CATALOGING ELECTRONIC RESOURCES/ ELECTRONIC RESOURCES DISPLAY IN THE OPAC TASK FORCE (2009) FINAL REPORT

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Approved by the I-Share Users' Group

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Approved by the I-Share Users' Group Cataloging and Authority Control Team

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1. Executive Summary

In 2009, the I-Share Users' Group (IUG) established the third iteration of the Cataloging Electronic Resources/Electronic Resources Display in the OPAC (CatER) Task Force to:

- Document needed changes to the 2004 Report and provide additional recommendations as appropriate;
- Identify current best practices and additional issues related to the cataloging of, access to, and display of electronic resources in I-Share's consortial environment;
- Identify related issues concerning access to electronic resources that are outside of this charge and make recommendations to the IUG for additional action.

The Task Force has diligently addressed this charge during the past ten months. The Task Force researched and documented changes to electronic resources cataloging guidelines and standards at the national level, and surveyed I-Share libraries' cataloging practices at the local level. Using the evidence gathered, the Task Force revised and expanded upon the existing recommendations, which form the heart of this document and are available in their entirety in Section 11, "Recommended Best Practices for I-Share." Eighteen of the recommendations apply to I-Share catalogers. Below are highlights of the most important recommendations that apply to I-Share catalogers, some of which represent a change in practice from the previous report:

- Use separate bibliographic records for electronic resources (e.g., one for the print version, one for the electronic version) (**R1** and **R2**);
- Records should follow the provider-neutral and aggregator-neutral guidelines for electronic monographs and electronic continuing resources, respectively (**R3** and **R5**);
- Place the URL to the resource in the 856 field, subfield u, of the holdings record (MFHD), and optionally, in the 856 subfield u of the bibliographic record (**R10** and **R11**);
- URLs should be appropriate to the library's end-user and may be shareable or institution-specific. Shareable URLs do not need to be retained in the bibliographic record (**R10** and **R11**);
- Follow new consortial guidelines for recording information in the 856 notes subfields (**R15**)

In addition to the recommendations for catalogers, the Task Force identified ten recommendations that may require action on the part of CARLI or IUG. Information in the recommendations was shared with CARLI and IUG in the course of the Task Force's work, and in many cases, CARLI already has taken steps to initiate or expand upon tools or projects to support the work of libraries cataloging electronic resources. Recommendations here include:

- An examination of existing I-Share documentation in light of changes to this report (**R23**);
- Training in cataloging e-resources according to this report for I-Share libraries (**R21** and **R22**);
- Additional support for libraries managing batches of records from vendors and third parties(**R25** and **R26**);
- An examination of batch-loading limitations in the I-Share Voyager system (**R24**).

While the recommendations make up the heart of the document, the Task Force did not want to present them in a vacuum. In formulating this document, the Task Force performed extensive background research and has included it in the report. To determine the amount of electronic resources cataloging occurring within I-Share libraries and to assess their adherence to the 2004 I-Share recommendations, the Task Force surveyed existing cataloging practices by I-Share libraries. A summary of the survey is provided in Section 5, "Summary of Current I-Share Cataloging Practice," and the full survey results are presented in Appendix B. Of the respondents, almost ninety percent of libraries (40 of 45 libraries who responded to the survey) provide access to e-resources in their library catalogs. Out of these 40 libraries,

93 percent (37 libraries) catalog e-books, 78 percent (31 libraries) catalog e-journals, and 50 percent (20 libraries) catalog e-databases. Libraries also get bibliographic records for electronic resources from a variety of vendors. Two-thirds of libraries report receiving records from vendors, and 82% of libraries brought in records via Voyager's bulk import processes. The survey results also revealed which of the 2004 recommendations were being followed, which were confusing, and which were no longer relevant.

Early on in its work, the Task Force performed an initial environmental scan to determine new issues that needed to be addressed since the 2004 report. Within the broader library environment, the Task Force recognized that many things had changed in the five years since the previous report was written. In addition to a general growth of e-resources in libraries, the past five years have seen new cataloging guidelines, increased availability of records directly from vendors, new developments in search and discovery tools, and additional means to provide access to electronic resources. Information about these developments has been incorporated into several sections of the final report.

The rules that govern description and access have been changing rapidly during the past five years. The 2004 CatER Task Force did extensive work reviewing existing standards and the various guidelines dealing with the cataloging of electronic resources. The 2009 CatER Task Force narrowed its focus and concentrated primarily on national guidelines that were established by the Program for Cooperative Cataloging (PCC) for aggregator-neutral and provider-neutral records for electronic resources. A description of these guidelines and their application in the recommendations is provided in Section 6, "Review of Existing National and Consortial Guidelines." In addition, the report summarizes existing I-Share documentation that applies to electronic resources cataloging.

The information managed by libraries and the services offered to connect end-users to that information have been rapidly changing. The catalog, once the primary tool for end-users to discover information, is now only one of many tools, both in and outside the library, to facilitate information discovery. Even among I-Share libraries, there is no longer a single discovery interface in use by all libraries. Recently, there has been an emphasis on combining MARC data from library catalogs with databases and other external data to create discovery tools designed to search a wide variety of information resources. The report provides an overview of recent developments in local display environments within CARLI and the wider library world in Section 7, "Local Display Environments and Beyond." Although the current user interface to the catalog is a moving target, the Task Force did want to provide some guidance and examples for how the 856 field displays in current implementations of WebVoyáge and VuFind; this information can be found in Appendix A. In addition, Section 10, "Managing Front-end Displays of URL Links," provides details on how the indicators in the 856 field affect display and the proper coding for links that don't provide full-text access to the resource.

Recognizing that changes in discovery tools and library priorities affect not only *how* a resource is cataloged, but also *whether* a resource should be cataloged, the Task Force developed Section 8, "Things to Consider when Deciding to Catalog E-Resources." This section provides a list of discussion questions libraries may want to address when embarking upon a new cataloging project or deciding how best to provide access to their electronic resources. Areas of consideration include: what content should be represented in the catalog, the use of discovery services, the level of access needed, and collections analysis. The Task Force does not profess to have the answers to these questions, but includes them in the report as an important first step to take.

Electronic resources are frequently obtained in packages that include a large number of individual titles. Catalog records for electronic content can frequently be obtained in batch from the vendor or other record provider or created by the library through metadata transformation from other schema into MARC. Managing records in batch, which has become commonplace in I-Share libraries as demonstrated by the survey results, requires some additional skills compared with cataloging individually from the item at hand. Section 9 of the report, "Cataloging in Batch," provides an overview of methods to obtain records, ways to customize the records, and national and consortial guidelines to follow.

Finally, the Task Force recognizes that this report has become dense, packed with all of the above information. Like the previous report, its size may be a deterrent to its use, making it difficult for catalogers

to quickly identify the appropriate recommendations and information when in the midst of a cataloging project. To alleviate that problem, the Task Force assigned tags to the recommendations to identify their applicability to certain cataloging situations. Using these tags and other information from the report, the Task Force created three "mini-reports:"

- Cataloging e-journals;
- Cataloging e-books;
- Batch loading.

The mini-reports provide a graphical representation of the information in the recommendations, followed by a list of recommendations that apply to that particular task. We hope that these smaller reports will be useful for training and reference, and make the entire report more accessible. They are available on CARLI's Voyager Cataloging Documentation webpage: http://www.carli.illinois.edu/mem-prod/I-Share/cat.html .

2. Committee Members

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3. Background

This is the third iteration of the Cataloging Electronic Resources/Electronic Resources Display in the OPAC (CatER) Task Force. The first two iterations of Task Force met in 2000/2001 and 2003/2004, respectively. Previous Task Forces performed considerable research in writing their reports. The first Task Force surveyed ILCSO libraries with regards to their cataloging practices for electronic resources. The second Task Force surveyed library consortia from around the country as they determined how to revise the existing recommendations. The 2004 report included recommendations for using separate records for e-monographs, but no recommendation for single or separate records for e-journals. The report provided instruction for how best to record URLs in the bibliographic and holdings record with an emphasis on retaining "shareable" URLs that could be used by other ILCSO libraries. The content of the final report was disseminated to the ILCSO library community, and training was provided through peer-to-peer sessions.

The environment and issues surrounding the organization, access, and display of electronic resources have changed markedly over the past five years, so the I-Share User's Group (IUG) felt the 2004 report should be revisited. The Cataloging Electronic Resources/Electronic Resources Display in the OPAC Task Force (2009) was established in the summer of 2009 to build on and update the work done by the previous iterations of the Task Force.

Initial meetings of the Task Force noted the following new developments affecting e-resources cataloging and access:

- Rapid growth in e-resources: E-books acquisitions and the corresponding need to catalog them have increased dramatically, and many libraries have shifted their journals collection to "electronic-only" whenever possible.

- New Program for Cooperative Cataloging (PCC) provider-neutral e-monograph record guidelines: new guidelines announced August 2009 would need to be carefully considered as to how they will affect current cataloging practice and how they should be implemented in the I-Share environment.
- New developments in OPACs/discovery tools for libraries: new interfaces, including VuFind, WorldCat Local, and potentially the eXtensible Catalog, could take better advantage of the catalog records in ways that WebVoyáge does not.
- New tools to access e-resources: many libraries use a link resolver to provide access to electronic resources, typically SFX offered by CARLI. Link resolvers and other tools may be integrated into the catalog, affecting how end-users find and access e-resources.
- Large sets of vendor records: many I-Share libraries receive large batches of records directly from vendors or through third-party e-resource cataloging services, which dramatically affects workflow and options for customization.

4. Charge, Actions, Timeline

The new CatER Task Force convened for its first meeting on August 13, 2009. After an in-person meeting on Sept. 24, the Task Force held biweekly conference calls until the report was completed in June 2010. The charge and actions of the Task Force are outlined below:

- Charge: Document needed changes to the 2004 Report and provide additional recommendations as appropriate.
    - Action: The Task Force reviewed the existing recommendations and other sections of the report, adding, deleting, and revising recommendations as appropriate. The new recommendations are listed in Section 11 of this report. Decisions were based on the results of a survey of current cataloging practices of I-Share libraries, updates to national guidelines and practices, and changes in the display of records in the OPAC.
    - Action: To make the report more usable for direct cataloging needs, the Task Force developed a set of mini-reports that consolidate the recommendations that apply to a particular cataloging issue. These mini-reports can be quickly referenced by I-Share library catalogers carrying out cataloging processes for e-resources.
- Charge: Identify current best practices and additional issues related to the cataloging of, access to, and display of electronic resources in I-Share's consortial environment.
    - Action: The Task Force surveyed existing cataloging practices by I-Share libraries, including their adherence to the 2004 CatER Task Force recommendations.
    - Action: The Task Force reviewed current national guidelines, including new documentation for provider-neutral e-monograph records.
- Charge: Identify related issues concerning access to electronic resources that are outside of this charge and make recommendations to the IUG for additional action.
    - Action: The Task Force developed recommendations that apply specifically to CARLI and/or IUG that relate to issues that should be addressed to improve access to electronic resources in the catalog. These issues were also communicated to CARLI and IUG when appropriate as they were discussed during the course of revising the report.

Timeline:

- Fall 2009:
    - Examined issues pertinent to e-resources cataloging, especially changes in the last five years.

- Reviewed existing recommendations and suggested additions, deletions, and revisions.
- Developed survey for I-Share membership and got approval from Task Force members' Institutional Review Boards (IRB) where required.

- Winter 2010
  - Distributed survey and analyzed survey results, adjusting recommendations as appropriate.
- Spring 2010
  - Rewrote existing report and developed mini-reports to address specific cataloging needs.

5. Summary of Survey of I-Share Cataloging Practice

The Task Force developed a survey to determine how I-Share members are handling electronic resources cataloging issues, if they are aware of the current consortial recommendations or to what degree they comply with existing consortial recommendations, and what challenges they face in electronic resources cataloging practices. In this survey, 76 CARLI I-Share member institutions were asked about their current practices and perceived needs of cataloging electronic resources in the I-Share environment. The survey was conducted online from February 18 to March 20, 2010. For further discussion of the methodology and complete survey results, refer to Appendix B.

Forty-five libraries responded to the survey. The margin of error for the data collected from 45 responses is +/- 9.3 percent with a 95 percent confidence level for the data analyzed in its entirety. This means that it is 95 percent likely that if all 76 I-Share libraries had actually responded, the results would vary by no more than 9.3 percent in either direction. The confidence interval for some of the questions where fewer libraries responded may be different.

Out of 45 responses received, 40 libraries (89 percent) provide access to e-resources in their library catalogs. Out of these 40 libraries, 93 percent (37 libraries) catalog e-books, 78 percent (31 libraries) catalog e-journals, and 50 percent (20 libraries) catalog e-databases. Other types of electronic resources being cataloged include streaming videos/audio and digitized images.

A majority of libraries who responded follow an exclusive separate-record approach to cataloging all e-resources (e-monographs: 65 percent; e-serials: 35 percent). About one-fifth of the libraries use a combination of methods to handle both types (e-monographs: 20 percent; e-serials: 18 percent). Twenty-five percent of the libraries exclusively take a single-record approach to catalog e-serials, but no library indicated that they only use the single-record approach for e-monographs. Various factors impact a library's choice of approach, including consideration for end-users, availability and/or restrictions of vendor records, how the records were loaded into the catalog, past practices, and concerns about consistency and catalog maintenance.

In general, the respondents indicated that their library's practices conform to the existing consortial recommendations.

- 90 percent assign a specific location for e-resources in the holdings record (MFHD).
- 73 percent place an institution-specific URL in the 856 field in the holdings record (MFHD).
- 87 percent do not create item records for e-resources.
- 68 percent make efforts to keep the URLs current in the holdings record (MFHD). Some common methods for maintaining URL currency are to assign such tasks to students, checking links when updating records manually or receiving updates through vendor services, and responding to problem reports.

Similarities in catalog practice and access to electronic resources were also found in the responses. Sixty-seven percent of respondents indicated that 75 to 100 percent of electronic resource records in their local catalog are included in the I-Share union catalog. At the time of the survey, 85 percent of respondents reported their library using WebVoyáge as their primary public catalog interface. Most libraries (84 percent) use a link resolver, with 69 percent employing SFX from Ex Libris and 15 percent using 360 Link from Serials Solutions.

When it comes to other specific cataloging issues, the respondents reported that their library's practices vary. For example, some respondents indicated that their libraries chose to retain shareable URLs, while others added institution-specific URLs in the bibliographic record. Notes of restriction regarding restricted resources were placed in a variety of locations in both the bibliographic record and the holdings record (MFHD).

Respondents reported that their libraries obtain bibliographic records for electronic resources from a variety of sources. Most (87 percent) obtain bibliographic records from OCLC. Over two-thirds report receiving records from vendors, and 82 percent brought in records via bulk import. The major challenges that libraries face with vendor records are quality problems, issues with batch loading processes, and lack of standards and consistency.

Several comments throughout the survey results indicated the desire of I-Share libraries for more guidance:

- "I'd love to take a workshop on how to efficiently handle these resources."
- "Let us know what you want us to do, without cluttering up the catalog!"
- "Here's where we need guidance from the ICAT group!"
- "Feel free to do more training and standardization!"

6. Review of Existing National and Consortial Guidelines

In reviewing existing guidelines dealing with the cataloging of electronic resources, the Task Force concentrated on national guidelines that were developed by the Program for Cooperative Cataloging (PCC) for aggregator-neutral and provider-neutral records for electronic resources and consortial guidelines for I-Share libraries.

Aggregator-Neutral and Provider-Neutral Records for Continuing Resources

CONSER (Cooperative Online Serials) is a cooperative serials cataloging program that is a bibliographic component of the PCC. CONSER members include the Library of Congress, Library and Archives Canada, selected university, government, research, special, and public libraries, participants in the United States Newspaper Program (USNP), selected library associations, subscription agencies and abstracting and indexing services. CONSER implemented the aggregator-neutral record policy in July 2003. The aggregator-neutral policy was intended to be applicable to all online serials, whether or not they are represented in e-serial packages, and whether or not they have a print counterpart. The bibliographic record for an electronic serial should contain information applicable to all versions of the electronic serial supplied by all providers. Provider names are not added to uniform titles as qualifiers, given as name headings (e.g., 1XX, 7XX), or mentioned in issuing body notes. Notes about access restrictions, format, or system requirements specific to providers are not given. URLs for all of the providers supplying the serial are given in the single aggregator-neutral record.

For complete CONSER guidelines on creating and using aggregator-neutral records see *CONSER Cataloging Manual,* section 31.2.3B – Separate records: the aggregator neutral record. This section is also freely available at http://www.loc.gov/acq/conser/pdf/agg-rec-guidelines.pdf.

In 2007, the Task Force on Provider Neutral Record for Electronic Integrating Resources was formed to develop PCC policies and guidelines for creating provider-neutral records for electronic integrating resources, which would affect both CONSER and BIBCO (the monographic bibliographic record program

of the PCC) cataloging guidelines. This provider-neutral policy is limited to remote access electronic integrating resources that are available simultaneously from two or more different electronic service providers but are essentially the same resource and consist of the same content (e.g., Medline, PAIS International). Like the aggregator-neutral policy for serials, the provider-neutral policy for electronic integrating resources recommends that the bibliographic record should only contain information applicable to all versions of the electronic integrating resource, and the terminology "provider" was chosen to be more inclusive than "aggregator". Provider names are not added to uniform titles as qualifiers, given as name headings (e.g., 1XX, 7XX), or mentioned in issuing body notes. Notes about access restrictions, format, or system requirements specific to providers are not given. URLs for all of the providers distributing the integrating resource are given in the single provider-neutral record.

Recommendations from the final report (http://www.loc.gov/acq/conser/ProvNeutforE-IRs-Sept-21-2007.pdf) were incorporated into the 2010 revision of *Integrating Resources: A Cataloging Manual*, which is freely available at http://www.loc.gov/catdir/pcc/bibco/irman.pdf. These guidelines have become Module 35 of the *CONSER Cataloging Manual* and Appendix A to the *BIBCO Participants' Manual*.

When using the separate bibliographic record approach for continuing resources, the CatER Task Force recommends using the aggregator-neutral record concept developed and implemented by CONSER and the Program for Cooperative Cataloging for continuing resources available from one or more providers (**R5**).

Provider-Neutral Records for Electronic Monographs

In 2008, the Provider-Neutral E-Monograph Record Task Group was formed to develop a monographic cataloging policy for a single electronic MARC bibliographic record to represent electronic monographs with the same content that are available from multiple providers. A new policy was needed because electronic monographs were increasingly becoming available from multiple providers, resulting in separate MARC records for each manifestation of the resource. It was difficult for end-users to understand the differences between these multiple records. The Task Group began its work in the summer of 2008 and presented its final report to the Program for Cooperative Cataloging (PCC) Policy Committee on July 30, 2009. The report only addresses separate MARC records for electronic monographs; it does not address the "single record approach." Only information pertaining to all manifestations of a resource should be included in a provider-neutral record. Provider names are not given in notes, input as added entries (e.g., 7XX), or added to uniform titles as qualifiers. Notes specific to particular providers, e.g. access restrictions, file formats, etc., are not included in the records. Descriptive data about a specific reproduction should not be given except for the DFL Registry of Digital Masters and other digital preservation projects. PCC libraries began implementing the new policy August 2009, and it was recommended by the Task Group that non-PCC libraries also follow the guidelines when they create or revise e-monograph records in OCLC.

Guidelines on creating provider-neutral records are freely available on the PCC website at: http://www.loc.gov/catdir/pcc/bibco/PN-Guide.pdf.

When cataloging e-monographs, the CatER Task Force recommends using the provider-neutral record concept developed and implemented by the Program for Cooperative Cataloging for electronic monographs available from one or more providers (**R3**).

Best Practices for Bibliographic Records from Non-OCLC Sources

Until 2005, I-Share libraries obtained nearly all of their cataloging copy from OCLC WorldCat. Beginning in 2005, partly as a result of the growing number of electronic resources acquisitions, some I-Share libraries began adding vendor records into the consortial catalog. To ensure the interoperability of these vendor records with OCLC records, the "Best Practices for Bibliographic Records from Non-OCLC Sources" document was created by the Consortial Cataloging and Authority Control (CCAC) Committee. The document was approved by the ILCSO Users' Advisory Group on October 6, 2005 and is available at: http://www.carli.illinois.edu/mem-prod/I-Share/cat/vendorrecs.html. Adherence to the provisions in this document helps to ensure that vendor records will maintain the data integrity of the I-Share union catalog

as they are added to the database by not creating unnecessary duplicate records or inappropriately overlaying existing records.

Cooperative Cataloging Guidelines for I-Share Databases

In order to maintain the quality of the records in the I-Share union catalog, guidelines should be followed by staff in all participating I-Share libraries. The "Cooperative Cataloging Guidelines for I-Share Databases" was approved by the ILCSO Board of Directors on April 12, 2004 and updated October 2006 by the I-Share Cataloging and Authority Control Team to incorporate consortial and system name changes. The document is available at http://www.carli.illinois.edu/mem-prod/I-Share/cat/coop_cat_guidelines.html.

7. Local Display Environments and Beyond

The Task Force examined online catalog displays in CARLI's implementations of WebVoyáge Classic, WebVoyáge version 7 (Tomcat), and VuFind in order to develop the current Recommended Best Practices for I-Share when cataloging electronic resources. As of this writing, CARLI does not plan to do further customization to WebVoyáge Classic but is currently still developing the VuFind interface and evaluating requests for changes to WebVoyáge version 7 (Tomcat). For a brief overview of how 856 links are handled in current local display environments for I-Share libraries, refer to Appendix A of this report. In addition, CARLI continues to investigate alternatives for discovery tools, such as the eXtensible Catalog (XC) currently in development at the University of Rochester, and supports I-Share libraries that pursue WorldCat Local or other third party display systems.

The system used by a library for its online catalog will greatly affect the end-user's search and retrieval processes, whether on a local level or within a consortial arrangement such as I-Share. Traditional integrated library systems (ILSes), limited to MARC data and burdened by clunky search mechanisms, have become increasingly out-of-touch with the searching needs of end-users, making it difficult for end-users to accomplish the tasks laid out in the Functional Requirements for Bibliographic Records (FRBR). For example, while most I-Share libraries have decided to catalog e-resources (see Section 5, "Summary of Survey of Current I-Share Cataloging Practice"), determining how to connect their end-users to the resource of choice remains problematic. Multiple print and electronic manifestations of a resource represented in multiple records can be confusing, and their relationship to each other may be unclear. The end-user may be presented with search results made up of several entries containing only slight differences, making it difficult for users to identify and select entities appropriate to meet their needs.

Since 2006, experimentation with displays in the Web-based public catalog has created alternative online catalog interfaces that have come to be known as "NextGen" catalogs or discovery interfaces. Side-bar screens with linking-faceted limits (i.e., topic, genre, format, etc.) are a fascinating departure from traditional searching techniques. New online catalog displays give end-users the ability to link to different editions and translations through the "FRBRization" of data. Libraries are able to take advantage of application program interfaces (APIs) to further customize displays, integrating them into the look and feel of their web space. Incorporating Web 2.0 functionalities into these catalogs allows users to write reviews, provide ratings, add personal notes, and develop tag clouds of subjects of their own design directly into the catalog. The coupling of online catalogs with OpenURL link resolvers, like SFX from Ex Libris, advances points of access from the library catalog to electronic content on the web. Enhanced relevancy ranking, suggested spell correction, "more like this" and "get it" options, cover art, reviews, etc., are all items which end-users have become accustomed to using through search engines like Google.

North Carolina State University, an early pioneer in revolutionizing its catalog interface, uses Endeca, a search application also in use by a number of e-commerce sites. VuFind, developed at Villanova University and in use with I-Share libraries, is an example of an open-source initiative that allows libraries to modify and add new modules to improve and extend access to multiple resource offerings. Recently, there has been an emphasis on combining MARC data from library catalogs with databases and other external data to create discovery tools designed to search a wide variety of information resources. Traditional ILS vendors have begun moving into this market, such as Ex Libris with its Primo product.

OCLC also has embarked on a bold move to extend WorldCat Local with a full complement of library management functionality, including the integration of social media. The eXtensible Catalog (XC) project not only will present a discovery layer, but also will convert existing MARC metadata into XML. This advanced metadata infrastructure will allow for the object-oriented, linked-data, semantic web approach to metadata that is the ultimate goal of Resource Description and Access (RDA).

Online catalogs are rapidly evolving from a centralized repository to a slice in the global information industry. Whatever lies beyond local catalog environments, the foundation of search and discovery rests on the availability of good data. In order to mine and manipulate data for a wider array of information opportunities and end-user functionality, it becomes even more important for data entry in local catalogs to be accurate, consistent and complete.

Recommended reading:

- Bowen, Jennifer. "Metadata to Support Next-Generation Library Resource Discovery: Lessons from the eXtensible Catalog, Phase 1,"*Information Technology and Libraries,* 27:2 (Jun 2008), 6-19. http://hdl.handle.net/1802/5757
- Breeding, Marshall, "Opening Up Library Systems through Web Services and SOA: Hype, or Reality," *Library Technology Reports,* 45 no. 8 (Nov./Dec. 2009)
- Emanuel, Jenny, "Next Generation Catalogs: What Do They Do and Why Should We Care?" *Reference & User Services Quarterly,* 49 no. 2 (Winter 2009): 117-120.
- Parry, Marc, "After Losing Users in Catalogs, Libraries Find Better Search Software", *The Chronicle of Higher Education*, 56 no. 6 (Oct. 2, 2009): A13
- Sierra, Tito, Lynema, Emily, and Wust, Markus. "Library Catalog as Versatile Discovery Platform", *Digital Library Federation Fall Forum 2007*, Philadelphia, Pennsylvania, November 6, 2007. http://www.lib.ncsu.edu/dli/projects/catalogwsapps/dlf-fall-2007

8. Things to Consider when Deciding to Catalog E-Resources

Libraries are charged with building collections for their particular users – collections that include electronic resources. The types of electronic resources that have been emphasized in this report are e-journals, e-books, and databases, but other types, such as audio and video files, might be remotely accessed as well. The process of collection building includes not only acquisition or licensing but also access. The access that libraries provide should enable their users to accomplish the following tasks:

- to *find* entities that correspond to the user's stated search criteria (i.e., to locate either a single entity or a set of entities in a file or database as the result of a search using an attribute or relationship of the entity);
- to *identify* an entity (i.e., to confirm that the entity described corresponds to the entity sought, or to distinguish between two or more entities with similar characteristics);
- to *select* an entity that is appropriate to the user's needs (i.e., to choose an entity that meets the user's requirements with respect to content, physical format, etc., or to reject an entity as being inappropriate to the user's needs);
- to *acquire or obtain access* to the entity described (i.e., to acquire an entity through purchase, loan, etc., or to access an entity electronically through an online connection to a remote computer).[1]

A common method for accomplishing this objective is to catalog resources using AACR2/MARC 21, but libraries are involved in a growing number of alternate ways of providing access as well. Examples include link resolvers; federated search systems; the non-MARC 21 metadata of institutional or subject

[1] Functional Requirements for Bibliographic Records: Final Report, 6. User Tasks, 1998, http://archive.ifla.org/VII/s13/frbr/frbr3.htm (accessed Mar. 31, 2010).

repositories; and discovery layers or systems that allow existing metadata to be aggregated, indexed, and retrieved in new ways. All aim to support the user tasks of find, identify, select, and obtain.

What Types of E-Resources can be Cataloged?

Cataloging content standards and our current carrier standard, MARC 21, have evolved to accommodate e-resources of all types. Just as new physical media have challenged audiovisual catalogers over the years (e.g., reel-to-reel, vinyl records, 8-track tape, cassette tape, CDs, playaway devices), new electronic formats challenge us today. Although made in the context of audio-visual cataloging, Olson's assertion still holds that, "We can catalog almost anything following rules given in AACR2 chapter 1."[2]

Why Catalog?

When trying to decide what avenue or avenues are best for your situation and group of resources, here are some things you might consider:

- **Need for additional descriptive or subject metadata:** Is the quality and completeness of the currently available metadata adequate? Are the user tasks sufficiently supported? For example, are your link resolver and A-Z list sufficient to get users to your electronic journals and e-books, or do your users expect to find them cataloged with their equivalents in print and on microfilm?
- **Appropriate location for access:** Is there one (or more) means of access to the resource(s) in question already? For example, should you catalog materials that are accessible through your university's institutional repository? If your institution demands a level of authority control that the institutional repository software cannot provide, some collaboration between the repository and the catalog would be one solution.
- **Representation of content in the catalog:** New tools still depend on available metadata. For instance, one cannot reasonably expect to implement OCLC's WorldCat Local if your library holdings in WorldCat are not current and accurate; likewise, although a federated search system can search your catalog, it cannot find materials there unless you have cataloged them in compliance with standards to facilitate this interoperability.
- **Discovery services and single point of access:** Do you use a discovery service that can provide seamless access to your titles whether cataloged or only accessible through your link resolver? If you use a discovery service that searches your catalog and article-level databases simultaneously, do you need to have bibliographic records for your databases in your catalog? What about for e-journal titles?
- **Level of access:** Is the granularity of the metadata appropriate for your users? For example, is one collection-level catalog record for the Naxos Music Library database sufficient, or do your faculty and students need access to more precise links for syllabi or assignments—records that link in at the level of individual pieces or small selections of musical works? If your users are searching for individual songs or artists or even genre or time period, then a single catalog record for the collection as a whole will not help them discover what they need even though you have obtained it for them. What about a serial like the *Dictionary of Literary Biography* issued in numbered volumes with unique titles, such as *Twentieth-century Arab writers*? If your library chose to catalog each print title (as a serial analytic), is the same level of cataloging required for the electronic version?
- **Ability to link to the resource:** When providing a catalog record for an electronic resource, a URL should be available to take the user to the title cataloged (i.e., without asking them to re-search for the title from a general search box).

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[2] Nancy B. Olson, Robert L. Bothmann, and Jessica J. Schomberg. *Cataloging of Audiovisual Materials and Other Special Materials: A Manual Based on AACR2 and MARC 21*, 5th ed. (Westport, Conn. : Libraries Unlimited, 2008), 12.

- **Availability of MARC records:** Have the resources already been cataloged, and are those bibliographic records available to you from a vendor, OCLC, or third-party record service? Is the quality of the records sufficient, or will the data need to be massaged to follow appropriate guidelines and standards? As we increase the quantity of bibliographic records that are brought into our catalogs through batch loading processes, and explore the availability, quality, and quantity of record sets from OCLC and from vendors large and small, we need to take the time to determine the level of appropriateness of these types of records for our libraries' users.
- **Collection analysis/reporting:** Are there collection reporting or collection evaluation considerations? Does your institution or do discipline-based programs within your institution undergo national certification or accreditation processes that include a qualitative evaluation of the relevant portion of the library's collection? Are you participating in the state's Last Copy initiative? If so, catalog records with their respective holdings in your local catalog are a necessity. Is your library using WorldCat Collection Analysis? That process requires accurate holdings that are classified (or with full call numbers) in OCLC WorldCat.
- **Holdings representation:** What commitments do you have to include your holdings in the CARLI I-Share union catalog or to support universal consortial borrowing? What cooperative cataloging commitments do you have to OCLC WorldCat? Interlibrary loan?

The answers to these questions will vary by institution, depending on the resources and circumstances being considered, and the answers may also change over time. While the Task Force cannot answer these questions for your library, they are provided here as an important first step to consider before beginning any cataloging project.

9. Cataloging in Batch

In traditional cataloging workflow, libraries catalog items individually, working from the item at hand. This workflow may be used with electronic resources as well. Cataloging items in-hand provides a level of control and customization not available when handling batches of records. For electronic resources purchased individually or in collections where only a collection-level record is needed, this process may be the only workflow option. Electronic content purchased in large packages may also be cataloged individually, but this can become time-consuming and untenable for a large volume of electronic content, and difficult to maintain should the content change frequently.

For packages that include a large number of individual titles, each with its own bibliographic record, batch processing is the most efficient and expedient solution to providing bibliographic access to large amounts of e-content. Voyager's bulk import capabilities allow for the automated processing of a large number of records. When using batch processes, the Task Force recommends that libraries should follow the separate bibliographic record approach and ensure that the records loaded into the catalog via a batch process describe the electronic version of the titles (**R1** and **R2**). Using a single bibliographic record approach greatly complicates managing additions, changes, and deletions to electronic content due to the current limitations of Voyager's bulk import process.

Records for electronic content can be obtained in batch from the following sources:

- Directly from the vendor supplying the electronic content. The vendor may supply the MARC records as part of the acquisition of the e-content, or charge an additional fee.
    - E.g., ebrary, Gale, Alexander Street Press
- Through a third-party record provider. These companies do not supply the content directly, but provide a MARC record service, typically for libraries that use their knowledge base.
    - E.g., Ex Libris, Serials Solutions, EBSCO
- From OCLC WorldCat Collection sets, or in partnership with a vendor. These records may be of higher quality than records obtained directly from a vendor, contain OCLC numbers, and allow for holdings to be set easily in WorldCat.

    - E.g., Springer records
- Through metadata transformation. Records described in a separate schema may be transformed into MARC records.
    - E.g., records for objects in an institutional repository.

MARC Record Services

MARC record services provide an option for libraries to manage and customize batches of records for e-resources. There are several vendors providing e-journal MARC record services for libraries (e.g. Ex Libris MARCit, Serials Solutions 360 MARC Updates, EBSCO MARC Updates). Serials Solutions additionally offers a record service for e-books. These services link bibliographic data to a library's knowledge base to provide new and updated records to libraries and notify libraries when titles need to be deleted. Libraries, especially those who subscribe to a large number of e-journals and a large number of database packages, may find that the MARC record service greatly simplifies managing e-journal cataloging. Record services typically prepare records in a provider-neutral format, serve as a single source of records, and offer customization tools and forms so that records need little to no additional editing once they are received by the library.

Vendor Records

Record quality for vendor-provided records varies greatly, and it is essential that librarians examine these bibliographic records before loading them into their local catalog to ensure that the records follow national and I-Share cataloging guidelines. Some vendors may offer services to customize their bibliographic records for free or for an additional fee.

If the tools provided by the MARC record service or vendor are not sufficient to perform all required customizations, libraries may need to do local customizations in-house or ask CARLI for assistance. Tools like MarcEdit (http://people.oregonstate.edu/~reeset/marcedit/html/index.php), developed by Terry Reese, can be used to assist with the examination of records and correction of bibliographic data. CARLI offers some customization options when the library submits the Voyager Bulk Import Work Request Order (WRO) for Electronic Resources to have records loaded into their local database.

The library can choose which method to use in customizing records for e-resources, but under all scenarios it is the library's responsibility to examine the record sets and identify problems. It is essential that libraries clearly define the workflow for recurring loads and contact CARLI to discuss future update processes. The Task Force recommends that CARLI/IUG provide additional support for libraries that are managing batches of records, such as facilitating peer-to-peer training or providing a centralized place where libraries could share information about their profiles for MARC record services (**R26**). The Task Force recommends that CARLI develop additional documentation detailing the possibilities for data manipulation of record sets (**R25**), but at the time of the writing of this report, existing documentation for modifying Springer e-book records can be used as a model for other collections of records and is available on the CARLI website: http://www.carli.illinois.edu/mem-prod/I-Share/cat/SpringerMed.pdf.

Guidelines to Follow

For monographs, two documents, the *MARC Record Guide for Monograph Aggregator Vendors* (http://www.loc.gov/catdir/pcc/sca/FinalVendorGuide.pdf) and the *Provider-Neutral E-Monograph MARC Record Guide* (http://www.loc.gov/catdir/pcc/bibco/PN-Guide.pdf), both prepared by the Program for Cooperative Cataloging, provide detailed description for vendors and for librarians on acceptable e-book cataloging practices. The Metadata Application Profile (MAP) contained within the *Provider-Neutral E-Monographic MARC Record Guide* provides detailed instructions on how fields should be formulated. The Task Force recommends following these instructions (**R3**). Libraries should work with the record providers and make local customizations as needed so that e-book records follow the PCC guidelines. Following the implementation of these guidelines in July 2009, OCLC began cleaning up existing records in January 2010. Keep in mind that many older records for e-books do not follow these guidelines, and some records in I-Share and in OCLC may have been formulated under former practices.

Libraries may also wish to add a local field or fields to e-book bibliographic records that contain a provider-specific collection title or vendor name (**R4**). This field can be used as a "hook" to identify a set of records.

Examples (all different ways to identify the same collection, Access Medicine, from the vendor McGraw Hill):

Vendor names:

791 2_ $a McGraw Hill Companies

797 2_ $a McGraw Hill Companies

Collection title/names:

793 0_ $a Access Medicine

949 __ $a Access Medicine

For records for continuing resources (e.g., e-journals), the Task Force recommends following the CONSER guidelines for aggregator-neutral records (**R5**): http://www.loc.gov/acq/conser/pdf/agg-rec-guidelines.pdf.

When examining vendor-provided MARC records for electronic monographs and continuing resources, I-Share libraries should pay special attention to the following fields that play an important role in I-Share union catalog duplicate detection processes:

001	must include a unique alphanumeric or numeric control number
003	must include a unique identifier (at the time of bulk import Voyager uses 001 and 003 to create a unique 035)
010$a	any LCCNs for print versions should be moved to an appropriate 776 subfield w (DLC)
020/022	refer to the appropriate national guidelines for the way to manage data in these fields
035$a	must include a unique system control number (this field may not exist until records are loaded into Voyager and the 001/003 are combined to create it). If OCLC control numbers are included in the record, they should only represent the record for the electronic resource, NOT the print resource.

More information on vendor records can be found in the "Best Practices for Bibliographic Records from Non-OCLC Sources" (http://www.carli.illinois.edu/mem-prod/I-Share/cat/vendorrecs.html).

Details on how bibliographic records are deduplicated in the union catalog are described in "Duplicate Detection and Quality Hierarchy Settings For the I-Share Universal Catalog" (http://www.carli.illinois.edu/mem-prod/I-Share/secure/cat/UC_dupdetect.html).

Information on bulk importing records into your local Voyager database is available on the I-Share Voyager Cataloging documentation page, maintained by CARLI: http://www.carli.illinois.edu/mem-prod/I-Share/cat.html. In particular, "System Administration Part 6: CAT" describes how to configure bulk import rules in Voyager, "Using OCLC for Batch Loading Records into I-Share Databases" details the different Voyager bulk import "modes" available to I-Share libraries, and "Loading Bibliographic Records for the Springer Medicine eBook Collection 2005-2010 into I-Share Voyager Databases" presents examples of the kinds of record modifications that may need to be made to vendor records.

Additionally, libraries should ensure that the 856 field in the bibliographic record conforms to Task Force recommendations (**R10-R16**). Voyager bulk import requires an 856 field to be present in the bibliographic record in order to be copied into the holdings record (MFHD).

10. Managing front-end displays of URL links

The Task Force reviewed the 856 field and its relationship to the OPAC view that an I-Share member library may select for the front-end of its online catalog, that is, WebVoyáge Classic, WebVoyáge 7 (Tomcat), or VuFind.

The Task Force investigated the assignment of subfields 3, z, and y as they relate to the URL in subfield u of the 856 field. Recommendations **R10** through **R16** are based on that analysis.

It also examined the use of 856 indicators and their relationship to the display generated on the results pages, brief record views, and detailed record views of the three front-end choices. The Task Force opted not to make formal recommendations on the use of the first (1st) and second (2nd) indicators because the *MARC 21 Format for Bibliographic Data* (http://www.loc.gov/marc/bibliographic/bd856.html) already addresses this issue; however, the Task Force was compelled to offer some guidance to I-Share libraries regarding the appropriate use of those indicators.

A comprehensive display summary can be found in Appendix A, "Display of 856 Fields in WebVoyáge and VuFind". This appendix presents the 856 field with various combinations of subfields 3, z and y as they pertain to the "display text" that end-users see next to or in place of the URL, as well as how the indicators create different labels for the 856 field, depending on the local catalog view. These displays will apply in all local VuFind catalogs and in all local WebVoyáge Classic and WebVoyáge 7 (Tomcat) catalogs (unless an I-Share library has elected to suppress the display of the 856 field in its bibliographic records in WebVoyáge). The 856 field in a holdings record (MFHD) will display in the local catalogs and I-Share union catalog for any of the three OPAC environments.

How can catalogers use 856 2nd indicator 'zero' (0), 'one' (1), or 'two' (2) to promote optimal display text in the library's choice of local catalog view?

0 - Resource There is little doubt about the use of 2nd indicator 'zero' (0) when it relates to the electronic resource described by the record as a whole, accessing the full text of the resource. If the access in field 856 relates to a unit (i.e. volume, part, etc.) of the whole resource represented by the record, then subfield 3 is generally used to specify the portion(s) to which the field applies (**R15, example 2**). Based on the similarities of the display constant generated, links leading to an intermediary page of access through multiple providers (e.g. A-Z lists), may also utilize 2nd indicator 'zero' (0) (**R15, example 3**). Catalogers' judgment may vary especially when an intermediary page also includes textual data for print holdings.

1 - Version of resource A version of the resource represented by 2nd indicator 'one' (1) is used when the item described by the bibliographic record is not electronic, but an electronic version is available. Catalogers may select this indicator when presenting a single link leading to an intermediary page of multiple access points for the title cataloged. More specifically, this indicator is used in the single-record approach where the print title (or other) is cataloged and includes 856 field(s) for access to its online manifestation. Catalogers may also select this indicator for access to archived titles.

2 – Related resource A related resource may be represented in the bibliographic record as an accompanying e-resource (e-guide, e-manual), or as value-added information to the resource cataloged. Links to accompanying electronic guides/manuals, publisher information, table of contents, indices, summaries, reviews, chapters, sections, images, or finding aids may be considered candidates for the second 2nd indicator 'two' (2). It is customary to include subfield 3 (Materials specified) and/or subfield z (Public note) with text that denotes the type of resource .

856 42 $3 Table of contents only $u http://www.loc.gov/catdir/toc/ecip0727/2007037705.html

856 42 $3 Publisher description $u
http://www.loc.gov/catdir/description/simon051/2004045411.html

The Library of Congress codes URLs to the table of contents (TOCs) of a resource with 2nd indicator 'one' (1) on the premise that the table of contents is a part of the resource itself. As noted in Appendix A, the 856 field labels generated in VuFind by the 856 2nd indicator 'one' (1) may imply to end-users that they will find the full-text online, as opposed to only the table of contents. For that reason, libraries may want to code TOC links with 2nd indicator 'two' (2).

Is there another way to handle related resource access other than using multiple 856 fields with 2nd indicator 'two' (2)?

One alternative for incorporating data for related resources, albeit not a dynamic hyperlink for the end-user, is to enter a URL into subfield a of an appropriate textual notes (5xx) field.

Another option is that the MARC 21 Format—Guidelines for the Use of Field 856—URIs in Other Fields and Formats (http://www.loc.gov/marc/856guide.html#other_fields) have defined subfield u in many bibliographic note fields as an appropriate place to record a URL. However, at the time of the writing of this report, neither WebVoyáge nor VuFind display the subfield u of notes fields in bibliographic records as hyperlinks or as textual data. URLs in the subfield u of applicable notes field(s) do appear in the Voyager cataloging client when verifying links from the Record pull down menu. The Task Force has recommended that CARLI investigate options to improve displays of URLs in non-856 fields (**R28)**.

11. Recommended Best Practices for I-Share

This section contains the complete list of Task Force recommendations in numerical order. R1-R18 are geared toward libraries working in the I-Share environment, while R19-R28 are directed to CARLI and/or IUG. All recommendations relate to records within libraries' local Voyager databases, which are then promoted up to the I-Share union catalog. They are designed to be used in conjunction with national cataloging standards and guidelines, but do not apply to records input or modified in national bibliographic utilities, such as OCLC WorldCat. The recommendations are also tagged by their applicability to certain cataloging situations:

- Monographs
- Continuing resources
- Bibliographic records
- Holdings records
- Batch/vendor
- URLs

Recommendations are assigned a level of importance:

- Level 1 – The Task Force's recommendation should be followed without exception.
- Level 2 – The Task Force's recommendation should be followed if at all possible.
- Level 3 – The Task Force's recommendation is designed to provide helpful information that libraries may wish to follow.

Recommendations for I-Share Catalogers (R1-R18)

R1

The Task Force recommends creating separate bibliographic records for monographs or monographic sets issued in electronic form (e.g., one for the print version, one for the electronic version).

The Task Force recognizes, however, that an institution may have reasons to use a single bibliographic record for multiple formats of the same monographic title, especially if records are imported from vendors like MARCIVE, and acknowledges that it may be difficult for some institutions to follow this

recommendation. Libraries working with vendors should encourage them to supply records for electronic monographs separate from the print.

Level: 1

Tags: monographs, bibliographic records, batch/vendor

R2

The Task Force recommends creating separate bibliographic records for continuing resources issued in electronic form (e.g., one for the print version, one for the electronic version).

Examples of content covered by this recommendation include: serials, e-journals, and integrating resources. The Task Force also acknowledges that an institution may have reasons to use a single bibliographic record for multiple formats of the same continuing resource and that it may be difficult for some institutions to follow this recommendation. Libraries working with vendors should encourage them to supply records for electronic continuing resources separate from the print.

Level: 1

Tags: continuing resources, bibliographic records, batch/vendor

R3

When using separate bibliographic records for monographs or monographic sets, the Task Force recommends using the provider-neutral record concept (see Glossary) **developed and implemented by the Program for Cooperative Cataloging for electronic monographs available from one or more providers.**

The "Provider-Neutral E-Monograph MARC Record Guide" is freely available online: http://www.loc.gov/catdir/pcc/bibco/PN-Guide.pdf

Level: 1

Tags: monographs, bibliographic records, batch/vendor

R4

When using separate bibliographic records for monographs or monographic sets, catalogers may place the provider-specific collection title or vendor name in an appropriate local field.

The local field can be used for internal purposes to collocate all records for e-monographs that have access through a specific provider. This field should assist libraries in identifying a group of records if changes or deletes are necessary in the future. Bibliographic field 791 or 797 can be used to record vendor names or 793 for collection titles. Libraries using a MARC record service may want to use their default field for collection name (e.g., 949). These fields are repeatable; if a title belongs to more than one collection, use a separate field for each collection/vendor name.

Level: 3

Tags: monographs, bibliographic records, batch/vendor

R5

When using separate bibliographic records for continuing resources, the Task Force recommends using the aggregator-neutral record concept (see Glossary) **developed and implemented by CONSER and the Program for Cooperative Cataloging for continuing resources available from one or more providers.**

The "Guidelines for Record Creation and Record Consolidation: Aggregator-Neutral Record" for serials are freely available online: http://www.loc.gov/acq/conser/pdf/agg-rec-guidelines.pdf

"Integrating Resources: A Cataloging Manual" for integrating resources is freely available online: http://www.loc.gov/catdir/pcc/bibco/irman.pdf

Level: 1

Tags: continuing resources, bibliographic records, batch/vendor

R6

The Task Force recommends that, if a library chooses to use a single bibliographic record for the print and electronic versions of a monograph, the library follow interim guidelines developed by the Library of Congress.

Guidelines provided in sections B19.4-B19.5 of the Library of Congress "Draft Interim Guidelines for Cataloging Electronic Resources" are freely available online: http://www.loc.gov/catdir/cpso/dcmb19.pdf.

The Task Force recognizes that these guidelines are in draft form and not as current as we would like; however, we could find other more current guidelines for creating single records for monographs.

Level: 1

Tags: monographs, bibliographic records, batch/vendor

R7

The Task Force recommends that, if a library chooses to use a single bibliographic record for the print and electronic versions of a continuing resource, the library follow the appropriate national guidelines developed by CONSER for creating single bibliographic records.

Guidelines provided in Module 31.2.3 of the CONSER Cataloging Manual are freely available online: http://www.loc.gov/acq/conser/Module31.pdf.

Level: 1

Tags: continuing resources, bibliographic records, batch/vendor

R8

The Task Force recommends that each holdings record (MFHD) representing an electronic resource be assigned a location specifically designated for electronic resources rather than for any other physical format. The Task Force recommends that each library make its own decision about how many such locations to create and what names to give them.

In choosing a location for electronic resources, select one that will be used only for electronic resources. Don't mix print and electronic resources within the same location. This can help end-users limit searches to electronic resources. Audio and video remote access electronic resources may be assigned separate locations or the same location as other electronic resources, depending on the needs of the library. If electronic resources have been purchased for several different physical locations, consider assigning them separate electronic resources locations if there is reason to distinguish between locations, such as for licensing purposes.

Level: 1

Example:

Location Code	Display
ER	Online
ER Aud	Online Audio
ER Vid	Online Video

Tags: monographs, continuing resources, holdings records, batch/vendor

R9

The Task Force recommends that, if a library chooses to use a single bibliographic record for the print and the electronic versions, the library create a separate holdings record (MFHD) for each format of a title. The holdings record (MFHD) for the electronic version should contain an 856 field with a link to the resource.

Level: 1

Tags: monographs, continuing resources, holdings records, batch/vendor

R10

The Task Force recommends that libraries always place the URL or URLs appropriate to their end-users in the 856 field, subfield u of the holdings record (MFHD).

The URL appropriate to end-users may be "shareable" or institution-specific. It does not matter whether or not the URL works for end-users outside of the specific library community; what matters is that the URL in the holdings record work for end-users of that particular institution.

Level: 1

Examples:

Institution-specific URL to restricted resource

http://library.icc.edu/login?url=http://www.netLibrary.com/urlapi.asp?action=summary&v=1&bookid=103190

Shareable URL to restricted resource

http://www.netLibrary.com/urlapi.asp?action=summary&v=1&bookid=103190

Shareable URL to freely available resource

http://www.amsreview.org

Institution-specific URL to freely available resource

http://bluestem.csu.edu:2048/login?url=http://www.amsreview.org

Tags: monographs, continuing resources, holdings records, batch/vendor, urls

R11

The Task Force recommends that each library make its own decision whether to keep, remove, display and/or hide the 856 field(s) in its bibliographic records. Any URLs in the 856 field(s), subfield u of the bibliographic record should be appropriate to the library's end-users.

Although WebVoyáge provides libraries with the option to display or hide the content of the bibliographic record 856 field, at the time of the writing of this report VuFind local catalogs will display the bibliographic record 856 field. Future systems may or may not allow customization of display. Libraries should assume that any URLs in the 856 field may display to the public at any time. Any URLs available in the bibliographic 856 field should either be constructed in a form that can be used by the institution's end-users, whether shareable or institution-specific, or else removed from the record. When copy cataloging, existing shareable URLs do not need to be retained in the bibliographic record.

There are reasons a library may wish to retain URLs in the bibliographic record. Libraries that batch load records will need to have an 856 field in the bibliographic record in order for it to be copied to the holdings record (MFHD). At the time of the writing of this report, bibliographic record 856 fields with the proper indicators display in the results list in VuFind (see Appendix A). Having an 856 field in the bibliographic record may also allow for easier migration and re-use of catalog data in other applications, such as third party discovery systems.

On the other hand, if present, a URL in the bibliographic record will be visually separate in an online catalog display from any corresponding local holdings information (e.g., years of coverage) that resides in its corresponding holdings record (MFHD), require maintenance, and possibly additional steps in a cataloging workflow.

Level: 1

Example:

> The OCLC record for the e-journal “Academic Leadership” contains the two 856 fields, each with a URL:
>
> > http://bibpurl.oclc.org/web/6012
> >
> > http://www.academicleadership.org/
>
> UIUC removes these two existing URLs and adds a single URL directing end-users to its e-journals database for access:
>
> > http://www.library.uiuc.edu/orr/results.php?resid=31640
>
> See **R10** for additional examples of URLs.

Tags: monographs, continuing resources, bibliographic records, batch/vendor, urls

R12

The Task Force recommends that libraries select stable and/or persistent URLs, when available, for placement in the 856 field of the holdings record (MFHD) and, if present, in the bibliographic record.

Persistent URLs describe an intermediate location rather than the direct location of the resource to be retrieved, and can greatly reduce the amount of maintenance required to correct URLs that, over time, no longer take the user to the expected resource. The work of identifying location changes is managed at the intermediate site, as opposed to each library having to update URLs with every location change.

Examples of Persistent URL systems:

> PURLS: http://purl.org
>
> OpenURLs: http://niso.org/standards/z39-88-2004/
>
> Digital Object Identifiers (DOIs): http://www.doi.org/
>
> Handles: http://www.handle.net

Publishers or aggregators frequently provide a recommended URL structure that is more stable than what is displayed in the browser window. Seek out a publisher’s or aggregator’s recommended URL structure by checking their “Librarians” page for instructions. When MARC records are acquired—whether from the provider or through a third party, such as Serials Solutions or as an OCLC Collection Set—the preferred form of URL should be already present in the 856 field. When in doubt, contact the provider for clarification as to what form of URL will be the most stable. Libraries working with vendors should encourage them to supply persistent URLs for electronic resources.

Examples of publisher’s systems:

> Informaworld links are constructed by combining the domain and the standard number, e.g., http://www.informaworld.com/978-0-8247-2071-1
>
> Project Muse provides a list of title-level URLs available for download: http://muse.jhu.edu/holdings/

Level: 1

Tags: monographs, continuing resources, bibliographic records, holdings records, batch/vendor, urls

R13

The Task Force recommends that all URLs be verified at the time they are added to the catalog.

The Voyager Cataloging Client provides a mechanism to verify hyperlinks for records being individually cataloged in Voyager. The Task Force realizes that not all URLs may be reviewed in batch records loads but recommends spot-checking URLs for access and proper construction.

Level: 1

Tags: monographs, continuing resources, bibliographic records, holdings records, batch/vendor, urls

R14

The Task Force recommends that any URLs in the holdings record (MFHD) and, if present, in the bibliographic record, be kept current.

Libraries may choose to do this manually or may choose to use an automated tool to verify links.

Level: 1

Tags: monographs, continuing resources, bibliographic records, holdings records, batch/vendor, urls

R15

The Task Force recommends that catalogers structure data in the 856 field of the holdings record (MFHD), and, if present, the 856 field of the bibliographic record, in the following way:

- **Subfield 3: Provider or package name, if appropriate, and/or coverage/part information, if appropriate**
- **Subfield z: Note of restriction and institutional identification, if appropriate**
- **Subfield u: URL appropriate to the institution**
- **Subfield y: Link text (optional, see notes below)**

While formulating this recommendation, the Task Force considered current use of the 856 subfields by I-Share libraries, recommendations for use in national guidelines, and display of 856 subfields in WebVoyáge and VuFind. Using the subfields in the recommended ways will result in the most consistent display of URLs in the online catalog. These notes need not be extensive to contain these three parts. The Task Force does not recommend any specific wording but does recommend that the notes be consistent. As of the time of the writing of this report, Ex Libris acknowledged that WebVoyáge exhibits some bugs in the display of the subfield y as detailed in Appendix A.

Level: 2

Examples:

Shareable URL to a journal in JStor (access is restricted, but URL is not institution-specific)

856 40 $u http://www.jstor.org/action/showPublication?journalCode=afriamerrevi $3 JSTOR $z Access is available only to authorized users. $y African American Review

Institution-specific URL to a volume of a book on SpringerLink

856 40 $u http://proxy.library.eiu.edu:2048/login?url=http://www.springerlink.com/openurl.asp?genre=issue&issn=0302-9743&volume=4491 $3 SpringerLink (v. 1) $z Access restricted to EIU patrons

Institution-specific link to intermediate page that leads to access from multiple providers

856 40 $u
http://HZ9PJ6FE4T.search.serialssolutions.com/?V=1.0&L=HZ9PJ6FE4T&S=JCs&C=ACADLEAMUT&T=marc $z Available only to UIC users

Shareable URL to freely available resource (no notes needed)

856 40 $u http://purl.access.gpo.gov/GPO/LPS110750

Tags: monographs, continuing resources, bibliographic records, holdings records, batch/vendor, urls

R16

If there are multiple active URLs for an e-resource title, the Task Force recommends that catalogers record one URL per 856 field and provide notes in the appropriate subfields as specified by R15. This applies to 856 fields in the holdings record (MFHD) and, if present, in bibliographic record.

Each URL should be placed in its own 856 field within a holdings record (MFHD), but libraries may choose to place each 856 field in its own holdings record (MFHD) or have multiple 856 fields in a single holdings record (MFHD).

Libraries batch loading records will need to work within the parameters of the batch loading process, which can result in a single holdings record (MFHD) with multiple URLs, or multiple holdings records (MFHDs), one for each URL, depending on how the records are loaded. If multiple URLs are copied from the bibliographic record and placed into a holdings record (MFHD) at the time of loading, there will be one holdings record with multiple URLs. If an existing bibliographic record is overlaid with a new URL during an update, and the Bulk Import Rule is set to “Create MFHDs for Existing Bibs”, a new holdings record (MFHD) will be created with the new URL at the time of the update and any previous holdings records (MFHD) will also remain.

Although serial holdings data are not addressed in the context of this report, the decision to create multiple MFHDs (one for each URL) or a single MFHD (with multiple 856 fields) has implications for libraries who use OCLC’s Local Holdings Record (LHR) service to batch load their serial holdings data from Voyager to WorldCat. If you are using or considering this OCLC service, contact CARLI for additional information.

Level: 1

Tags: monographs, continuing resources, bibliographic records, holdings records, batch/vendor, urls

R17

The Task Forces recommends that libraries assign a topical call number or class number to each electronic resource using an appropriate classification scheme.

The call/class number should be placed in the 852 field of the holdings record (MFHD) as well as in the appropriate field of bibliographic record, if possible, for all types of resources that are usually assigned topical class numbers by your library. When performing batch loads, the call number can be transferred from the bibliographic record to the holdings record (MFHD). As libraries’ collections become increasingly electronic, assigning a specific call number will allow the electronic resources to be integrated with other library materials. This serves two useful purposes. First, it enables library end-users to take advantage of call number browses, searches, and facets, which have gained prominence and are easier to use in next generation catalogs. Second, this means that any class number-based collection analysis that a library performs will include its electronic resources, and not just their print resources.

Level: 3

Tags: monographs, continuing resources, holdings records, batch/vendor

R18

The Task Force recommends that libraries not create item records for electronic resources. (The single exception to this recommendation is the e-item record used in Voyager reserves.)

Item records are not needed for electronic resources since electronic resources do not circulate in the traditional sense of the word. Furthermore, the presence of item records prevents the use of some kinds of batch/bulk processing of bibliographic and holdings records (MFHDs).

Level: 1

Tags: monographs, continuing resources, batch/vendor

Recommendations for IUG/CARLI (R19-R28)

During the course of the writing of this report, the Task Force shared with CARLI and IUG many of the ideas listed in the following recommendations. CARLI already has taken steps to initiate or expand upon tools and projects to support the work of libraries cataloging electronic resources.

R19

The Task Force recommends that the I-Share OPAC Team continues to allow I-Share libraries to decide whether or not to display bibliographic record 856 fields in WebVoyáge and in future public catalogs, if possible.

Although WebVoyáge provides libraries with the option to display or hide the content in the bibliographic record 856 fields, as of the time of the writing of this report, VuFind displays the bibliographic record 856 fields. Future systems should allow customization of display when possible.

Level: 2

Tags: IUG/CARLI

R20

The Task Force recommends that IUG or an appropriate body review the current CARLI documentation on the Xenu link-checking software, evaluate its relevancy, and review other link-checking software options.

A review of the software marketplace should be undertaken to be ensure this is still the best choice of link-checking software, and documentation should be revised and updated as needed.

Level: 1

Tags: IUG/CARLI

R21

The Task Force recommends that IUG facilitate one or more training sessions for I-Share catalogers on the application of the recommendations in this report, either in person or via the web.

Training should cover adherence to current national cataloging standards as well as Task Force recommendations. Provided training should be ongoing, either by being offered on a regular basis or through technology, such as recorded webinars.

Level: 1

Tags: IUG/CARLI

R22

The Task Force recommends that the trainers of any training sessions (see R21) be responsible for distilling training materials from this Task Force report.

Level: 1

Tags: IUG/CARLI

R23

The Task Force recommends that the I-Share Cataloging and Authority Control Team or an appropriate body review the following documents for currency and completeness in light of this report:

- **Cooperative Cataloging Guidelines for I-Share Databases: http://www.carli.illinois.edu/mem-prod/I-Share/cat/coop_cat_guidelines.html**

  No. 8 in the Guidelines will need to be altered to harmonize the Guidelines with **R11** of this report.

- **Best Practices for Bibliographic Records from Non-OCLC Sources: http://www.carli.illinois.edu/mem-prod/I-Share/cat/vendorrecs.html**

Level: 1

Tags: IUG/CARLI

R24

The Task Force recommends that CARLI examine I-Share's batch loading limitations.

The current technical system limitations on batch loading records into libraries' individual catalogs and the I-Share union catalog will become untenable in the future as the number of records being loaded increases. The Task Force requests that CARLI examine current processes for batch loading records into local Voyager databases and the union catalog and look for new efficiencies or methods to improve this situation.

Level: 1

Tags: batch/vendor, IUG/CARLI

R25

The Task Force supports CARLI's new Bulk Import for Electronic Resources ONLY WRO option and documentation for batch loading bibliographic records for electronic resources and recommends additional development of these utilities.

The Task Force recommends that CARLI develop generic documentation for electronic resources record batch loads that could be applied to any set of records and create documentation on the kinds of data massaging that CARLI staff can perform to record sets. This can be based on the work done to date with the documentation for the Springer e-book records.

The Task Force also recommends that CARLI modify any e-book records acquired for the consortium to fit the provider-neutral guidelines.

Level: 1

Tags: batch/vendor, IUG/CARLI

R26

The Task Force recommends that CARLI/IUG provide additional increased support for libraries that are managing batches of records from vendors and third parties.

CARLI should continue to support libraries managing batches of records by providing training opportunities (such as the MarcEdit workshop scheduled for fall 2010 and training sessions on using these recommendations as mentioned in **R21**), enhancing documentation for submitting WROs (as mentioned in **R25**), and helping libraries troubleshoot problems with loads. In addition, CARLI could provide a central place where libraries could share their MARC profiles with third-party MARC record services such as Serials Solutions and Ex Libris. Libraries could consult with other I-Share libraries that have used the same provider on how to set up their record profiles to conform to consortial guidelines and best practices. IUG or a subgroup could match interested libraries with a peer institution to facilitate training on how to manage and manipulate records in batch from experienced libraries.

Level: 1

Tags: batch/vendor, IUG/CARLI

R27

The Task Force recommends that CARLI investigate options to insert linking ISSNs (022 subfield l) into existing bibliographic records for serials.

Level: 1

Tags: continuing resources, bibliographic records, batch/vendor, IUG/CARLI

R28

The Task Force recommends that CARLI investigate options to improve the display of URLs in non-856 fields in bibliographic records.

Many bibliographic record notes fields (5XX) allow for the use of subfield u to record hyperlinks, as defined in MARC 21 Format—Guidelines for the Use of Field 856—URIs in Other Fields and Formats: http://www.loc.gov/marc/856guide.html#other_fields. For example, the use of subfield u in 505 (Formatted Contents Note) is defined so that it could contain a hyperlink that directly accesses the table of contents for a monograph, where the 1st indicator 'zero' (0) should generate the label "Contents".

505 0_ $u http://www.loc.gov/catdir/toc/ecip0727/2007037705.html

At the time of the writing of this report, in current versions of WebVoyáge and VuFind, the subfield u of notes fields in bibliographic records do not display either as a hyperlink or textual data. Employment of notes fields with hyperlinked data could: (a) eliminate lengthy data field entry, (b) reduce end-user screen scrolling, and (c) eliminate the need for additional 856 tags for related resources that are only deemed important for inclusion by an individual library.

Level: 2

Tags: continuing resources, bibliographic records, batch/vendor, IUG/CARLI

12. Glossary

856 field: This MARC 21 field, electronic location and access, contains the information necessary to locate an electronic resource. Subfield u holds the uniform resource identifier, often a URL. Other subfields include 3 (materials specified), x (nonpublic note), y (link text), and z (public note). The 856 field is included in the standard for both bibliographic records, http://www.loc.gov/marc/bibliographic/bd856.html, and holdings records (MFHDs), http://www.loc.gov/marc/holdings/hd856.html.

Aggregator-neutral record: Defined by CONSER as a bibliographic record "that is separate from the print" and "covers all versions of the same online serial on one record." This practice was implemented in 2003 after CONSER's earlier policy—creating a separate bibliographic record each time an online serial became available from a new provider—became confusing and difficult to maintain. "Aggregator" is used here as an umbrella term for all types of distributors of remote-access serials. Instructions for creating aggregator-neutral bibliographic records for serials are available in Module 31 of the *CONSER Cataloging Manual*. *See also* Provider-neutral record.

Batch load process: A method to bring bibliographic or holdings data from one system to another as a group (versus importing records one-by-one). As an increasing quantity of electronic resources are purchased or licensed by libraries in large groups of titles (and sometimes cancelled in equally large groups in subsequent years), batch loading is a means to get bibliographic data that corresponds to these large groups of titles into library catalogs. Loads may be ongoing, or one-time. Sources for this type of data include the publisher, provider, or third party sources such as EBSCO or OCLC Collection Sets.

CONSER: Cooperative Online Serials Program, one component of the Program for Cooperative Cataloging. For more information, see "What is CONSER:" http://www.loc.gov/acq/conser/aboutcn1.html.

Continuing resource: Defined by AACR2 as a bibliographic resource that is issued over time with no predetermined conclusion. Continuing resources include serials and ongoing integrating resources.

Digital Object Identifier® (DOI): A character string assigned and maintained by the International DOI Foundation to any entity for the purpose of providing an actionable, interoperable, persistent link for use on digital networks. DOIs may be made into URLs by prepending http://dx.doi.org/ (e.g., 10.1300/J123v47n01_11 + http://dx.doi.org/ => http://dx.doi.org/10.1300/J123v47n01_11). For additional information see "The DOI System:" http://www.doi.org/. *See also* Persistent URLs.

Display: A field or subfield visible in a catalog's public interface, e.g., WebVoyáge, or other discovery system or service.

Electronic resource (e-resource): Defined by AACR2 as material (data and/or program(s)) encoded for manipulation by a computerized device. This material may require the use of a peripheral directly connected to a computerized device (e.g., CD-ROM drive) or a connection to a computer network (e.g., the Internet). In the context of this document, this term refers to those electronic resources that are accessible via the latter method, i.e., remote access electronic resources.

End-user: An individual who accesses library resources, including the catalog and other online resources. In the context of this document, it includes individuals affiliated with an institution such as a college or university who are accessing licensed resources on or off campus through an authentication process.

FRBR (Functional Requirements for Bibliographic Records): An entity-relationship model that provides a generalized view of the bibliographic universe, including user tasks associated with catalogs. For additional information, see *What is FRBR?*: http://www.loc.gov/cds/downloads/FRBR.PDF; or the final report authored by the IFLA Study Group on the Functional Requirements for Bibliographic Records: http://www.ifla.org/en/publications/functional-requirements-for-bibliographic-records.

Hyperlink (link, hotlink): A clickable connection that allows the user to jump from one Web resource to another. Most commonly in the context of this report, it refers to URLs coded in MARC 21 in such a way

that when they are activated (clicked), they take the end-user from the URL in the bibliographic or holdings (MFHD) record of the online catalog to the resource described by the bibliographic record.

Institution-specific URL: A URL that will work only for users affiliated at a particular institution. Such URLs authenticate the user by redirecting them through a proxy server or local directory. These URLs will not work for end-users affiliated with another institution, even when their home institution has a subscription to the same title from the same source (access to the resource will be denied). *See also* Shareable URL.

Examples:

http://ezproxy.lib.monash.edu.au/login?url=http://muse.jhu.edu/journals/journal_of_the_history_of_ideas/

http://www.mlb.ilstu.edu/cgi-bin/redirect.cgi?http://learnmem.cshlp.org/content/by/year

http://www.library.uiuc.edu/ersearch/get/php?rid=3707

Integrating resource: Defined by AACR2 as a bibliographic resource that is added to or changed by means of updates that do not remain discrete and are integrated into the whole; can be finite or continuing. Examples include updating loose-leafs and updating Web sites.

MFHD: An acronym for the MARC 21 Format for Holdings Data, pronounced "Muff Head," is that portion of the MARC 21 standard that deals with data representing the specific serial (or portions of a serial) and nonserial works held by a library. For an e-journal, this data might include the enumeration (e.g., volumes) and chronology (e.g., years) available to those affiliated with a library's institution. MFHD is used synonymously for "a holdings record."

Obsolete URL: A URL which is no longer valid for any user, either because the resource no longer exists or because it has been moved to another web location. *See also* URLs (Uniform Resource Locators).

Persistent URLs: URLs that describe an intermediate location rather than the direct location of the resource to be retrieved. Work of identifying location changes is managed at the intermediate site. Examples of persistent URLs that are affiliated with standards include PURLs (http://purl.org/), OpenURLs (http://www.niso.org/standards/z39-88-2004/), Digital Object Identifiers (DOIs) (http://www.doi.org/), and Handles (http://www.handle.net/). *See also* URLs, Obsolete URLs.

Provider-neutral record: Defined by the Program for Cooperative Cataloging (PCC), this is a single bibliographic record that is used for all the instances of an online monograph, and includes records for resources, that, in the past, have been cataloged variously as reproductions or electronic editions. Approved by the PCC and the Library of Congress Policy and Standards Division in June 2009, this cataloging practice for electronic books emphasizes recording only information applicable to all manifestations with the same content, and not recording information specific to one particular provider. For more information, see the Provider-Neutral E-Monograph Record Task Group Report (http://www.loc.gov/catdir/pcc/bibco/PN-Final-Report.pdf) and the Provider-Neutral E-Monograph MARC Record Guide (http://www.loc.gov/catdir/pcc/bibco/PN-Guide.pdf) for additional information. *See also* Aggregator neutral record.

Separate Record Approach: CONSER defines this as providing access for an electronic serial by creating a bibliographic record for it that is separate from the bibliographic record for the print version. The same definition applies to electronic monographs.

Shareable URL: A URL that will work for end-users affiliated with an institution that has a subscription to the resource hyperlinked and, therefore, access rights. Typically, the URL will be a publisher or aggregator URL that works for any end-user authenticated by IP range or password. A shareable URL may also be to a free, unrestricted, or open access resource. *See also* Institution-specific URL

Examples:

http://firstsearch.oclc.org/journal=0003-3790;screen=info;ECOIP

http://www.blackwell-synergy.com/issuelist.asp?journal=vaa

http://dx.doi.org/10.1045/dlib.magazine

Single Record Approach: CONSER defines this as providing catalog access to an electronic serial through the catalog record for the print version. The URL and a note about the existence of an online version are given on the bibliographic record for the print version. CONSER established this as a "non-cataloging" option for members and provided guidelines for its use in 2004 in Module 31 of the *CONSER Cataloging Manual*. The same definition applies to electronic monographs.

Universal catalog: This is the combined and de-duplicated Voyager database that represents the holdings for all of the CARLI I-Share libraries in WebVoyáge. Although it continues to exist as a database, it ceased to be available to the public as an online catalog on June 1, 2010.

Union catalog: This database contains the de-duplicated records drawn from each CARLI I-Share library catalog and created by the Voyager Universal Catalog software process but with the interface and functionality of VuFind, an open source portal for library resources. *See also* Universal catalog.

Appendix A: Display of 856 Fields in WebVoyáge and VuFind

(As of June 11, 2010)

Classic WebVoyáge 6

856 subfields

Any subfield that displays does so as the linking text (except where libraries have opted to (re)display the $u as plain text, beneath the hyperlink). Development on WebVoyáge Classic display is frozen. Support for Classic WebVoyáge will end with Voyager version 8.

- If the 856 contains $u only: the $u will be hyperlinked.
- If the 856 contains $u and $y: the $y will be hyperlinked.
- If the 856 contains $u and $z: the $z will be hyperlinked.
- If the 856 contains $u and $3: the $3 will be hyperlinked.
- If the 856 contains $u, $3 and $y: only the $3 will be hyperlinked and the $y will not display.
- If the 856 contains $u, $3, and $z: the $3 and $z will be hyperlinked together, in that order, in a single line with a space between them.
- If the 856 contains $u, $y and $z: only the $y will be hyperlinked and the $z will not display.
- If the 856 contains $u, $3, $y and $z: the $3 and $z will be hyperlinked together, in that order, with a space between them and the $y will not display.
- If the 856 contains $u, $3, $y and two $z's: the $3 and first $z will be hyperlinked together, in that order, with a space between them, and the $y and the second $z will not display.

Indicators and Labels

Full view: and Brief view:

All Bibliographic 856 fields display with label: **Related URL:**

All Holdings (MFHD) 856 fields display with label: **Related URL:**

WebVoyáge 7 (Tomcat)

856 subfields

- There is an open incident 16384-117237 with Ex Libris to correct 856 subfield handling so that $y is the preferred linking text and $z always displays.
- If the 856 contains $u only: the $u will be hyperlinked.
- If the 856 contains $u and $y: the $y will be hyperlinked.
- If the 856 contains $u and $z: the $z will be hyperlinked.
- If the 856 contains $u and $3: the $3 will be hyperlinked.
- If the 856 contains $u, $3 and $y: only the $3 will be hyperlinked and the $y will not display.
- If the 856 contains $u, $3 and $z: the $3 and $z will be hyperlinked together, in that order, with a space between them.
- If the 856 contains $u, $y and $z: only the $y will be hyperlinked and the $z will not display.
- If the 856 contains $u, $3, $y and $z: the $3 and $z will be hyperlinked together, in that order, with a space between them, and the $y will not display.
- If the 856 contains $u, $3, $y and two $z's: the $3 and both $z's will be hyperlinked together, in that order, with a space between the $3 and $z's, the two $z's will be concatenated in order without a space between them, and $y will not display.

Indicators and Labels

Brief view:

All Bibliographic 856 fields display with label: **Links:**

All Holdings (MFHD) 856 fields display with label: **Linked Resources:**

Detail view:

All Bibliographic 856 fields display with label: **Related URL:**

All Holdings (MFHD) 856 fields display with label: **Linked Resources:**

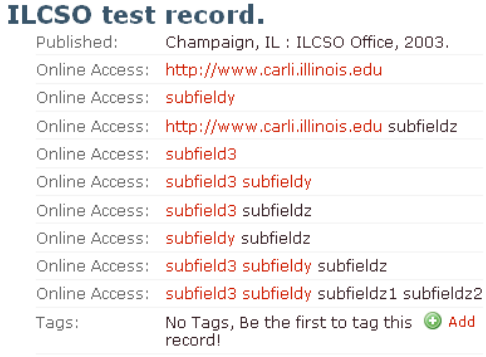
VuFind

Bibliographic 856 fields do not display in the VuFind union catalog but do display in local catalogs.

856 subfields

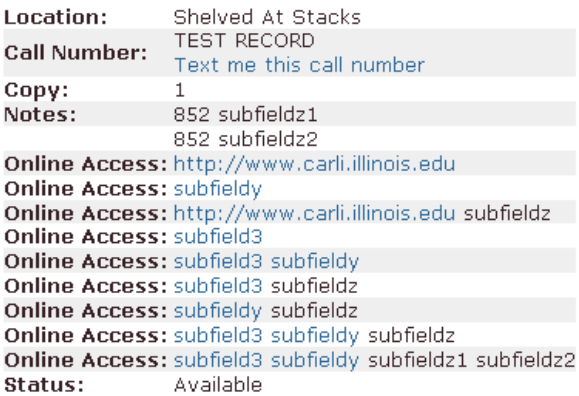
- If the 856 contains $u only: the $u will be hyperlinked.
- If the 856 contains $u and $y: the $y will be hyperlinked.
- If the 856 contains $u and $z: the $u will be hyperlinked and the $z will display as text.
- If the 856 contains $u and $3: the $3 will be hyperlinked.
- If the 856 contains $u, $3 and $y: the $3 and the $y will be hyperlinked, in that order, separated by a space.
- If the 856 contains $u, $3 and $z: the $3 will be hyperlinked and the $z will display as text.
- If the 856 contains $u, $y and $z: the $y will be hyperlinked and the $z will display as text.
- If the 856 contains $u, $3, $y and $z: the $3 and $y will be hyperlinked, in that order, with a space between them, and the $z will display as text.
- Any 856 $z's display as plain text after the hyperlink.

VuFind Bibliographic record (local catalogs only):



(note: text in red in above picture indicates a hyperlink)

VuFind Holdings (MFHD) record:



(note: text in blue in above picture indicates a hyperlink)

Indicators and Labels

Bibliographic 856 fields (local catalogs only):

856 Indicators	VuFind BIB 856 Labels	856 Indicators	VuFind BIB 856 Labels
856 _0	Online Access:	856 02	Related Information:
856 _1	Online Access:	856 0_	Related Information:
856 00	Online Access:	856 42	Related Information:
856 01	Online Access:	856 4_	Related Information:
856 10	Online Access:	856 22	Connect:
856 11	Online Access:	856 2_	Connect:
856 20	Online Access:	856 32	Connect:
856 21	Online Access:	856 3_	Connect:
856 30	Online Access:	856 12	Download:
856 31	Online Access:	856 1_	Download
856 40	Online Access:	856 7_	Connect via *subf2*:
856 41	Online Access:	856 70	Connect via *subf2*:
		856 71	Connect via *subf2*:
		856 72	Connect via *subf2*:

Holdings (MFHD) 856 fields:

Currently, all Holdings (MFHD) 856 fields display with the label: **Online Access:**

Future development: MFHD 856 labels may be made to match the Bibliographic 856 labels.

VuFind Results Page (local catalogs only)

- Only Bibliographic 856 fields with first indicator 1, 4 or 7 AND second indicator 0 or 1 are included on the VuFind Results page.
    - The linking text for one Bibliographic 856 field is "Get it online".
    - If more than one 856 field with appropriate indicators exists in the Bibliographic record, the first 856 that has appropriate indicators is the link from the “Get it online” text and a hyperlinked "(More…)" leads the user to the Record page to access all 856 fields.
- If the Bibliographic 856 field has the text “table of contents” in any subfield, it is not included on the VuFind Results page regardless of indicators.
- The presence of the Bibliographic 856 field does not suppress the display of the call number.
- If the SFX button will display (because the ISSN in the 022$a of the Bibliographic record matches the ISSN of an active object in the library’s SFX KnowledgeBase), the Results page will not display a “Get it online” link even if a Bibliographic 856 field(s) is present.
- Future development: if the SFX (or other link resolver) button OR the “Get it online” link displays, the red “Not available” status will be suppressed even if the Item is unavailable.

Appendix B: CatER Task Force (2009) "Cataloging Electronic Resources in I-Share: Practices and Future Needs" Survey Results

Survey conducted February 18 – March 20, 2010.

The Cataloging Electronic Resources/Electronic Resources Display in the OPAC Task Force (2009) developed a survey to determine how CARLI members are handling electronic resources cataloging issues, if they are aware of the current consortial recommendations or to what degree they comply with existing consortial recommendations, and what challenges they face in electronic resources cataloging practices. In the fall of 2009, the Task Force developed and pretested a survey. Members applied for and received Institutional Review Board (IRB) approval to administer the survey to I-Share member libraries. IRB approval was received from Illinois State University (2009-0469) as the lead institution, Rush University, Southern Illinois University Carbondale, Southern Illinois University Edwardsville, and the University of Illinois at Chicago. IRB approval was not required at the other Task Force members' institutions.

Survey Methodology

On February 18th, 2010 the recruitment letter and survey were sent to 76 I-Share libraries' designated technical service contacts via email. On March 5th, 2010 a reminder email was sent to all contacts. 45 libraries completed the survey by March 10th, 2010. The margin of error for the data collected from 45 responses is +/- 9.3 percent with a 95 percent confidence level for the data analyzed in its entirety. This means that we can be 95 percent sure that if all 76 I-Share libraries had actually responded, the results would vary by no more than 9.3 percent in either direction. The confidence interval for some of the questions where fewer libraries responded may be different.

Survey results were collected utilizing Survey Monkey and exported into spreadsheet and PDF files. To ensure the accuracy of the data, CatER Task Force members reviewed all responses, eliminated duplications and incomplete data, and re-compiled the survey results.

Complete Survey Results

The survey was constructed in a way that required some skips to different questions and/or sections depending on a library's approach to cataloging. Consequently, the results below combine answers for several of the questions and not all libraries responded to every question. Percentages reported are rounded to the nearest whole number and may not add up to 100 percent. See Section 5: Summary of Survey of I-Share Cataloging Practice, for a summary of the results.

Question 1

Please choose the I-Share Institution you are responding for:

Number of I Share libraries	76	100%
Number of responses	45	59%

Question 2

Does your library provide access to electronic resources such as e-books, e-journals, and/or e-databases in your local Voyager catalog?

Number of respondents	45	100%
Number of Libraries that provide catalog access to e-resources	40	89%
Number of Libraries that do not provide catalog access to e-resources	5	11%

Question 3a

How many E-JOURNAL titles can be accessed through bibliographic and/or holdings (MFHD) records in your local catalog?

Number of Libraries that catalog e-resources	40	100%
Number of libraries with no e-journal titles in the catalog	9	23%
Number of libraries that have 1-1,000 titles	17	43%
Number of libraries that have 1,000-5,000 titles	6	15%
Number of libraries that have 5,000-10,000 titles	3	8%
Number of Libraries that have more than 10,000 titles	5	13%

Question 3b

How many E-BOOK titles can be accessed through bibliographic and/or holdings (MFHD) records in your local catalog?

Number of Libraries that catalog e-resources	40	100%
Number of libraries with no e-book titles in the catalog	3	8%
Number of libraries that have 1-1,000 titles	7	18%
Number of libraries that have 1,000-5,000 titles	15	38%
Number of libraries that have 5,000-10,000 titles	3	8%
Number of Libraries that have more than 10,000 titles	12	30%

Question 3c

How many DATABASES can be accessed through bibliographic and/or holdings (MFHD) records in your local catalog?

Number of Libraries that catalog e-resources	40	100%
Number of libraries with no database titles in the catalog	20	50%
Number of libraries that have 1-50 titles	10	25%
Number of libraries that have 50-100 titles	3	8%
Number of Libraries that have more than 100 titles	7	18%

Question 3d

If your library catalogs other types of electronic resources (other than e-books, e-journals, and databases), please describe the resources and the number that can be accessed through bibliographic and/or holdings (MFHD) records in your local catalog:

Number of Libraries that catalog e-resources	40	100%
Number of Libraries that catalog other types of e-resources	13	33%
Other types of e-resources being cataloged	streaming videos digitized postcards digitized theses music audio files MARCIVE gov docs Web publications/resources audio books, movies	

Question 4a

How does your library catalog *monographs or monographic sets* issued in electronic form?

Number of Libraries that catalog e-resources	40	100%
Number of libraries use separate records	26	65%
Number of libraries use a combination of methods	8	20%
Number of libraries do not know	2	5%
Number of libraries do not catalog e-monographs/sets	4	10%

Question 4b

Why did your library choose this approach for monographs/sets?

Number of responses	26
On separate records from other formats (e.g., one for the print version, one for the online version)	The reasons for taking this approach are: • Convenient for patrons • Keep the formats separate • Limit a search result to e-resources only • MARC records are provided by Vendors • Continue a past practice • For consistency and maintenance of records • Easier for batch loading records
Using a combination of methods (sometimes on separate records, sometimes on the same record)	The reasons for taking this approach are: • Make available resources clear to patrons • Prefer one bibliographic record for all formats • Records are batch loaded by CARLI • It turned out to be this way
Not applicable, we don't catalog electronic monographs/sets	One library indicated that they catalog e-reference materials the same way as they catalog other formats based on their interpretation of AACR2

Question 5a

How does your library catalog *serials* issued in electronic form?

Number of Libraries that catalog e-resources	40	100%
10 libraries use single record for print and electronic	10	25%
14 libraries use separate records	14	35%
7 libraries use a combination of methods	7	18%
9 libraries do not catalog e-serials	9	23%

Question 5b

Why did your library choose this approach for serials?

Number of responses	19
On separate records from other formats (e.g., one for the print version, one for the online version)	The reasons for taking this approach are: • Convenient for patrons. • Easy to track different formats. • Easy to process batch loads and vendor records.
On the same record as other formats (e.g., a single (one) bibliographic record representing both the print and online version)	The reasons for taking this approach are: • To make search easier for patrons. • Based on the interpretation of AACR2 - unless the e-version is truly different than the print version, format should not equal a separate bibliographic record.
Using a combination of methods (sometimes on separate records, sometimes on the same record)	The reasons for taking this approach are: • MARC records are obtained from vendors. • URLs are placed in both print and electronic bibliographic records for easy access • Discontinue past single record practice and take separate records approach

Question 6a and 7a

When your library uses a SINGLE bibliographic record for multiple formats of a serial, does your library create separate holdings (MFHD) records for each format?

Number of Libraries using SINGLE bibliographic records, either exclusively or in combination	17	100%
Yes	16	94%
No	1	6%

Question 6b and 7b

When your library uses a SINGLE bibliographic record for multiple formats of a serial, does your library add the 007 to the bibliographic record to describe the electronic version of the serial title?

Number of Libraries using SINGLE bibliographic records, either exclusively or in combination	17	100%
Yes	6	35%
No	5	29%
Sometimes	6	35%

Question 6c and 8

When your library uses SEPARATE bibliographic records for multiple formats of a serial, does your library use aggregator-neutral records for electronic serials (i.e. one bibliographic record covering all versions of a serial title available from one or more providers)?

Number of Libraries using SEPARATE bibliographic records, either exclusively or in combination	21	100%
Yes	14	67%
No	4	20%
Sometimes	1	5%
I don't know	2	10%

Question 9

Does your library assign a location(s) specifically designated for electronic resources in the holdings (MFHD) record?

Number of Libraries that catalog e-resources	40	100%
Yes	36	90%
No	3	8%
I don't know	1	3%

Question 10

Does your library place an institution-specific URL (e.g. using a URL with a proxy prefix: https://login.proxy.lib.ilstu.edu/login?url=http://muse.jhu.edu/) in the 856 field in the *holdings (MFHD)* record?

Number of Libraries that catalog e-resources	40	100%
Yes	29	73%
No	6	15%
Sometimes	3	8%
I don't know	2	5%

Question 11

Does your library place an institution-specific URL (e.g. using a URL with a proxy prefix: https://login.proxy.lib.ilstu.edu/login?url=http://muse.jhu.edu/) in the 856 field in the *bibliographic* record?

Number of Libraries that catalog e-resources	40	100%
Yes	16	40%
No	15	38%
Sometimes	7	18%
I don't know	2	5%

Question 12

When your library adds an institution-specific URL to a bibliographic record, does your library add a note to the 856 subfield x or z that identifies that URL with your institution?

Number of Libraries that add institution-specific URLs to the bibliographic record	25	100%
Yes	10	40%
No	10	40%
Sometimes	2	8%
I don't know	3	12%

Question 13

Does your library retain any existing shareable URLs (i.e. non-institution-specific, not proxied URLs) in the bibliographic record?

Number of Libraries that catalog e-resources	40	100%
Yes	19	48%
No	8	20%
Sometimes	8	20%
I don't know	5	13%

Question 14a

Does your library retain shareable URLs (i.e. non-institution-specific, not proxied URLs) in the *856* field of the bibliographic record?

Number of Libraries that retain shareable URLs in the bibliographic record	27	100%
Yes	15	56%
No	2	19%
Sometimes	10	37%

Question 14b

Does your library retain shareable URLs (i.e. non-institution-specific, not proxied URLs) in the *596* field of the bibliographic record? (596 is the locally defined MARC field identified by the previous CatER Task Force for storing shareable URLs in I-Share.)

Number of Libraries that retain shareable URLs in the bibliographic record	27	100%
Yes	6	22%
No	13	48%
Sometimes	7	26%
I don't know	1	4%

Question 15

If your library knows that access to a resource is restricted, does your library add a statement of restriction in a public note (856 subfield z)?

Number of Libraries that retain shareable URLs in the bibliographic record	27	100%
Yes	10	37%
No	12	44%
Sometimes	5	19%

Question 16

Does your library verify that all URLs are correct at the time they are added to the catalog?

Number of Libraries that catalog e-resources	40	100%
Yes	25	63%
No	5	13%
Sometimes	9	23%
I don't know	1	3%

Question 17

Does your library strive to keep current URLs in the 856 fields of *bibliographic* records?

Number of Libraries that catalog e-resources	40	100%
Yes	14	35%
No	13	33%
Sometimes	9	23%
I don't know	4	10%

Question 18

Please explain what method(s) your library uses to check the 856 field URLs in *bibliographic* records.

Number of responses	19
Methods used by libraries: • Projects for student assistants at the circ desk when they are not busy • Receive MARC updates from a vendor or a service on a regular basis • Verify URLs at time of cataloging • Check URLs whenever updating records • Spot-checking records • OCLC Bib Notification service • Check some records on a regular basis. • Acquisitions staff check all paid periodicals on a regular basis • Runs reports of electronic titles • Project for Cataloging Graduate Assistants • Fix problems as they are reported • Check the URLs of databases once a year • Verify the URL structures of e-books and modify them if needed • Use SFX to manage URLs for e-journals	

Question 19

Does your library strive to keep current URLs in the 856 fields of *holdings (MFHD)* records?

Number of Libraries that catalog e-resources	40	100%
Yes	27	68%
No	5	13%
Sometimes	5	13%
I don't know	3	8%

Question 20

Please explain what method(s) your library uses to check the 856 field URLs in *holdings (MFHD)* records:

Number of responses	26
Methods used by libraries: • Incorrect URLs for eBooks are checked and fixed by a MARC record vendor • Electronic serial records are spot-checked and corrected manually • Projects for student assistants • Receive updates from a vendor • Check at the time of cataloging • Use link check programs like Xenu • Verify the URLs whenever update records • Fix bad URLs when problems are reported • Spot checking • Run a program to check URLs • Run a Voyager report annually to check URLs • Use PURLs whenever possible	

Question 21

Does your library archive obsolete URLs in the 856 or other field in the bibliographic record?

Number of Libraries that catalog e-resources	40	100%
Yes	1	3%
No	35	88%
Sometimes	1	3%
I don't know	3	8%

Responses to questions 22-25 were invalid due to incorrect survey logic settings and therefore are not reported here. This error in survey logic did not affect the results of any other questions.

Question 22

If your library has multiple active URLs for a *serial* title, all of which lead to some part of your library's online holdings, does your library create a separate holdings (MFHD) record for each applicable URL?

Question 23

If your library has multiple active URLs for a *serial* title, all of which lead to some part of your library's online holdings, does your library create separate 856 fields for each URL in a single holdings (MFHD) record?

Question 24

If your library has multiple active URLs for a *monographic* title, all of which lead to some part of your library's online holdings, does your library create a separate holdings (MFHD) record for each applicable URL?

Question 25

If your library has multiple active URLs for a *monographic* title, all of which lead to some part of your library's online holdings, does your library create separate 856 fields for each applicable URL in a single holdings (MFHD) record?

Question 26

When ILCSO libraries were using the DRA system, 856 data were put into the 866 field in holdings (MFHD) records in order to display as hotlinks in the OPAC. This nonstandard practice has no longer been necessary since member libraries moved to the Voyager system. Does your library currently have 856 data in 866 fields in holdings (MFHD) records that have not been cleaned up?

Number of Libraries responding	39	100%
Yes	2	5%
No	26	67%
I don't know	11	28%

Question 27

Does your library create item records for electronic resources?

Number of Libraries responding	39	100%
Yes	3	8%
No	34	87%
I don't know	2	5%

Question 28

What percentage of electronic resources in your library's local catalog is included (with your library's holdings) in the I-Share Universal Catalog?

Number of Libraries responding	39	100%
less than 25%	6	15%
between 25-50%	2	5%
between 75-100%	26	67%
I don't know	5	13%

Question 29

Where does your library get bibliographic records for electronic resources? Please check all that apply.

Number of Libraries responding	39	100%
OCLC	34	87%
Vendors	26	67%
I-Share	9	23%
Other	2	5%

Question 30

The Cooperative Cataloging Guidelines for I-Share Libraries states in regard to the appropriate use of vendor records found in the Universal Catalog: "The I-Share catalog must not be used in a way that interferes with vendor contracts or circumvents legitimate payments for use of bibliographic records. When records are copied from the Universal Catalog or another library's catalog, users must take appropriate steps to assure that these conditions are met." Is your library aware of this guideline?

Number of Libraries responding	39	100%
Yes	31	79%
No	5	13%
I don't know	3	8%

Question 31

How many total bibliographic records for electronic resources will your library have brought into your local catalog via batch loading (Voyager Bulk Import) through Dec. 31, 2009? (This does not include routine nightly loads of update/produce transactions from OCLC.)

Number of Libraries responding	39	100%
None	7	18%
Less than 500	4	10%
Between 1,000-5,000	7	18%
Between 5,000-10,000	2	5%
Between 10,000-50,000	6	15%
More than 50,000	7	18%
I don't know	6	15%

Question 32

Which vendors provide your library with bibliographic records for electronic resources? (Please check all that apply.)

Number of Libraries responding	39	100%
Credo	8	21%
Ebrary	7	18%
Elsevier e-books	1	3%
Ex Libris (MARCit)	2	5%
Gale	13	33%
MARCIVE	10	26%
MyiLibrary	2	5%
NetLibrary (OCLC)	26	67%
ProQuest	10	26%
Serials Solutions	4	10%
Springer e-books	11	28%
EBSCO	2	5%
Alexander Street Press	5	13%
Not applicable	6	15%
Other: Ovid Sage Infobase (Facts on File) Oxford Center for Research Libraries Humanities e-books project	8	21%

Question 33

Please describe any challenges your library has encountered when dealing with vendor records:

Number of responses	21
Challenges: • Inconsistent standards and poor quality of vendor records • Same problem existed in bibliographic records of any other formats in OCLC • Non-Unicode's records cannot be bulk imported to Voyager through CARLI • Unable to customize records for bulk importing • No OCLC numbers • Inconsistencies in wording and coding • Need to manually delete the item from Voyager and OCLC when an e-resource is no longer available • New procedure and need to find a good workflow • Need call numbers in records for reporting purposes but many records do not contain call numbers • Many vendors do not allow sharing records with other libraries and restrict loading records into I-Share • When ezproxy URL changes, all URLs have to be updated. The process is slow and not as uniform as expected. • Make sure the wording is correct for the 856 field • Incorrectly formatted 001/003 combinations lead to overlay problems • Access points that are not in authorized form • Diacritic encoding issue • Extraneous data in records that doesn't apply to electronic version (e.g., 300$e CD-ROMS, microform notes, etc.) • Delays in getting updates • The same record used for multiple volumes in a multipart monographic set • No distinction between e-ISBNs and p-ISBNs • Lack of ISBN, ISSN, or other standard identifier numbers	

Question 34

Is your library considering loading any vendor records for electronic resources in the future? (Please check all that apply.)

Number of Libraries responding	39	100%
Credo	7	18%
Ebrary	4	10%
Elsevier e-books	3	8%
Ex Libris (MARCit)	1	3%
Gale	7	18%
MARCIVE	6	15%
MyiLibrary	1	3%
NetLibrary (OCLC)	9	23%
ProQuest	1	3%
Serials Solutions	4	10%
Springer e-books	12	31%
EBSCO	3	8%
Alexander Street Press	2	5%
Not applicable	1	3%
I don't know	10	26%
Other: CRC Press	1	3%

Question 35a

What catalog interface(s) (skin) does your library provide to access your online catalog**?**

Number of Libraries responding	39	100%
WebVoyage	36	92%
VuFind	23	59%
WorldCat Local	5	13%

Question 35b

Which interface does your library consider to be the default/primary interface for your users?

Number of Libraries responding	39	100%
WebVoyage	35	90%
VuFind	3	8%
Other (Easy Search (local search assistant)	1	3%

Question 36

Which link resolver does your library currently use?

Number of Libraries responding	39	100%
Ex Libris SFX	27	69%
Serials Solutions 360 Link	6	15%
None	6	15%

Question 37

Thank you for taking the time to complete this survey. If you have additional comments or concerns related to the cataloging of electronic resources, please feel free to address them to the CatER Task Force here:

Areas of needs identified:

- Training, e.g. workshops on how to handle electronic resources efficiently
- Standardization of the practice
- Clarification of cataloging procedures