

# Unlocking Library Data for the Web: BIBFRAME, Linked Data and the LibHub Initiative

**April 29, 2016**

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**Rick Newell, OCLC**



**STRONGER  
TOGETHER**

2016 WLA Conference April 27-29  
The Historic Davenport Hotel, Spokane, WA

# BIBFRAME Early Experimenters Group

- Library of Congress
- British Library
- Deutsche Nationalbibliothek
- George Washington University
- National Library of Medicine
- OCLC
- Princeton University
- In 2012, drafted BIBFRAME vocabulary

# Schema.org at OCLC: timeline

- 2011: OCLC researchers began experimenting
- 2012: Schema.org metadata elements expressed as linked data on 300 million bib records from WorldCat.org
- 2012-2013: LC and OCLC algorithmically generated BIBFRAME descriptions from millions of MARC records
- 2013: Position paper: *The Relationship between BIBFRAME and OCLC's Linked-Data Model of Bibliographic Description: A Working Paper*

# Schema.org at OCLC: timeline since 2013

- Refined technical infrastructure and data architecture
- Linked data in WorldCat.org upgraded
- Linked data models of FAST and VIAF redesigned
- First draft of WorldCat Works published

# What is schema.org?

- Set of schemas for structured data markup on web pages
- Initiative from Bing, Google, Yahoo, Yandex in 2011
- Web crawlers can recognize this metadata
- Not library-specific
- OCLC proposed “library” extensions to schema.org
- Schema.org markup (with library extensions) is available in WorldCat.org

# Linked data in WorldCat.org

[www.worldcat.org](http://www.worldcat.org)



## Find items in libraries near you

2 billion items available here through a library

Everything

Books

DVDs

CDs

Articles

978-06796-42954



Search everything

[Advanced search](#) | [Find a Library](#)

WorldCat connects you to the collections and services of more than 10,000 libraries worldwide

# Linked data in WorldCat.org

## Linked Data

[More info about Linked Data](#)

### Primary Entity

```
<http://www.worldcat.org/oclc/122346760> # Complete works
  a schema:Book, schema:CreativeWork ;
  library:oclcnum "122346760" ;
  library:placeOfPublication <http://id.loc.gov/vocabulary/countries/nyu> ;
  library:placeOfPublication <http://dbpedia.org/resource/New_York_City> ; # New York
  schema:about <http://viaf.org/viaf/96994048> ; # William Shakespeare
  schema:about <http://id.worldcat.org/fast/1352290> ; # Chronicle plays of William Shakespeare
  schema:about <http://experiment.worldcat.org/entity/work/data/1059198782#Person/shakespeare_william_1564_1616> ; # William Shakespeare
  schema:about <http://id.worldcat.org/fast/1198736> ; # Humorous plays
  schema:about <http://dewey.info/class/822.33/e22/> ;
  schema:about <http://id.worldcat.org/fast/1198648> ; # Criticism and interpretation
  schema:alternateName "William Shakespeare complete works" ;
  schema:bookEdition "Modern Library ed., 1st ed." ;
  schema:bookFormat bgn:PrintBook ;
  schema:contributor <http://viaf.org/viaf/113125213> ; # Eric Rasmussen
  schema:contributor <http://viaf.org/viaf/269451231> ; # Héloïse Sénéchal
  schema:contributor <http://viaf.org/viaf/54169585> ; # Jonathan Bate
  schema:contributor <http://viaf.org/viaf/159099121> ; # Royal Shakespeare Company.
  schema:creator <http://viaf.org/viaf/96994048> ; # William Shakespeare
  schema:datePublished "2007" ;
  schema:description "A scene for Sir Thomas More / introduction, transcription, and modernized text by Eric Rasmussen."@en ;
  schema:description "General introduction / Jonathan Bate -- Shakespeare our perennial contemporary -- Shakespeare's debut : the "Upstart crow Chamberlain's Men -- The ensemble at work -- "Dangerous matter" : politics and religion -- The King's man -- The great feast of languages -- Cult art works, with introductions and "key facts" / Jonathan Bate."@en ;
  schema:description "Poems and sonnets -- Venus and Adonis -- The rape of Lucrece -- To the Queen -- "Let the bird of loudest lay" (also known ;
  schema:description "Comedies -- The tempest -- The two gentlemen of Verona -- The merry wives of Windsor -- Measure for measure -- The com The merchant of Venice -- As you like it -- The taming of the shrew -- All's well that ends well -- Twelfth night, or, What you will -- The winter's tale."@en ;
  schema:description "Tragedies -- The tragedy of Troilus and Cressida -- The tragedy of Coriolanus -- The lamentable tragedy of Titus Andronicus The tragedy of Macbeth -- The tragedy of Hamlet, Prince of Denmark -- The tragedy of King Lear -- The tragedy of Othello, the Moor of Venice -- Th schema:description "Histories -- The life and death of King John -- The life and death of King Richard the Second -- The first part of Henry the Fou containing his death and the coronation of King Henry the Fifth -- The life of Henry the Fifth -- The first part of Henry the Sixth -- The second part of I with the death of the Duke of York -- The tragedy of Richard the Third, with the landing of Earl Richmond and the Battle at Bosworth Field -- The fair schema:description "An authoritative, modernized edition of the complete works of the great Elizabethan dramatist offers the complete texts of ev roles, sources, textual history, glossaries, and other helpful textual notes."@en ;
  schema:description "Plays not in the first Folio -- Pericles, Prince of Tyre, by William Shakespeare and George Wilkins -- The two noble kinsmen, schema:exampleOfWork <http://worldcat.org/entity/work/id/1059198782> ; # Works. 2007
  schema:genre "Drama"@en ;
  schema:genre "Poetry"@en ;
```

# Linked data in WorldCat.org

## Related Entities

<[http://dbpedia.org/resource/New\\_York\\_City](http://dbpedia.org/resource/New_York_City)> # New York

a `schema:Place` ;  
schema:name "New York" ;

.

<<http://dewey.info/class/822.33/e22/>>

a `schema:Intangible` ;

.

<[http://experiment.worldcat.org/entity/work/data/1059198782#Agent/modern\\_library](http://experiment.worldcat.org/entity/work/data/1059198782#Agent/modern_library)> # Modern Library

a `bgn:Agent` ;  
schema:name "Modern Library" ;

.

<[http://experiment.worldcat.org/entity/work/data/1059198782#Person/shakespeare\\_william\\_1564\\_1616](http://experiment.worldcat.org/entity/work/data/1059198782#Person/shakespeare_william_1564_1616)> # William Shakespeare

a `schema:Person` ;  
schema:birthDate "1564" ;  
schema:deathDate "1616" ;  
schema:familyName "Shakespeare" ;  
schema:givenName "William" ;  
schema:name "William Shakespeare" ;

.

<[http://experiment.worldcat.org/entity/work/data/1059198782#Series/the\\_rsc\\_shakespeare](http://experiment.worldcat.org/entity/work/data/1059198782#Series/the_rsc_shakespeare)> # The RSC Shakespeare

a `bgn:PublicationSeries` ;  
schema:hasPart <<http://www.worldcat.org/oclc/122346760>> ; # Complete works  
schema:name "The RSC Shakespeare" ;

.

<<http://id.loc.gov/vocabulary/countries/nyu>>

a `schema:Place` ;  
dcterms:identifier "nyu" ;

.

<<http://id.worldcat.org/fast/1198648>> # Criticism and interpretation

a `schema:Intangible` ;  
schema:name "Criticism and interpretation"@en ;

.

<<http://id.worldcat.org/fast/1198736>> # Humorous plays

a `schema:Intangible` ;  
schema:name "Humorous plays"@en ;

.

<<http://id.worldcat.org/fast/1352290>> # Chronicle plays of William Shakespeare

a `schema:Intangible` ;  
schema:name "Chronicle plays of William Shakespeare"@en ;

.



# VIAF

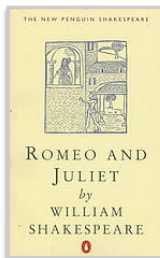
<<http://viaf.org/viaf/96994048>> # William Shakespeare

a [schema:Person](#) ;  
schema:birthDate "1564" ;  
schema:deathDate "1616" ;  
schema:familyName "Shakespeare" ;  
schema:givenName "William" ;  
schema:name "William Shakespeare" ;

## VIAF Virtual International Authority File

### Search

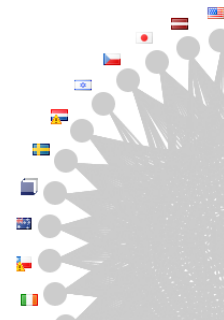
Select Field:  Select Index:  Search Terms:



Shakespeare, William, 1564-1616.   
Shakespeare, William   
William Shakespeare   
Шекспир, У. 1564-1616 Уильям   
شكسپير، وليام   
1564-1616 שיקספיר, ויליאם   
Шекспир, Уильям, 1564-1616   
Shakespeare, W. 1564-1616 William   
1616-1564 شكسپير، وليم   
Shakespeare, William (English playwright and poet, 1564-1616)   
VIAF ID: 96994048 (Personal)  
Permalink: <http://viaf.org/viaf/96994048>

### Preferred Forms

-  200 1  [\\_1 \\$a Shakespeare \\$b \\_ William](#)
-  200 1  [\\_1 \\$a Shakespeare \\$b W. \\$f 1564-1616 \\$g William](#)
-  200 \_ |  [\\_1 \\$a Shakespeare \\$b William \\$f 1564-1616](#)
-  200 1  [\\_1 \\$a Shakespeare \\$b William \\$f 1564-1616](#)
-  100 1  [\\_1 \\$a Shakespeare \\_ William](#)
-  100 1  [\\_1 \\$a Shakespeare \\_ William](#)
- refo 100 1  [\\_1 \\$a Shakespeare \\_ William](#)
-  100 1  [\\_1 \\$a Shakespeare \\_ William \\$d \(1564-1616\).](#)
-  100 1  [\\_1 \\$a Shakespeare \\_ William \\$d \(1564-1616\).](#)



<<http://viaf.org/viaf/54169585>> # Jonathan

a `schema:Person` ;  
`schema:familyName` "Bate" ;  
`schema:givenName` "Jonathan" ;  
`schema:name` "Jonathan Bate" ;

## Search

Select Field:

Select Index:

Search Terms:

isis

### Selected Co-authors

1. Shakespeare, William 1564-1616 (73)
2. Rasmussen, Eric 1960-.... (62)
3. Royal Shakespeare company (20)
4. Jackson, Russell 1949-.... (10)
5. Thornton, Dora (8)
6. Nims, John Frederick 1913-1999 (6)
7. Mehl, Dieter 1933-.... (5)
8. Lamb, Charles 1775-1834 (4)
9. Coupe, Laurence 1950-.... (4)
10. Riordan, Maurice 1953- (3)

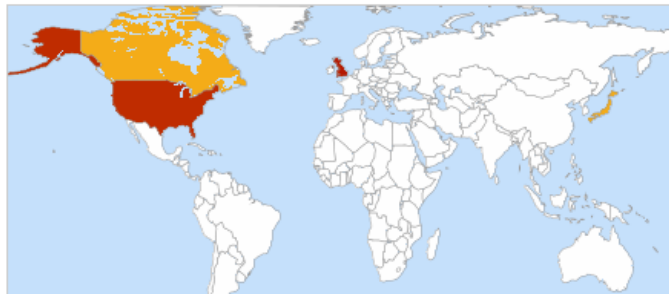


**lemic, biographer, critic, broadcaster, novelist and scholar**  
 ial)  
 if/54169585  
[3X](#)

### Countries of Publication (5)

View the Countries List below for more details.

Map View: World Europe Asia



# VIAF (Jonathan Bate)

### Selected Co-authors

1. Shakespeare, William 1564-1616 (73)
2. Rasmussen, Eric 1960-.... (62)
3. Royal Shakespeare company (20)
4. Jackson, Russell 1949-.... (10)
5. Thornton, Dora (8)
6. Nims, John Frederick 1913-1999 (6)
7. Mehl, Dieter 1933-.... (5)
8. Lamb, Charles 1775-1834 (4)
9. Coupe, Laurence 1950-.... (4)
10. Riordan, Maurice 1953- (3)

### Countries of Publication (5)

View the Countries List below for more details.

Map View: **World** Europe Asia



[View Countries List](#)

### Publication Statistics

#### Publication History



1900 | 2100

#### Identifiers

- 137 unique ISBN's

### Selected Publishers (13)

1. Modern Library (39)
2. Oxford University Press (37)
3. Clarendon press (29)
4. Picador (25)
5. Macmillan (25)
6. Routledge (18)
7. Penguin books (12)
8. Farrar, Straus and Giroux (8)
9. The Arden Shakespeare (5)
10. Thomson Learning (3)
11. 松柏社 (1)
12. Vintage Canada (1)
13. Calouste Gulbenkian Foundation (1)

### About

#### Personal Information

Nationality:  
GB - United Kingdom

Language:  
eng - English

#### External Links

[Wikipedia - https://de.wikipedia.org/wiki/Jonathan\\_Bate](https://de.wikipedia.org/wiki/Jonathan_Bate)  
[Wikipedia - https://en.wikipedia.org/wiki/Jonathan\\_Bate](https://en.wikipedia.org/wiki/Jonathan_Bate)  
[Wikipedia - https://es.wikipedia.org/wiki/Jonathan\\_Bate](https://es.wikipedia.org/wiki/Jonathan_Bate)  
[WorldCat Identities](#)

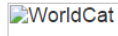
# Linked Data Explorer

## - Linked Data

[More info about Linked Data](#)

### Primary Entity

<<http://www.worldcat.org/oclc/103769424>> # Human competence : engineering worthy performance  
a [schema:CreativeWork](#), [schema:Book](#) ;  
library:oclcnum "103769424" ;  
library:placeOfPublication <[http://experiment.worldcat.org/entity/work/data/405328#Place/san\\_francisco](http://experiment.worldcat.org/entity/work/data/405328#Place/san_francisco)> ; # San Francisco  
library:placeOfPublication <<http://id.loc.gov/vocabulary/countries/cau>> ;  
schema:about <[http://experiment.worldcat.org/entity/work/data/405328#Topic/educational\\_status](http://experiment.worldcat.org/entity/work/data/405328#Topic/educational_status)> ; # Educational Status  
schema:about <<http://experiment.worldcat.org/entity/work/data/405328#Topic/mathematics>> ; # Mathematics



Linked Data Explorer

Turtle

N-Triple

JSON-LD

RDF/XML

HTML

Contact Us

Home

<http://worldcat.org/entity/work/id/405328>

## Human competence engineering worthy performance, tribute edition

Open All

Close All

type

about

author

contributor

creator

genre

name

workExample

# FAST

## FAST Linked Data

FAST Authority File

### SEARCH FAST LINKED DATA

Select Keyword Index:	Keywords:
All Headings	<input type="text"/>

### Goal setting in personnel management

#### INFORMATION ABOUT THE RESOURCE

SCHEMA.ORG NAME(S):

CONTROLLED HEADING IDENTIFIER:

<http://id.worldcat.org/fast/943959>

IDENTIFIER:

943959

TYPE:

[Intangible](#)

SKOS PREFERRED LABEL:

Goal setting in personnel management

SKOS ALTERNATIVE LABEL:

Setting of goals in personnel management

IS IN SKOS SCHEME:

<http://id.worldcat.org/fast/ontology/1.0/#fast>

<http://id.worldcat.org/fast/ontology/1.0/#facet-Topical>

SKOS RELATED:

[Employee motivation](#)

[Incentives in industry](#)

[Management by objectives](#)

[Performance standards](#)

[Personnel management](#)

[Supervision of employees](#)

#### INFORMATION ABOUT THE RESOURCE SOURCE

DOCUMENT:

in Dataset: FAST

▼ about

<http://schema.org/about>

<http://experiment.worldcat.org/entity/work/d>

<http://id.worldcat.org/fast/943959>

#### INFORMATION ABOUT THE RESOURCE SOURCE

DOCUMENT:

in Dataset: [FAST](#)

Primary Topic: <http://id.worldcat.org/fast/943959>

Format: application/rdf+xml

Date Created: 2004-10-24T00:00:00.0

Date Modified: 2009-09-14T16:31:17.0

Language: <http://lexvo.org/id/iso639-3/eng>

Cataloged by agency: OCoLC

Transcribed by agency: OCoLC

DATA SET:

Title: [FAST \(Faceted Application of Subject Terminology\) Data](#)

License:

Description:

Title: [Open Data Commons Attribution License \(ODC-By\) v1.0](#)

Comment: This is OCLC's "local copy" of the ODC-By license

See Also: [Open Data Commons Localization Note](#)

Same As: [Open Data Commons Attribution License \(ODC-By\) v1.0](#)

#### DIFFERENT FORMATS AVAILABLE

RECORD VIEWS

[Generic Document](#)

[MARC-21 \(MARC-21 raw data\)](#)

[RDF/XML \(RDF/XML raw data\)](#)

# WorkExample

▼ workExample

<http://schema.org/workExample>

<http://www.worldcat.org/oclc/894778804>

<http://www.worldcat.org/oclc/71675111>



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## Human competence : engineering worthy performance

Author: [Thomas F Gilbert](#)

Publisher: Washington, D.C. : International Society for Performance Improvement ; Amherst, Mass. : HRD Press, ©1996.

Edition/Format: eBook : Document : English : Tribute ed [View all editions and formats](#)

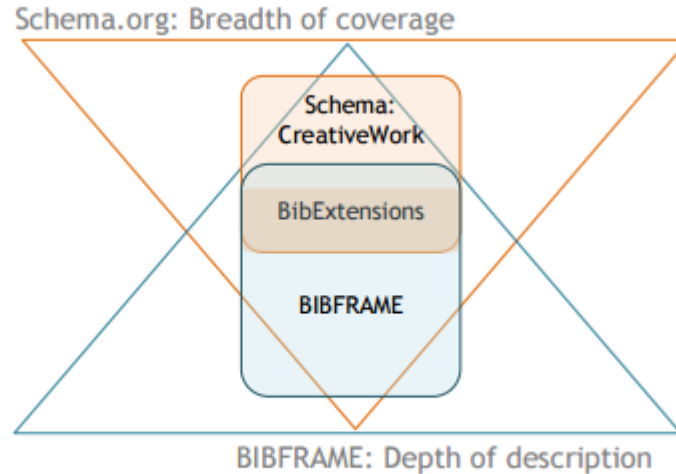
Database: WorldCat

Rating: ☆☆☆☆☆ (not yet rated) [0 with reviews - Be the first.](#)

Subjects: [Performance.](#)  
[Motivation \(Psychology\)](#)  
[Learning, Psychology of.](#)  
[View all subjects](#)

More like this [Similar Items](#)

# Schema.org compared to BIBFRAME



**Figure 4.1. High-level alignment of BIBFRAME and Schema Bib Extend vocabularies**

Source: Godby, C.J. (2013). *The relationship between BIBFRAME and OCLC's linked-data model of bibliographic description: A working paper.*

<http://www.oclc.org/content/dam/research/publications/library/2013/2013-05.pdf>

# BIBFRAME at LC: timeline

- 2009: Linked data access to LC authority files (LCNAF, LCSH, many others)
- 2011: LC launched BIBFRAME initiative; contracted with Zepheira to develop high-level model
- 2012-2013: LC and OCLC algorithmically generated BIBFRAME descriptions from millions of MARC records
- 2013-2015: Publishing additional vocabulary; facilitating implementation and testing

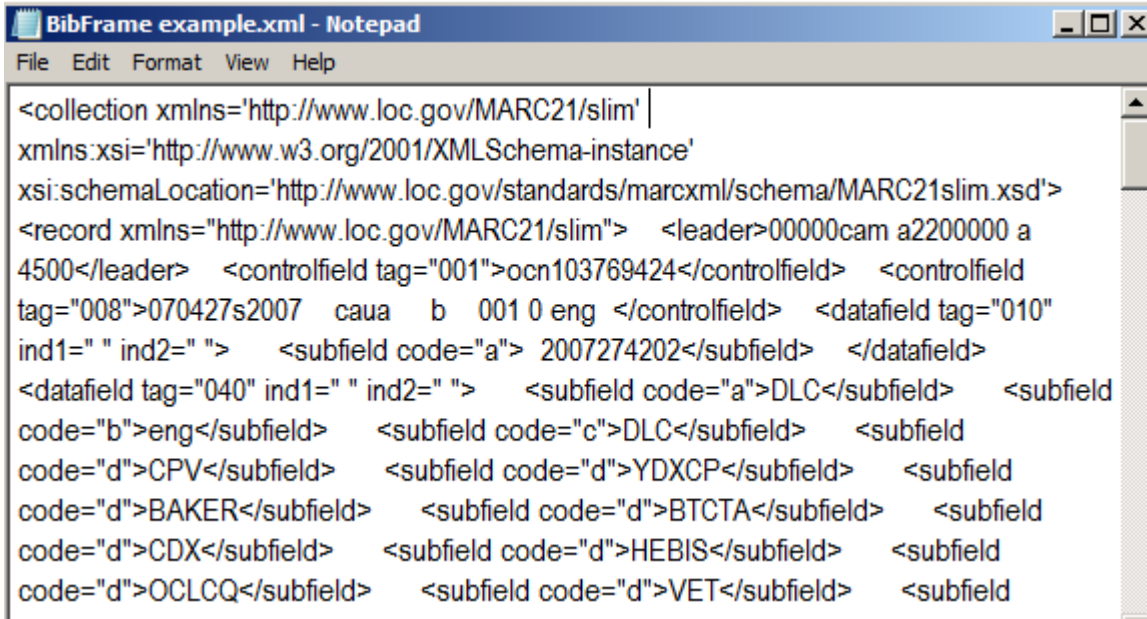


# BIBFRAME at LC: timeline

- 2014: BIBFRAME Implementation Testbed established
- 2015: BIBFRAME editor; search/display tool

# BIBFRAME transformation tool

<http://bibframe.org/tools/transform/start>



The image shows a Notepad window titled "BibFrame example.xml - Notepad". The window contains XML code for a BIBFRAME record. The code starts with a root element <collection> with namespace declarations for MARC21 and XSI. It then contains a <record> element with a leader and several controlfields and datafields. The datafields contain various codes and values, including a call number and a list of subject terms.

```
<collection xmlns='http://www.loc.gov/MARC21/slim' |
xmlns:xsi='http://www.w3.org/2001/XMLSchema-instance'
xsi:schemaLocation='http://www.loc.gov/standards/marcxml/schema/MARC21slim.xsd'>
<record xmlns="http://www.loc.gov/MARC21/slim"> <leader>00000cam a2200000 a
4500</leader> <controlfield tag="001">ocn103769424</controlfield> <controlfield
tag="008">070427s2007 caua b 001 0 eng </controlfield> <datafield tag="010"
ind1=" " ind2=" "> <subfield code="a"> 2007274202</subfield> </datafield>
<datafield tag="040" ind1=" " ind2=" "> <subfield code="a">DLC</subfield> <subfield
code="b">eng</subfield> <subfield code="c">DLC</subfield> <subfield
code="d">CPV</subfield> <subfield code="d">YDXCP</subfield> <subfield
code="d">BAKER</subfield> <subfield code="d">BTCTA</subfield> <subfield
code="d">CDX</subfield> <subfield code="d">HEBIS</subfield> <subfield
code="d">OCLCQ</subfield> <subfield code="d">VET</subfield> <subfield
```

# BIBFRAME transformation tool

BIBFRAME.ORG

[Home](#) / [Tools](#) / Transformation Service

## MARC to BIBFRAME Transformation Service

This service transforms a file of MARCXML records to BIBFRAME representation. Please note: files must be smaller than 2MB.  
See also: [Comparison Service](#)

[External URL File Transformation](#) [Paste-in MARCXML Transformation](#)

Copy and paste a MARCXML here, then select "Submit MARCXML"

```
<collection xmlns='http://www.loc.gov/MARC21/slim' xmlns:xsi='http://www.w3.org/2001/XMLSchema-instance'
xsi:schemaLocation='http://www.loc.gov/standards/marcxml/schema/MARC21slim.xsd'>
  <record xmlns="http://www.loc.gov/MARC21/slim">
    <leader>00000cam a2200000 a 4500</leader>
    <controlfield tag="001">ocn103769424</controlfield>
    <controlfield tag="008">070427s2007 caua b 001 0 eng </controlfield>
    <datafield tag="010" ind1=" " ind2=" ">
      <subfield code="a"> 2007274202</subfield>
    </datafield>
    <datafield tag="040" ind1=" " ind2=" ">
      <subfield code="a">DLC</subfield>
      <subfield code="b">eng</subfield>
```

Submit MARCXML

# BIBFRAME transformation tool

BIBFRAME.ORG

[Home](#) / [Transformation Service](#) / Complete

## SUCCESS!

Follow the below link to view your data conforming to the current BIBFRAME

<http://bibframe.org/resources/JjA1460077148/>

Be sure to copy the link for your future use. The data may be deleted period

## MARC21 Bib Records as BIBFRAME Resources

### Downloads

- MARC/XML
- BIBFRAME RDF/XML
- BIBFRAME N3...**New!**
- Exhibit JSON

Refresh/Regenerate/Update  
RDF/XML and Exhibit presentation  
Last generated on:  
Thu, 07 Apr 2016 20:59

### Search

### Creators

1 Gilbert, Thomas F.

### Subjects

- 1 Educational Status
- 1 Handlungskompetenz
- 1 Learning
- 1 Learning, Psychology  
of
- 1 Motivation

1 Work

sorted by: [labels](#); [then by...](#) •  [grouped as sorted](#)

1.

<b>Creator(s)</b>	Gilbert, Thomas F. (□)
<b>Subject(s)</b>	Performance (□) Motivation (Psychology) (□) Learning, Psychology of (□) Educational Status (□) Learning (□) Motivation (□) Psychology, Educational (□) Learning, Psychology of (□) Motivation (Psychology) (□) Performance (□) Handlungskompetenz (□)

### Annotation(s)

### Instance(s)

#### Publisher

**Edition** *Tribute ed.*

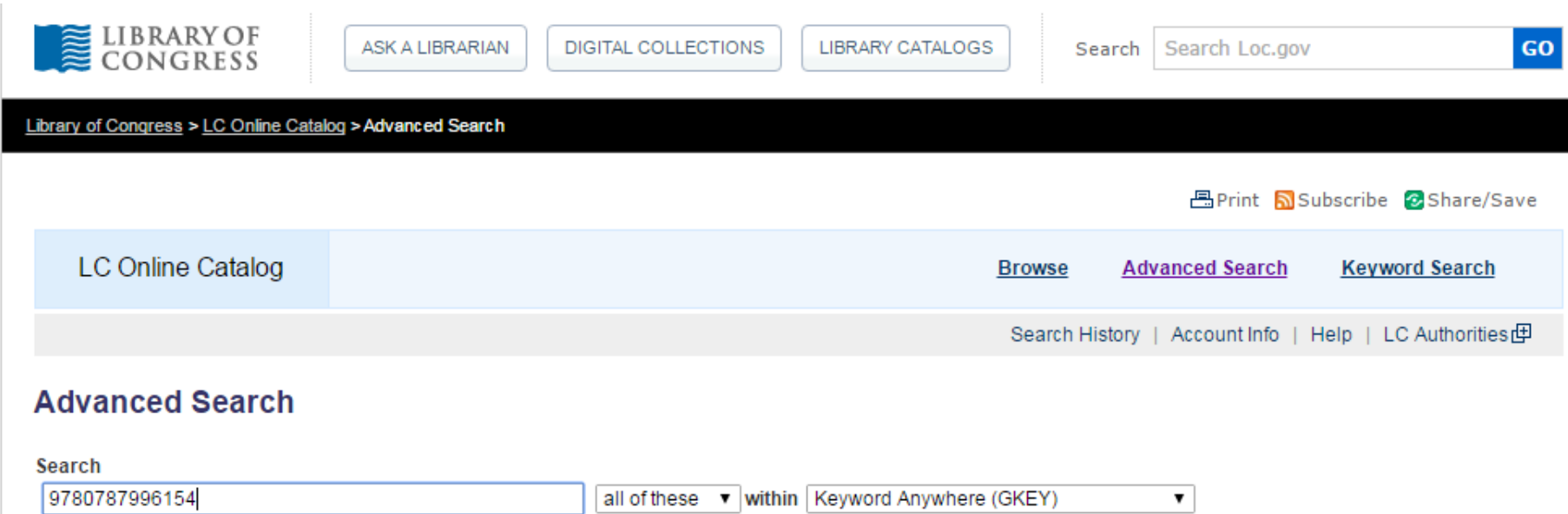
**Dimensions** 24 cm

**Extent** xxxviii, 376 pages :

**Supplementary Content Note(s)**  Includes bibliographical references and index.

# MARC to BIBFRAME Comparison Service

LC catalog: <https://catalog.loc.gov/vwebv/searchAdvanced>



The screenshot shows the top navigation bar of the Library of Congress website. On the left is the Library of Congress logo. In the center are three buttons: "ASK A LIBRARIAN", "DIGITAL COLLECTIONS", and "LIBRARY CATALOGS". On the right is a search bar with the text "Search Loc.gov" and a blue "GO" button. Below the navigation bar is a black breadcrumb trail: "Library of Congress > LC Online Catalog > Advanced Search". To the right of the breadcrumb are links for "Print", "Subscribe", and "Share/Save". Below this is a light blue navigation bar with "LC Online Catalog" on the left and "Browse", "Advanced Search" (highlighted in purple), and "Keyword Search" on the right. Below the navigation bar is a grey bar with links for "Search History", "Account Info", "Help", and "LC Authorities". The main content area is titled "Advanced Search" and contains a search form with a text input field containing "9780787996154", a dropdown menu set to "all of these", the word "within", and another dropdown menu set to "Keyword Anywhere (GKEY)".

# MARC to BIBFRAME Comparison Service


Copy 001  
(not 010)

LC Online Catalog   [Browse](#) [Advanced !](#)

[« Revise Your Search](#) [Search History](#) | [Accou](#)

## Human competence : engineering worthy performance

◀ 1 of 1 ▶



BOOK

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[Print Record](#)  
[Save Record](#)  
[Email Record](#)  
[Cite Record](#)

[Find It! !\[\]\(f8e7be3c2bd30232a05cdc54a8b2d22a\_img.jpg\)](#)

Full Record **MARC Tags**

000 01266cam a2200301 a 4500  
**001 14825431**  
005 20070821175022.0  
008 070427s2007 caua b 001 0 eng  
906 \_\_ |a 7 |b cbc |c origcop |d 2 |e ncip |f 20 |g y-gencatlg  
925 0\_ |a acquire |b 2 shelf copies |x policy default  
955 \_\_ |a pv19 2007-04-27 z-processor to SSCD |a se00 2007-06-04; |i se15 2007-06-29  
|a aa23 2007-07-25  
010 \_\_ |a 2007274202  
020 \_\_ |a 9780787996154  
040 \_\_ |a DLC |c DLC |d DLC  
050 00 |a LB1062.6 |b .G54 2007  
082 00 |a 370.15/4 |2 22  
100 1\_ |a Gilbert, Thomas F.  
245 10 |a Human competence : |b engineering worthy performance / |c Thomas F. Gilbert.  
250 \_\_ |a Tribute ed.  
260 \_\_ |a San Francisco : |b Pfeiffer, |c c2007.  
300 \_\_ |a xxxviii, 376 p. : |b ill. ; |c 24 cm.

# MARC to BIBFRAME Comparison Service

<http://bibframe.org/tools/compare/>

BIBFRAME.ORG

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[Home](#) / [Tools](#) / [Comparison Service](#)

## MARC to BIBFRAME Comparison Service

This service produces a comparison of a MARCXML record and its BIBFRAME representation. Currently it only accomodates Library of Congress MARC records. Enter the BIBID of a Library of Congress record into the box. The BIBID is carried in the MARC 001 of the Library of Congress record. (It is not the LCCN which is in the MARC 010.)  
See also: [Transformation Service](#)

Library of Congress BIBID (MARC 001)

Run Comparison

# MARC to BIBFRAME Comparison Service

## MARC

```
01266cam a2200301 a 4500
001 14825431
005 20070821175022.0
008 070427s2007 caua b 001 0 eng
010 $a 2007274202
020 $a9780787996154
040 $aDLC$cDLC$dDLC
050 00 $aLB1062.6$b.G54 2007
082 00 $a370.15/4$222
100 1 $aGilbert, Thomas F.
245 10 $aHuman competence :$bengineering worthy performance /$cThomas F. Gilbert.
250 $aTribute ed.
260 $aSan Francisco :$bPfeiffer,$c2007.
300 $axxxviii, 376 p. :$bill. ;$c24 cm.
504 $aIncludes bibliographical references and index.
650 0 $aPerformance.
650 0 $aMotivation (Psychology)
650 0 $aLearning, Psychology of.
856 41 $3Table of contents only$uhttp://www.loc.gov/catdir/toc/fy0713/2007274202.html
856 42 $3Contributor biographical information$uhttp://www.loc.gov/catdir/enhancements/fy0741/2007274202-b.html
856 42 $3Publisher description$uhttp://www.loc.gov/catdir/enhancements/fy0741/2007274202-d.html
906 $a7$bcb$corigcop$d2$encip$f20$gy-gencatlg
925 0 $aacquire$b2 shelf copies$xpolicy default
955 $apv19 2007-04-27 z-processor to SSCD$ase00 2007-06-04;$ise15 2007-06-29$ese39 2007-07-02
to Dewey$a23 2007-07-25
```

## BIBFRAME (Turtle)

```
@prefix bf: <http://bibframe.org/vocab/> .
@prefix madsrdf: <http://www.loc.gov/mads/rdf/v1#> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix relators: <http://id.loc.gov/vocabulary/relators/> .
@prefix xml: <http://www.w3.org/XML/1998/namespace> .
@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .

<http://id.loc.gov//resources/bibs/14825431> a bf:Text,
    bf:Work ;
    bf:authorizedAccessPoint "Gilbert, Thomas F. Human competence : engineering worthy performanc
e / Thomas F. Gilbert.Human competence :engineering worthy performance",
        "gilbertthomasfhumancompetenceengineeringworthyperformancework"@x-bf-hash ;
    bf:classification [ a bf:Classification ;
        bf:classificationEdition "22",
            "full" ;
        bf:classificationNumber "370.15/4" ;
        bf:classificationScheme <http://id.loc.gov/authorities/classSchemes/ddc> ;
        bf:label "370.15/4" ] ;
    bf:classificationLcc <http://id.loc.gov/authorities/classification/LB1062.6> ;
    bf:creator [ a bf:Person ;
        bf:authorizedAccessPoint "Gilbert, Thomas F." ;
        bf:hasAnnotation [ a bf:Annotation ;
            bf:annotationBody <http://www.loc.gov/catdir/enhancements/fy0741/2007274202-
b.html> ;
            bf:label "Contributor biographical information" ] ;
        bf:hasAuthority [ a madsrdf:Authority ;
            madsrdf:authoritativeLabel "Gilbert, Thomas F." ] ;
        bf:label "Gilbert, Thomas F." ] ;
    bf:hasAnnotation [ a bf:Annotation ;
        bf:annotates <http://id.loc.gov//resources/bibs/14825431> ;
        bf:changeDate "2007-08-21T17:50" ;
        bf:derivedFrom <http://id.loc.gov//resources/bibs/14825431.marcxml.xml> ;
```



# BIBFRAME editor

<http://bibframe.org/tools/editor/>

BIBFRAME.ORG

[Home](#) / [Tools](#) / [Editor Demo](#)

## Create Resource

Monograph ▾

Instance

Work

Work, Instance

Cartographic ▾

BluRay DVD ▾

Audio CD ▾

# BIBFRAME editor

## RDA Work Elements - Monographs

<b>Creator of Work (RDA 19.2)</b>	Principal Creator	Other Creators					
<b>Preferred Title for the Work (RDA 6.2.2)</b>	Title						
<b>Variant Title for the Work (RDA 6.2.3)</b>	Title						
<b>Form of Work (RDA 6.3)</b>	Form of Work						
<b>Date of Work (RDA 6.4)</b>	Date of Work (RDA 6.4)	+					
<b>Place of Origin of the Work (RDA 6.5)</b>	Place						
<b>Other Distinguishing Characteristic of the Work (RDA 6.6)</b>	Other Distinguishing Characteristic of the Work (RDA 6.6)	+					
<b>Nature of the Content (RDA 7.2)</b>	Nature of the Content (RDA 7.2)	+					
<b>Coverage of the Content (RDA 7.3)</b>	Coverage of the Content (RDA 7.3)	+					
<b>Intended Audience (RDA 7.7)</b>	Intended Audience (RDA 7.7)	+					
<b>Dissertation or Thesis Information (RDA 7.9)</b>	Dissertation or Thesis Information (RDA 7.9)	+					
<b>Other Person, Family, or Corporate Body Associated With a Work (RDA 19.3)</b>	Other Person, Family, Corporate Body Associated With a Work						
<b>Subject of the Work (RDA Chapter 23)</b>	Topic	Place	Person	Corporate Body	Family (LCSH)	Meeting	RDA Work Elements - Monographs
<b>DDC Classification (RDA Chapter 23)</b>	Dewey Classification Information						
<b>Related Works (RDA Chapter 25 and Appendix J)</b>	RDA Work Elements - Monographs						

# BIBFRAME editor

Principal Creator

Principal Creator

Search LCNAF for Creator

Person Family (NAR) Jurisdiction

Corporate Body Meeting

Search Relationship Designator (RDA Appendix I) ...

Search Relationship Designator (RDA Appendix I) ... OR

Record Relationship Designator (if Relationship Designator does not appear in Search)

RDA-Relators

- Abridger
- Actor
- Adapter
- Addressee
- Analyst
- Animator
- Annotator
- Appellant
- Appellee
- Applicant
- Architect

Relationship Designator +

Cancel Save changes

Principal Creator

Principal Creator

Search LCNAF for Creator

Person Family (NAR) Jurisdiction

Corporate Body Meeting

Search Relationship Designator (RDA Appendix I) ...

Author

Record Relationship Designator (if Relationship Designator does not appear in Search) +

Cancel Save changes

# BIBFRAME editor

Person ×

Person

Search LCNAF in id.loc.gov for Authorized Access Point ...  
OR ...  
Record Authorized Access Point (if added to LCNAF but does not yet appear in id.loc.gov)

gilbert, thomas f.

LCNAF

Gilbert, Thomas F.

ss Point (if added to LCNAF t) +

Cancel Save changes

Person ×

Person

Search LCNAF in id.loc.gov for Authorized Access Point ...  
OR ...  
Record Authorized Access Point (if added to LCNAF but does not yet appear in id.loc.gov)

Search LCNAF in id.loc.gov for Authorized Access Po

Gilbert, Thomas F. ✎ 🗑

Record Authorized Access Point (if added to LCNAF t) +

Gilbert, Thomas F. ✎ 🗑

Cancel Save changes

# BIBFRAME editor

Title ×

Title

Title  +

Cancel Save changes

### RDA Work Elements - Monographs

**Creator of Work (RDA 19.2)** Principal Creator Other Creators

Author ✎ 🗑

**Preferred Title for the Work (RDA 6.2.2)** Title

Human competence : engineering worthy pe... ✎ 🗑

**Variant Title for the Work (RDA 6.2.3)** Title

**Form of Work (RDA 6.3)** Form of Work

# BIBFRAME editor

## Instance/Manifestation - Monograph

Lookup

Lookup

Instance of

RDA Work Elements - Monographs

<http://bibframe.org/resources/works/Fpd1...>



Title Proper (RDA 2.3.2)

Title

Parallel Title Proper (RDA 2.3.3)

Title

Other Title Information (RDA 2.3.4)

Enter Other Title Information

Variant Title (RDA 2.3.6)

Title

Statement of Responsibility Relating to Title Proper (RDA 2.4.2)

Statement of Responsibility Relating to Title Proper (RDA 2.4.2)

Designation of Edition (RDA 2.5.2)

Tribute edition

Statement of Responsibility Relating to the Edition (RDA 2.5.4)

Statement of Responsibility Relating to the Edition (RDA 2.5.4)

Publication Statement (RDA 2.8)

Enter Publication Information

Distribution Statement (RDA 2.9)

Enter Distribution Information

Manufacturer Statement (RDA 2.10)

Enter Manufacturer Information

Copyright Date (RDA 2.11)



Copyright Date (RDA 2.11)



Hyperlinks to  
RDA Toolkit



# BIBFRAME editor

### Enter Publication Information

Enter Publication Information

**Place of Publication (RDA 2.8.2)**  +  
San Francisco, CA :  

**Publisher's Name (RDA 2.8.4)**  +  
John Wiley & Sons,  

**Date of Publication (RDA 2.8.6)**  +  
2007.  

**Designation of Edition (RDA 2.5.2)**

**Statement of Responsibility Relating to the Edition (RDA 2.5.4)**

**Publication Statement (RDA 2.8)**   
 

# BIBFRAME Editor

LC Control Number for the Manifestation (RDA 2.15)

LCCN

Your Cataloger Code and Comments

Your Cataloger Code and Comments

+

Cancel

Preview

Back

Save

Preview

```
ID: http://bibframe.org/resources/works/Fpd1460482545
  Type(s)
    http://bibframe.org/vocab/Text
  bf:workTitle
    _:bnodeEw11460483284
  bf:relator
    :bnodeDum1460482897
```

```
ID: _:bnodeIX1460482576
  bf:relatorRole
    http://id.loc.gov/vocabulary/relators/aut

ID: http://id.loc.gov/vocabulary/relators/aut
  bf:label
    Author

ID: _:bnodeUpN1460482591
  bf:hasAuthority
    http://id.loc.gov/authorities/names/no95034870
  bf:authorizedAccessPoint
    Gilbert, Thomas F.
  bf:label
    Gilbert, Thomas F.

ID: _:bnodeEw11460483284
  Type(s)
    http://bibframe.org/vocab/Title
  bf:titleValue
    Human competence : engineering worthy performance.
```



## Future plans: Linked data in OCLC cataloging interfaces

- Services that allow catalogers to view and enrich WorldCat Persons and Works, and future entities will be included in WorldShare Record Manager and other tools
- Cataloging groups and standards bodies will recommend new approaches that use entity-relationship models
- Catalogers will describe resources as they do now, without having to worry about encoding
- Descriptions will be published as linked data (and MARC 21, for quite a while)

# Why Convert to BIBFRAME (or schema.org or linked data)?

- a) Its trendy
- b) To eliminate our Public Access Catalogs
- c) Make library content visible on the web
- d) RDA won't work otherwise

# What does Google like?

- a) Authorized, established sources
- b) Unique terms
- c) Hierarchical data
- d) All of the above

# True or False?

**Catalogers will soon be cataloging  
in BIBFRAME**

# True or False?

**BIBFRAME is a replacement for MARC**

# What we covered

- Why linked data is important
- How it works
- Future


# Questions



# Handouts

Will be available on conference website:

<http://www.wla.org/2016-conference-presentations>



**STRONGER  
TOGETHER**  
2016 WLA Conference April 27-29  
The Historic Overport Hotel, Spokane, WA

**Unlocking Library Data for the Web:  
BIBFRAME, Linked Data and the LibHub Initiative**

April 29, 2016

Colleen Brazil, Sno-Isle Libraries  
Rick Newell, OCLC

Books and articles

- Enis, Matt. (February 12, 2015). Ending the Invisible Library. *Library Journal*, 140(3), 36-38. <http://lj.libraryjournal.com/2015/02/technology/ending-the-invisible-library-linked-data/#>
- Godby, C. J. & Denenberg, R. (2015). *Common ground: Exploring compatibilities between the linked data models of the Library of Congress and OCLC*. (Executive summary of Library linked data in the cloud). <http://www.oclc.org/content/dam/research/publications/2015/oclcresearch-loc-linked-data-2015.pdf>
- Godby, C. J., Wang, S., Mixer, J., & OCLC Research. (2015). *Library linked data in the cloud: OCLC's experiments with new models of resource description*. Ebook: <http://dx.doi.org/10.2200/S00620ED1V01Y201412WBE012>



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