

***Quality Assurance Standards for Arabic Electronic Cataloging:
The Zayed University Experience, United Arab Emirates (UAE)***

BY

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ABSTRACT

The paper is aimed to discuss the Zayed University methods of cataloging Arabic materials by creating Arabic script bibliographic records using the Millennium Integrated Library System. The paper discusses the standards used to assure quality Arabic cataloging taking into consideration the special characteristics of the Arabic language. It also justifies the need for creating high quality records as Zayed University library is a contributor to two major bibliographic utilities, OCLC and LIWA (UAE Higher Education Library Consortium)

***MELCom International 35th Annual Conference,
Moscow, 27-29/05/2013.***

Zayed University (ZU)

Zayed University (ZU), a government-supported institution, was established in 1998 to prepare leaders who will foresee the possibilities and capture the opportunities for action that will create the future of the United Arab Emirates. The University has campuses located in the U.A.E.'s two largest cities, Abu Dhabi and Dubai, under one central administration. Enrollment on each campus is approximately 4,500 students as per Fall 2012 statistics. Over 650 faculty and staff members, both male and female, representing over thirty five nationalities contribute to the success of Zayed University and its students. Zayed University is based on an international model of higher education.

It is organized academically into seven colleges and two institutions: Arts and Creative Enterprises, Business Sciences, Communication and Media Sciences, Education, Technological Innovation, Sustainability Sciences and Humanities, University College, Institute for Islamic World Studies and Institute for the Arabic Language. The University also offers 19 master degree programs (Health Care Administration, Public Administration, Diplomacy and International Affairs, Museum Studies, Business Administration, International Business, Tourism and Cultural Communication, Strategic Public Relations, Filmmaking, Educational Leadership, Special Education, Teaching and Learning, Cyber Security, Comparative Religions, Contemporary Islamic Studies, Islamic Economics and Wealth Management, Endowment Waqf Studies, Islamic World Studies, and Muslim Women's Studies) and 10 graduate certificate programs (Diplomacy and International Affairs, Health Care Administration, Museum Studies, Business Administration, Tourism and Cultural Communication, Public Relations, School Leadership for Principals, Teaching and Learning, High Technology Crime Investigation and Information Security).

The primary language of instruction is English. The University expects its graduates to be fully bilingual in English and Arabic, proficient in the use of computing technology, and strong in quantitative and research skills. It expects them to achieve significant intellectual and social development. It also expects its graduates to be well-prepared professionals ready to become leaders in government, business, civil society, and family life. Zayed University is accredited by the Middle States Commission on Higher Education. The University was granted accreditation in June 2008.¹

The ZU Library and Learning Commons

Zayed University Library and Learning Commons provides access to information in electronic, print, audiovisual, and multimedia formats. Students and faculty members access electronic information and collections through the online catalog and library website. The library provides a comfortable environment and helpful services to support reading, research, and individual and group study. In the library and in classrooms, librarians teach students how to find, critically evaluate, use, and cite information sources. The library on each campus has growing English and Arabic collections, including books, magazines and newspapers, videos, and sound recordings. A wealth of information and thousands of journal articles are available through online databases that are selected and licensed for the ZU community for access on and off campus. The Emirates Collection offers material about the Emirates and books written by Emiratis. The University archives are housed in the Dubai library. Writing Centers are located in the libraries in Abu Dhabi and Dubai. The library offers computers, printers, and scanners, as well as a wireless environment and connections for laptop computers and I Pads. Students may use pre-paid cards for photocopying. Library facilities are open Saturday through Thursday during the semester.

The library promotes student achievement in information literacy, that is, the ability to access, evaluate, and use information effectively. A self-paced tutorial to build information literacy skills, InfOasis, which is created by ZU professional librarians, can be found at www.zu.ac.ae/infoasis. The library's information literacy team won a national award for the tutorial and has been recognized internationally for best practices in the field. The library has two centers on each campus:

- Learning Enhancement Center (LEC) which provides access to books, graded readers, dictionaries, audiovisual materials, reading and listening programs, online resources, and other self-study materials. Resources and programs are offered to help students strengthen independent study skills and excel in their

coursework. LEC staff and peer tutors are available to assist students in writing, mathematics, reading, listening, speaking, information technology, information literacy skills, and other specialized areas.

- Curriculum Resource Center (CRC) which provides collections and instructional equipment for students enrolled in the College of Education, particularly those preparing to be teachers. The resources are specifically selected and designed to support pre-school through grade 12 classroom activities. They include computers, laminators, button-makers, puppets, specialized kits, sample textbooks, and print and electronic items. CRC staffs instruct and assist students in using the materials and equipment. Staffs engage in outreach activities for local school teachers. ZU Library website can be found at www.zu.ac.ae/library.

Library holdings have increased to approximately 85,000 volumes on the two campuses; additionally the library subscribes to 500 individual periodicals in print and electronic formats. Further, 15,000 other items are available as CD-ROMs, slides, multimedia materials and kits, bringing the total informational resources available to students and faculty to about 100,000. Additionally, tens of thousands of articles in hundreds of journals are available online to the ZU community via licensing agreements facilitated by the library. The Library has a Central Technical Services Department which is located in the ground floor of the Library Building on Dubai Campus. The Department manages the acquisitions, cataloging, and metadata functions for Zayed University Libraries across the two campuses. Its primary responsibilities are:

- Managing order requests and receipts, processing invoices, and managing funds for all formats of print, multimedia, and digital scholarly resources.
- Providing integrated and permanent access to all formats of print, multimedia, and digital scholarly resources through original, complex, and copy cataloging in Millennium Library system.
- Providing streamlined access to all resources through maintenance of authority control for bibliographic and metadata records.
- Maintaining the integrity of Millennium Library system through regular assessment and revision of existing bibliographic, metadata, and authority records.
- Safeguarding access and availability to all resources through end processing functions such as labeling, property stamping, and security taping.
- Participating and providing leadership in collaborative international and regional initiatives to sustain and develop professional standards.

With its consortium partners, the United Arab Emirates University and the Higher Colleges of Technology, the ZU library began creation of a combined union catalog of library holdings, called LIWA, that will for the first time permit sharing of materials held in the respective collections.

Quality Cataloging at ZU Library and Learning Commons

Since its establishment, the Technical Services Department at ZU, has undertaken the responsibility of ensuring that cataloging quality standards are established, implemented and maintained in accordance with the international standards.

As we know, original cataloging is divided into two sections: descriptive cataloging and subject cataloging. Subject cataloging has two additional phases: assigning subject headings and classification numbers. Consistency and uniformity are very important in cataloging. Cataloging rules and codes have been formulated to meet these needs. Such rules, in our case, are especially important as our library, as previously mentioned, is a member of a joint network called LIWA (UAE Higher Education Library Consortium) where our bib records are shared locally and internationally as they are uploaded to OCLC as well.

Characteristics of Arabic language

Before we start discussing the quality assurance standards for Arabic bib records, we need to shed some light on some of the characteristics of Arabic language and how its structure affects information retrieval in library information systems.

Arabic has 28 characters. It is written from right to left. An Arabic character may have up to 4 shapes depending on the character itself, its predecessor and its successor. There is an isolated shape, a connected shape, a left-connected shape and a right connected shape. As an example, the letter <ha> [هـ] in Arabic may have one of the following shapes, depending on its position in the word: هـ, ه, هـ, هـ. These different shapes for a single character do not count as different code points but they are handled using different fonts. Letters that can be joined are always joined in both hand-written and printed Arabic in a cursive style. The article <al> [ال] which means 'The' in English is connected to the succeeding word with no space in between, thus making Arabic writing differs distinctly from any other languages like English, French, Spanish...etc. Arabic has several diacritics (small vowels) that can be written above or beneath each letter. These diacritics are <fatha> [َ], <.damma> [ِ], <kasra> [ِ], <sukûn> [ْ], <tanwin fath> [ً], <tanwin damm> [ٍ], <tanwin kasr> [ٍ].

Having mentioned some of the Arabic language characteristics and to ensure quality, consistency and strong retrieval of bib records, the following decisions have been taken with regard to:

A. Standards

The basic standards for the input of cataloging for Zayed University library are the following:

1. Level of Cataloging

Among the levels of cataloging as per MARC21 values, ZU Library has decided to use full-level cataloging which has the value of [blank] in the Encoding Level of the Leader, position 17, as it meets its requirements of cataloging.

2. Anglo-American Cataloguing Rules.

For descriptive cataloging, *The Anglo-American Cataloging Rules*, Second Edition, 2002 Revision (known as AACR2R) is the major international standard tool we use for cataloging all types of print and non-print materials.

3. Format Documents.

MARC21 (<http://www.loc.gov/marc>)², which is developed by LC is the format used. The format specifies the encoded data for each tag field and it includes instructions for books, serials, and non-book media. Descriptions and headings are created according to AACR2R. Below is a list of the principal fields relating to AACR2R in a full level MARC 21 record.

- 1xx Main entries
- 240 Uniform title
- 245 Title and statement of responsibility
- 246 Varying form of title
- 250 Version, Edition
- 260 Publication, distribution, release, broadcast etc.
- 300 Physical description
- 490 Series untraced or traced differently
- 500 General notes
- 504 Sources used notes
- 505 Contents notes
- 508 Credit notes
- 511 Participants or performers notes
- 520 Summary notes
- 6xx Subject added entry headings
- 7xx Added entries
- 8xx Added entry: series

4. Library of Congress Authority File.

AACR2R or AACR2R-compatible forms are used for all headings and uniform titles for original cataloging. Library of Congress Authority File forms are used to verify forms of entry. If those forms are not in the LC Authority File, headings or uniform titles are constructed according to AACR2R.

5. Subject Headings.

For Subject Cataloging and in order to complete the cataloging process by selecting and assigning subject headings, standardized lists of subject headings are used to ensure consistency and avoidance of conflicting headings. In order to conform to a nationally accepted standard, the online Library of Congress Subject Headings (LCSHs), available via Classification Web, is used for non-Arabic language materials. Regarding the Arabic language materials, the standardized Arabic list of subject headings called <Qai'mat Ru'us al-Mawdu'at al-Arabiyyah> [قائمة رؤوس الموضوعات العربية] by Ibrahim Ahmad al-Khazindar is the main source for Arabic subject analysis. Unavailable topics are taken from the other standardized list called <Qai'mat Ru'us al-Mawdu'at al-Arabiyyah al-Kubra> [قائمة رؤوس الموضوعات العربية الكبرى] by Sha'ban abd al-Aziz Khalifah and Muhammad Awad al-Aydi, 2nd ed. Other topics are translated from LCSHs and incorporated to Al-Khazindar's list in a coherent way. The subjects from those lists are given MARC tags 6xx with a second indicator of 4 (6xx 4) as prescribed by the MARC standard. Geographic entities that are already established in the LC Authority File are used with Arabic script for the tag (651 4). Subject headings should be assigned to both non-fiction and fiction works. In some instances, there may be no appropriate subject heading added entries. Sufficient specific headings should be assigned to provide access to the major topics of the work.

6. Classification.

ZU library is using the online Library of Congress Classification Scheme via Classification Web. Tag (050 #4) is used for call numbers for materials not available at The Library of Congress.

B. Data Entry

For punctuation and spacing, The AACR2 1.0C rule from Cooperative Cataloging Rules is used for records in the computerized environment.³ The most commonly variable fields used and with their ending punctuation are shown in Figure 1.

	Field	Must End In
100's	100-130	.)] " ? ! - -
200's	240	Never ADD punctuation
	245	.
	246	Never ADD punctuation
	250	.
	260	.)] - (Serials may end in , at end of \$b)
	261	.
300's	262	.)] -
	300	.
	310	Never ADD punctuation (Serials may end in , at end of \$b)
400's	362	-
	490	Never ADD punctuation
500's	500	. > " ? ! - -
	502-504	. > " ? ! - -
	505	0# . > " ? ! - -
	505	1# Never ADD punctuation
	505	2# . > " ? ! - -
600's	600	. > " ? ! - -
	650-651	. > " ? ! - -
700's	700-730	.)] " ? ! - -
	740	.)] " ? ! - - *
800's	800-830	.)] " ? ! - -
	856	Never ADD punctuation (if \$z is the last subfield, this may include a mark of punctuation)

Figure.1

Regarding spacing, the space needed for some of the punctuation marks is shown in Figure 2.

1.0C. Punctuation														
One space after				One space before				No space before						
,	.	?	!])	>	[("	<])	"	>
No space after				One space before & after				No space before or after						
[("	<	:	;	=	&	--					-	

Figure.2

Like English, Arabic uses coordinating conjunction in order to join clauses together and to show a coherent relationship between the ideas in the clauses. It is also to be noted that the words separated by these conjunctions should have the same grammatical function and hence the same vowels. Some of the Arabic conjunctions are the following:

Conjunctions حروف العطف		
Arabic	Sound	English meaning
و	(wāw)	And
فـ	(fā')	Then, And then
ثم	(thumma)	Then, Moreover
أو	('aw)	Or
أم	('am)	Or, either
حتى	(Hatta)	Until, till
لا	(lā)	Not
لكن	(lākin / lākinna)	But, However
بل	(bāl)	Rather

One of the Arabic conjunctions is <waw> [و] which is equivalent to (and). It is usually attached to a noun or a verb, but for the purpose of indexing, the letter <waw> [و] is preceded and followed by a space in order to strengthen keyword retrieval. A good example is <wa du'> [و ضوء] where the conjunction <waw> [و] is followed by the noun <du'> [ضوء] which in total means (and light). But if we do not have a space after the <waw> [و], we will end up having the noun <wudu'> [وضوء] which means (Ablution). So, by not having a space after the <waw> [و], we will not be able to retrieve <du'> [ضوء] in keyword searching.

Classical Arabic should be used when creating terms to be used in bib records and these terms should not be influenced by colloquial/written language of the country. As an example, the preposition (on) is <ala> [على] in classical Arabic and <ali> [علي] in Egyptian writing which is in fact Ali as a proper noun. The word (Man) is <rajul> [رجل] in classical Arabic and <rayyal> [ريال] in colloquial Emirati Arabic.

Fixed Fields must be associated with the **Variable Fields** when applicable. As an example, the following values in the fixed fields 008 must be present with relevance to the following variable fields:

- ✓ The value of (1) in Index (008-31) is associated with the variable field 500- General note when there is a note: [يتضمن كشاف] which means [Includes Index].

008/ 31 1		
500	##	يتضمن كشاف.

- ✓ The value of (1) in Conference publication (008-29) is associated with the Subject access field 6XX when there is a form subdivision field \$v: [مؤتمرات] which means [Congresses].

008/ 29 1		
650	#4	إدارة الأفراد \$v مؤتمرات.

- ✓ The value of (j) in Target audience (008-22) is associated with the Subject access field 6XX when there is a subject subdivision field \$v: [أدب الأطفال] which means [Juvenile literature/fiction].

008/ 22 j		
650	#4	الأرض \$v أدب الأطفال.

- ✓ The value of (c) in Biography (008-34) is associated with the Subject access field 6XX when there is a subject subdivision field \$v: [تراجم] which means [Collective biography].

008/ 34 c		
650	#4	الأدباء العرب \$v تراجم.

- ✓ The value of (q) in Type of date (008-06) is associated with the Publication field 260 when there is a date of publication subfield \$c: [197-?]

008/ 06-14 q19701979		
260	##	بيروت، لبنان: دار إحياء التراث العربي، \$c [197-?]

- ✓ The values of (abc) in Illustrations (008-18-20) are associated with the Physical Description field 300 when subfield \$b has: [مصور، خرائط، صور شخصية] which means: [ills., maps, ports.]

008/ 18-20 abc		
300	##	920 ص. \$b مصور، خرائط، صور شخصية؛ \$c 24 سم.

The tag **020** for the **ISBN (International Standard Book Number)** must be added if found on the item, even if the ISBN is canceled or invalid, and in this case sub field \$z must precede the ISBN.

020 ISBN		
020	##	9004113088
020	##	\$z9770136980

The tag **041** for **Language Code** must be added with associated variable fields in the following cases:

- When the item contains more than one language: text in Arabic, English and French.

041 Language Code		
041	0#	ara\$eng\$afre
546	##	النص باللغات العربية و الإنجليزية و الفرنسية.

- The item is or includes a translation: [Translation of:]

041 Language Code		
041	1#	ara\$heng
500	##	ترجمة لكتاب : The West and Islam : religion and political thought in world history

- The item includes summaries, abstracts, or accompanying material with a language that is different from the language of the main item: [Text is in Arabic with abstract in English]

041 Language Code		
041	0#	ara\$beng
546	##	النص باللغة العربية مع ملخصا بالإنجليزية.

The tag **043** for **Geographic Code** must be added with associated variable fields in 6XX subject added entry fields.

043 Geographic Code		
043	##	a-ts--\$aa-jo---
651	#4	الإمارات العربية المتحدة\$العلاقات الخارجية\$الأردن.
651	#0	United Arab Emirates \$x Foreign relations \$z Jordan.

[a-ts---] is the geographic code for United Arab Emirates and [a-jo---] is the geographic code for Jordan in 651 field.

043 Geographic Code		
043	##	n-us---
650	#4	الديمقراطية\$الولايات المتحدة الأمريكية.
650	#0	Democracy \$z United States.

[n-us---] is the geographic code for United States in 650 field.

The tag **100** for **Personal Author Main Entry** must be the authorized form found in the LC name authorities available through the Library of Congress website. The order of the authorized transliterated heading must not be followed if its structure violates the nature of the name in the Arabic language. Such situations happen with names that are established from a commonly-used English form.

100 Personal Author Main Entry		
100	0#	ابن سينا،\$d980-1037.
100	0#	Avicenna,\$d980-1037.

[ابن سينا،\$d980-1037.] is the Arabic controlled form used while [Avicenna,\$d980-1037.] is the controlled form in LC Authorities.

100 Personal Author Main Entry		
100	0#	جمال عبد الناصر،\$d1970-1918 (Arabic form used)
100	1#	Naser, Gamal Abdel,\$d1918-1970. (LC Authority)

[جمال عبد الناصر،\$d1970-1918] is the Arabic controlled form used while [Naser, Gamal Abdel,\$d1918-1970.] is the controlled form in LC Authorities.

The tag 245 for Title must include a General Material Designator (GMD) to titles, when applicable, to indicate the type of material the catalog record describes. It is included in 245 subfield \$h in lowercase letters and enclosed in square brackets []. Zayed University catalog records only include those GMDs approved in the AACR2 for the US, found in list two under rule 1.1C2.

Some of the common types of items cataloged and their controlled GMD as translated to Arabic are shown Figure 3.

GMD for the US	GMD in Arabic
activity card	بطاقة نشاط
art original	رسم ابتكاري
art reproduction	استنساخ فني
braille	برايل
cartographic material	مادة خرائطية
chart	مخطط
diorama	منظر مجسم
electronic resource	مصدر إلكتروني
filmstrip	فيلم ثابت
flash card	بطاقة خاطفة
game	لعبة
Globe	كرة أرضية
kit	حقيبة
manuscript	مخطوطة
map	خريطة
microform	شكل مصغر
microscope slide	شريحة مجهرية
model	نموذج
motion picture	فيلم متحرك
music	موسيقى
picture	صورة
realia	حقيقات
slide	شريحة
sound recording	تسجيل صوتي
technical drawing	رسم فني
text	نص
toy	دمية
transparency	شفافية
videorecording	تسجيل فيديو

Figure.3

Examples:

245 Title \$h		
245	10	رويتي\$ه[تسجيل فيديو] \$b:التحديات في سباق التميز \$c/محمد بن راشد آل مكتوم.
245	00	Arab Americans\$ه[video recording] /\$cexecutive producer, Andrew Schlessinger.
245	12	البخلاء\$ه[تسجيل صوتي] \$c/أبو عثمان عمرو بن بحر الجاحظ.
245	14	The outsiders\$ه[sound recording] /\$cS.E. Hinton.

The tag **250** for **Edition statement** must be added if found on the item. The approved abbreviation for edition in Arabic is: 1 ط. not الطبعة الأولى for First edition.

250 Edition		
250	##	ط. 2.
250	##	2nd ed.
250	##	ط. 2، مزيدة و منقحة.
250	##	2 nd ed., enl. & rev.

The tag **260** for **Publishers Information** must be added if found on the item being cataloged. If place of publication is unknown, [د.م.] is used for [S.l.] and If publisher is unknown, [د.ن.] is used for [s.n.].

260 Publication \$a, \$b		
260	##	[د.م.] \$b: دار الكتاب العربي، \$c2005.
260	##	[S.l.]:\$bEducational Service,\$c2007.
260	##	القاهرة \$b:[د.ن.]\$c، \$c2009.
260	##	London:\$b[s.n.],\$c2008.
260	##	[د.م. \$b: [د.ن.]\$c، \$c2007.
260	##	[S.l. :\$b s.n.],\$c2007.

If dates are unknown, a guess must be made based on information found on the item and must be put in brackets. Examples:

260 Publication \$c		
260	##	عمان، الأردن \$b: دار أسامة، \$c[حوالي 1960]
260	##	New York :\$bAmerican Broadcasting Co.,\$c[ca. 1960]
260	##	دبي، الإمارات العربية المتحدة \$b:ندوة الثقافة و العلوم، \$c[1980؟]
260	##	Paris :\$bGauthier-Villars,\$c[1969?]
260	##	[د.م. \$b: [د.ن.]\$c، \$c197-؟]
260	##	[S.l. :\$b s.n.],\$c197-?

The tag **300** for **Physical description** must be added for all formats. Controlled forms of abbreviations and terms are translated to Arabic to be used for the subfields:

\$a – Extent: Number of physical pages, volumes, cassettes, total playing time, etc., for each type of item.

\$b - Other physical details: Physical characteristics such as illustrative matter, coloration, playing speed, groove characteristics, presence and kind of sound, number of channels, motion picture presentation format, etc.

\$c – Dimensions: Expressed in centimeters, millimeters, or inches.

Some examples of the abbreviations and terms used for materials in different formats are shown in Figure 4.

Language	300 \$a, \$b, \$c
English	205 p. ; \$b col. ill., maps ; \$c 24 cm.
Arabic	205 ص. : \$b صور ملونة، خرائط \$c: 24 سم.
English	1 v. (unpaged) ; \$bill. (some col.) ; \$c 25 cm.
Arabic	1 ج. (بدون توريق) : \$b صور (بعضها ملون) \$c: 25 سم.
English	1 v. (various pagings) ; \$bill. (some col.) ; \$c 25 cm.
Arabic	1 ج. (بتوريق متنوع) : \$b صور (بعضها ملون) \$c: 25 سم.
English	276 leaves ; \$c 30 cm.
Arabic	276 ورقة \$c: 30 سم.
English	1 sound disc : \$b 33 1/3 rpm, stereo. ; \$c 12 in.
Arabic	1 قرص صوتي : \$b 33 1/3 دورة/دقيقة، مجسم \$c : 12 بوصة.
English	1 sound cassette : \$b stereo.
Arabic	1 كاسيت صوتي : \$b مجسم.
English	1 sound disc : \$b digital ; \$c 4 3/4 in.
Arabic	1 قرص صوتي : \$b رقمي \$c : 4 3/4 بوصة.
English	1 sound disc (55 min.) : \$b digital ; \$c 4 3/4 in.
Arabic	1 قرص صوتي (55 دقيقة) : \$b رقمي \$c : 4 3/4 بوصة.
English	2 sound cassettes (ca. 3 hrs.) : \$b 1 7/8 ips, stereo., Dolby processed
Arabic	2 كاسيت صوتي (حوالي 3 ساعات) : \$b 1 7/8 بوصة/ثانية، مجسم، معالجة دولبي.
English	9 sound discs (9 hrs.) ; \$b digital, stereo. ; \$c 4 3/4 in.
Arabic	9 قرص صوتي (9 ساعات) : \$b رقمي، مجسم \$c : 4 3/4 بوصة.
English	1 sound disc (7 hr.) : \$b digital ; \$c 4 3/4 in.
Arabic	1 قرص صوتي (7 ساعات) : \$b رقمي \$c : 4 3/4 بوصة.
English	1 videocassette (51 min.) : \$b sd., col. ; \$c 1/2 in.
Arabic	1 فيديو كاسيت (51 دقيقة) : \$b ناظق، ملون \$c : 1/2 بوصة.
English	1 videodisc (ca. 233 min.) : \$b sd., col. ; \$c 4 3/4 in.
Arabic	1 قرص فيديو (حوالي 233 دقيقة) : \$b ناظق، ملون \$c : 4 3/4 بوصة.
English	computer disk ; \$c 3 1/2 in.
Arabic	قرص كومبيوتر \$c : 3 1/2 بوصة.
English	CD-ROM ; \$c 4 3/4 in. or \$c 4 3/4 in. ; computer optical disc
Arabic	قرص كومبيوتر ضوئي \$c : 4 3/4 بوصة. أو قرص مراص \$c : 4 3/4 بوصة.

Figure.4

For the tags **490/8xx Series** fields, ZU Library has decided to follow the policy established by the Program for Cooperative Cataloging (PCC) which went into effect on October 24, 2008. So, as per the policy, the 440 field has become obsolete and the series statements should be transcribed in the 490 field as the series appears on the material being cataloged following the definitions as defined below by the PPC. The following examples show the 490/8xx series fields' relationship.

490/8xx series			Notes
490	0#	إشراقات جديدة؛ 7\$v	Series not traced
490	0#	Wiley corporate F & A series ;\$v568	Series not traced

490/8xx series			Notes
490	1#	أدب القدس؛ 6\$v	Series traced differently in 830
830	#0	سلسلة أدب القدس؛ 6\$v	Series traced form
490	1#	Africa human development series	Series traced differently in 830
830	#0	Africa Region human development series.	Series traced form

490/8xx series			Notes
490	1#	مشكلات الحضارة	Series traced differently in 830
800	1#	بن نبي، مالك، \$t.مشكلات الحضارة.	Series traced form
490	1#	Abraham Ibn Ezra's astrological writings ;\$vv. 2	Series traced differently in 830
800	1#	Ibn Ezra, Abraham ben Meir,\$d1092-1167.\$vv. 2.	Series traced form

The tag **504** for **Bibliographical Notes** Field must be added if the information is contained in the material being cataloged. The information should be transcribed as per the following rules:

504 Bibliography			Notes
504	##	ببليوجرافيا: ص. 129-135.	Bibliography is at the end of the book.
504	##	Bibliography: p. 129-135.	Bibliography is at the end of the book.
504	##	يتضمن مراجع ببليوجرافية.	For in-text bibliographic notes.
504	##	Includes bibliographical references.	For in-text bibliographic notes.
504	##	يتضمن ببليوجرافيات.	Bibliographies at the end of each chapter.
504	##	Includes bibliographies.	Bibliographies at the end of each chapter.
504	##	يتضمن مراجع ببليوجرافية (ص. 125-130) و كشافات.	Bibliographic notes and index are joined in 504.
504	##	Includes bibliographic references (p. 125-130) and indexes.	Bibliographic notes and index are joined in 504.

The tag **505 Formatted Content Note** must be added when applicable as it enhances keyword searching. It is recommended to use the note with complete contents and enhanced display indicators (00). If a title starts with the article <al> [ال], then the article must be removed to avoid having titles that start with articles in the title index, as in the following examples:

505 Formatted Content			Notes
505	00	-- علاقات الدولية في الإسلام\$.[1]\$g -- نظرية الحرب في الإسلام\$.[2]\$g ولاية\$.[4]\$g -- بحوث في الربا\$.[3]\$g على النفس -- ميراث عند الجعفرية\$.[5]\$g	[00] indicators for complete enhanced display. The article <al> [ال] is removed from each title that starts with it as in vols. 1, 4 and 5.
505	00	\$. Politics of terrorism financing -- \$. Mediating terrorist money -- \$. Finance/security assemblage -- \$. Following the money: risk, preemption, and the mobile norm -- \$. Cash and the circuits of transnational kinship -- \$. Zakat and the securitization of charitable donation -- \$. Money and modern exile.	[00] indicators for complete enhanced display. The article [The] is removed from each title that starts with it.

The **600 Subject Added Entry-Personal Name Heading**, the **610 - Subject Added Entry-Corporate Name** and the **611 - Subject Added Entry-Meeting Name** fields must be the same authorized forms used in the **100 Main Entry Personal Name**, **110 - Main Entry-Corporate Name** and the **111 - Main Entry-Meeting Name** fields for the same headings. The **650 Subject Added Entry-Topical Term** and the **651 - Subject Added Entry-Geographic Name** fields are controlled through using the <Qai'mat Ru'us al-Mawdu'at al-Arabiya> [قائمة رؤوس الموضوعات العربية] standardized Arabic list of subject headings by Ibrahim Ahmad al-Khazindar as the main source for Arabic subject analysis and <Qai'mat Ru'us al-Mawdu'at al-Arabiya al-Kubra> [قائمة رؤوس الموضوعات العربية الكبرى] by Sha'ban abd al-Aziz Khalifah and Muhammad Awad al-Aydi, 2nd ed., as a secondary source.

Additional subjects needed are translated from LCSHs and incorporated coherently to Al-Khazindar's list. Sufficient specific headings must be assigned to provide access to the major topics of the work.

The **700 - Added Entry-Personal Name**, the **710 - Added Entry-Corporate Name** and the **711 - Added Entry-Meeting Name** fields must be the same authorized forms used in the **100 Main Entry Personal Name**, **110 - Main Entry-Corporate Name** and the **111 - Main Entry-Meeting Name** fields for the same headings.

The selection of individuals and corporate bodies who receive added entries and the number of name and subject added entries depends on the type of material being cataloged.

For example, for a television variety show, many personal name added entries may be made for performers and one or two subject headings may be assigned. The individuals and corporate bodies responsible for the major functions as recorded in the bibliographic record generally should be traced. The major functions are the following: production company, distributor, sponsor, director, producer, writer, cinematographer, editor, composer, participant and/or performer. If there is more than one person or corporate body performing any of these functions, then added entries should be made for all of them.

C. Consistency

For the purpose of consistency by controlling the terms used in forming the MARC fields, the following practices are adopted:

- For creating the (520) abstract and summary notes, controlled terms that are derived from the adopted subject headings lists are used as these fields are indexed and can be retrieved by keyword searching. Controlled forms of terms are the same forms used in the authority files. Some of the controlled forms with their other variations are shown in the following example:
The controlled form in the authority files for Arab Countries is <al-alam al-Arabi> [العالم العربي]. The other cross references variations are <al-bilad al-Arabiya> [البلاد العربية], <al-aqtar al-Arabiya> [الأقطار العربية], <al-duwal al-Arabiya> [الدول العربية] and <al-umma al-Arabiya> [الأمة العربية]. Some other examples:

Country controlled form		
English	Arabic	Other variations
United States	الولايات المتحدة الأمريكية	أمريكا، أمريكة، أميركا، أميركا، الولايات المتحدة الأمريكية
Bangladesh	بنجلادش	بنغلاديش، بنغلادش، بنجلاديش
Soviet Union	الاتحاد السوفيتي	الاتحاد السوفياتي

- For creating the (504) bibliographic notes, controlled unified terms are used. Some of the controlled terms with their other variations are shown in the following examples:
The controlled term for Includes is <Yatadhamman > [يتضمن]. The other variations are <Yashmal> [يشمل], <Yashtamil> [يشتمل على], <Yashmal ala> [يشمل على], <Yahtawi> [يحتوي], <Yadhum> [يضم]... etc.
The controlled term for Bibliography is <bibliyugrafia> [ببليوجرافيا]. The other variations are <bibliyugrafyah> [ببليوجرافية], <bibliyughrafia> [ببليو جرافيا] and <bibliyughrfayah> [ببليو جرافية].
- For creating the (546) language notes, the controlled term for English language, as an example, is <Injliziyah> [إنجليزية] not <Inkliziyah> [إنكليزية].

- For unifying the terms used in the Titles subfield \$c of the (100, 600, 700 & 800) tags for Personal Names as Main Entry, Subject Added Entry, Added Entry and Series Added Entry consecutively, the terms used are displayed in Figure 5.

100/600/700/800 \$c	
English	Arabic
Bishop of ...	أسقف ...
Caliph	ال خليفة
Coptic Patriarch of Alexandria	بطريرك الإسكندرية القبطي
Doctor	الدكتور
King of ...	ملك ...
Prophet	النبي
Ruler of ...	حاكم ...

Figure.5

- The unified terms used in the Dates subfield \$d of the (100, 600, 700 & 800) tags for Personal Names as Main Entry, Subject Added Entry, Added Entry and Series Added Entry consecutively, are shown in Figure 6.

100/600/700/800 \$d	
English	Arabic
b.	و. (ولد / ولدت)
ca.	حو.
d.	ت. (توفي / توفيت)
fl.	اشتهر / اشتهرت
1524 or 5	1524 أو 5

Figure.6

- Also, the unified terms used in the Enumeration subfield \$b of the (100, 600, 700 & 800) tags for Personal Names as Main Entry, Subject Added Entry, Added Entry and Series Added Entry consecutively, are shown in Figure 7.

100/600/700/800 \$b	
English	Arabic
I.	الأول / الأولى
II.	الثاني / الثانية
III.	الثالث / الثالثة
IV.	الرابع / الرابعة
V.	الخامس / الخامسة
VI.	السادس / السادسة
VII.	السابع / السابعة
VIII.	الثامن / الثامنة
IX.	التاسع / التاسعة
X.	العاشر / العاشرة
XI.	الحادي عشر / الحادية عشرة
XX.	العشرون
XXI.	الحادي والعشرون / الحادية والعشرون
C.	المائة

Figure.7

Some full examples of the (100, 600, 700 & 800) tags with subfields are the following:

100/600/700/800 \$b, \$c, \$d	
English	Arabic
Sultān ibn Muḥammad al-Qāsimī, \$c Ruler of Shāriqah, \$d 1939-	سلطان بن محمد القاسمي، \$c حاكم الشارقة، \$d 1939-
Ibn Saud, \$c King of Saudi Arabia, \$d 1880-1953.	ابن سعود، \$c ملك المملكة العربية السعودية، \$d 1880-1953.
Abdullah \$b II, \$c King of Jordan, \$d 1962-	عبد الله، \$b الثاني، \$c ملك الأردن، \$d 1962-
Anīs, Muḥammad, \$c al-Duktūr.	أنيس، محمد، \$c دكتور.
Umar ibn al-Khaṭṭāb, \$c Caliph, \$dd. 644.	عمر بن الخطاب، \$c الخليفة، \$d ت. 644.
Tāriq ibn Ziyād, \$d fl. 711.	طارق بن زياد، \$d اشتهر 711.
Wazīr al-Ghassānī, Muḥammad ibn ‘Abd al-Wahhāb, \$d d. 1707 or 8.	وزير الغساني، محمد بن عبد الوهاب، \$d ت. 1707 أو 8.

- For indexing purposes, all MARC tags that have indicators for non-filing characters, such as 130, 240, 245 ... etc., must have the value of (2) to strip the Arabic article <al> [ال] from the first word in the field if it starts with <al> [ال] as in the following example:

245 Title			Notes
245	12	العوامة \$c/ صالح السنوسي.	2 nd indicator 2

In MARC tags that do not have indicators for non-filing characters, such as 246 and 505, the <al> [ال] is removed manually as in the following examples:

246 Varying form of title			Notes
246	14	كيمياء العضوية	2 nd indicator 4 for cover title. The word (الكيمياء) is originally (كيمياء)

505 formatted Content			Notes
505	00	-- \$t.[1]\$g علاقات الدولية في الإسلام -- -- \$t.[2]\$g نظرية الحرب في الإسلام -- -- \$t.[3]\$g بحوث في الربا -- \$t.[4]\$g ولاية -- \$t.[5]\$g على النفس -- ميراث عند الجعفرية.	Complete enhanced display of contents. (ال) is stripped from the first words in vols. 1, 4 and 5.

D. Normalization

For the purpose of enhancing keyword searching, normalization is done for the following Arabic letters:

- Normalization of initial <Alif> [ا] variation <Alif Madda> [أ], <Plain Alif> [إ], <Alif with Hamza above> [آ], <Alif with Hamza below> [ء] with Alif seat to a <Plain Alif> [ا]
- Normalization of <Taa Marbuta> [ة], <Heh> [ه] to <Heh> [ه].
- Normalization of <Alif Maksura> [ى], <Yeh> [ي] to <Yeh> [ي].
- Normalization of <Waw> [و], <Waw with Hamza> [ؤ] to <Waw> [و].

- Removal of Arabic diacritics (the harakat), the <fatha> [َ], the <.damma> [ُ], the <kasra> [ِ], the <sukûn> [ْ], the <tanwin fath> [ً], the <tanwin damm> [ٌ], and the <tanwin kasr> [ٍ].
- Removal of tatweel (stretching character) like [—]

So, for library patrons, when searching the OPAC, it does not matter if they key in, for example, a word with <Taa Marbuta> [ة] or <Heh> [ه] in their search as the library system acknowledges the letter as <Heh> [ه]. The library system considers the word <lu'bah> [لعبه] and <lu'bat> [لعبة], which means a [game] in English, as equal.

E. Special practices for certain materials

Dictionaries

Dictionaries are either language or subject (topical) dictionaries. The rules that must be followed for Arabic dictionaries are the following:

If the dictionary is only an Arabic-Arabic language dictionary, then the subject heading would be:

Arabic subject headings	English meaning
اللغة العربية\$v\$معاجم.	Arabic language \$v\$ Dictionaries.

If the dictionary is a bilingual dictionary and Arabic language is one of the languages, a final \$x subdivision should be added listing the other language, and paired headings may be needed if words in each language are defined in terms of the other. The two subject headings would be:

Arabic subject headings	English meaning
اللغة العربية\$v\$معاجم\$x\$اللغة [الأخرى]	Arabic language \$v\$ Dictionaries \$x\$ [Other] language.
[Other] language \$v\$ Dictionaries \$x\$ Arabic.	[Other] language \$v\$ Dictionaries \$x\$ Arabic.

An example on that is <al-Mawrid> [المورد]: a modern Arabic -English dictionary, where the two subject headings would be:

Arabic subject headings	English meaning
1. اللغة العربية\$v\$معاجم\$x\$اللغة الإنجليزية.	Arabic language \$v\$ Dictionaries \$x\$ English.
2. English language \$v\$ Dictionaries \$x\$ Arabic.	

For polyglot language dictionaries where Arabic is one of the languages, two subject headings should be present:

Arabic subject headings	English meaning
1. اللغة العربية\$v\$معاجم متعددة اللغات.	Arabic language \$v\$ Polyglot dictionaries.
2. Dictionaries, Polyglot.	Dictionaries, Polyglot.

For subject (topical) headings where Arabic is one of the languages, then the following rules should be followed:

If the dictionary is a topic dictionary with only Arabic language, then the subject heading would be:

Arabic subject headings	English meaning
[الموضوع] \$v\$ معاجم.	[topic] \$v\$ Dictionaries.

An example on that is معجم البلدان = [Dictionary of countries], where the subject heading would be:

Arabic subject headings	English meaning
الجغرافيا \$v\$ معاجم.	Geography \$v\$ Dictionaries.

If the dictionary is a topical bilingual dictionary and Arabic language is one of the languages, then the subject headings would be:

Arabic subject headings	English meaning
[الموضوع] \$v\$ معاجم \$x\$ اللغة العربية.	[topic] \$v\$ Dictionaries \$x\$ Arabic language.
[الموضوع] \$v\$ معاجم \$x\$ [اللغة الثانية].	[topic] \$v\$ Dictionaries \$x\$ [2nd language].
اللغة العربية \$v\$ معاجم \$x\$ [اللغة الثانية].	Arabic language \$v\$ Dictionaries \$x\$ [2nd language].
[اللغة الثانية] \$v\$ معاجم \$x\$ اللغة العربية.	[2nd language] \$v\$ Dictionaries \$x\$ Arabic language.

An example on that is A New dictionary of scientific and technical terms: English-Arabic: with illustrations, where the subject headings would be:

Arabic subject headings	English meaning
1. Science \$v\$ Dictionaries \$x\$ Arabic.	
2. Technology \$v\$ Dictionaries \$x\$ Arabic.	
3. Arabic language \$v\$ Dictionaries \$x\$ English.	
4. English language \$v\$ Dictionaries \$x\$ Arabic.	
5. العلوم \$v\$ معاجم \$x\$ اللغة العربية.	Science \$v\$ Dictionaries \$x\$ Arabic.
6. التكنولوجيا \$v\$ معاجم \$x\$ اللغة العربية.	Technology \$v\$ Dictionaries \$x\$ Arabic.
7. اللغة العربية \$v\$ معاجم \$x\$ اللغة الإنجليزية.	Arabic language \$v\$ Dictionaries \$x\$ English.
8. اللغة الإنجليزية \$v\$ معاجم \$x\$ اللغة العربية.	English language \$v\$ Dictionaries \$x\$ Arabic.

For polyglot topical dictionaries where Arabic is one of the languages, four subject headings should be present:

Arabic subject headings	English meaning
1. [الموضوع] \$v\$ معاجم متعددة اللغات.	[Topic] \$v\$ Polyglot dictionaries.
2. معاجم متعددة اللغات.	
3. [Topic] \$v\$ Dictionaries \$x\$ Polyglot.	
4. Dictionaries, Polyglot.	

An example on that is Dictionary of management sciences: English-French-Arabic, with an Arabic glossary and a French glossary, where the subject headings would be:

Arabic subject headings	English meaning
1. الإدارة \$v\$ معاجم متعددة اللغات.	Management \$v\$ Polyglot dictionaries.
2. معاجم متعددة اللغات.	Dictionaries, Polyglot.
3. Management \$v\$ Dictionaries \$x\$ Polyglot.	
4. Dictionaries, Polyglot.	

Translated Works into Arabic

For translated works into Arabic, the MARC record should have the following fields:

The language field 041 must be added with [1] as the 1st indicator for translation. If the Arabic book is translated from English, then the language codes [ara] and [eng] for Arabic and English should be used, separated by the subfield [\$h] which precedes the original language, example: 041 1# ara\$heng

Either the field 130 or 240 should be present depending on the main entry.

Translation table must be used and [12] (one two not twelve) must be added to the Cutter Number for Arabic translation (this rule is applicable in most cases unless LC schedules have special treatment for certain topics) The 500 field for translation note must be added where the complete title of the original language is entered after the introductory text: [ترجمة لكتاب:] which is equivalent to [Translation of:] as in (Figure 8).

Leader	#####nam 22#####7a 4500
005	19990502000000.0
008	990502s1993 ua a b 000 ara d
020	9771005847
035	1000253456
035	0002-18660
041 1#	araSheng
050 #4	P106\$b.C51812 1993
100 1#	Chomsky, Noam.
240 10	Knowledge of language. \$lArabic
245 12	تأليف نوح تشرمسي؛ ترجمه و تعليق و تقديم محمد / \$c طبعها و اصولها و إستخدامها \$b: المعرفة اللغوية فتيح.
250	ط1.
260	\$c1993. دار الفكر العربي. \$b: [القاهرة] مصر.
300	489 ص. \$b: \$c24 مصور.
500	ترجمه لكتاب: Knowledge of language: its nature, origin, and use.
504	يتضمن بيلوجرافيات
650 #4	اللغة.
650 #0	Language and languages.
700 1#	فتيح، محمد.

Figure.8: Arabic record for a work translated from English

Arabic Individual Literary Authors of the 20th and 21st centuries

With LC classification in use and in order to keep together all literary works by a single author in Arabic language, we assign a specific classification number to each literary author. Our main sources for classification numbers are LC Authority Files and OCLC. If an authority record is found in LC or OCLC, and it includes a 053 field with a class number, then that class number is used, and the authority record is exported into Millennium. If an authority record is found in LC or OCLC, and it lacks a 053 field with a class number, then the record is exported and a 053 field with a class number for the author must be added to the record. If no authority record is found in LC or OCLC, an authority record must be created including a 053 field with a class number for the author, making sure that the class number must fit into our Library's shelf list and it also conforms to the Library of Congress's. Then table (P-PZ40) is used to subarrange the works of each author. Figure 9 shows an example of an authority record for the Egyptian Arabic literary author Abbas Mahmud el-Aqqad.

The MARC field 053 includes (PJ7814.Q6) as a classification number for him. Applying table (P-PZ40) with this classification number will arrange all works by and about him.

MARC Leader	#####cz 22#####o 4500
005	20001216105800.0
008	000927nn aznnabb un and u
053	PJ7814.Q6
100 1#	\$d1889-1964 عقاد، عباس محمود.
400 0#	\$d1889-1964 عقاد، عباس محمود العقاد.
400 1#	Aqqad, Abbas Mahmud,\$d1889-1964
400 0#	Abbas Mahmud el- Aqqad,\$d1889-1964
400 1#	Akkad, Abbas Mahmoud,\$d1889-1964
400 1#	Aqqad, Abbas Mahmoud,\$d1889-1964
400 1#	Alakad, Abas Mahmud,\$d1889-1964
400 1#	Akad, Abas Mahmud,\$d1889-1964
670	Author's al-Dimugratiyah fi al-Islam, 1952.
670	His The poetical language, 1961: \$b t.p. (Abbas Mahmoud el Aqqad); cover (Abbas Mahmud el-Aqqad)
670	Keri'ah be-khitve Abas Mahmud Alakad, 1965 or 1966.
670	1991 (ص.ع). (عباس محمود العقاد \$b في السياسة و الأدب و الفن؛ 1991)

Figure.9: ZU authority record for an Arabic author

So, a call number search will retrieve the available books by and about him as follows (Figure 10):

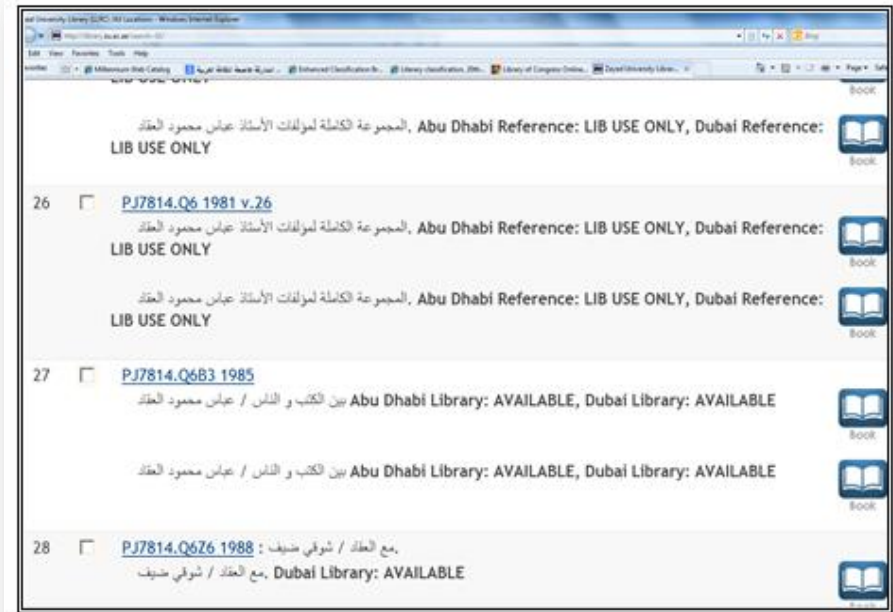


Figure.10: Call number search for a literary author class number

Authority Control

We believe that authority control is very essential in performing a search operation successfully. It contributes effectively in the access to information resources through the achievement of the consistency principle in the forms of headings used in the catalog. It also promotes standardization and makes possible the exchange of both bibliographic records and authority records. For our catalog users, the reference structure of the authority record guides them to the form of a heading under which all relevant entries for an entity are collocated, or to related headings associated with the entity. For our catalogers, authority control improves the efficiency of the cataloging process as authority records assist catalogers to select the appropriate heading to apply to a resource being cataloged. When we create an authority record we are able to record any information we have gathered in the course of cataloging, or any decisions we have made about the choice of a heading. By doing this for one time we can save time on the long run by avoiding the need to repeat this work when another resource by the same author, or concerning the same topic, is cataloged.

Authority files include **Name Authority File (Personal Names, Corporate and Conference Names, Geographic Places), Uniform Titles & Series and Subject Terms.**

Our main source for authority files is the Library of Congress Authorities (<http://authorities.loc.gov/>)⁴ which is used with minor changes that would be more appropriate for Arabic language, but without breaking the international standards. In an authority file for a personal name, the field 100 contains the established form while the field 400 contains the un-established form of a personal name. Our policy in dealing with the established form for a personal name is dependent on the nationality of the person. As it is shown from Figure 11, the established form for the personal name (Arnett, Peter,\$d1934-) is in English while the un-established form (بيتر، آرنييت، \$d-1934) is in Arabic script.

MARC Leader	#####cz 22#####o_4500
005	20001213112200.0
008	000924acannaab un and u
100 1#	Arnett, Peter,\$d1934-
400 1#	ارنيت، بيتر، \$d1934-
670	The Associated Press, 1998: \$bCIP t.p. (Peter Arnett) pub. info. (one of the world's leading war correspondents; he was a reporter for the AP from 1962 to 1981, when he joined CNN; received a Pulitzer Prize for international reporting in 1966)
670	The Media and the Gulf War : an eyewitness account, 1997 :\$bt.p. (Peter Arnett)
670	ص. العتوان (بيتر آرنيت) \$b 1997 الإعلام و حرب الخليج : رواية شاهد عيان، :

Figure.11: Non-Arab personal authority record

While in Figure 12 the established form for the personal name (عباس محمود، عقاد، \$d1964-1889) is in Arabic script while the un-established form (Aqqad, Abbas Mahmud,\$d1889-1964) is in English. The LC authority file for the same personal name is a bit different as the transliterated form of the author's name is the established form in the 100 field while the Arabic script form is the un-established form in the 400 field, as in Figure 12.

MARC Leader	#####cz 22#####o_4500
005	20001216105800.0
008	000927nn azannabb un and u
053	PJ7814.Q6
100 1#	Aqqad, Abbas Mahmud,\$d1889-1964
400 0#	عباس محمود العقاد، \$d1889-1964
400 1#	عباس محمود، عقاد، \$d1889-1964
400 0#	Abbas Mahmud el- Aqqad,\$d1889-1964
400 1#	Akkad, Abbas Mahmoud,\$d1889-1964
400 1#	Aqqad, Abbas Mahmoud,\$d1889-1964
400 1#	Alakad, Abas Mahmud,\$d1889-1964
400 1#	Akad, Abas Mahmud,\$d1889-1964
670	Author's al-Dimuqratiyah fi al-Islam, 1952.
670	His The poetical language, 1961: \$b t.p. (Abbas Mahmoud el Aqqad); cover (Abbas Mahmud el-Aqqad)
670	Keri'ah be-khitve Abas Mahmud Alakad, 1965 or 1966.
670	ص.ع. (عباس محمود العقاد) \$b في السياسة و الأدب و الفن، 1991.

Figure.12: LC authority record for an Arabic author

The same policy is also applied on corporate names as it shown in figures 13 and 14. In figure 13, the established form for the corporate name (Médecins sans frontières (Association)) is in English while the un-established form (أطباء بلا حدود (منظمة)) is in Arabic script. While in Figure 14 the established form for the corporate name (منظمة الخليج للإستشارات الصناعية) is in Arabic script while the un-established form (Gulf Organization for Industrial Consulting) is in English.

MARC Leader	#####c. 22#####o.4500
005	20030128105400.0
008	240505 azannabb un and u
110_2#	Médecins sans frontières (Association)
410_2#	أطباء بلا حدود (منظمة)
410_2#	منظمة أطباء بلا حدود
670	تقرير عن نشاط منظمة أطباء بلا حدود لعام 2001-2002، 2003
670	Its Soins urgents en situations de catastrophe, c1979: Sb t.p. (Médecins sans frontières) p. 3 (association Médecins sans frontières)

Figure.13: ZU authority record for a non-Arab corporate author

MARC Leader	#####c. 22#####o.4500
005	20020105090800.0
008	020102 azannabb un and u
110_2#	منظمة الخليج للإستشارات الصناعية
410_2#	Munazzamat al-Khalij lil-Istisharat al-Sina'iyyah
410_2#	Gulf Organization for Industrial Consulting
670	ملاحق الاقتصاد الصناعي في دول مجلس التعاون لدول الخليج العربية، 2000
670	Ta'awun al-sina'i fi al-Khalij al-'Arabi, Uktubir 1982: Sb t.p. (Munazzamat al-Khalij lil-Istisharat al-Sina'iyyah) verso of t.p. (Gulf Organization for Industrial Consulting)

Figure.14: ZU authority record for an Arabic corporate author

The LC authority file for the same corporate name has the English form as the established form and the Arabic script form as the un-established form, as in Figure 15.

MARC Leader	#####c. 22#####o.4500
005	20020105090800.0
008	020102 azannabb un and u
110_2#	Gulf Organization for Industrial Consulting
410_2#	Munazzamat al-Khalij lil-Istisharat al-Sina'iyyah
410_2#	منظمة الخليج للإستشارات الصناعية
670	ملاحق الاقتصاد الصناعي في دول مجلس التعاون لدول الخليج العربية، 2000
670	Ta'awun al-sina'i fi al-Khalij al-'Arabi, Uktubir 1982: Sb t.p. (Munazzamat al-Khalij lil-Istisharat al-Sina'iyyah) verso of t.p. (Gulf Organization for Industrial Consulting)

Figure.15: LC authority record for an Arabic corporate author

For some important topics, such as [الشريعة الإسلامية] which is equivalent to Islamic law, where the topic is taught in both Arabic and English, two authority files are created for both languages with the 550 See also field linking the files, as in Figures 16 and 17.

MARC Leader	#####nz 22#####n 4500
001	4719454
005	20101020065152.4
008	101020 i anannbabn b ana
010	sh 85068454
035	(DLC)sh 85068454
150	Islamic law
450	Sharia (Islamic law)
450	Law in the Koran
450	Law, Islamic
450	Law, Arab
450	Civil law (Islamic law)
430 #0	Koran\$XLaw
550	Law, Oriental
550	الشريعة الإسلامية

Figure.16: English subject authority record

MARC Leader	#####nz 22#####o 4500
005	20101020112200.0
008	101020 acnnaab un and u
150	الشريعة الإسلامية
450	الإسلام\$شريعة
450	التشريع الإسلامي
450	القانون الإسلامي
550	Islamic law
550	علم الكلام
550	الفقه الإسلامي

Figure.17: Arabic subject authority record

So, through the creation of these two authority records, library patrons, when searching the subject catalog for [Islamic Law], are alerted through the *See Also* cross reference to the Arabic subject heading [الشريعة الإسلامية]. This relation is reciprocal as displayed in Figures 18 and 19.



Figure 18



Figure 19

Conclusion

In this paper I discussed various rules and standards related to establishing quality Arabic bibliographic records that will provide appropriate access to Arabic records in the ZU Millennium library system at Zayed University. Adopting and adhering to such rules and standards has promoted ZU Arabic bib records to be chosen as the master bib records in the UAE LIWA shared catalog and to be sought after from prestigious international bibliographic utilities such as OCLC and The Arabic Union Catalog (AUC). Now ZU Library has the international institution code of (ZAQ) in OCLC and we are in the process of joining the AUC very soon.

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