Association for Library Collections and Technical Services
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Cataloging and Classification Section
COMMITTEE ON CATALOGING: DESCRIPTION AND ACCESS

Task Force on Uniform Resource Identifiers and AACR2

Report

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About the Task Force

At the 2000 Annual Meeting, CC:DA was presented with a discussion paper, CC:DA/Attig/2000/1 (http://www.ala.org/alcts/organization/ccs/ccda/attig1.pdf). Section D of that paper presented some options for including provisions in AACR2 for uniform resource identifiers. CC:DA did not have enough time to discuss the paper and the options presented, and decided to continue the discussion at a later time. At the 2001 Midwinter Meeting, the topic of uniform resource identifiers and AACR2 was again raised, and CC:DA voted to form a task force to examine the issue.

This task force was formed following the 2001 Midwinter Meeting and a charge was officially issued on March 8, 2001. The charge included five components:

1. Provide general background information about resource identifiers in the broadest sense, including what is meant by the terms resource identifier (RI) and uniform resource identifier (URI).
2. Consider how cataloging rules have been applied in a digital and networked environment. Describe and analyze how other standards, such as MARC, Dublin Core, and EPICS/ONIX, incorporate resource identifiers in the representation and communication of bibliographic and related information. Relate these practices to what might be done in AACR2.
3. Describe the importance or value of resource identifiers in bibliographic description and access. Answer the question: “Should AACR2 have rules for including information about URIs in AACR2 bibliographic descriptions and/or access points?” Consider the role of URIs in providing access to related resources, as well as the resource being described. Consider the issues involved in

providing multiple URIs for the same resource available at different sites or for components of a resource.
4. Examine the ways in which AACR2 could include rules for URIs.
5. Propose rule revisions for AACR2, if needed.

Introduction

Providing for unique and consistent identification of resources has been an important aspect of bibliographic control for many years. Indeed, on one level, catalog records themselves function as resource identifiers. Some methods for constructing more concise identifiers are laid out in the cataloging rules themselves, while other, more recent, rules simply provide instructions about how to incorporate widely recognized identifiers into catalog records. Detailed rules for constructing uniform titles, for example, have long been part of the cataloging rules. With the publication of AACR2 in 1978, a special area of description (Area 8) was designated to contain internationally recognized standard numbers associated with resources.

The need for unique and persistent identifiers is becoming increasingly important in the emerging bibliographic environment, which includes networked electronic resources and multiple interconnected repositories of bibliographic metadata. In the traditional environment, institutions provided access to resources by purchasing physical copies that remained under local control. In the emerging environment, institutions increasingly provide access to electronic resources by incorporating identifiers into locally controlled bibliographic records. These identifiers are used to provide links to network-accessible locations where resources are actually stored. This opens up a new problem in bibliographic description that is not yet adequately addressed in AACR2 or other traditional cataloging standards.

The *Functional Requirements for Bibliographic Records* (*FRBR*) published by IFLA in 1998 identifies four generic user tasks that bibliographic records should seek to fulfill: Find, Identify, Select, and Obtain, and indicates that identifiers associated with a resource are of high value for finding, identifying, and obtaining resources at both the manifestation and item levels. It has been noted repeatedly in CC:DA meetings that treatment of identifiers for remote electronic resources is not currently addressed in AACR2. Several of the functional requirements presented in the IFLA report are not appropriate for inclusion in AACR2, however, such as the requirement for finding works on a given subject. Investigating whether or not AACR2 should be amended to provide more specific instructions with regard to Uniform Resource Identifiers associated with electronic resources is the main purpose of this report.

Background and Definitions

Resource identifiers

In the most general sense, a resource identifier is simply a label that refers to a particular bibliographic entity. This label usually takes the form of a string of letters and/or numbers that provides a concise and unique way of referencing a particular resource. Differentiating one resource from another is the primary function of an identifier. Sometimes, a particular element of a bibliographic description serves as a defacto identifier, such as the title proper or the title proper in combination with the author or date of publication. Other identifiers are explicitly defined and maintained according to formal rules and syntax. Formally established identifiers tend to be more reliable and effective than defacto identifiers.

The most effective identifiers have several properties. First, they are uniform, meaning that they are constructed according to rules that govern their content and syntax. This allows identifiers to be constructed and interpreted consistently, even within different contexts. Second, they are intended to be unique, meaning that no two resources should have identical identifiers. Third, they are persistent, meaning that once assigned, the identifier for a resource will be permanently associated with that resource.

Though they are taking on increased importance in the emerging electronic environment, resource identifiers have been used in bibliographic control for many years. Cataloging rules have provided a number of rules governing the construction of uniform titles, which can also be seen as one form of resource identifier since one of their primary functions is to provide a unique and consistent heading for works that have been published under various titles or for works that have non-unique titles. With the establishment and widespread adoption of international standard numbers in the 1970s, the cataloging rules were amended to allow internationally recognized standard numbers, such as ISBNs and ISSNs, to be included in bibliographic descriptions. Unlike uniform titles, which are constructed by catalogers and apply at the work level, standard numbers are generally assigned by outside agencies to particular manifestations of works and simply recorded in catalog records. The cataloging rules play no role in determining the content or structure of this type of identifier. They simply provide instructions that allow catalogers to record standard numbers in a consistent manner within bibliographic records.

The IFLA *Functional Requirements for Bibliographic Records* defines two classes of identifiers:

> **4.4.14 Manifestation Identifier**
> The *manifestation* identifier is a number or code uniquely associated with the *manifestation* that serves to differentiate that *manifestation* from any other *manifestation*. A *manifestation* may have one or more identifiers associated with it. The identifier may be assigned as part of an international numbering or coding system (e.g., ISBN, etc.), as part of a national system (e.g., legal deposit number), or it may be assigned independently by the publisher or distributor of the *manifestation* (e.g., government publication number, music publisher's number, clearinghouse inventory number, etc.). A *manifestation* identifier may also be assigned by a bibliographer, musicologist, etc. The *manifestation* identifier may comprise both a numeric component and a textual or coded component identifying the system under which it was assigned and/or the agency or individual that assigned the number, so as to render the identifier unique to the *manifestation*.
>
> **4.5.1 Item Identifier**
> The *item* identifier is a number or code that is uniquely associated with the *item*, and serves to differentiate that *item* from any other *item* in the same collection and/or institution (e.g., call number, accession number, bar code, etc.). The number is normally assigned by the institution that holds the *item*. The *item* identifier may also include a name or code identifying the institution or repository in which the *item* is housed, and a name or code identifying a particular collection or sub-unit within the institution (e.g., a rare book collection, a branch library, etc.).

FRBR also distinguishes between identifiers and the string of characters that defines the location in which a remote electronic resource is stored:

> **4.4.38 Access Address (Remote Access Electronic Resource)**
> Access address is an alpha-numeric code (e.g., universal resource locator - URL) used to facilitate remote access to an electronic resource.

FRBR designates identifiers as high value attributes that allow users to find, identify, and obtain resources at the manifestation and item levels. Access address is designated as a high value attribute for obtaining manifestations of remote electronic resources. Uniform titles, standard numbers (or alternatives), and access addresses are all data elements included in *FRBR*'s recommendations for the basic requirements for national bibliographic records. This validates the importance of identifiers in bibliographic description.

Since the mid-1990s, the Internet Engineering Task Force (IETF) has defined and developed several classes of identifiers that are intended to facilitate resource identification and retrieval on the Internet. These include:

Uniform Resource Identifier (URI)

A Uniform Resource Identifier (URI) is a compact character string that refers to an electronic resource. A URI provides a simple and extensible means for identifying a resource that can then be used within applications. The IETF has proposed a generic syntax to which all URIs must conform. URIs form a superset of three distinct classes of identifiers: Uniform Resource Locators (URLs), Uniform Resource Names (URNs), and Uniform Resource Characteristics (URCs). Since the URI standard was originally proposed, work on defining URCs has been abandoned.

Uniform Resource Locator (URL)

A URL is a class of URI that identifies a network accessible location where a resource can be stored. A URL includes several parts. The first part defines a scheme, which conventionally represents the primary access mechanism. The second part includes the name of a network accessible machine, and the third component represents a specific file "path" on that machine. The file path is interpreted according to the scheme. There is nothing that ties a particular URL to a particular resource. If the same resource exists in multiple locations, it will have multiple URLs. If a resource moves to a new location, it will get a new URL, and if a resource is displaced by another resource, the new resource will have the same URL as the old one did. Primarily due to the acute need for concise resource identifiers in the electronic environment and a lack of practical alternatives, URLs have emerged as defacto identifiers for resources themselves, but using URLs in this manner is widely recognized as problematic. The ultimate goal of the IETF is to discontinue the use of URLs as identifiers for particular resources and limit them to defining location and access mechanism only. Alternative resource identification systems are currently under development.

Uniform Resource Name (URN)

A URN is a class of URI that references a particular network-accessible resource. The IETF stipulates that URNs are intended to, "to provide a globally unique, persistent identifier

used for recognition, for access to characteristics of the resource or for access to the resource itself." The IETF also stipulates that URNs should remain globally unique and persistent even when a resource ceases to exist or becomes unavailable. Unlike a URL, which defines a network-accessible location, the primary purpose of a URN is to identify the resource itself. The URN for a resource that moves, that is stored in multiple locations, or that has been removed from all network accessible locations will remain consistent. On a practical level, two main methods for providing access to network accessible resources via URNs have been proposed. The first is through institutional commitment, meaning that institutions will take responsibility for naming resources and keeping track of where these named resources are located on the network. The second is to establish a specific "urn" scheme, which embodies the requirements for a standardized URN namespace. Such a scheme will resolve names with locations in order to provide persistent access to resources. Formal standards for implementing URN namespaces have been established, and functional namespaces are beginning to emerge. In addition to URN namespaces that have been formally registered according to IETF procedures with the Internet Assigned Numbers Authority (IANA), examples of applications of the URN concept include the Digital Object Identifier (DOI) system, the Handle System (CNRI), and PURLs (OCLC).

Current Treatment of Identifiers in Cataloging Standards

ISBDs

ISBD(G) instructs that "standard numbers (or alternatives)" be recorded in Area 8. The standard explicitly states that, "In the absence of an international standard number, alternative numbers from commercial systems are recorded. The specialized ISBDs make recommendations regarding the appropriate schemes for different categories of materials." ISBD(ER) specifies that the ISBN or "other standard number" for a resource be recorded in Area 8 if it is known. The only explicit mention of URIs in ISBD(ER) is the inclusion of URLs in the examples under Mode of access notes.

AACR2

Within the description of a bibliographic resource, AACR2 currently supports two types of identifiers. AACR2 provides rules related to the construction and use of uniform titles, which function as work or expression-level identifiers. In accordance with the ISBD, it also instructs that certain internationally recognized standard numbers borne by the described resource be recorded in Area 8. These numbers function as manifestation-level identifiers. When a resource bears more than one standard number, the rules give the option of recording all such numbers with qualifiers. Chapter 1 instructs that numbers other than International Standard Numbers be recorded in the Notes area. Chapter 9 instructs that standard numbers other than ISBNs and ISSNs be recorded in the Notes area. AACR2 currently makes no explicit mention of URIs.

MARC21

MARC21 provides a number of specific fields and subfields for recording uniform titles. It instructs that ISBNs be recorded in the 020 field, ISSNs be recorded in the 022 field, and provides the 024 field for recording other standard numbers. URIs for the resource described in the body of the bibliographic record and for related resources are recorded subfield u of the 856

field. Indicator values specify whether the URI included in an 856 field is for the resource itself, a version of the resource, or for a related resource. The 856 field is repeatable to allow for multiple URIs to be included if more than one URI is associated with a resource. Though many of the fields in MARC21 have a direct relationship with the areas of description and access points defined in AACR2, 856 falls within a range of fields designated for holdings and other data that is not generally addressed in AACR2.

MARC21 has recently added subfields to a number of 5XX (notes) fields in which URIs for resources related to the resource described can be recorded. This is similar to the fields provided to accommodate standard numbers in title access point fields. AACR2 does not currently specify that standard numbers be associated with added or uniform title entries when known, nor is this needed since AACR2 provides instructions for constructing uniform title headings. Standard numbers are not required in these fields for the purposes of distinguishing one title from another because the headings themselves are intended to be unique identifiers. In MARC records, these identifiers are added primarily to facilitate automated searching and retrieval. Providing for automated retrieval of related resources is also the primary purpose of including URIs in the notes area. Providing for this type of functionality has traditionally fallen outside the scope of AACR2.

PCC Core Bibliographic Record Standards

Inclusion of ISBN or ISSN is mandatory if present on the resource being described. For remote electronic resources only, inclusion of at least one 856 field giving a valid location for the resource at the time of cataloging is mandatory.

How Two Important Metadata Standards Treat Identifiers

Dublin Core (version 1.1) *http://www.dublincore.org/documents/dces/*

Identifier is one of the 15 core elements included in the Dublin Core metadata standard. An identifier is defined as, “An unambiguous reference to the resource within a given context.” The standard recommends using, “string or number conforming to a formal identification system,” and gives URIs (including URLs), Digital Object Identifiers (DOIs), and ISBNs as examples of appropriate identifiers to include in the Identifier element.

ONIX (2.0) *http://www.editeur.org/onixfiles2.0/ONIXProductRecord2.0.pdf*

ONIX accommodates a variety of standard numbers recognized by the publishing industry, including ISBNs, International Standard Music Numbers (ISMNs), EAN-13 numbers, Universal Product Codes (UPCs), and Digital Object Identifiers (DOIs). Originally, the standard specified a field for each type of identifier, but with version 2.0, a single <ProductIdentifier> field has been created. This simplifies accommodating new types of product numbers that may emerge in the future. The ONIX standard requires at least one product number to appear in each product record, and prefers the EAN-13 number if only one number is included. The standard stipulates that “other product numbers should be included where they exist.” URNs and URLs are not explicitly mentioned in the ONIX documentation, which is intended to apply to commercially published resources.

Current and Potential Role of Identifiers

Identifiers are increasingly being used as the shortest and most reliable means of referencing particular resources within bibliographic databases. This is especially true within vendor databases, which are usually built according to a relational database model. The proliferation of databases available in libraries makes the need for consistent, concise, and reliable identifiers absolutely critical for providing interoperable links between databases. EBSCO, for example, now allows libraries to include links in its periodical databases that execute ISSN searches in local catalogs. This allows patrons to determine quickly whether a library subscribes to a particular publication indexed within the EBSCO database. This feature only works if the ISSN is encoded and indexed consistently in the local catalog, however. Resource-oriented identifiers also offer great potential for overcoming one of the main weaknesses associated with URLs: lack of persistence. Identifiers will likely also play a major role in authentication systems.

Should AACR2 Provide Rules Regarding URIs?

We have established that resource identifiers have played a role in bibliographic control for many years. The importance of identifiers in bibliographic description has been validated by *FRBR*, and by the requirement that identifiers be included in resource descriptions in most recently developed metadata standards. AACR2 already provides rules for constructing work or expression-level identifiers (uniform titles) and for including in bibliographic descriptions manifestation-level identifiers that satisfy certain criteria (standard numbers or alternatives). The remainder of this report will focus on comparing the characteristics of URIs with the characteristics of standard numbers currently addressed in AACR2 for the purpose of determining whether it is appropriate to include rules addressing URIs, and if so, how this can be done.

AACR2 is generally more restrictive and narrowly focused on descriptive elements than most recently defined metadata standards. To the extent that specialization allows AACR2 to respond to the unique needs of the library environment, this is desirable. Catalogers currently rely on many complementary standards to create of bibliographic records that fulfill the functional requirements laid out in *FRBR*.

Characteristics of identifiers currently recognized by AACR2

Standard numbers are the primary manifestation-level identifiers currently recognized by AACR2. These identifiers share several defining properties. First, they are universal in that they have the same essential meaning regardless of the context in which they appear. AACR2 makes the additional stipulation that standard numbers must be internationally recognized in order to be recorded in Area 8. Second, standard numbers are intended to be unique, meaning that only one manifestation of a resource should be associated with a particular number. Third, standard numbers are persistent, meaning that once a number is assigned, it will always be associated with that manifestation, no matter where it appears. Lastly, standard numbers recognized by AACR2 are constructed and assigned according to formal schemes.

Classes of URIs

URN (universal)

URNs that conform to the IETF's functional requirements document have comparable characteristics to the standard numbers currently recognized by AACR2. They are intended to be universal, unique, persistent, and they are constructed according to formally defined schemes. They also serve a similar function, acting as identifiers for particular manifestations of electronic resources. Because of these similarities, it makes sense to treat universal URNs in the same manner that standard numbers are treated in AACR2. Using this type of URN, resolution services external to the catalog can match a URN with the location where a particular resource is stored, thus allowing users to obtain resources even though the resource identifier is the only element included in the bibliographic record. Development of resolution services is still in the formative stages, so it is unclear exactly how they will work, but they could theoretically be globally accessible. For example, anyone in the world with Web access can use the PURL server administered by the United States Government Printing Office (GPO) to be directed to the current location of a document to which the GPO has assigned a PURL.

URN (local)

Individual libraries may choose to implement local URN namespaces to leverage the advantages of providing access to remote electronic resources via unique, persistent, and formalized identifiers. In this scenario, URNs would be assigned by the local institution as part of the acquisitions or cataloging process. The local URN namespace would not be globally accessible, though it might otherwise conform to IETF standards. Operating at this level, URNs become more akin to item-level identifiers because they pertain to resources only within a particular, restricted context. The local URN would not displace a universal URN assigned to the resource. It would simply add an additional URN that functions only within the context of a particular collection. It would be inappropriate to include rules addressing this type of identifier in AACR2 because at this time, the rules do not address item-level identifiers. Individual libraries could choose to treat local URNs according to the same rules used for universal URNs in their local records.

URL

Because they primarily define a network-accessible location, URLs are not reliable resource identifiers. A URL defines a storage location for a particular resource, which can be the same in many institutions, or can vary by institution depending how the resource is accessed within the context of a particular collection. For example, many libraries now provide access to subscription-based resources via proxy servers. This may require libraries to modify URLs to direct requests for the resource through a local machine. Because catalog records describe resources, not Internet accessible locations, other elements within the bibliographic description that specifically describe the resource itself provide better defacto identification of network accessible electronic resources than do URLs. It is true that URLs are currently of critical importance for obtaining network-accessible resources because they define the location in which the resource is stored. Describing the location where a resource can be found is different than identifying a resource, however. The location function has traditionally been fulfilled by elements within the bibliographic record, such as the call number, which are not addressed in

AACR2. Currently, other cataloging standards provide explicit instructions for how to include descriptions of the location of a resource in bibliographic records, and these standards fulfill the minimal functional requirements to allow users to obtain access to remote electronic resources. URLs do not meet the functional requirements of URNs as defined by the IETF, and using a URL as a defacto URN when a real URN is not available can be extremely problematic.

Options for Addressing URIs in AACR2

1. Status quo: Provide no explicit instructions regarding URIs in AACR2**.**

Currently, if considered important for identifying a resource, catalogers have the option of recording URIs in the Notes area. Catalogers also often rely on other standards, such as MARC21, to provide instructions for including URIs that fulfill the locating function for electronic resources in bibliographic records.
This approach is currently functional, but some are dissatisfied with it and would like to have more explicit and/or consistent instructions for treating resource identifiers within catalog records. Some within the cataloging community feel very strongly that resource identifiers play a vital role in the identification and retrieval of electronic resources and that AACR2 should include explicit instructions about recording resource identifiers because no bibliographic description for a remote electronic resource can be complete without including such identifiers. To the extent that one class of URI resembles other types of identifiers already addressed in the rules, excluding mention of URIs from the rules means that functionally equivalent identifiers cannot be treated consistently in catalog records.

2. Provide explicit instructions to record URIs in the Notes area.

URIs could conceivably be recorded in at least different three types of notes: the Mode of access note, the “other important numbers” note, or an entirely a new type of note specifically designated to contain a URI. Unlike most notes included in a bibliographic record, URIs are not intended to be human-readable or meaningful for the purpose of selecting a resource. While they can be useful to catalogers in locating and verifying the description of Internet resources, their primary function is to provide a concise label that computer systems can use to reference and/or retrieve specific network-accessible resources. A certain class of URIs, URNs, display characteristics similar to standard numbers. Treating URNs differently than standard numbers leads to inconsistency that could potentially inhibit the ability to make use of the data elements stored in bibliographic records within information retrieval systems. Within the context of the current cataloging standards and operational systems, when URIs are included in a notes field, it is usually necessary to repeat the URI elsewhere in the bibliographic record in order to provide the consistency needed to use the URI for the purpose of automated retrieval. Unlike with access point data where there is some benefit to having both transcribing data as it appears on the piece and recording the same data in a standardized form, there is little benefit to recording a URI in more than one field within a bibliographic record, since the standardized form of a URI will always be identical to its transcribed form. And because of the need for standardization, it is functionally problematic to instruct that all URIs be recorded primarily in the Notes area.

3. Modify rules regarding standard numbers to include URIs.

URNs that conform to the IETF's functional requirements are strikingly similar to standard numbers. Recently, official proposals have been submitted to register existing standard numbers, such as ISBNs, as official URN namespaces. Only identifiers that meet the definition of URNs appear to meet the relatively high standards set out in AACR2 for inclusion in Area 8. Pretty much any identifier can be considered as a useful element of description, however, and could be recorded in the Notes area, at the option of the cataloger or cataloging institution. This can be done effectively within the stipulations of the current rules.

If libraries choose to take a "single record" approach to cataloging resources that appear in multiple manifestations simultaneously (e.g. print and electronic), it is appropriate to include identifiers for all manifestations of the resource within the same record, since each manifestation may have its own unique identifier. When multiple identifiers are included, they can be qualified according to the instructions already given in the rules.

4. Define a new area of description for URIs.

The need for an entirely new area to cover URIs remains unclear. URNs are similar enough to standard numbers that it seems unnecessary and perhaps even problematic to treat them differently. Especially in an automated environment, it is beneficial to treat functionally equivalent elements consistently. URLs are only reliable as resource locators, not as identifiers. AACR2 does not currently address elements that function primarily as locators for any type of resource. The need to include URLs in bibliographic records is likely to diminish if URN namespaces and resolution services become commonplace. Since immediate needs can be met by adapting existing rules and following instructions provided in other standards, it seems prudent to continue monitoring the emerging electronic publishing environment, but to delay any radical revision to the rules until the technological framework is more firmly established.

Recommendations

1. REVISE RULE 9.8B1 AND ADD EXAMPLES:

Current rule (with revisions):

9.8B1. Give the International Standard Book Number (ISBN) or International Standard Serial Number (ISSN) , or any other persistent and globally resolvable identifier assigned to a resource by an internationally recognized agency, as instructed in 1.8B.

ISBN 0-89138-111-2 (codebook)

urn:ietf:rfc:2648

doi:10.1000/182

PURL http://purl.access.gpo.gov/GPO/LPS13302

hdl:4263537/4093

Clean copy of revised rule:

9.8B1. Give the International Standard Book Number (ISBN) or International Standard Serial Number (ISSN) , or any other persistent and globally resolvable identifier assigned to a resource by an internationally recognized agency, as instructed in 1.8B.

ISBN 0-89138-111-2 (codebook)

urn:ietf:rfc:2648

doi:10.1000/182

PURL http://purl.access.gpo.gov/GPO/LPS13302

hdl:4263537/4093

2. ADD THE FOLLOWING TO THE APPENDIX D OF AACR2 (GLOSSARY):

Uniform Resource Name (URN). A globally unique and persistent resource identifier constructed according to a formally defined scheme and assigned to a particular electronic resource.

3. REVISE THE RULE 9.7B1 AND EXAMPLES:

Current rule (with revisions):

9.7B1. Nature and scope and system requirements

. . .

c) *Mode of access*. If a resource is available only by remote access, always specify the mode of access. Begin the note with *Mode of access:*. *Optionally*, include a uniform resource locator (URL) associated with a resource.

Mode of access: AUSINET

Mode of access: Electronic mail using ARPA

Mode of access: World Wide Web. URL: http://ericae.net/testcol.htm

Mode of access: Internet via ftp. URL: ftp://ftp.nevada.edu

Clean copy of revised rule:

9.7B1. Nature and scope and system requirements

. . .

c) *Mode of access*. If a resource is available only by remote access, always specify the mode of access. Begin the note with *Mode of access:*. *Optionally*, include a uniform resource locator (URL) associated with a resource.

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Comments: Rule 7.5.2 of ISBD(ER) provides examples that include URLs in Mode of access notes. Providing an option and similar examples in AACR2 would provide guidance to catalogers when they feel that including a URL is helpful in identifying and/or describing a remote electronic resource. Providing this guidance should promote consistency in bibliographic description without unnecessarily requiring that URLs be recorded in the Notes area. Members of the task force who expressed a preference felt that following the example provided by ISBD(ER) was a good approach to take in addressing this issue.

4. WORK JOINTLY WITH THE IFLA COMMITTEE ON CATALOGING TO CONSIDER REPLACING THE TERM "STANDARD NUMBER" WITH "RESOURCE IDENTIFIER" IN THE RULES FOR AREA 8 AND TO CONSIDER WHETHER THE SCOPE OF AREA 8 SHOULD BE EXPANDED TO INCLUDE ADDITIONAL CLASSES OF IDENTIFIERS.

Area 8 in AACR2 is derived directly from Area 8 of the ISBDs. Any major change to this area should be made in conjunction with similar changes to the ISBDs, if at all possible. Standard numbers function as identifiers, and particularly in the electronic environment, standard numbers are increasingly becoming a type of identifier. At least in Chapter 9 and ISBD(ER), it might be appropriate to replace references to "standard numbers" with references to "resource identifiers" in light of this development. Further revising Area 8 to accommodate URLs would constitute a major change in the scope of this area, and such a change should be considered within a larger context than is possible within a CC:DA task force, as it involves fundamental questions concerning the nature and purpose of this area of bibliographic description. A joint group would be better equipped to reassess the role and definition of Area 8 within the context of the online environment and to determine if it is desirable to expand the scope of this area to include some rules regarding inclusion of resource locators. Until this determination is made, catalogers can continue to record location-oriented identifiers in the Notes area and/or in accordance with guidelines given in other cataloging standards, such as MARC21.

5. APPOINT A CC:DA TASK FORCE TO EXAMINE AND PROPOSE REVISIONS TO RULES RELATING TO STANDARD NUMBERS IN AACR2.

The rules covering standard numbers have not been altered significantly since AACR2 was first published in 1978. Though Chapter 1 technically allows for any type of "internationally recognized" standard number to be included in Area 8, current instructions in the individual chapters explicitly instruct that standard numbers other than ISBN or ISSN be recorded in the Notes area. Given the emergence of other widely recognized standard numbers over the past twenty years and the increasingly important role that these numbers can play when used as identifiers in online systems, it might be beneficial to allow the inclusion of more types of standard numbers in Area 8. Evaluating standard numbers in general was beyond the scope of the URI task force, but several members noted this as an issue. MARC21 already allows a greater variety of widely recognized standard numbers to be encoded as such in bibliographic records.

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