TO: Joint Steering Committee for the Revision of AACR

FROM: Deirdre Kiorgaard, ACOC representative

Subject: Persistent identifiers and URLs

Related JSC documents:
5JSC/RDA/Part I RDA: Resource Description and Access Part I

Related reading:
Persistent identifiers http://www.nla.gov.au/padi/topics/36.html. National Library of
Australia, Canberra, ACT 2600, Australia

Background
A key issue for RDA is the need to explicitly address the data elements that are
applicable to online resources. This proposal addresses this issue in relation to
persistent identifiers and uniform resource locators in several ways:

- It offers some examples to be added to the instruction on standards
  numbers if the Digital Object Identifier becomes an ISO standard.
- It suggests possible changes to the instructions for other resource
  identifiers. The proposed changes are designed to treat persistent
  identifiers for remote access resources more explicitly as a form of
  resource identifier.
- It offers a proposed instruction for the treatment of the URL for the
  resource described by the bibliographic record.
- Finally, it also offers a proposed instruction for the treatment of URLs for
  related resources.

Although examples have been suggested below for illustrative purposes, these
examples should be reviewed by the RDA Examples group in due course.

The term 'remote access resource' is used in this proposal to reflect the terminology
of the draft. However, we would prefer that 'online resource' be used.

1. Standard numbers and other resource identifiers

The draft of part I makes a distinction between two types of resource identifier:
standard numbers and other resource identifiers. Standard numbers are distinguished
by being "assigned by an agency authorized as registration agency for a numbering
scheme approved by the International Organization for Standardization (ISO).". This
proposal fully supports this distinction.

However we note that "The DOI System as a whole is a work item to become an ISO
standard within TC46/SC9, the ISO body responsible for "information content
identifiers" such as ISBN, ISSN, ISTC, ISRC, etc." [1] Depending on the outcome of
this, an example of a Digital Object Identifier will need to be added at either 2.12.1.1
or at 2.12.1.2.

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[1] *DOI News* April 2005 http://www.doi.org/news/DOINewsApr05.html. Viewed 23 December 2005.

Possible examples are:

```
doi: 10.1045/november2005-lagoze

doi: 10.1300/J104v38n03_03
```

2. Persistent identifiers

The well-documented impermanence of URLs due to their location-based nature is a major problem to scholarly researchers and Internet users in general as well as to the resource description community[2]. The use of persistent identifiers is part of the solution to this problem[3,4]. A persistent identifier is a permanent, location-independent and globally unique identifier for a resource. Persistent identifiers are generally assigned by agencies who undertake to provide reliable, long-term access to resources.[5] Examples of persistent identifiers include Digital Object Identifiers, Uniform Resource Names, Handles and Archival Resource Keys.

Including persistent identifiers in resource descriptions has a vital role in ensuring online resources can be located and accessed now and in the future. Because of this, ACOC suggests that persistent identifiers be mentioned explicitly in RDA, as they are in the December 2004 draft of the ISBD(E) which includes a reference to persistent identifiers at 8.1.1.

Persistent identifiers may or may not be resolvable. As resolvable persistent identifiers may be difficult to distinguish from URLs, this proposal suggests that persistent identifiers that are not resolvable be treated in as other resource identifiers in 2.12.2.1, and that persistent identifiers that are resolvable be treated separately as uniform resource locators (see 3 below).

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[2] See for example Sellito, Carmine. "The impact of impermanent Web-located citations: A study of 123 scholarly conference publications: Research Articles" in *Journal of the American Society for Information Science and Technology archive*. Vol 56, Issue 7 pp. 695-703 (May 2005) http://portal.acm.org/citation.cfm?id=1058436.1058444. Viewed 23 December 2005.

[3] *Managing web resources for persistent access*. http://www.nla.gov.au/guidelines/persistence.html. Viewed 23 December 2005.

[4] Although few in number, all of the DOIs and handles in the following study were found to be accessible, McCown, Frank et al. "The Availability and Persistence of Web References in D-Lib Magazine." www.iwaw.net/05/papers/iwaw05-mccown1.pdf. Viewed 23 December 2005.

[5] Such as trusted digital repositories. See Trusted Digital Repositories: Attributes and Responsibilities: An RLG-OCLC Report. RLG, Mountain View, CA, May 2002. Viewed 3 February 2006.

Proposed revision of the Instruction

2.12.2.1. Recording other resource identifiers

➢ Record resource identifiers other than standard numbers (~~e.g., publishers'~~ ~~numbers,~~ i.e. identifiers assigned by an agency other than an ISO registration agency, persistent identifiers, publishers' numbers, etc.) if they are considered to be important. Precede the identifier with the name of the agency, etc., responsible for assigning the identifier, if readily ascertainable, using abbreviations as instructed in appendix D.

```
Supt. of Docs. no.: I 19.16:818

Warner Bros.: K56151

Tamla Motown: STMA 8007

Island: ILPS 9281

National Library of Australia: nla.arc-37733

National Library of Australia: nla.pic-an12766477

Harvard Name Resolution Service: urn-3:RAD.ARCH:15009
```

➢ For resource identifiers that are resolvable to a remote access resource, see X.X.

Proposed definition for inclusion in the Glossary
A persistent identifier is a permanent, location-independent and globally unique identifier for a resource.

3. URL of the online resource described by the bibliographic record

The URL of an online resource can be key in identifying that resource, and it is also essential for access to that resource. RDA needs to provide both guidance and instructions on recording this data element for those agencies that choose to record a URL as part of the description of the resource. The proposed instruction below addresses this need. Following the proposed instruction are suggestions for where the instruction might be placed within RDA.

Note on inclusion of URLs in the bibliographic description
It may be preferable for the URL to be provided as part of the holdings record rather than in the bibliographic record[6], and it is recognised that some agencies will prefer to treat some or all URLs in that way. This proposal is not in conflict with that approach, because the element is not mandatory according to 0.1.6 and 1.4.

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[6] For a summary of the arguments, see "Field 856 in bibliographic or holdings records". In *MARC 21 Formats: Guidelines for the Use of Field 856*. Network Development and MARC Standards Office, Library of Congress. http://www.loc.gov/marc/856guide.html. Revised March 2003. Viewed 20 December 2005.

Impermanence of URLs

One argument against the inclusion of URLs in bibliographic descriptions relates to their impermanence. It is beyond the scope of this proposal or of RDA to solve this issue, however, this proposal does address aspects of this issue through providing for the recording persistent URLs (see X.X.0.4), and providing some guidance on the maintenance of URLs (see X.X.0.6).

Proposed Instruction

X.X. UNIFORM RESOURCE LOCATORS FOR REMOTE ACCESS RESOURCES

X.X.0 BASIC INSTRUCTIONS ON RECORDING UNIFORM RESOURCE LOCATORS FOR REMOTE ACCESS RESOURCES

Contents

X.X.0.1 Definition
X.X.0.2 Sources of information
X.X.0.3 Recording Uniform Resource Locators for remote access resources
X.X.0.4 Recording multiple Uniform Resource Locators
X.X.0.5 Restrictions on access to, or use of, remote access resources
X.X.0.6 Recording changes in Uniform Resource Locators

X.X.0.1. Definition

❑ A **Uniform Resource Locator,** or URL, is the global address of a remote access resource.

❑ Use these instructions for any resource identifiers that are resolvable to a remote access resource.

X.X.0.2. Sources of information

➢ Take information on Uniform Resource Locators for remote access resources from any source.

X.X.0.3. Recording Uniform Resource Locators for remote access resources

➢ Record the Uniform Resource Locator for the remote access resource being described.

```
http://www.lemonde.fr/

http://hdl.loc.gov/loc.rbc/jeff.16823

http://www.ietf.org/rfc/rfc3650.txt

ftp://aps.org/pub/jrnls/copy_trnsfr.asc
```

```
http://nrs.harvard.edu/urn-3:RAD.ARCH:15009

http://nla.gov.au/nla.arc-37733

http://nla.gov.au/nla.pic-an12766477

http://www.dlib.org/dlib/november05/lagoze/11lagoze.h
tml
```

➤ Record Uniform Resource Locators for related resources in a note (see 1.7.7).

X.X.0.4. Recording multiple Uniform Resource Locators

➤ Record one or more Uniform Resource Locators for the remote access resource being described in accordance with the policy of the agency preparing the description. If readily available, also record the resolvable persistent identifier.

➤ If a resource is available from more than one location (e.g., mirror sites, or a publisher's site and an archive site), or has more than one access method (e.g., is available in PDF and html), precede the Uniform Resource Locator with the location or method.

```
Publisher's site: http://www.artistsfootsteps.com/

Archived at ANL: http://pandora.nla.gov.au/nla.arc-
14328
```
(Resource held both at publisher's site and at an archive)

X.X.0.5 Restrictions on access to, or use of, remote access resources

➤ Prefer Uniform Resource Locators associated with free and open access to the resource.

➤ If a resource is subject to licensing or subscription conditions which restrict access to the resource, see 6.4.0.3. If a resource is subject to licensing or subscription conditions which restrict use of the resource, see 6.5.0.3.

X.X.0.6 Recording changes in Uniform Resource Locators

➤ If a Uniform Resource Locator is added or changed, revise the Uniform Resource Locator as appropriate. If a Uniform Resource Locator is deleted, delete the Uniform Resource Locator, and record the deletion in a note.

Placement of the proposed instruction
Within the context of RDA, the URL could potentially be recorded in three places:

Option 1: With the Mode of access (see 3.11). However, it does not fit within the definition given in 3.11.0.1 in the December 2005 draft, i.e. "Mode of access is the network and/or protocol used to access a remote electronic resource."

Option 2: With the Details of the item described (see 6.2). However, it does not fit within the definition given in 6.2.0.1, in the December 2005 draft i.e. "Details of the item being described are details pertaining specifically to the copy or copies of the resource held by the institution describing the resource (e.g., marks and inscriptions, physical condition)."

Option 3: With the Information on terms of availability etc. (see Chapter 5). This option seems preferable, as Chapter 5 "… focuses on information on the availability of the resource. The elements covered include those that users make use of to acquire or access a resource (terms of availability, source of acquisition, etc.)." This option is preferred.

It is also noted that ideally this information should be treated in conjunction with that presently given in 6.4 Restrictions on access and 6.5 Restriction on use.

4. URLs for related resources referred to in the record

A new instruction is also needed to provide guidance on the treatment of URLs for related resources.

This would include:
- related resources providing additional descriptive metadata, (e.g. links to finding aids, summaries, contents listings, reviews, etc), or
- related content (e.g. links to book jacket images), or
- access to part of the resource available by remote access (e.g. links to soundbites, excerpts, etc), or
- access to a different format of the resource (to a remote access version).

Links to biographical or historical information about persons, families or corporate bodies recorded in the description have been intentionally excluded from this proposal. However, such links could be provided in the authority record.

Proposed instruction

1.7.7. NOTES CITING UNIFORM RESOURCE LOCATORS FOR RELATED RESOURCES

> ➢ Uniform Resource Locators for related resources can be cited in any note which provides information on the nature or scope of the related resource.

Placement of the proposed instruction
As this instruction may apply to any part of the description, this proposal suggests it be given as part of 1.7. Formulation of notes, and placed at 1.7.7.

New Examples
In conjunction with the proposed new instruction at 1.7.7, new examples should be added to at least the following instructions.

3.11 Other formats

```
        Also available from the Dept. of Communications,
     Information Technology and the Arts website at:
     http://www.dcita.gov.au/arts/arts/cvac_inquiry/report
          (Uniform Resource Locator cited in other format note)
```

4.6 Summarization of the content

```
     Publisher description:
http://www.loc.gov/catdir/description/mh051/2001021593.h
tml
```
     (Uniform Resource Locator cited in summarization of content note)

4.7 Contents list

```
     Table of contents:
http://www.loc.gov/catdir/toc/ecip057/2005002602.html
```
     (Uniform Resource Locator cited in contents list note)

4.9 Indexes and finding aids

```
     Finding aid available in the Manuscript Reading Room
and on the Internet at: http://nla.gov.au/nla.ms-ms51
```
     (Uniform Resource Locator cited in finding aid note)

4.10 Related content

```
     Book review (H-Net): http://www.h-
net.org/review/hrev-a0a7j5-aa
```
     (Uniform Resource Locator cited in related content note)


```
     Sample text:
http://www.loc.gov/catdir/samples/random051/98018706.htm
l
```
     (Uniform Resource Locator cited in related content note)