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16-05-2024





QNL Cataloging and Metadata Services

Developing Qatar National Library Subject Headings (QNL SH) Mechanisms & Challenges

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Outline

Project Highlight

Mechanisms & Challenges

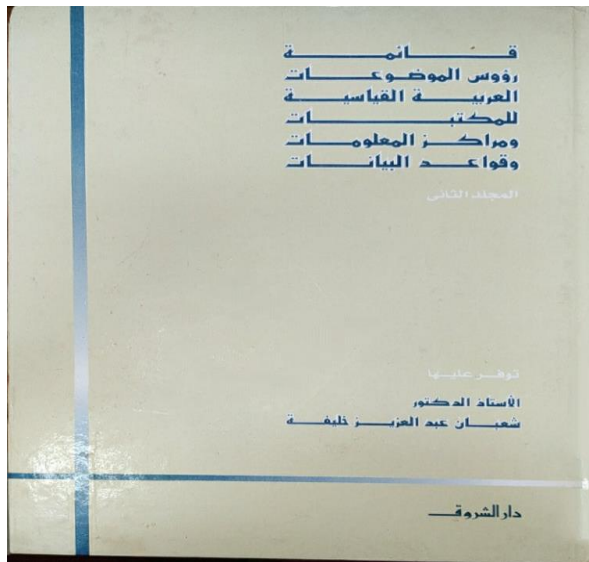
What are the key areas for which QNLSH will be useful?

Future Developments, Recommendations & Conclusion

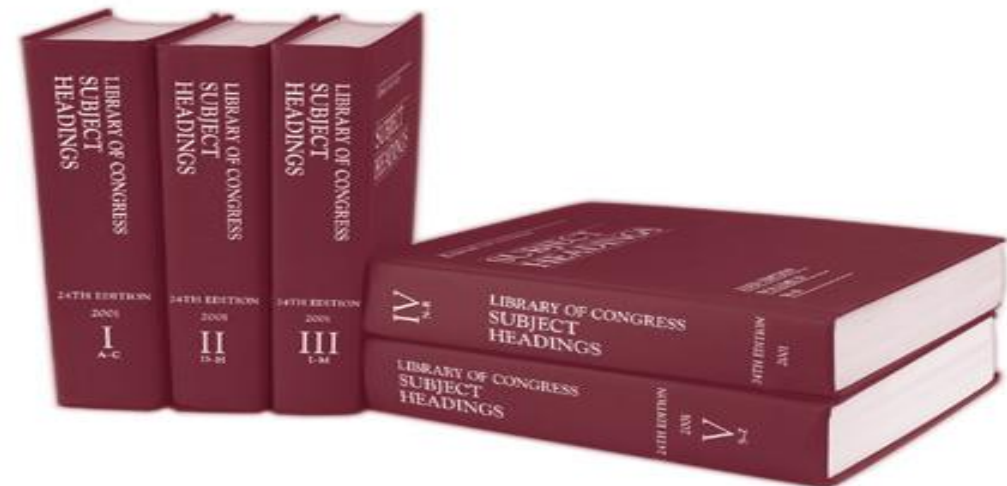
Project Highlight

What is the need?

Level of specificity of Arabic lists of subject headings is very limited. This created the significant need to develop QNLSH to authorize new Arabic subject headings proposals through translating and adapting from the LCSH.



<https://www.jam3.online/login.html>
QRMAK (50,000 Subject Headings)
not updated since 2002)



<https://authorities.loc.gov/>
LCSH (Approx. 500,000 Subject Headings) updated quarterly

Project Highlight

- **Current Status**

- “qnlsh” became a registered MARC 21 code for subject heading sources

<https://www.loc.gov/standards/sourcelist/subject.html>

- Approximately 20,000 authorized SARs
- *“qnaf” became a registered MARC 21 code for name sources*

<https://loc.gov/marc/relators/tn240423src.html>

- Approximately 8,000 authorized NARs including approximately 1900 Geographic names
- *New Arabic Subject Headings Proposals are available through QNL Internal Wiki*

<https://wiki.qnl.qa/>

Project Highlight

- **How the project started?**
- Arabic Subject Heading Enhancing Project (2020-
- Initially, a batch process approach to import bibliographic records for Arabic books from various external databases was utilized to increase the Arabic cataloging productivity before QNL Opening.
- In 2020, the CAT team started developing the QNLSH (Qatar National Library Subject Heading) that incorporates various new Arabic subject headings. This was accomplished through both semi-automated and manual methods that identified inconsistencies in subject headings originating from different bibliographic record sources and the outdated Arabic Subject Headings list known as "QRMAK."

Project Highlight

Project Tasks

A Subject Committee was formed to look after the following tasks:

- Review the new Arabic subject headings proposals
- Establish the process of translating Arabic subject headings adapted from LCSH
- Discuss the obscure terms and come-up with decision on the best translation of the equivalent Arabic term
- Unify the different translations of the same subject heading that was translated on the fly and added to QNL WIKI by the CAT team
- Prepare an *Arabic Subject Cataloging Manual* documenting all the practices as we go further in the project
- Creating full Arabic Subject Authority Records on Sierra with cross-lingual mappings to LCSH

Project Highlight

Implementation Steps

- **Clean Up Sierra's Subject Index**
- Unifying and controlling Arabic subject headings in bibliographic records, based on:
 - The Arabic subject headings available in QRMAK by Dr. Shaban Khalifah
 - The QNLSH expansions of QRMAK (Arabic translations of the LCSH if available)
- **Creating Full Subject Authority Records (SARs) for QRMAK Headings**
 - Creating full SARs records for QRMAK subject headings with references, broader terms and notes in Sierra
 - The equivalent LCSH is added in the linking fields (7XX) in authority records if it is readily available

Project Highlight

Implementation Steps

- **Authorization of Non-QRMAK Headings**
 - Arabic subject heading proposals will be authorized, based on:
 - Thesauri or reference sources (Such as UN Term)
 - Literary warrant (the work catalogued) if the term is not available in any thesauri or reference source
 - Similar headings in QRMAK will be used as pattern for formulating the Arabic subject proposals to ensure consistency
- **Creating Full Subject Authority Records (SARs) for Non-QRMAK Headings**
 - Creating full subject authority records for Non-QRMAK subject headings based on LCSH with references, broader terms and notes
 - The equivalent LCSH will be added in the linking fields (7XX) in authority records

Sample (QNLSH Record)

a12142542 · Subject Authority (N/A)

File Edit View Go Tools Window Help

Browse

Insert Save View Edit Summary Verify Export Print Close

a12142542 Last Updated: 28-11-2017 2:15PMM Created: 28-11-2017 Revisions: 0

Auth. Code 1 - No Code Auth. Code 2 - No Code Auth. Suppress - No Code

MARC Leader		##### nz 22 ##### n 4500
Misc.	008	171128 in az n n n a a b n a a n a d
Misc.	053 0	BF448 c علم النفس
Misc.	053 0	HD30.23 c الإدارة
Misc.	053 0	QA279.4 bQA279.7 c الإحصاء الرياضي
Misc.	053 0	T57.95 c الهندسة الصناعية
Subject Authority	150	اتخاذ القرارات
Note	360	الأمم المتحدة--اتخاذ القرارات ؛ الزراعة--اتخاذ القرارات a تحت أسماء الهيئات المنفردة والمصطلحات الموضوعية، مثل: a اتخاذ القرارات a يستخدم التفرع i
Subject See From	450	اتخاذ القرارات x الإدارة
Subject See From	450	اتخاذ القرارات الإدارية
Subject See From	450	اتخاذ القرارات (علم نفس)
Subject See From	450	تحليل القرارات
Subject See From	450	عملية اتخاذ القرارات
Subject See From	450	قرارات الإدارة
Subject See Also	550	wg a الاختيار (علم نفس)
Subject See Also	550	حل المشكلات
Subject See Also	750 0	Decision making 0(DLC)sh 85036199
Misc.	955	IW

Sample (LCSH Record)

MARC Leader		##### c z a 2 2 ##### n 4 5 0 0
Misc.	001	oca02080880
Misc.	003	OCOLC
Misc.	005	20171128025148.0
Misc.	008	860211 i a n a n n b a b n a a n a
LC Control No.	010	sh 85036199 zsj 96005294
Misc.	040	DLC beng cDLC dDLC
Misc.	053 0	BF448 cPsychology
Misc.	053 0	HD30.23 cManagement
Misc.	053 0	QA279.4 bQA279.7 cMathematical statistics
Misc.	053 0	T57.95 cIndustrial engineering
Subject Authority	150	Decision making
Note	360	i subdivision a Decision making i under names of individual corporate bodies and under topical headings, e.g. a Farm management--Decision making
Subject See From	450	Deciding
Subject See From	450	Decision (Psychology)
Subject See From	450	Decision analysis
Subject See From	450	Decision processes
Subject See From	450	Making decisions
Subject See From	450	Management x Decision making
Subject See From	450	Management decisions
Subject See Also	550	Choice (Psychology) wg
Subject See Also	550	Problem solving
Note	670	UMI business vocab. b (Decision analysis, Management decisions)
Subject See Also	750 4	اتخاذ القرارات
Misc.	955	IW

Sample (QNLSH)

a17822804 · Subject Authority ()

File Edit View Go Tools Window Help

Browse

Insert Save View Edit Summary Verify Export Print Close

a17822804 Last Updated: 11-10-2018 05:15PM Created: 11-10-2018 Revisions: 1

Auth. Code 1 Auth. Code 2 Auth. Suppress

MARC Leader

Misc.	<input type="text" value="040"/>	<input type="text" value="QAFCL bara cQAFCL fqrmak"/>
Subject Authority	<input type="text" value="150"/>	<input type="text" value="الرؤساء والمديرون"/>
Note	<input type="text" value="360"/>	<input type="text" value="الرؤساء والمديرون القطريونa تستخدم الصفة الدالة على الجنسية، مثل: i"/>
Subject See From	<input type="text" value="450"/>	<input type="text" value="الرؤساء"/>
Subject See From	<input type="text" value="450"/>	<input type="text" value="المدريون"/>
Subject See From	<input type="text" value="450"/>	<input type="text" value="المدريون والرؤساء"/>
Subject See Also	<input type="text" value="550"/>	<input type="text" value="الإداريون wg a"/>
Note	<input type="text" value="670"/>	<input type="text" value="شعبان خليفة"/>
Subject See Also	<input type="text" value="750"/>	<input type="text" value="0 Executives"/>
Misc.	<input type="text" value="955"/>	<input type="text" value="IW:OF"/>
Misc.	<input type="text" value="911"/>	<input type="text" value="102018"/>

a17822804 Edit Mode (OVR)

QNL SH Cross-Reference

Sierra · Qatar National Library · Iman A. Khairy Mohammed · a12142542 · Subject Authority (N/A)

File Edit View Go Tools Reports Admin Window Help

sierra FUNCTION Catalog

Browse d Subject اتخاذه القرارات علم نفس Search + Local New View Edit Summary Pri

Phrase Results Select

1 اتخاذه القرارات (علم نفس)

Format	Description	Summary	Preview
1	[اتخاذه القرارات (علم نفس)]	a12142542	
Subject Authority	قرارات الإدارة اتخاذه القرارات -> See		

1 Subject, 1 ENTRIES

QNL SH Cross Reference

Sierra · Qatar National Library · Iman A. Khairy Mohammed · a12142542 · Subject Authority (N/A)

File Edit View Go Tools Reports Admin Window Help

sierra FUNCTION Catalog

Browse d Subject حل المشكلات Search + Local New View Edit Summary Pri

Format Results Select

Format	Description	Summary	Preview
1	[حل المشكلات]	a12142542	
Subject Authority	--> See Also اتخاذ القرارات		

3 Subjects, 23 ENTRIES

QNL SH (New Arabic SH)

a12142578 - Subject Authority (N/A)

File Edit View Go Tools Window Help

Browse

Insert Save Save All View Edit Summary Verify Export Print Close

a12142578 Last Updated: 30-11-2017 11:37AM Created: 30-11-2017 Revisions: 0

Auth. Code 1 - No Code Auth. Code 2 m QNL Records Auth. Suppress - No Code

MARC Leader	##### n z	22	##### n	4 5 0 0
Misc.	008		171130 i n a z n n n a a b n	a a a d
Misc.	040		QAFCL b a r a c QAFCL	
Misc.	053	0	HF5548.32 b HF5548.34	
Subject Authority	150		التجارة الالكترونية	
Subject See From	450		التجارة عبر الإنترنت	
Subject See From	450		التجارة على الإنترنت	
Subject See Also	550		w g a التجارة	
Note	667		[مقترح]	
Note	680		هنا تدخل الأعمال عن تبادل السلع والخدمات ونقل الأموال من خلال الاتصالات الالكترونية i	
Note	670		(التجارة الإلكترونية) b الحياي، وليد ناجي. إطار النظري للمحاسبة في ظل عمليات التجارة الإلكترونية، 2015: b19486236: العمل المفهرس	
Note	675		شعبان خليفة	
Subject See Also	750	0	Electronic commerce	

a12142578 Edit Mode (INS)

QNL SH (New Arabic SH)

a12142566 - Subject Authority ()

File Edit View Go Tools Window Help

Browse

Insert Save View Edit Summary Verify Export Print Close

a12142566 Last Updated: 18-10-2018 5:18PMM Created: 30-11-2017 Revisions: 2

Auth. Code 1 - No Code Auth. Code 2 m QNL Records Auth. Suppress - No Code

MARC Leader ##### n z 2 2 ##### n 4 5 0 0

Misc.	040		QAFCL bara cQAFCL
Misc.	053	0	P94.5.W65
Subject Authority	150		وسائل الإعلام والمرأة
Subject See From	450		المرأة ووسائل الإعلام
Subject See Also	550		wg a المرأة
Note	680		المرأة كإعلامية. a هنا تدخل الأعمال التي تناقش تأثير وسائل الإعلام على المرأة. أما الأعمال التي تناقش عمل المرأة في وسائل الإعلام فتدرج تحت المرأة في وسائل الإعلام. a أما الأعمال التي تناقش صورة المرأة في وسائل الإعلام فتدرج تحت
Note	670		العامل المفهرس: الكواري، خالد مبارك زامل. المرأة القطرية ووسائل الإعلام المحلية، 2000.
Note	675		شعبان خليفة
Note	681		المرأة في وسائل الإعلام؛ المرأة كإعلامية a راجع أيضا
Subject See Also	750	0	Mass media and women
Misc.	955		IW

LC Name Authority File (Author)

a17940394 · Author Authority (LCSH)

File Edit View Go Tools Window Help

Browse

Insert Save View Edit Summary Verify Export Print Close

a17940394 Last Updated: 12-12-2021 10:46AM Created: 12-12-2021 Revisions: 2

MARC Leader	##### c z	a 2 2	##### n	4 5 0 0
Misc.	001			oca06201217
Misc.	003			OCoLC
Misc.	005			20211212103625.0
Misc.	008			031110 n a c a n n a a b n b a a a c
LC Control No.	010			no2003113345
Misc.	040			NjP beng cNjP dDLC dOCoLC dQAFCL
Name Authority	100	1		Kawwārī, Ḥamad 'Abd al-'Azīz
Name See From	400	1		Kuwārī, Ḥamad 'Abd al-'Azīz
Name See From	400	1		Al-Kawari, Hamad Abdel-Aziz
Name See From	400	1		Kawari, Hamad Abdel-Aziz Al-
Note	670			Jadal al-ma'ārik wa-al-taswiyāt, 2001: bt.p. (D. Ḥamad 'Abd al-'Azīz al-Kawwārī)
Note	670			al-Ma'rifah al-nāqīshah, 2005: bt.p. (Ḥamad 'Abd al-'Azīz al-Kawwārī) t.p. verso (Hamad Abdel-Aziz Al-Kawari) p. 325 (b. 1948)
Name See Also	700	1	7	2 حمد بن عبد العزيز الكواري qnlsh
Misc.	955			MK

a17940394 Edit Mode (INS)

QNAF Name Authority File (Place)

a10001335 - Subject Authority (Other)

File Edit View Go Tools Window Help

Browse

Insert Save View Edit Summary Verify Export Print Close

a10001335 Last Updated: 22-08-2019 10:06AM Created: 20-05-2014 Revisions: 12

Auth. Code 1 Auth. Code 2 Auth. Suppress

MARC Leader

Misc.	<input type="text" value="008"/>	<input type="text" value="140217 n a c z n n a a b n a a n a"/>	
Misc.	<input type="text" value="034"/>	<input type="text" value=" d E0513000 e E0513000 f N0254100 g N0254100 2 other"/>	
Misc.	<input type="text" value="040"/>	<input type="text" value="QAFCL bara erda cQAFCL"/>	
Misc.	<input type="text" value="043"/>	<input text"="" type="text" value="151"/>	<input type="text" value="(الخور (قطر)"/>
Subject See From	<input type="text" value="451"/>	<input type="text" value="(خور شقيق (قطر)"/>	
Subject See From	<input type="text" value="451"/>	<input type="text" value="(مدينة الخور (قطر)"/>	
Note	<input type="text" value="670"/>	<input type="text" value="1985, : b شمال الدوحة) صفحة34 (مدينة الخور، الخور،"/>	
Note	<input type="text" value="670"/>	<input type="text" value="GEOnet, May 20, 2014 b (Al Khawr; ppl 25°41'N 51°30'E; variants: Khaur Shaqiq; Khawr Shaqiq; Khaur al-Mahanidah)"/>	
Misc.	<input type="text" value="781"/>	<input type="text" value="4 z قطر zالخور."/>	
Name See Also	<input type="text" value="751"/>	<input type="text" value="0 Khawr (Qatar) 0(DLC)n 88251404"/>	

a10001335 Edit Mode (OVR)

QNAF Name Authority File (Corp.)

a17943772 · Author Authority (N/A)

File Edit View Go Tools Window Help

Browse

Insert Save View Edit Summary Verify Export Print Close

a17943772 Last Updated: 02-05-2024 03:28PM Created: 02-05-2024 Revisions: 2

Auth. Code 1 Auth. Code 2 Auth. Suppress

MARC Leader

Misc.	008	140217 n a z n n n a a b n a a n a d
Misc.	040	QAFCL bara erda cQAFCL
Misc.	046	q1997 2edtf
Name Authority	110 2	(مركز حسن بن محمد للدراسات التاريخية (قطر)
Note	368	2 المؤسسات البحثيةqnlsh
Note	368	cQataris 2 cdgt
Note	370	c قطر e2 الدوحة (قطر)qnaf
Note	372	شبه الجزيرة العربية-تاريخ a2 قطر-تاريخqnlsh
Note	377	ara
Name See From	410 2	(مركز حسن بن محمد بن علي آل ثاني للدراسات التاريخية (قطر)
Note	670	(المجلد2، صفحة العنوان (مركز حسن بن محمد للدراسات التاريخية b:قطر ودول الخليج العربي في وثائق الأرشيف الهندي
Note	670	صفحة من نحن (تأسس المركز عام1997 بمبادرة من الشيخ حسن بن محمد في إطار مشروع ثقافي يقدم الدعم b: موقع المركز، تاريخ الزيارة 2024-05-02 uhttps://store.qatarartcenter.org/ar/about-us/
Name See Also	710 2 0	Markaz Ḥasan bin Muḥammad lil-Dirāsāt al-Tāriḵhiyah (Qatar) 0(DLC)no2016012214

a17943772 Edit Mode (OVR)

Mechanisms

Project Methodology

Authority Research

Determine how is the term used

- Consult authoritative” sources
 - Dictionaries, encyclopedias, etc.
 - Thesauri
 - Literary warrants (thesis, books, journals, websites)
- Amount of research varies, but is not an exhaustive search, looking for consensus
- If conflicting information is found in the first two sources checked, further sources may need to be checked in search of a "tiebreaker"

Mechanisms

Project Methodology

Main Authority Tools

- UN Term Thesaurus

<https://unterm.un.org/>

- Virtual International Authority File (Multilingual/Multi-script Personal and Corporate Names)

www.viaf.org

GNS Server (Includes many Arabic Geographic Names are transliterated into Latin and available in Arabic script)

<http://geonames.nga.mil/gns/html/>

Mechanisms

Project Methodology

Constructing Terms

- Subject terms are constructed identically with the English term in terms of singular vs. plural.
- The translated Arabic term should be the most commonly known term in Arabic as found in “authoritative reference” sources.
- The term in Arabic can be one of the following:
 - Identical
 - Same Concept
 - Same meaning

Mechanisms

Project Methodology

Consulting Reference Sources

- General dictionaries like “Qamus Majma al Lughah al arabiyah” should be checked for general topics.
- Appropriate sources should be checked for special topics, like Faruqi law dictionary for law, ElShami for Librarianship (elshami.com), chemistry dictionaries for chemicals, etc.
- A comprehensive list of reference tools must be prepared and validated by, including identifying their “preference order”

Mechanisms

Project Methodology

Reference Sources

- It is usually not applicable to consult only one reference source for translating an Arabic term.
- Individual Arabic reference sources may or may not be accurate, may or may not be authoritative, or may or may not present or advocate a particular point of view.
- It is always recommended in Arabic vocabulary control that at least “two authoritative reference sources” are consulted.
- In case of conflict in the two reference sources it is necessary to seek corroboration or verification of the term in additional sources.

Mechanisms

Project Methodology

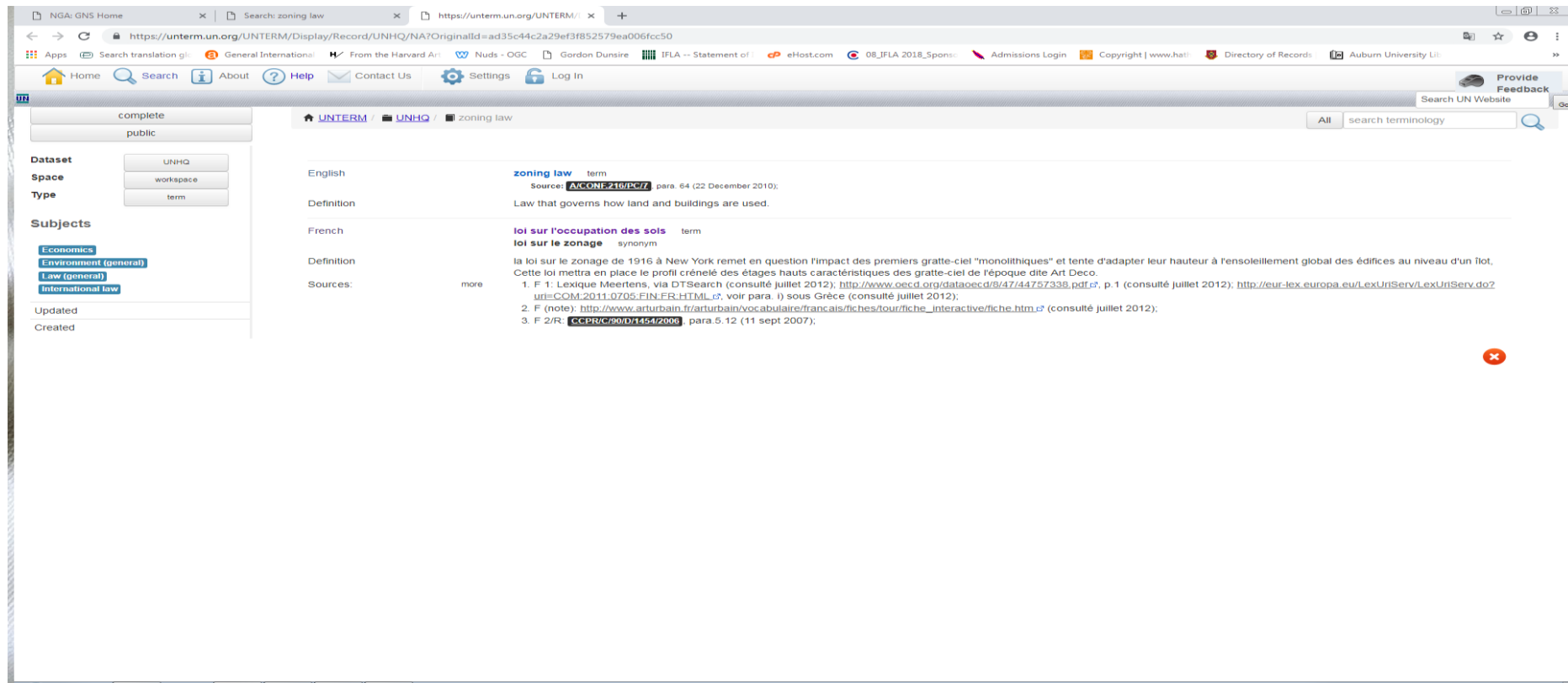
Consulting Thesauri Tools

- Consulting thesauri are much easier than researching reference sources and literary warrants.
- The main advantage of consulting a thesaurus that it identifies a preferred term and its variant terms.
- However, finding a term in a thesaurus may demonstrate a particular usage of the term but does not necessarily indicate that it is the best or predominant way of referring to a topic.
- The term usage in a reference source is always more authoritative as “preferred term” than the term in a thesauri.

Mechanisms

Project Methodology

Thesauri Tools (UN Term) (mainly for social sciences topics, doesn't include Islamic topics)



The screenshot displays a web browser window with the URL <https://unterm.un.org/UNTERM/Display/Record/UNHQ/NA?OriginalId=ad35c44c2a29ef3f852579ea006fcc50>. The page shows the entry for the term "zoning law" in English. The left sidebar contains navigation options: "complete", "public", "Dataset" (with "UNHQ" selected), "Space" (with "workspace" selected), "Type" (with "term" selected), "Subjects" (with "Economics", "Environment (general)", "Law (general)", and "International law" listed), and "Updated" and "Created" sections. The main content area displays the following information:

English **zoning law** term
Source: [A/CONE.216/PC.7](#) para. 64 (22 December 2010);
Definition: Law that governs how land and buildings are used.

French **loi sur l'occupation des sols** term
loi sur le zonage synonym
Definition: la loi sur le zonage de 1916 à New York remet en question l'impact des premiers gratte-ciel "monolithiques" et tente d'adapter leur hauteur à l'ensoleillement global des édifices au niveau d'un îlot. Cette loi mettra en place le profil crénelé des étages hauts caractéristiques des gratte-ciel de l'époque dite Art Deco.
Sources: [more](#)
1. F 1: Lexique Meertens, via DTSearch (consulté juillet 2012); <http://www.oecd.org/dataoecd/78/47/44757338.pdf>, p.1 (consulté juillet 2012); http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COLL2011-0705:FIN_ER:HTML, voir para. i) sous Grèce (consulté juillet 2012);
2. F (note): http://www.arturbain.fr/arturbain/vocabulaire/francais/fiches/tour/fiche_interactive/fiche.htm (consulté juillet 2012);
3. F 2/R: [CCPR/C/200/D/454/2006](#) para.5.12 (11 sept 2007);

Mechanisms

Project Methodology

Thesauri Tools (Faisal Thesauri)

al-Fayṣal : maknaz Arabī shāmil fī ulūm al-ḥaḍārah : qism ulūm al-dīn al-Islāmī
A List of subject headings used for Islamic studies by Markaz al-Malik Fayṣal lil-Buḥūth wa-al-Dirāsāt al-Islāmīyah (King Faisal Center for Research and Islamic Studies), Riyadh, Saudi Arabia.

A scholarly developed Arabic list of Islamic religious terms using natural language.



الطبعة الأولى ١٤١٥ هـ - ١٩٩٤ م

Mechanisms

Project Methodology

Thesauri Tools (Faisal Thesauri)

Hundreds of narrow terms from Faisal don't have any equivalent English LCSH terms. This applies mainly to three major topics (Quran Hadith and Sufism terms). These topics need further improvement and expansions in LCSH.

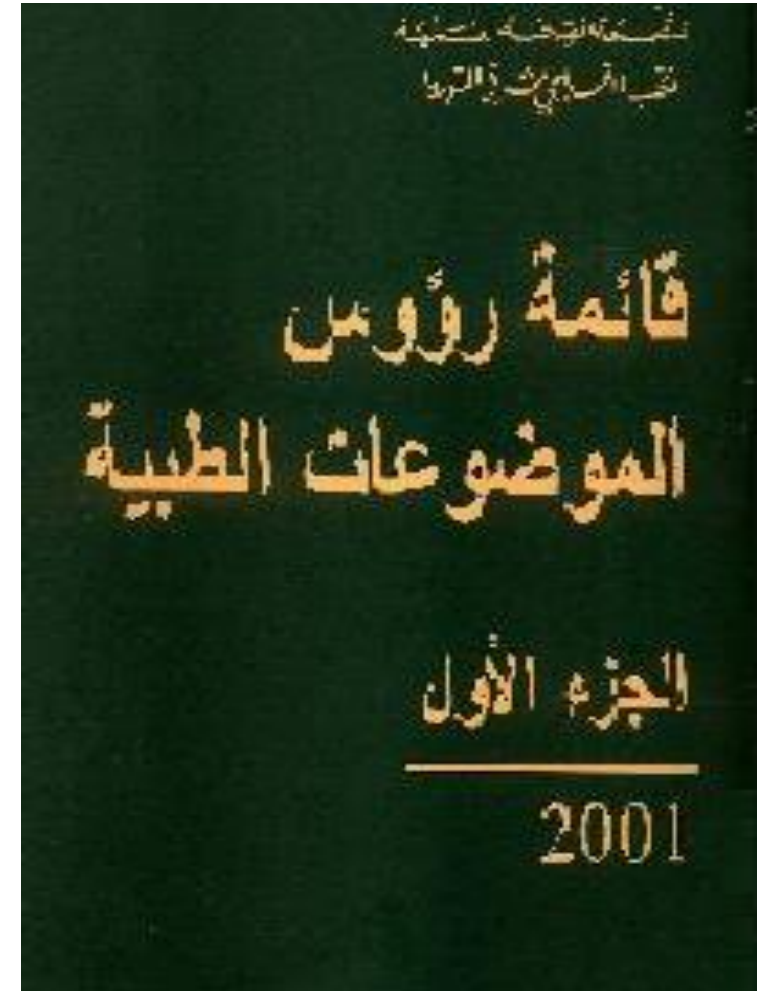


Mechanisms

Project Methodology (Adapted from the LC Arabic SACO Project)

- Thesauri Tools (Arabic MeSH)

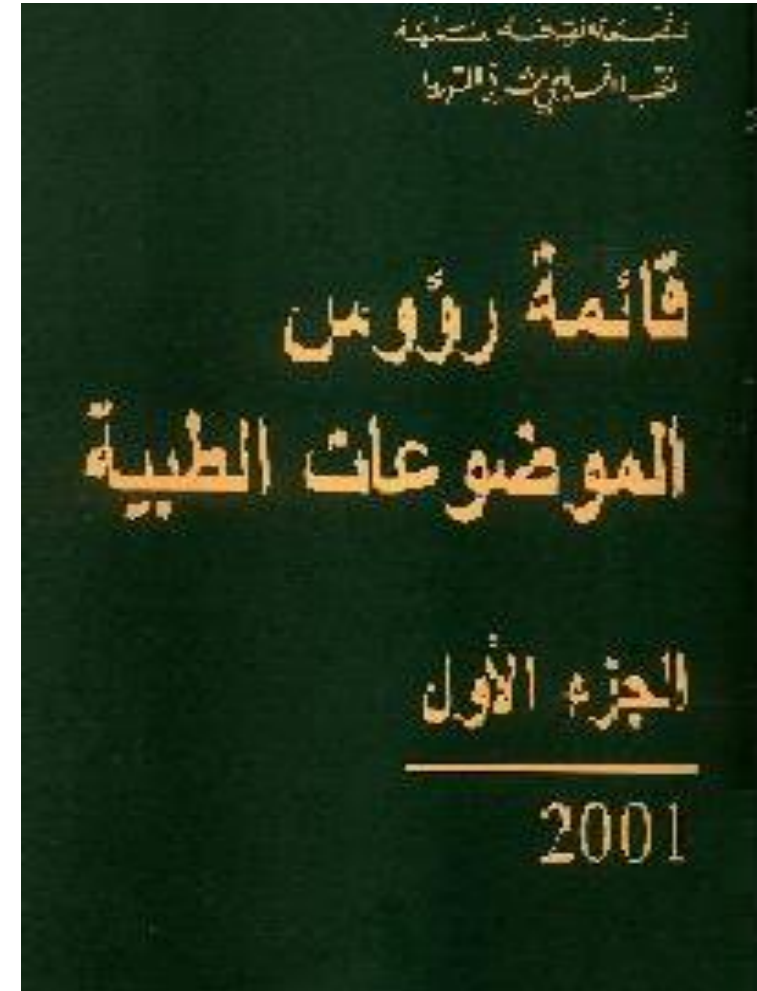
Qaimat ruus al-mawduat al-tibbiyah =
Medical subject headings (MeSH),
National Library of Medicine,
translated into Arabic by the World
Health Organization, Regional
Office for the Eastern
Mediterranean



Mechanisms

Project Methodology (Adapted from the LC Arabic SACO Project)

- Thesauri Tools (Arabic MeSH)
- Arabic MeSH Subject Headings
Disadvantages
 - Terms are arranged alphabetically in Arabic language no index available for searching in English language
 - Include scientific not common terms
 - Not intended for public usage



Mechanisms

Project Methodology (Adapted from the LC Arabic SACO Project)

- Literary Warrants
- There will be some situations in Arabic, for example, with technical or computer terms, where the only information may be in literary warrants.
- Literary warrants such as titles of books, thesis and other types of publications including information on the web can be consulted.
- In those cases, it is helpful to have a clear definition of the term before accepting the term found in the literary warrants.
- Checking for usage in titles in OCLC is a good means of finding variant terminology for references.

Mechanisms

Project Methodology

Final Step

- It is sometimes necessary to weigh the information found in various sources and to use judgment to determine which source is more authoritative or current.
- If the information in literary warrants is confirmed in an authoritative reference source, that is probably all that is needed.

Challenges

Authority Control Module (ACM) Issues

- Although 40% Of the Subject Authority Records (SARs) were completed 40%, all ongoing work has been halted until we resolve the Sierra ACM issue.
- ACM cannot update bibliographic records as intended.
- Solving this issue will improve the consistency of the access points and help overcome any hindrance in the retrieval of names, places, subjects, and genre terms especially in Arabic languages by end users.
- It will also speed up the authority control routine work through a systematic automated way rather than the slow manual way.
- This issue was reported several times since 2017 to the vendor. It was anticipated to be fixed in the newest Sierra release 6 but was not fully fixed until date.

Challenges

Conceptual English to Arabic Terminology Mapping (Not Translation)

- Owing to the dramatically different language structures and cultural bases of Arabic and English, translated subject headings involving these languages frequently are not equivalent to the concept of the original heading.
- The concept of the translated headings in many cases is either overly broad or the headings do not retain the original meaning. Thus, a more thorough analysis and understanding of the very different Arabic and English language structures are needed to alleviate this inevitable difficulty.
- The LCSH may be identical or represent the same meaning or the same concept as the Arabic term.

Challenges

Conceptual English to Arabic Terminology Mapping (Not Translation)

The following subject heading illustrates the challenges faced in conveying the original concept in the process of mapping the English term in LCSH to the Arabic concept of the term

150 al-Ahkam al-sultaniyah

750 0 Public law (Islamic law)

The Arabic term “al-Ahkam al-sultaniyah” can be literally translated as “Sultanate rulings”, which represents the general law in Islam. However, the term “Sultanate rulings” can be ambiguous to English speaking researchers. Accordingly, the LCSH used to represent “al-Ahkam al-sultaniyah” as “Public law (Islamic law)” with the aim to disambiguate the term and near the meaning for English speaking researchers.

Challenges

Conceptual English to Arabic Terminology Mapping (Not Translation)

The following additional examples subject heading illustrates the challenges faced in conveying the original concept in the process of mapping the English term in LCSH to the Arabic concept of the term

150 Usul al-fiqh

750 0 Islamic law—Interpretation and construction

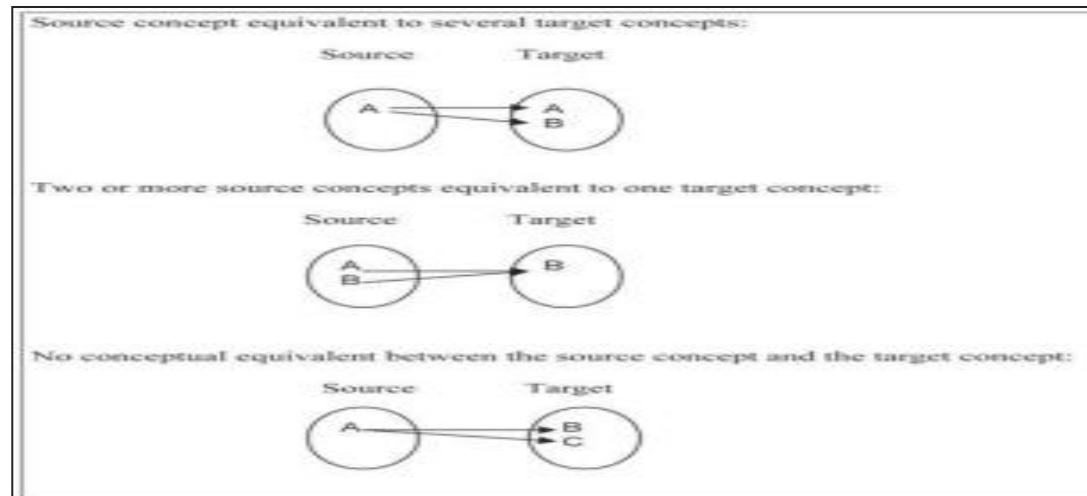
150 al-Tawassul bi al-awliya

750 0 Intercessory prayer—Islam

Challenges

Conceptual Mapping (Not Translation)

Figure 1. Conceptual equivalence illustrates some possible conceptual mismatches in the process of conceptual mapping between two subject headings in different languages



Source: Jung-ran Park, "Hindrances in Semantic Mapping among Metadata Schemes: A Linguistic Perspective," *Journal of Internet Cataloging* 5, no. 3 (2002): 74.

Challenges

Conceptual Mapping (Arabization vs. Expansion)

Many topics especially related to Islamic law were approved by LC SACO, making the cross-lingual mapping attainable.

- Gambling (Islamic law)
- Setoff and counterclaim (Islamic law)
- Kings and rulers (Islamic law)
- Terrorism (Islamic law)

Challenges

Conceptual Mapping (Arabization vs. Expansion)

While others took very long time to get approved such as the following Baqā' (Sufism) and Fanā' (Sufism).

OCLC Connexion - [Online LC Authority File: Baqa (Sufism)]

File Cataloging Authorities Edit Action Batch View Tools Window Help

Text Strings User Tools

ARN 8164423

Rec stat	n	Entered	20080529	Replaced	20090630140808.0
Type	z	Upd status	a	:lvi	n
Roman		Ref status		Mod rec	Name use
Govt agn		Auth status		Subj	Subj use
Series		Auth/ref		Geo subd	Ser use
Ser num		Name		Subdiv tp	Rules
010		sh2008004138			
040		PaPhMEL #b eng #c DLC			
150		Baqā' (Sufism)			
450		Baqaa (Sufism)			
450		Subsistence of the soul (Sufism)			
450		Survival of the soul (Sufism)			
550		*w g #a Sufism #x Doctrines			
550		Fanā' (Sufism)			
670		Work cat.: Martin, D.L. Al-Fana' (mystical annihilation of the soul) and al-banā' (subsistence of the soul) in the work of Abu al-Qasim al-Junayd al-Baghdadi, 1999.			
670		Encyc. of Islam, May 11, 2008 #b (Bakā' wa-Fanā'; the Sufi terms fanā' "passing away, effacement" and bakā' "subsistence, survival", refer to the stages of the development of the mystic in the path of gnosis)			
670		Qāmūs al-muštalahāt al-Islāmiyah, 1997 #b (baqā', survival)			
670		Wikipedia, May 23, 2008 #b (baqaa, literally meaning permanence, in Sufi philosophy describes a particular state of life with God)			

Export Add- Submit- Replace- Report Error- Validate-

1 of 50 Workflow-In Process INS 32:58

Challenges

Conceptual Mapping (Arabization vs. Expansion)

QNL has sufficient literary warrant publications about the following topics, but they were not approved by LC SACO. Thus, the only equivalent LCSH for all these topics is Quran—Readings which is the broader term of the below subject headings

- Quran--Seven Successive Readings
- Quran--Three Completing Readings
- Quran--Ten Readings
- Quran--Fourteen Readings
- Quran--Irregular Readings
- Quran-- Forged Readings
- Quran-- Interpolated Readings.

Challenges

Conceptual Mapping (Arabization vs. Expansion)

- What would be the practice for mapping if the term in LCSH is the broader term? Choice between Option A or Option b or Option C?
- Some topics are even overly broad to hundreds of Arabic terms such as Hadith—Authorities; the only available LCSH broader term to more than 300 terms in Faisal Thesaurus related to Hadith Sciences.

Option A

- 0 130 Quran--Qirā'āt al-sab'
- 730 07 Quran--Seven Successive Readings|2qnlsh

Option B

- 130 Quran--Qirā'āt al-sab'
- 730 00 Quran--Readings

Option C

- 130 Quran--Qirā'āt al-sab'
- 730 00 Quran--Readings
- 730 07 Quran--Seven Successive Readings|2qnlsh

Challenges of Authority Control of Authors Names

Author name in Arabic script is not available on Wiki

The screenshot shows a web browser window displaying the Wikidata search results page. The browser's address bar shows the URL: `wikidata.org/w/index.php?go=Go&search=الياقعي+دايف&search=الياقعي+دايف&title=Special%3ASearch&ns0=1&ns120=1`. The page header includes the Wikidata logo and navigation links such as "English", "Not logged in", "Talk", "Contributions", "Create account", and "Log in". A search bar in the top right corner contains the text "Search Wikidata".

The main content area is titled "Search results" and includes a sub-header "Special page". Below this, there is a search input field containing the Arabic text "دايف الياقعي" and a "Search" button. Underneath the search field, there are two dropdown menus: "Advanced search:" with "Sort by relevance" selected, and "Search in:" with "(Main)" and "Property" options. A message below the search area states: "There were no results matching the query. You may create a new item for 'دايف الياقعي'." At the bottom of the page, there are links for "Privacy policy", "About Wikidata", "Disclaimers", "Mobile view", "Data access", "Developers", "Statistics", and "Cookie statement". The footer also features the Wikimedia Project logo and the text "Powered by MediaWiki".

Challenges of Authority Control of Authors Names

Author name in Latin script is available on Wiki

(10) Facebook x Search results for "Nayef Alyafei" x +

wikidata.org/w/index.php?go=Go&search=Nayef+Alyafei&search=Nayef+Alyafei&title=Special%3ASearch&ns0=1&ns120=1

English Not logged in Talk Contributions Create account Log in

Search Wikidata

Special page

Search results

To search for Wikidata items by their title on a given site, use [Special:ItemByTitle](#).

Q Nayef Alyafei Search

Advanced search: Sort by relevance X

Search in: (Main) X (Property) X

Results 1 – 2 of 2

[Optimization of contact angle and interfacial tension measurements for fluid/rock systems at ambient conditions \(Q92436006\)](#)
scientific article, published on 12 July 2019
12 statements, 0 sitelinks - 01:47, 28 August 2022

[Analytical Solutions for Spontaneous Imbibition: Fractional-Flow Theory and Experimental Analysis \(Q57716426\)](#)
12 statements, 0 sitelinks - 04:39, 12 January 2021

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What are the key areas for which QNLSH will be useful?

- Better discoverability of all library resources by names access points & subject headings terminologies.
- Adding all variants ensure a high predictability of what the user expects to find, facilitates search, and accurate retrieval, etc.
- Allow cross-lingual (Arabic and English search functionality).
- Help in more cataloging productivity because the cataloger will assign headings from QNLSH rather than going through the enormity of translation.
- A tool for assigning Arabic subject headings in any future project with external partners.
- Help in unifying all Arabic subject headings translated as part of past projects with various external partners.

Future Development

- Project undergoing to publish QNLSH, QNAF, and selected bibliographic records as Linked Data through the Identities and Vocabularies Solution (IVS).
- Prepare Arabic Subject Cataloging Manual and publish it in electronic form.
- Link QNLSH and QNAF to the Library of Congress Multilingual Subject Headings project which is part of id.loc.gov.
- Conduct LIS training programs to librarians from the Arab world about the use and development of QNL Controlled Vocabularies.
- Initiate Name & Subject authority cooperative program similar to LC NACO & SACO project to regionally collect new Arabic name & subject headings proposals.

Recommendations

- Initiate the Virtual International Subject Authority File (VISAF) or expand the Virtual International Authority File (VIAF) to include linked multilingual subject headings.
- Currently, Bibliotheca Alexandrina, the National Library of Lebanon and the National Library of Morocco are examples of Arab world libraries that contribute names to VIAF. Thus, Arabic Subject authority files developed by different libraries in the Arab world can co-exist and virtually linked to other multilingual subject headings in a similar way.
- The initiation of international committee that can bring together researchers from across a broad range of disciplines to consider different aspects of developing a cross-lingual/cultural semantic mapping and expansions of topics relevant to Arabic & Islamic studies.



Conclusion

While the challenges of developing QNLSH and QNAF are huge. The outcomes are very promising especially if achieved through international collaboration.

Thank You



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