

# Babylonian confusion of languages regardless of standardization?

## Multilingualism and cataloguing



Christian Aliverti  
Swiss National Library

WLIC 2019, Aristotle University, Thessaloniki, 21 August 2019

- Area 1 火の鳥 [マイクロ資料] / 早稲田大学図書館編
- Area 2 . — マイクロフィッシュ版
- Area 3 . — 昭和3年10月号-昭和3年12月号 ; 2巻1月号 (昭和4年1月)-2巻2月号 (昭和4年2月) ; 昭和4年3月号-昭和4年12月号 ; 2巻3月号 (昭和5年3月)-7巻9号 (昭和8年10月)
- Area 4 . — 東京 : 雄松堂アーカイブズ, 2007
- Area 5 . — マイクロフィッシュ57枚 ; 11×15 cm
- Area 6 . — (精選近代文芸雑誌集 ; 207)
- Area 7 . — 欠番: 昭和4年4月号, 10月号, 5巻8号, 6巻12号. — 原資料の出版者: 火の鳥社(3巻8月号-5巻11号). — 原資料の休刊: 1929年8月, 1932年9月, 1933年9月.  
— 原資料の出版事項: 東京 : 火の鳥編輯所

Area 8

شواهد التوضيح و التصحيح لمشكلات الجامع الصحيح للبخاري [مصغرا] / ابن مالك الطائي

Area 1

Area 2

Area 3

. — Spain : Biblioteca del Real Monasterio de San Lorenzo de El Escorial, cop.

Area 4

1987

. — 1 بكرة : سالب ؛ 35 مم

Area 5

Area 6

. — تاريخ النسخ: 774 هـ. — نسخة جيدة. — 66 ورقة 17 سطر. — مصادر التوثيق: كشف

Area 7

الظنون 553، بروكلمان 1/521، معجم المؤلفين 3/450. — على نفس البكرة مع: تأصيل البنا في  
تعليل البنا / بدر الدين الزركشي -- لامية الأفعال / ابن مالك -- تسهيل الفوائد و تكميل المقاصد / ابن  
مالك

Area 8

شواهد التوضيح و التصحيح لمشكلات الجامع الصحيح للبخاري [مصغرا] / ابن مالك الطائي

Area 1

authorship



title

Area 2

«/» distinguishes authorship and title

Area 3

. — Spain : Biblioteca del Real Monasterio de San Lorenzo de El Escorial, cop.

Area 4

1987

. — 1 بكرة : سالب ؛ 35 مم

Area 5

Area 6

. — تاريخ النسخ: 774 هـ. — نسخة جيدة. — 66 ورقة 17 سطر. — مصادر التوثيق: كشف

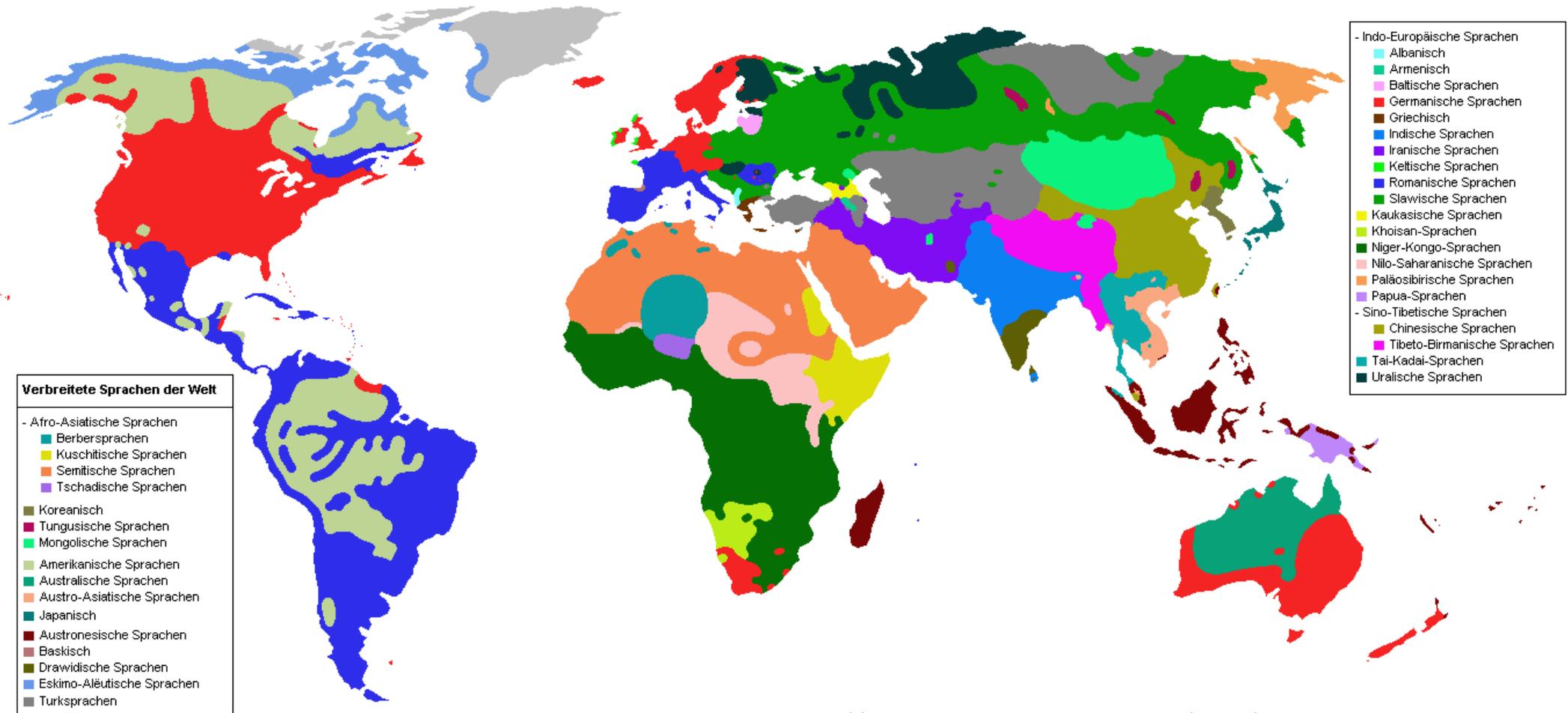
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مالك

*ISBD record (International Standard Bibliographic Description)*

Area 8

# Language families of the world



Source: [https://commons.wikimedia.org/wiki/File:Sprachen\\_der\\_Welt.png](https://commons.wikimedia.org/wiki/File:Sprachen_der_Welt.png)

# The language of the users

Many users understand foreign languages, but, cannot actively search in them.

Users want to research in their language.

Multilinguism costs time and money.

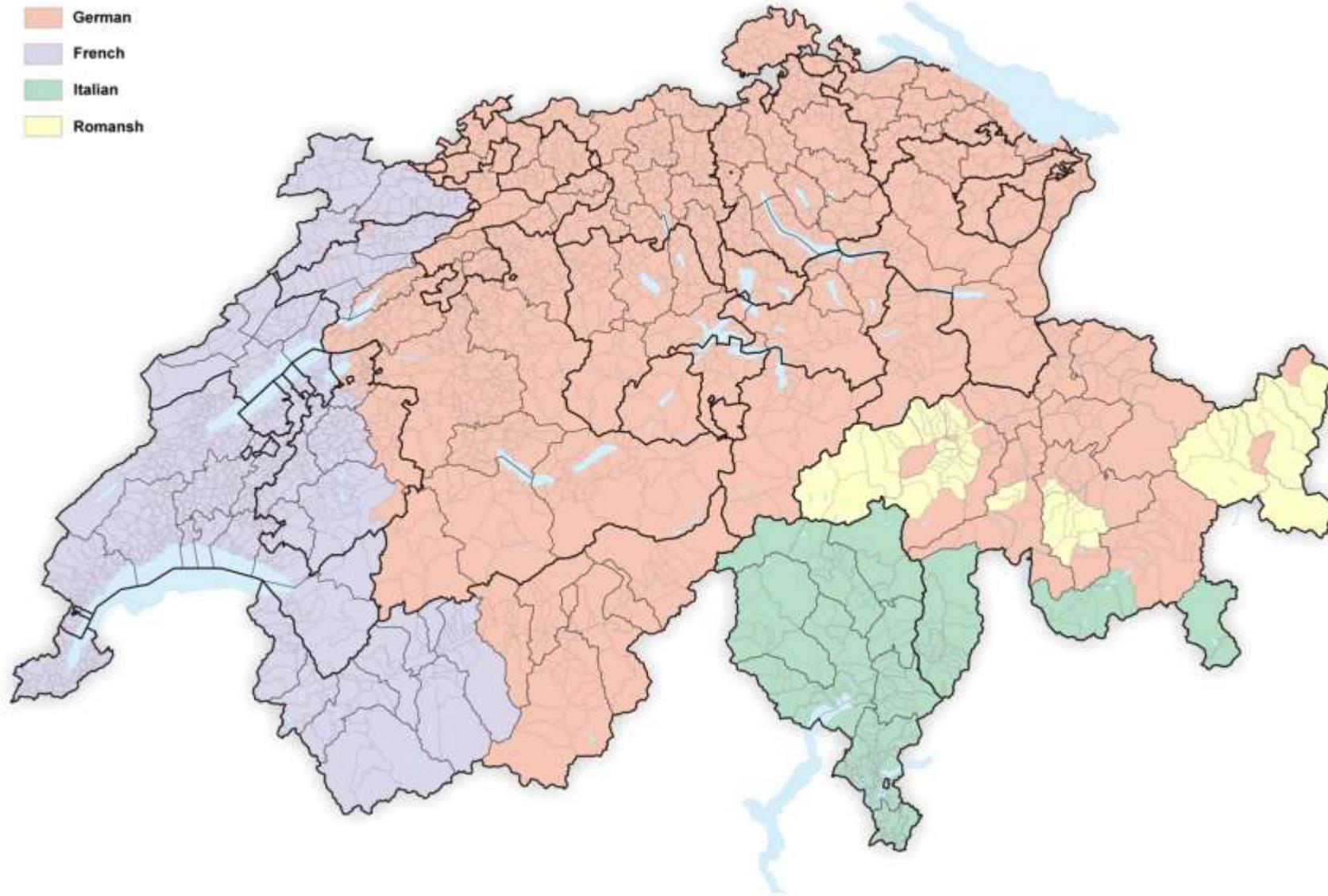
Multilinguism is enriching.

Cataloguers also want the rules in their own language.



# National languages of Switzerland

- German
- French
- Italian
- Romansh



# Languages Act



- Article 5 **Official languages**

The official languages of the Confederation are German, French and Italian. Romansh is an official language in dealings with persons who speak this language.

- Article 3 **Principles**

The confederation shall ensure that it treats the four national Swiss languages equally..

<https://www.admin.ch/opc/en/classified-compilation/20062545/index.html>

# National Library Act

- Article 2 **Mission** (*Aufgabe*)

The mission of the Swiss National Library is to collect, to **catalogue**, to preserve and to **give access** to Helvetica: printed and digital publications related to Switzerland.

- Article 10 **Cooperation** (*Zusammenarbeit und Koordination*)

The Swiss National Library cooperates with other Swiss and foreign institutions that perform similar tasks.

**Collaboration in cataloguing = Standards.**

# Some objectives of cataloguing using the example of RDA

- To find/to identify/to understand
- Flexibility
- Cost Efficiency

# To find/to identify/to understand

The data should enable the user to:

- *find* resources and names
  - *identify* the resource and the agents that are related to the resource
  - *understand* the relationships between entities
- 
- **Does the data speak the language of the user?**



RDA 0.4.2.1 / Beta-Toolkit: [https://beta.rdatoolkit.org/Content/Index?externalId=en-US\\_ala-78a3c063-b55b-32b8-b4fb-6d8217a823d5](https://beta.rdatoolkit.org/Content/Index?externalId=en-US_ala-78a3c063-b55b-32b8-b4fb-6d8217a823d5)

# Flexibility

«The data should function independently of the format, medium, or system used to store or **communicate** the data. They should be amenable to use in a **variety of environments.**» RDA 0.4.2.3

**A translation for every language environment?**

RDA 0.4.2.3 / **Beta-Toolkit:** [https://beta.rdatoolkit.org/Content/Index?externalId=en-US\\_ala-78a3c063-b55b-32b8-b4fb-6d8217a823d5](https://beta.rdatoolkit.org/Content/Index?externalId=en-US_ala-78a3c063-b55b-32b8-b4fb-6d8217a823d5)

# Cost Efficiency

«The data should meet functional requirements for the support of user tasks in a cost-efficient manner.» RDA 0.4.2.2

**Cost efficiency and languages are in conflict with each other!**

RDA 0.4.2.2 / **Beta-Toolkit:** [https://beta.rdatoolkit.org/Content/Index?externalId=en-US\\_ala-78a3c063-b55b-32b8-b4fb-6d8217a823d5](https://beta.rdatoolkit.org/Content/Index?externalId=en-US_ala-78a3c063-b55b-32b8-b4fb-6d8217a823d5)

# Solutions on the fast track

- Coding instead of text
- Recording the cataloguing language

شواهد التوضيح و التصحيح لمشكلات الجامع الصحيح للبخاري [مصغر] / ابن مالك الطائي	Area 1
	Area 2
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. — 1 بكرة : سالب : 35 مم	Area 5
	Area 6
. — تاريخ النسخ: 774 هـ. — نسخة جيدة. — 66 ورقة 17 سطر. — مصادر التوثيق: كشف الطنون 553، بروكلمان 1/521، معجم المؤلفين 3/450. — على نفس البكرة مع: تأصيل البناء في تعليل البناء / بدر الدين الزركشي -- لامية الأفعال / ابن مالك -- تسهيل الفوائد و تكميل المقاصد / ابن مالك	Area 7
	Area 8



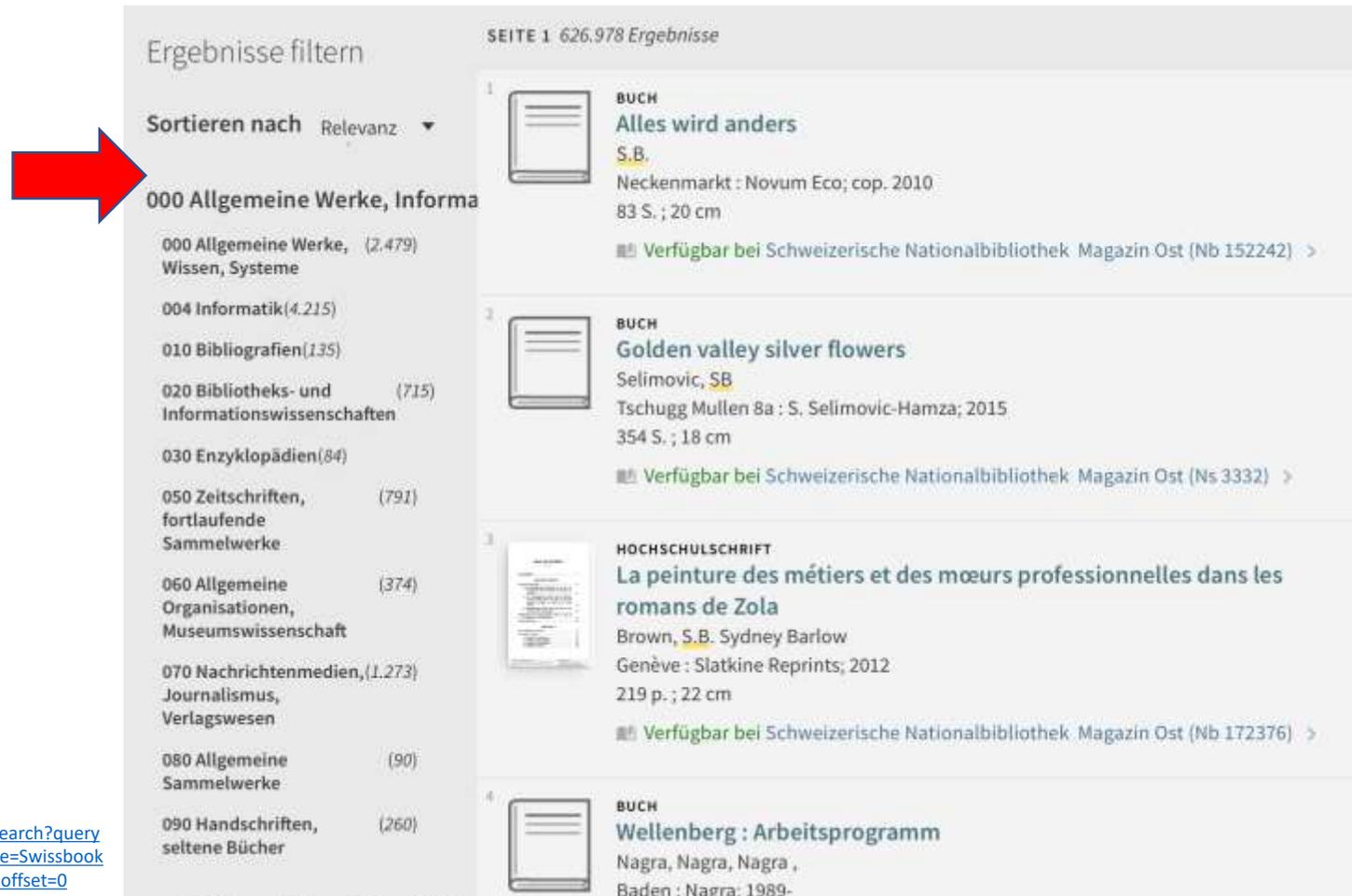
# Codes instead of text

 **390** { *Bräuche, Etikette, Folklore*  
*Coutumes et folklore*  
*Usi e costumi, folclore*  
*Isanzas ed usits, folclora*  
*Customs, etiquette and folklore* }

Schweizer Buch: <http://ead.nb.admin.ch/web/sb-pdf/2018/sb201824.pdf>

- [DDC Subject Categories](#) of the national bibliographies in Switzerland, Germany and Austria <https://d-nb.info/1052700705/34>
- Display and resolution of the number 390 is multilingual in the national bibliography "[The Swiss Book](#)".

# The Swiss Book: German



Ergebnisse filtern

SEITE 1 626.978 Ergebnisse

Sortieren nach Relevanz ▾

000 Allgemeine Werke, Informa (2.479)

004 Informatik (4.215)

010 Bibliografien (135)

020 Bibliotheks- und Informationswissenschaften (715)

030 Enzyklopädien (84)

050 Zeitschriften, fortlaufende Sammelwerke (791)

060 Allgemeine Organisationen, Museumswissenschaft (374)

070 Nachrichtenmedien, Journalismus, Verlagswesen (1.273)

080 Allgemeine Sammelwerke (90)

090 Handschriften, seltene Bücher (260)

1 BUCH  
**Alles wird anders**  
S.B.  
Neckenmarkt : Novum Eco; cop. 2010  
83 S. ; 20 cm  
Verfügbar bei Schweizerische Nationalbibliothek Magazin Ost (Nb 152242) >

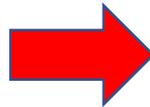
2 BUCH  
**Golden valley silver flowers**  
Selimovic, SB  
Tschugg Mullen 8a : S. Selimovic-Hamza; 2015  
354 S. ; 18 cm  
Verfügbar bei Schweizerische Nationalbibliothek Magazin Ost (Ns 3332) >

3 HOCHSCHULSCHRIFT  
**La peinture des métiers et des mœurs professionnelles dans les romans de Zola**  
Brown, S.B. Sydney Barlow  
Genève : Slatkine Reprints; 2012  
219 p. ; 22 cm  
Verfügbar bei Schweizerische Nationalbibliothek Magazin Ost (Nb 172376) >

4 BUCH  
**Wellenberg : Arbeitsprogramm**  
Nagra, Nagra, Nagra ,  
Baden : Nagra; 1989-

[https://nb-helvetica.primo.exlibrisgroup.com/discovery/search?query=any,contains,sb&tab=Swissbook&search\\_scope=Swissbook&vid=41SNL\\_51\\_INST%3Aswissbook&lang=de&offset=0](https://nb-helvetica.primo.exlibrisgroup.com/discovery/search?query=any,contains,sb&tab=Swissbook&search_scope=Swissbook&vid=41SNL_51_INST%3Aswissbook&lang=de&offset=0)

# The Swiss Book: Italian



[https://nb-helvetica.primo.exlibrisgroup.com/discovery/search?query=any,contains,sb&tab=Swissbook&search\\_scope=Swissbook&vid=41SNL\\_51\\_INST%3Aswissbook&lang=it&offset=0](https://nb-helvetica.primo.exlibrisgroup.com/discovery/search?query=any,contains,sb&tab=Swissbook&search_scope=Swissbook&vid=41SNL_51_INST%3Aswissbook&lang=it&offset=0)

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- 000 Generalità, sapere, sistemi (2.479)
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- 020 Biblioteconomia e scienza dell'informazione (715)
- 030 Opere enciclopediche generali (84)
- 050 Seriali generali(791)
- 060 Organizzazioni generali, museologia (374)
- 070 Media di notizie, giornalismo, editoria (1.273)
- 080 Raccolte generali(90)
- 090 Manoscritti, libri rari(260)

1  **LIBRO**  
**Alles wird anders**  
S.B.  
Neckenmarkt : Novum Eco; cop. 2010  
83 S. ; 20 cm  
Disponibile presso Biblioteca nazionale svizzera Depositi est (Nb 152242) >

2  **LIBRO**  
**Golden valley silver flowers**  
Selimovic, S.B.  
Tschugg Mullen 8a : S. Selimovic-Hamza; 2015  
354 S. ; 18 cm  
Disponibile presso Biblioteca nazionale svizzera Depositi est (Ns 3332) >

3  **DISSERTAZIONE**  
**La peinture des métiers et des mœurs professionnelles dans les romans de Zola**  
Brown, S.B. Sydney Barlow  
Genève : Slatkine Reprints; 2012  
219 p. ; 22 cm  
Disponibile presso Biblioteca nazionale svizzera Depositi est (Nb 172376) >

# Codes instead of text

- Codes are language-independent.
- Codes can be processed in a variety of environments.
- Codes can be evaluated according to local needs.
- Codes can be evaluated automatically.
- Codes are understood by computers.
- Codes are economical.

# RDA: Relationship designator

- RDA 18.5.1.3: «Record one or more appropriate **terms** from the list in the appendix...»
- No codes allowed here!
- Example MARC21

100 \$a Frisch, Max \$e **Verfasser** → **Language bound**

and gender bound in some languages (e.g. German)

# RDA: Relationship designator

- Switching to *MARC-Codes*
- Beispiel → Frisch, Max \$e Verfasser \$4 **aut**

Resolution of the code according to local needs.

**aut** → **VerfasserIn** oder **Verfasser/Verfasserin** oder ...  
→ **autore/autrice** oder **author** oder ...

- MARC Codes and RDA terms do not match!
- Agreement between RDA and format MARC21 is necessary.

# Cataloguing language

Field 040     \$b Cataloguing language  
                  *\$b ger*

Added value

- when preparing data for the Opac and
- for automatic processing of the data



# Authority data without language specification

<a href="#">GND</a>	
<b>Link zu diesem Datensatz</b>	<a href="http://d-nb.info/gnd/210096-4">http://d-nb.info/gnd/210096-4</a>
<b>Organisation</b>	FIFA
<b>Andere Namen</b>	Fédération internationale de football association International Federation of Association Football Federación Internacional de Fútbol Asociación Internationaler Fußballverband Weltfußballverband F.I.F.A.
<b>Quelle</b>	Homepage (Stand: 07.07.2015): <a href="http://de.fifa.com">http://de.fifa.com</a> B Wissen LCAuth M
<b>Zeit</b>	1904-
<b>Land</b>	Internationale Staatengemeinschaften, internationale Organisationen, internationale Körperschaften (XP); Kanton Zürich (XA-CH-ZH)
<b>Geografischer Bezug</b>	Ort: Zürich
<b>Oberbegriffe</b>	Beispiel für: <a href="#">Internationaler Sportverband</a>
<b>Thematischer Bezug</b>	Fußball
<b>Systematik</b>	34.3 Einzelne Sportarten
<b>Typ</b>	Organisation (kiz)
<b>Autor von</b>	24 Publikationen

- Name recorded in several languages.
- For the machine it is unclear which name is recorded in which language.

# Authority data with language specification

<a href="#">GND</a>	
<b>Link zu diesem Datensatz</b>	<a href="http://d-nb.info/gnd/1013337-9">http://d-nb.info/gnd/1013337-9</a>
<b>Organisation</b>	Schweizer Alpen-Club
<b>Andere Namen</b>	Schweizer Alpen-Club SAC Schweizer Alpenclub CAS (Abkürzung) Alpine Club (Schweiz) Alpenklub (Schweiz) Alpenclub (Schweiz) Schweizerischer Alpenclub SAC (Abkürzung) Schweizer Alpen-Klub Club alpin suisse (Französisch, Code: fre) Club alpino svizzero (Italienisch, Code: ita) Club alpin svizzer (Rätoromanisch, Code: roh) Swiss Alpine Club (Englisch, Code: eng)
<b>Quelle</b>	Homepage (Stand: 07.08.2015): <a href="http://www.sac-cas.ch">http://www.sac-cas.ch</a>
<b>Land</b>	Kanton Bern (XA-CH-BE)
<b>Geografischer Bezug</b>	Wirkungsraum: <a href="#">Schweiz</a> Ort: <a href="#">Bern</a>
<b>Oberbegriffe</b>	Beispiel für: <a href="#">Bergsteigerverein</a>
<b>Systematik</b>	34.3 Einzelne Sportarten ; 9.3c Gruppe, Organisationssoziologie, Interaktion ; 2.2 Buchwissenschaft, Buchhandel
<b>Typ</b>	Organisation (kiz)
<b>Autor von</b>	<a href="#">6 Publikationen</a>

- Name recorded in several languages.
- Some names recorded with language code.

# Authority data with language specification

<a href="#">GND</a>	
Link zu diesem Datensatz	<a href="http://d-nb.info/gnd/1013337-9">http://d-nb.info/gnd/1013337-9</a>
Organisation	Schweizer Alpen-Club
Andere Namen	Schweizer Alpen-Club SAC Schweizer Alpenclub CAS (Abkürzung)
Club alpin suisse (Französisch, Code: fre) Club alpino svizzero (Italienisch, Code: ita) Club alpin svizzer (Rätoromanisch, Code: roh) Swiss Alpine Club (Englisch, Code: eng)	

- Name recorded in several languages.
- Names recorded with language code.

Quelle	Homepage (Stand: 07.08.2015): <a href="http://www.sac-cas.ch">http://www.sac-cas.ch</a>
Land	Kanton Bern (XA-CH-BE)
Geografischer Bezug	Wirkungsraum: Schweiz
Oberbegriffe	Beispiel für: Bergsteigerverein
Systematik	34.1 Einzelne Sportarten 39.3c Gruppe, Organisationssoziologie, Interaktion : 2.2
Typ	Organisation (kiz)
Autor von	6 Publikationen

Automatic processing possible, such as to prefer one language or to treat one language differently.

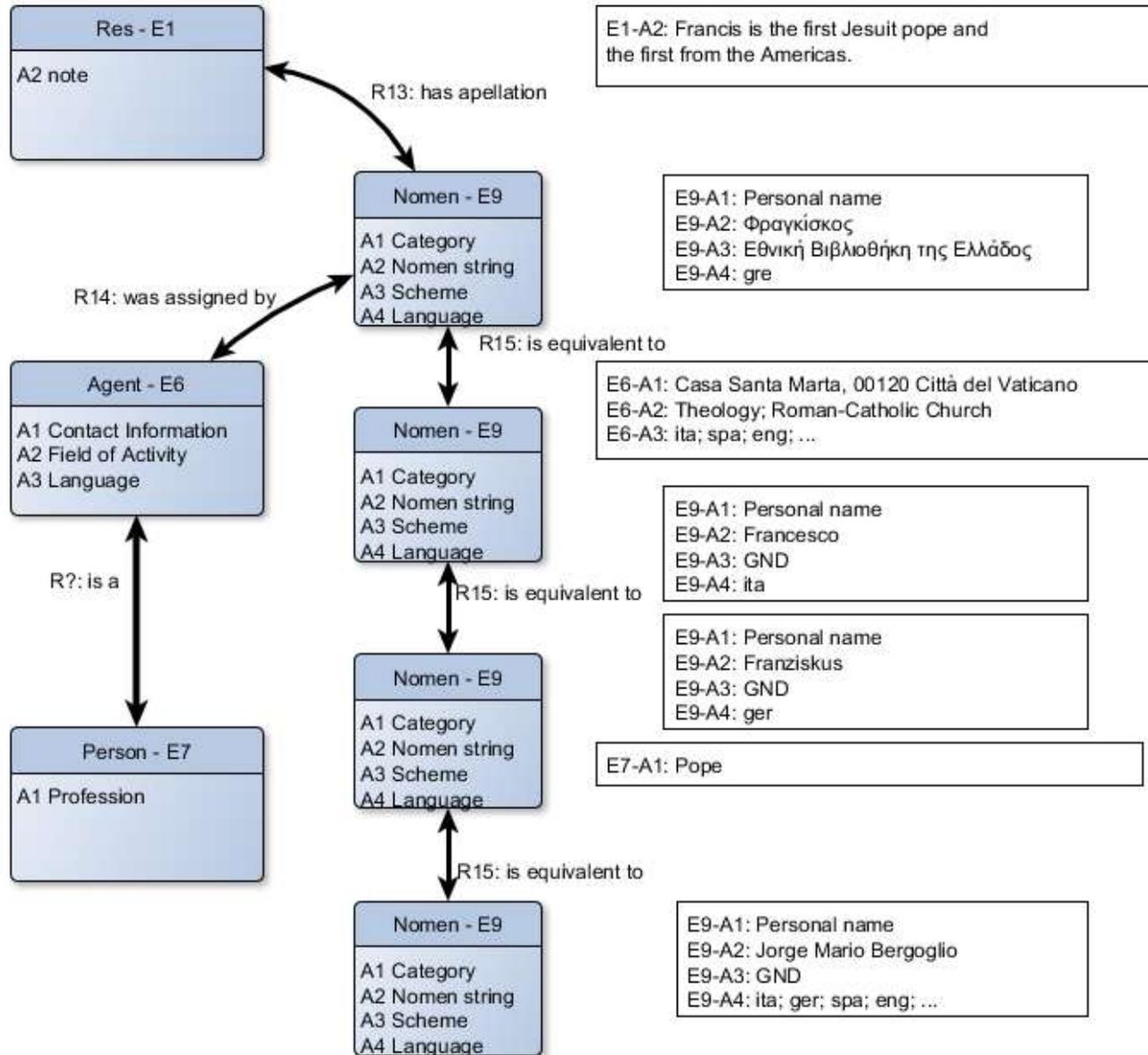
# Languages in Wikidata

German	FIFA	Fußball-Weltverband	Fédération Internationale de Fo...
Esperanto	FIFA	No description defined	Federacio Internacia de Futbalo...
French	Fédération internationale de football association	fédération sportive internationale du football	FIFA
Swiss German	FIFA	Wälftuessballverband	
Italian	FIFA	organo di governo mondiale di calcio, calcio a 5 e beach soccer	Fédération Internationale de Fo... Federazione internazionale dell... International Federation of Asso...
Afrikaans	FIFA	No description defined	
Amharic	የዓለም አቀፍ እግር ኳስ ማኅበር	No description defined	ፊፋ FIFA
Arabic	الاتحاد الدولي لكرة القدم	الهيئة العالمية لكرة القدم	الفيفا الإتحاد الدولي لكرة القدم الاتحاد الدولي لكرة القدم FIFA الاتحاد الدولي لكرة القدم

The language is recorded for each name.

# Identifiers: Linked Data/Semantic Web

- A topic at congresses for years.
- Rarely translated into library catalogues.
- **Identifier is required for linking and Semantic Web**
- **Equal treatment of languages**
- RDA is fit for it (but not the library systems): RDA Registry
- <https://www.rdaregistry.info> and [RDA Toolkit Beta Site](#)



- Each name = its own entity Nomen.
- Nomen string = the variant name with a language code
- The entities Nomen are all linked to each other equally.

# No confusion thanks to high quality metadata



Source Wikimedia Commons

[https://commons.wikimedia.org/wiki/File:Metal\\_movable\\_text.jpg](https://commons.wikimedia.org/wiki/File:Metal_movable_text.jpg)

# Thank you for your attention!



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Schweizerische Nationalbibliothek  
[christian.aliverti@nb.admin.ch](mailto:christian.aliverti@nb.admin.ch)