinese **MMS ID:** 99438286700121

Subject: 職場成功法. 女性. Taiwan Linked Data Example **ISBN:** 4717211023808 and others

Series: 天下財經 ; 352

Creation Date: 24/02/2022 08:37

Modification Date: 22/03/2023 04:06


Edition: 第三版

▼ ● **Physical (1)** [Electronic](#) [Digital](#) [Other details](#)

- Items
- Order
- Request
- Resource sharing request
- Document Delivery
- Add to reading list
- Push to MDE
- Add Holdings
- Add to collection
- Add Reminder
- Add Representation
- Linked Data**
- Display in Discovery

Viewing the Linked Data in Alma

- From the repository search results

1  **挺身而進：女性、工作、抱負 / 雪柔.桑德伯格著 ; 洪慧芳譯 = Lean In : women, work and the will to lead / Sheryl Sandberg** [Edit Record](#) [Holdings](#)

Book {Book - Physical} By Sandberg, Sheryl. (臺北市：天下雜誌, 2018)
Language: Chinese
MMS ID: 99438286700121
Subject: 職場成功法. 女性. Taiwan Linked Data Example
ISBN: 4717211023808 and others
Series: 天下財經 ; 352
Creation Date: 24/02/2022 08:37
Modification Date: 22/03/2023 04:06
Edition: 第三版

∨ ● **Physical (1)** [Electronic](#) [Digital](#) [Other details](#)

Linked Data

Context	https://open-na.hosted.exlibrisgroup.com/alma/contexts/bib	
bibo:isbn13	http://www.isbnsearch.org/isbn/9780385349949	9780385349949
bibo:isbn13	http://www.isbnsearch.org/isbn/4717211023808	4717211023808
dct:creator	http://id.loc.gov/authorities/names/n2012069729	Sandberg, Sheryl.
dct:creator	http://viaf.org/viaf/sourceID/LC/n2012069729	Sandberg, Sheryl.
dct:subject	https://ld.ncl.edu.tw/subject/88534	女性.
dct:subject	https://ld.ncl.edu.tw/subject/104027	職場成功法.
dct:language	http://id.loc.gov/vocabulary/iso639-2/chi	---
JSONLD version	https://open-na.hosted.exlibrisgroup.com/alma/EXLDEV1_INST/bibs/99438286700121	---

Linked Open Data Taiwan

Viewing the Linked Data in Alma


- From the repository search results

All Titles (1 - 1 of 1) | 99438987800121

Push Selected to

Institution Community

Select All Sort by: Rank Secondary Sort by: Rank 0 rows selected

1		Better data visualizations : a guide for scholars, researchers, and wonks / Jonathan Schwabish Book {Book - Physical} text; unmediated; volume By Schwabish, Jonathan A., (New York : Columbia University Press, [2021]) Subject: Information visualization. Visual analytics. Creation Date: 10/03/2022 12:58 Modification Date: 10/03/2022 12:58	Language: English ISBN: 9780231193108 and others Record number: (OCoLC)1153011198	MMS ID: 994389878
---	--	---	--	--------------------------


Physical (1) Electronic Digital Other details

More actions

- Items
- Order
- Request
- Resource sharing request
- Document Delivery
- Add to reading list
- Push to MDE
- Add Holdings
- Add to collection
- Add Reminder
- Add Representation
- Linked Data
- Display in Discovery

Viewing the Linked Data in Alma

- From the repository search results



Better data visualizations : a guide for scholars, researchers, and wonks / Jonathan Schwabish. [Edit Record](#) [Holdings](#) [...](#)

Book (Book - Physical) text; unmediated; volume By Schwabish, Jonathan A., (New York : Columbia University Press, [2021])

Language: English **MMS ID:** 99438987800121

ISBN: 9780231193108 and others

Subject: Information visualization. Visual analytics.

Record number: (OCoLC)1153011198 [v](#)

Creation Date: 10/03/2022 12:58

Modification Date: 10/03/2022 12:58

Physical (1) Electronic Digital [Other details](#)

Linked Data [X](#)

Context	https://open-na.hosted.exlibrisgroup.com/alma/contexts/bib	
bibo:isbn10	http://www.isbnsearch.org/isbn/0231193114	0231193114
bibo:isbn13	http://www.isbnsearch.org/isbn/9780231193115	9780231193115
bibo:isbn10	http://www.isbnsearch.org/isbn/0231193106	0231193106
bibo:isbn13	http://www.isbnsearch.org/isbn/9780231193108	9780231193108
bibo:oclcnum	http://www.worldcat.org/oclc/1153011198	(OCoLC)on1153011198
bibo:oclcnum	http://www.worldcat.org/oclc/1153011198	(OCoLC)1153011198
bibo:oclcnum	http://www.worldcat.org/oclc/1153044882	(OCoLC)1153044882
dct:creator	http://id.loc.gov/authorities/names/n2002090315	Schwabish, Jonathan A.

Viewing the Linked Data in Alma

We can also see the “Linked Data” in the Metadata Editor

The screenshot displays the Alma Metadata Editor interface. At the top, there is a navigation bar with options: Save, New, Record Actions, Editing Actions, Add Inventory, View Related Data (highlighted with a red box), Order, and Search & Browse. Below the navigation bar, the main content area shows a list of metadata fields for a record. The record title is "挺身而進：女性、工作、抱負 / 雪柔·桑德伯格著；洪慧芳譯 = Lean In : women, work and the will to lead (21)". The fields are listed as follows:

- Level [60]: [99] Senior librarian and close associates (Record)
- 020 \$\$a 4717211023808 \$\$q (平裝)
- 020 \$\$a 9780385349949
- 040 \$\$a NTU \$\$b chi \$\$c NTU \$\$e rda
- 041 1 \$\$a chi \$\$h eng
- 066 \$\$a \$1
- 084 \$\$a 494.35 \$\$2 ncsclt
- 097 \$\$a 3905474 \$\$b c4t \$\$d 494.35 \$\$e 7722 2018 \$\$6 EBB
- 100 1 \$\$a Sandberg, Sheryl. \$\$4 aut \$\$1 http://www.wikidata.org/entity/Q234653
- 1 \$\$a 桑德伯格 \$\$c (Sandberg, Sheryl) \$\$4 aut
- 240 1 0 \$\$a Lean In. \$\$l 中文
- 240 1 0 \$\$t Lean In : women, work and the will to lead. \$\$l 中文
- 245 1 0 \$\$a 挺身而進： \$\$b 女性、工作、抱負 / \$\$c 雪柔·桑德伯格著；洪慧芳譯 = Lean In : women, work and the will to lead / Sheryl Sandberg
- 246 1 0 \$\$a 女性、工作、抱負
- 250 \$\$a 第三版
- 260 \$\$a 臺北市： \$\$b 天下雜誌, \$\$c 2018
- 300 \$\$a 302面； \$\$c 23公分

The 'View Related Data' dropdown menu is open, showing the following options:

- View Collections
- View In Search (Ctrl+Alt+V)
- View Inventory (Ctrl+I)
- View Linked Data (Ctrl+Alt+L) (highlighted with a red box)
- View Notes
- View Orders
- View Related Bibliographic Records
- View Versions
- View versions of original record

Viewing the Linked Data in Alma

We can also see the “Linked Data” in the Metadata Editor

The screenshot shows the Alma Metadata Editor interface. The main record list on the left includes fields like LDR, 001, 005, 008, 020, 040, 041, 066, 084, 097, 100, 1, 240, 245, 246, 250, 260, 300, 490, 500, and 660. A 'Linked Data' tab is open on the right, displaying a table of linked data. A red box highlights the 'Linked Data' tab and the table. A blue box highlights the record text, with a red arrow pointing to the 'dct:subject' entry in the table.

Vocabulary field	Linked data URI	Label
Context	https://open-na.hosted.exlibrisgroup.com/alma/contexts/bib	
bibo:isbn13	http://www.isbnsearch.org/isbn/9780385349949	9780385349949
bibo:isbn13	http://www.isbnsearch.org/isbn/4717211023808	4717211023808
dct:creator	http://id.loc.gov/authorities/names/n2012069729	Sandberg, Sheryl.
dct:creator	http://viaf.org/viaf/sourceID/LC/n2012069729	Sandberg, Sheryl.
dct:subject	https://id.ncl.edu.tw/subject/88534	女性.
dct:subject	https://id.ncl.edu.tw/subject/104027	職場成功法.
dct:language	http://id.loc.gov/vocabulary/iso639-2/chi	---
JSONLD version	https://open-na.hosted.exlibrisgroup.com/alma/EXLDEV1_INST/bibs/99438286700121	---

Viewing the Linked Data in Alma

We can also see the “Linked Data” in the Metadata Editor

The screenshot displays the Alma Metadata Editor interface. At the top, there is a navigation bar with buttons for 'Save', 'New', 'Record Acti...', 'Editing Acti...', 'Add Inventory', 'View Relate...', 'Order', 'Search & Br...', and 'Old Editor'. Below this, a header section contains the text 'Better data visualizations : a guide for scholars, researchers, and works / Jonathan...' and a search bar with 'Level [60]: [60] Senior cataloger' and buttons for 'Record', 'MARC21 Bib', and '10 - Full...'. The main area shows a list of records with columns for 'LDR' and '04223cam#a2200421#i#4500'. The 'View Related' dropdown menu is open, listing options: 'View Collections', 'View In Search (Ctrl+Alt+V)', 'View Inventory (Ctrl+I)', 'View Linked Data (Ctrl+Alt+L)', 'View Notes', 'View Orders', 'View Related Bibliographic Records', 'View Versions', and 'View versions of original record'. The 'View Linked Data' option is highlighted with a red box.

LDR	04223cam#a2200421#i#4500
001	99438987800121
005	20220310125806.0
008	200613s2021####nyuab####b####001#0#eng##
010	\$\$a ##2020017814
019	\$\$a 1153044882
020	\$\$a 9780231193108 \$\$q hardcover
020	\$\$a 0231193106 \$\$q hardcover
020	\$\$a 9780231193115 \$\$q paperback
020	\$\$a 0231193114 \$\$q paperback
020	\$\$z 9780231550154 \$\$q electronic book
035	\$\$a (OCoLC)1153011198 \$\$z (OCoLC)1153044882

Viewing the Linked Data in Alma

We can also see the “Linked Data” in the Metadata Editor

The screenshot shows the Alma Metadata Editor interface. A 'Linked Data' panel is open, displaying a table of linked data. The table has three columns: 'Vocabulary field', 'Linked data URI', and 'Label'. The data is as follows:

Vocabulary field	Linked data URI	Label
Context	https://open-na.hosted.exlibrisgroup.com/alma/contexts/bib	
bibo:isbn10	http://www.isbnsearch.org/isbn/0231193114	0231193114
bibo:isbn13	http://www.isbnsearch.org/isbn/9780231193115	9780231193115
bibo:isbn10	http://www.isbnsearch.org/isbn/0231193106	0231193106
bibo:isbn13	http://www.isbnsearch.org/isbn/9780231193108	9780231193108
bibo:oclcn...	http://www.worldcat.org/oclc/1153011198	(OCoLC)on11...
bibo:oclcn...	http://www.worldcat.org/oclc/1153011198	(OCoLC)1153...

Viewing the Linked Data in Alma

The record in BIBFRAME can be seen in the BIBFRAME tab of the record view

The screenshot shows the 'Record View' interface in Alma. At the top, the record title is displayed: '挺身而進：女性、工作、抱負 / 雪柔·桑德伯格著；洪慧芳譯 = Lean In : women, work and the will to lead / Sheryl Sandberg'. Below the title, there are two tabs: 'MARC' and 'BIBFRAME'. The 'BIBFRAME' tab is selected and highlighted with a red box. The main content area displays XML data for the BIBFRAME record, including elements like <bf:content>, <rdf:type>, <bf:language>, <bf:Language>, <bf:intendedAudience>, <bf:genreForm>, <bf:note>, and <bf:language>.

```
</bf:content>
<rdf:type rdf:resource="http://id.loc.gov/ontologies/bibframe/Monograph"/>
<bf:language>
  <bf:Language rdf:about="http://id.loc.gov/vocabulary/languages/chi"/>
</bf:language>
<bf:intendedAudience>
  <bf:IntendedAudience rdf:about="http://id.loc.gov/vocabulary/maudience/gen">
    <rdfs:label>general</rdfs:label>
  </bf:IntendedAudience>
</bf:intendedAudience>
<bf:genreForm>
  <bf:GenreForm rdf:about="http://id.loc.gov/authorities/genreForms/gf2014026047">
    <rdfs:label>Autobiographies</rdfs:label>
  </bf:GenreForm>
</bf:genreForm>
<bf:note>
  <bf:Note>
    <rdfs:label>Includes translation</rdfs:label>
  </bf:Note>
</bf:note>
<bf:language>
  <bf:Language>
    <rdf:value rdf:resource="http://id.loc.gov/vocabulary/languages/chi"/>
  </bf:Language>
```

Viewing the Linked Data in Alma

The record in BIBFRAME can be seen in the BIBFRAME tab of the record view

Better data visualizations : a guide for scholars, researchers, and wonks / Jonathan Schwabish.

MARC **BIBFRAME**

```
<bf:Agent rdf:about="http://id.loc.gov/vocabulary/organizations/dlc"/>
</bf:assigner>
</bf:ClassificationDdc>
</bf:classification>
<bf:contribution>
<bf:Contribution>
<rdf:type rdf:resource="http://id.loc.gov/ontologies/bflc/PrimaryContribution"/>
<bf:agent>
<bf:Agent rdf:about="http://id.loc.gov/authorities/names/n2002090315">
<rdf:type rdf:resource="http://id.loc.gov/ontologies/bibframe/Person"/>
<bflc:name00MatchKey>Schwabish, Jonathan A.</bflc:name00MatchKey>
<bflc:primaryContributorName00MatchKey>Schwabish, Jonathan A.</bflc:primaryContributorName00MatchKey>
<bflc:name00MarcKey>1001 $aSchwabish, Jonathan A.,$author.$0http://id.loc.gov/authorities/names/n2002090315$0http://viaf.org/viaf/sourceID/LC|n2002090315</bflc:name00MarcKey>
<rdfs:label>Schwabish, Jonathan A.</rdfs:label>
<bf:identifiedBy>
<bf:Identifier>
<rdf:value rdf:resource="http://viaf.org/viaf/sourceID/LC|n2002090315"/>
```



Thank you!

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