# *Retrospective Implementation of Library of Congress Faceted Vocabularies*

***Best Practices for Librarians and Programmers***

*Prepared by the ALA Core Subject Analysis Committee, Subcommittee on Faceted Vocabularies (SSFV)*

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# Introduction

## Purpose and scope

This document describes a set of best practices for implementers[1] wishing to apply LC faceted vocabularies[2]--using purpose-built fields in the MARC 21 bibliographic format--retrospectively to library catalogs, utilizing automated and semi-automated processes. It is also intended to serve as an ever-growing hub of information for all matters related to retrospective implementation of LC faceted vocabularies, including efforts undertaken by specialist communities of practice, library consortia/cooperatives, library systems vendors, etc.

Retrospective implementation is defined as the modification/enhancement of pre-existing ("legacy") records in a given bibliographic database, generally by programmatic or algorithmic means. It also includes the batch processing/enhancement of new records in a database (e.g., vendor batch loads). By contrast, prospective implementation, defined as the manual application of faceted vocabularies in current cataloging, is out of scope of these retrospective best practices. The reader is invited to consult documentation, including manuals, policy statements, specialist community best practices, etc., relevant to various LC vocabularies and resource types. A representative listing of documentation currently available is listed in Appendix A.

Though these best practices are framed primarily for use in MARC environments, their principles can be implemented in non-MARC environments as well. Indeed, unique and local content described in finding aids, digital asset management systems, and the like, benefits just as much from enhanced resource descriptions as do resources described by MARC records in traditional library discovery environments. Faceted vocabularies lend themselves well to linked data applications, and in native linked data editing environments URIs will typically be given for faceted terms. In many cases these URIs or corresponding identifiers can also be given in MARC data, where they can greatly facilitate maintenance, conversion, and user interface (UI) development.[3]

*Versioning note*: Early versions of these best practices will be incomplete. At the time of initial release, some modules have been developed by SSFV or other entities, whereas other modules remain to be developed. SSFV anticipates updating and re-releasing the summary document periodically. However, the modules themselves are dynamic and subject to ongoing updates, particularly as the LC vocabularies continue to grow and evolve. Implementers are advised to

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[1] SSFV uses the term "implementers" throughout this document to describe any person or corporate entity who creates, manages and/or manipulates bibliographic metadata in library or archival settings. Librarians, catalogers/metadata specialists, archivists, programmers/software developers, database managers, systems administrators, vendors who provide authority control and other metadata services, etc., are all within scope of this definition.

[2] SSFV defines "LC faceted vocabularies" as comprising *Library of Congress Genre/Form Terms for Library and Archival Materials* (LCGFT), *Library of Congress Medium of Performance Thesaurus* (LCMPT) and *Library of Congress Demographic Group Terms* (LCDGT), as well as geographical place names and chronological data. Other faceted vocabularies are available, and implementers may wish to incorporate a mixture of LC and non-LC vocabularies into their retrospective implementation efforts; the principles outlined in these Best Practices may be extended as such.

[3] For guidance on incorporating URIs in MARC data, please consult the PCC Task Group on Linked Data Best Practices final report and the PCC Formulating and Obtaining URIs document.

take into account the “last updated” date on each module when consulting that module; this date may be later than the “last updated” date on the summary document. SSFV strives to present the most up-to-date information available, and welcomes feedback and the reporting of errors at any time, for those modules they are responsible for maintaining.[4]

# Possibilities and parameters of retrospective implementation endeavors

The vision of comprehensive faceted access to library and archival resources[5] cannot be achieved until a critical mass of resource descriptions carry appropriate and applicable faceted terminology. That said, SSFV does not assert a specific overall target percentage of bibliographic records that require the presence of faceted data in order to meet the threshold for such a “critical mass.” For certain creative disciplines (e.g., music, belletristic literature, moving images), 100% coverage is the eventual goal, whereas for other disciplines, optimal user outcomes can be achieved with a lower percentage. Furthermore, not all types of resources merit every type of faceted data. Whereas users seeking works of children’s and young adult literature almost universally benefit from granular audience access via the 385 field, those seeking information intended for “adults” or “general readers” might not. Similarly, nearly all literary works embody at least one genre/form, whereas “nonfiction” books of no specific genre/form might not warrant a general LCGFT term like “Informational works.” And of course, a 382 field has no place in a record describing a map. Implementers should approach retrospective implementation endeavors with these heterogeneities in mind.

Automated and semi-automated processes for retrofitting bibliographic records with faceted data should also take into account policies and specialist community best practices that human catalogers would be expected to follow. For example, LC’s “principle of specificity” dictates that the most precise terminology available should be used to describe a resource, while allowing exceptions in various situations. A machine algorithm might assign both general and specific genre/form terms to describe the same work, deriving these terms from a fixed field code and from a 650 field, respectively. This result may be acceptable in some cases but unacceptable in others. As another example, a genre/form term may semantically match an LCSH subdivision in a general sense, but the scope note or other information in the genre/form term’s authority record may reveal that this mapping is in fact not appropriate for all cases, and thus requires human review to affirm suitability in some cases. An implementer ought to take these scenarios into consideration when designing a retrospective process to be run against a specific corpus of records.

## Methodologies

These best practices do not presume any particular project scope, programming environment or database environment. Implementers are responsible for developing the codebase that

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[4] Please contact Casey Mullin, SSFV Chair (caseymullin1@outlook.com).

[5] For a detailed description of this vision, see the white paper *A Brave New (Faceted) World: Towards Full Implementation of Library of Congress Faceted Vocabularies*, issued in 2017 by the ALCTS/CaMMS Working Group on Full Implementation of Library of Congress Faceted Vocabularies.

generates faceted data based on existing MARC data in a specific environment and then writing the new faceted data to the records in that same environment. Such code can be written to run natively in an ILS/LSP or bibliographic utility (e.g., Alma, OCLC Connexion, OCLC Record Manager), or it can be written to run in a “middleware” environment such as MarcEdit or OpenRefine.

The modules in these best practices are designed primarily to be read and interpreted by humans. Any programming code based on data in these modules should be designed to work specifically for a given project or implementation, or designed to allow for interaction by a human operator. (See section below on the role of human review and intervention). Implementers are responsible for customizing a program to meet their project needs. Not all mapping data in all modules will apply to every project. Smaller-scale projects may be designed to work on specific facets or categories of resources (e.g., to add 655, 385 and 386 fields to a defined set of literature records).

In order to facilitate human review of machine output, and ongoing management and assessment of bibliographic metadata that have been machine-enhanced in this way, it may be necessary to “flag” records that have undergone such a process. This can be done by the addition of a field in the bibliographic record (such as 883), by a subfield input in each specific field that has been generated, or by a “meta-metadata” statement outside the MARC bib record itself but associated with that record in a given system.[6] Ideally, such annotations could also include a confidence level for each field generated that reflect the anticipated possibility of false positives inherent in a mapping. (For an example of this, see the Genre/Form: mapping LCSH form subdivisions module below) Implementers will need to decide whether and how to incorporate this aspect into their projects, and any policy allowances that must be in place in shared production environments like OCLC Connexion.

## Role of human review, intervention and cooperation

As bibliographic record sets grow larger and/or more varied, the importance of manual intervention in automated processes proportionately grows. Put another way, the larger and/or more diverse a record set, the less likely a fully automated retrospective solution will provide optimal results. One of two compromises must be made. Either machine output will need to be systematically reviewed and adjusted by human operators, or implementers will need to tolerate a certain amount of imprecise (or even potentially incorrect) machine-generated data in the final product. Given these realities, and the distinct nature of each collection, SSFV acknowledges the critical role that human review and intervention plays in retrospective implementation of faceted vocabularies.

The human element can perhaps be exploited even better at the cooperative level. When implementers collaborate to enhance bibliographic records, the impact of human effort as a supplement to machine-assisted processes grows exponentially. A small library may not have sufficient staffing to design and implement a sophisticated retrospective program to retrofit tens or hundreds of thousands of records in their local catalog, but a group of libraries who share a

[6] This MARC Advisory Committee proposal (approved in January 2022) discusses different methods of tracking metadata provenance in the MARC 21 formats: https://www.loc.gov/marc/mac/2021/2021-dp10.html.

database (e.g., OCLC WorldCat, an Alma Network Zone) can “divide and conquer” by strategically and equitably sharing the work of enhancing bibliographic records for resources held in common. Such sharing could incorporate areas of special expertise or collecting strengths of certain institutions. For example, if a specialized map library enhances most or all of the map records in its catalog, a more generalized library need not duplicate this effort. This is not a revolutionary concept, but rather a new instantiation of the longstanding library practice of “copy cataloging.” What is perhaps new is that, when approaching the “collective collection” retrospectively in this way, implementers can be more intentional about sharing work, and not just rely on the haphazard good fortune of other libraries cataloging certain newly acquired resources first.

Setting aside the imperfections of machine processes and the significant human effort required to successfully design and implement them: implementers who wish to comprehensively and retrospectively implement LC faceted vocabularies can do so by relying on the repurposing of LCSH and MARC fixed field data, but only up to a point. The fully-faceted approach to resource description afforded by LC faceted vocabularies is much more extensible and expressive than corresponding LCSH practices allow. For example, LCSH policy (as described in the *Subject Headings Manual*) does not permit the assignment of literary form headings to individual works of literature, whereas LCGFT carries no such restriction. As another example, only certain intended audiences are covered by the short list of MARC audience codes, and the corresponding fixed field byte in the bibliographic format is not consistently coded by all cataloging communities. Furthermore, LCSH treatment of audience is similarly scant and uneven. Conversely, the 385 field can carry any applicable audience term (controlled or uncontrolled) that a situation calls for. As a further example, the ornate syntax of medium of performance-based LCSH headings for music is restrictive and limiting in ways that LCMPT and the 382 field are not. Other examples abound. In short, implementers must make strategic decisions about whether, in what cases, and how to amend and refine machine-generated faceted data. Such decisions should take into account the particular contours of the collection, the expertise of the personnel available to enhance the data, and the needs of the impacted end user base.

## Additional considerations and future directions

Aside from the conceptual gaps in legacy MARC record data (both the fixed fields and the LCSH headings therein), other limitations exist, as do additional possibilities.

Resources which are aggregates often contain content that is heterogeneous in nature (e.g., a CD containing a symphony, a concerto and a sonata). In bibliographic records for such aggregates, the bibliographic data that describes constituent works/expressions using an array of subject headings or codes rarely specify which work/expression is being described by which heading/code. Any faceted data generated from such legacy data will likewise not specify the particular work/expression being described. Therefore, this “design flaw” in the MARC bibliographic record environment will, by default, be perpetuated through the machine-assisted generation of faceted data. An implementer may choose to mitigate this problem through the deployment of mechanisms such as $3 (Materials specified) and $8 (Field link and sequence number). However, as of this writing, SSFV is not aware of a method for doing this that does not incorporate significant human intervention during the implementation of a project. Nevertheless,

the mechanisms are available. Linked Data environments may eventually offer even better mechanisms for connecting disparate faceted data to the specific aggregated works/expressions they describe.

These modules currently describe faceted data mappings from 6XX fields and fixed field codes in MARC bibliographic records. Other fields in the bibliographic record may contain data that could be used to derive faceted data (with the same caveats described above about the possible need for human review, etc.). For example:

- 245 10 Annual report … → **655 Annual reports. $2 lcgft**
- 245 10 Annals of… → **655 Annals and chronicles. $2 lcgft**
- 245 00 Index to… → **655 Indexes. $2 lcgft**
- 245 10 … : $b novel … → **655 Novels. $2 lcgft**
- 511 0_ Joe Smith (violin) ... → **382 … $a violin $n 1 … $2 lcmpt**
- 500 __ Poems. → **655 Poetry. $2 lcgft**
- 240 10 Short stories. $k Selections → **655 Short stories. $2 lcgft**
- 130 0_ Qur'an… → **655 Sacred works. $2 lcgft**
- 500 __ On board pages. → **655 Board books. $2 lcgft**

When free-text data is subject to machine logic, it may be advisable to employ stemming, "fuzzy" matching, and other techniques. As implementers share the results of their projects and/or otherwise give feedback in this area, SSFV will incorporate these additional components into the toolkit modules, as it deems appropriate.

Although LCSH headings and MARC codes are the most widely available source data from which to derive faceted fields (and thus are the focus of these best practices), other controlled vocabularies and subject heading systems may provide source data as well. For example:

- 655 _7 Poems. $2 aat → **655 Poetry. $2 lcgft**
- 655 _7 Poems $y 1861. $2 rbgenr → **655 Poetry. $2 lcgft**

# Modules

## Genre/Form: mapping fixed field codes to 655, 385 fields

SSFV has prepared a spreadsheet of mappings from fixed field codes (i.e., in the Leader, 006, 007 and 008 fields) to their corresponding LCGFT and/or LCDGT terms.

The spreadsheet is viewable here.

*Legend:*

- Tab 1: LDR/007/008 Mapping table -- Maps fixed field values in 007 and 008 fields, as determined by the resource format (as indicated in the Leader/06 and Leader/07 bytes)
- Tab 2: 006 Mapping table -- Maps fixed field values in the 006 field (used when a resource embodies multiple carriers or content aspects)
- Tab 3: Unresolved issues -- Brief notes about topics not yet addressed in the mappings. SSFV will update/add/remove notes over time, as issues are resolved

*Note on scope:* Fixed field mappings for music formats (Leader/06 = c, d, j) are currently out of scope of the SSFV spreadsheet, and are described instead in the Music Library Association Vocabularies Subcommittee's algorithm documentation.

# Genre/Form: mapping LCSH form subdivisions (and select topical subdivisions) to 655, 385, 386 fields

SSFV has prepared a spreadsheet of mappings from LCSH form (subfield $v) subdivisions (and select topical subdivisions in subfield $x) to their corresponding LCGFT and/or demographic terms. LCDGT is the preferred destination vocabulary for demographic mappings; however, where LCDGT terms do not yet exist for a concept, LCSH headings are provided as a present-day alternative.

The spreadsheet is viewable here.

*Structure of subdivision list:*

- **Section 1** contains:
    - Single $v subdivisions (and composite subdivisions with multiple $v subfields) established alone
    - $v subdivisions as part of a $x /$v combination where the LCGFT mapping is the same as the $v alone (yellow shading)
- **Section 2** contains:
    - $x subdivisions with one of the following characteristics:
        - No $v component, but conveys (or could convey) a genre/form
            - *NOTE:* early testing indicates that mappings of this type should be categorically flagged for human review, and should only qualify when the $x in question appears at the end of a subject string (i.e., is not followed by additional subdivisions)
        - The $x /$v combination is established in LCSH, but the $v component is not itself separately established in LCSH
        - The $v component has a different mapping from that $v when it is used alone (purple shading; the $v is listed in its own right in Section 1)
- **Section 3** contains LCSH headings with non-free-floating (i.e., editorially established) $v subdivisions

Sections 1 and 2 are complete, whereas Section 3 is subject to ongoing expansion as SSFV becomes aware of additional editorially established LCSH heading/subdivision combinations.

*Type/Confidence level of mapping*:
The mappings are designated as falling into one of the following categories, based on confidence level and eligibility for automation. The following values are used in this column:

- **Simple** (eligible for full automation)
- **Qualified simple** (eligible for full automation with possible human refinement)
- **Complex** (requiring additional programming and/or human review)
- **No mappings yet identified**

*Legend of color shading:*

| | |
|---|---|
| | Exact LCGFT mapping does not exist. A new LCGFT term should be proposed. SSFV may undertake a project to propose such a term in the future. Also used for cases where new UFs are needed for existing LCGFT terms. |
| | Conditional LCGFT mapping, for which human review of machine output is needed, or for which a logical test will have to be incorporated into a machine program. In some cases, explanatory logical text is included in the Notes column |
| | A broader LCGFT mapping is indicated as a default choice. If desired, human review of machine output can be utilized to select a narrower LCGFT term that describes a resource more precisely. Explanatory text is included in the Notes column. |
| | Composite subdivision that contains a $v component, where the LCGFT mapping for the composite is the **same** as the LCGFT mapping for the $v component by itself |
| | Composite subdivision that contains a $v component, where the LCGFT mapping for the composite is **different** from the LCGFT mapping for the $v component by itself |
| | FAST genre/form mapping does not yet exist |
| | Used in the Notes column when a subdivision maps to faceted data other than genre/form or demographic |

*Note on FAST mappings:* though the primary function of this spreadsheet is to define mappings from LCSH to LC faceted vocabulary terms, FAST genre/form mappings have also been provided, for the following reasons:

- To draw attention to situations where FAST and LCGFT mappings differ
- To draw attention to situations where FAST mappings do not yet exist, so that FAST implementers may take appropriate action
- To allow implementers to generate LC faceted vocabulary terms based on existing FAST terms in 655 fields
- To provide publicly-available documentation for LCSH-to-FAST genre/form mappings (to SSFV's knowledge, such "at-a-glance" documentation does not currently exist elsewhere on the web)[7]

*FAST mapping methodology:* SSFV has verified the FAST genre/form mappings in this spreadsheet using OCLC's "FAST converter" service. SSFV will update incorrect/outdated FAST mappings as it becomes aware of them.

*Testing of genre/form mappings:* in August 2021, SSFV began working with OCLC to test the application of a sampling of mappings from this module in the OCLC WorldCat environment using batch processing. Mappings and conditional logic within this module will be refined on an ongoing basis based on the results of this testing.

[7] FAST-to-LCGFT mappings are also viewable in 755 fields within individual FAST authority records.For example: http://experimental.worldcat.org/fast/1411641/marc21.html.

# Genre/Form: mapping LCSH music form headings to 655 fields

The Music Library Association Vocabularies Subcommittee's retrospective implementation algorithm maps LCSH music form headings (e.g., **Sonatas (Viola and piano); Symphonies**) and MARC fixed field codes to corresponding LCGFT terms, where applicable.

In collaboration with MLA/VS, Gary L. Strawn has developed the Music Toolkit, a proprietary program built into a macro used in the OCLC Connexion environment. This program generates faceted fields (046, 348, 382, 385, 386, 388 and/or 655) based on LCSH headings (including subdivisions) and fixed field codes present in a MARC bibliographic record.

*Further reading:*

- Brief technical report by MLA/VS describing the algorithm's development
- Article describing the MLA/VS algorithm's development in further detail (requires subscription to *Cataloging & Classification Quarterly*)
- Additional MLA/VS documentation

## Genre/Form: mapping LCSH literature form headings to 655

MODULE FORTHCOMING

## Medium of Performance: mapping LCSH music form headings to 382 fields

The Music Library Association Vocabularies Subcommittee's retrospective implementation algorithm uses LCSH music medium of performance pattern headings (e.g., Viola and piano music), form headings with implied medium (e.g., Symphonies), and combined form/medium pattern headings (e.g., Chaconnes (Piano)) to map to or generate corresponding LCMPT terms, encoded in 382 fields.

In collaboration with MLA/VS, Gary L. Strawn has developed the Music Toolkit, a proprietary program built into a macro used in the OCLC Connexion environment. This program generates faceted fields (046/348/382/385/386/388/655) based on LCSH headings and fixed field codes present in a MARC bibliographic record.

*Further reading:*

- Brief technical report by MLA/VS describing the algorithm's development
- Article describing the MLA/VS algorithm's development in detail (requires subscription to *Cataloging & Classification Quarterly*)
- Additional MLA/VS documentation

## Demographic/Geographic: mapping LCSH headings to 385, 386 and 370 fields (includes substantial component of literature headings)

MODULE FORTHCOMING

## Demographic/Geographic: mapping LCSH geographic subdivisions (for certain headings) to 370 and 386 fields

MODULE FORTHCOMING

## Chronological: mapping certain LCSH chronological headings/subdivisions to 046/388 fields

MODULE FORTHCOMING

## Chronological: mapping 045 fields to 046 fields

MODULE FORTHCOMING

## Original language and language of representative expression

MODULE FORTHCOMING

# Appendix A: Documentation supporting the application of LC faceted vocabularies in current cataloging

The following listing comprises all publicly-available documentation known to SSFV as of the date of last update of this summary document. To report broken/outdated links, or to request additional entries be added, please contact Casey Mullin, SSFV Chair (caseymullin1@outlook.com).

## Genre/Form Terms (LCGFT)

- Library of Congress Genre/form terms manual
- Best Practices for Using LCGFT for Music Resources (developed by the Music Library Association)
- LCGFT for Moving Images: Best Practices (developed by OLAC)

## Demographic Terms (LCDGT)

- Library of Congress Demographic terms manual

## Chronological Data

- Best Practices for Recording Faceted Chronological Data in Bibliographic Records (developed by SSFV)

## Geographic Data

LISTING(S) FORTHCOMING

## Medium of Performance Terms (LCMPT)

- Library of Congress Medium of performance terms manual
- Best Practices for using LCMPT (developed by the Music Library Association)

# Appendix B -- Display and indexing of faceted data: bibliography


Aalberg, T. (2019). Branch Filtering of Tree-Structured Search Results. 2019 ACM/IEEE Joint Conference on Digital Libraries (JCDL), 341–342. https://doi.org/10.1109/JCDL.2019.00061

Antelman, K., Lynema, E., & Pace, A. K. (2006). Toward a Twenty-First Century Library Catalog. Information Technology and Libraries, 25(3), 128–139. https://doi.org/10.6017/ital.v25i3.3342

Bair, S., Boston, G., & Garrison, S. (2011). Taming Lightning in More Than One Bottle: Implementing a Local Next-Generation Catalog Versus a Hosted Web-Scale Discovery Service. ACRL 2011, Philadelphia, Pennsylvania, March 30-April 2, 2011. ACRL. http://scholarworks.wmich.edu/library_pubs/21

Ballard, T. (2011). Comparison of User Search Behaviors with Classic Online Catalogs and Discovery Platforms. Charleston Advisor, January, 65–66. https://doi.org/doi:10.5260/chara.12.3.65

Barifah, M., & Landoni, M. (2019). Exploring Usage Patterns of a Large-Scale Digital Library. 2019 ACM/IEEE Joint Conference on Digital Libraries (JCDL), 67–76. https://doi.org/10.1109/JCDL.2019.00020

Belford, R., Snyder, T., & Randall, K. M. (2014). Discovering Music: Small-Scale, Web-Scale, Facets, and Beyond. The Serials Librarian, 66(1–4), 174–181. https://doi.org/10.1080/0361526X.2014.880038

Bogaard, T., Hollink, L., Wielemaker, J., van Ossenbruggen, J., & Hardman, L. (2019). Metadata categorization for identifying search patterns in a digital library. Journal of Documentation, 75(2), 270–286. https://doi.org/10.1108/JD-06-2018-0087

Bron, M., Profitt, M., & Washburn, B. (2013). Thresholds for Discovery: EAD Tag Analysis in ArchiveGrid, Implications. The Code4Lib Journal, 22. http://journal.code4lib.org/?p=8956

Callewaert, R. (2013). FRBRizing your catalogue: The facets of FRBR. In S. Chambers (Ed.), Catalogue 2.0: The future of the library catalogue (pp. 93–115). Neal-Schuman.

Cher, P. (2017). Taking on the content discovery challenge: The NLB Case Study. http://library.ifla.org/2494/

Cuna, A., & Angeli, G. (2020). Improving the effectiveness of subject facets in library catalogs and beyond: A MARC-based semiautomated approach. Library Hi Tech. https://doi.org/10.1108/LHT-07-2019-0132

Diao, J., & Cao, H. (2016). Chronology in Cataloging Chinese Archaeological Reports: An Investigation of Cultural Bias in the Library of Congress Classification. Cataloging & Classification Quarterly, 54(4), 244–262. https://doi.org/10.1080/01639374.2016.1150931

Denton, W., & Coysh, S. J. (2011). Usability testing of VuFind at an academic library. Library Hi Tech, 29(2), 301–319. https://doi.org/10.1108/07378831111138189

Doi, C. (2017). Connecting Music and Place: Exploring Library Collection Data Using Geo-visualizations. Evidence Based Library and Information Practice, 12(2), 36–52. https://doi.org/10.18438/B86078

Emanuel, J. (2011). Usability of the VuFind Next-Generation Online Catalog. Information Technology and Libraries, 30(1), 44–52.

Fagan, J. C. (2010). Usability Studies of Faceted Browsing: A Literature Review. Information Technology & Libraries, 29(2), 58–66. https://doi.org/10.6017/ital.v29i2.3144

Gollub, T., Hutans, L., Al Jami, T., & Stein, B. (2019). Exploratory Search Pipes with Scoped Facets. Proceedings of the 2019 ACM SIGIR International Conference on Theory of Information Retrieval, 245–248. https://doi.org/10.1145/3341981.3344247

Hall, C. E. (2016). Facets in Library Catalogs: The Beliefs, Behaviors, Policies and Practices That Guide Implementation [Ph.D., Drexel University]. http://hdl.handle.net/1860/idea:7078

Hardesty, J. L., Harris, S., Coogan, A., & Notess, M. (2012). Scherzo usability test report, testing a FRBR search interface for music. Indiana University. http://www.dlib.indiana.edu/projects/vfrbr/projectDoc/usability/usabilityTest/ScherzoUTestReport.pdf

Hartog, P. (2019). Contextualized Digital Library Evaluation: The Perseus Digital Library within Theological Research. The Christian Librarian, 62(2). https://digitalcommons.georgefox.edu/tcl/vol62/iss2/8

Holden, C., Knop, K., & Newcomer, N. (2019). Music Discovery: Past, Present, and Future. Notes, 75(4), 591–619. https://doi.org/10.1353/not.2019.0007

Holley, R. (2011). Resource Sharing in Australia: Find and Get in Trove - Making “Getting” Better. D-Lib Magazine, 17(3/4). https://doi.org/10.1045/march2011-holley

Hudon, M. (2019). Facet. In ISKO Encyclopedia of Knowledge. https://www.isko.org/cyclo/facet

Iseminger, B., Lorimer, N., Mullin, C., & Vermeij, H. (2017). Faceted vocabularies for music: A new era in resource discovery. Music Library Association. Notes, 73(3), 409. https://muse.jhu.edu/article/647923

Kules, B., Capra, R., Banta, M., & Sierra, T. (2009). What do exploratory searchers look at in a faceted search interface? Proceedings of the 2009 Joint International Conference on Digital Libraries - JCDL ’09, 313. https://doi.org/10.1145/1555400.1555452

Lee, M. (2017). Suggestion on the changes of RDA controlled vocabularies through the users’ test for BIBFRAME. http://library.ifla.org/1992/

Lee, W.-K., & Seo, E.-G. (2016). Implementing the Faceted Navigation Interface for Searching Performing Arts Contents. Journal of the Korean Society for Information Management, 33(2), 77–102. https://doi.org/10.3743/KOSIM.2016.33.2.077

Lown, C., & Hemminger, B. (2009). Extracting user interaction information from the transaction logs of a faceted navigation OPAC. Code4lib Journal, 7. https://journal.code4lib.org/articles/1633

Lown, Cory. (2008). A transaction log analysis of NCSU’s faceted navigation OPAC [Master’s Paper, University of North Carolina at Chapel Hill]. http://ils.unc.edu/MSpapers/3387.pdf

Majors, R., & Mantz, S. L. (2011). Moving to the patron’s beat. OCLC Systems & Services: International Digital Library Perspectives, 27(4), 275–283. https://doi.org/10.1108/10650751111182588

Markey, K. (2007). The Online Library Catalog: Paradise Lost and Paradise Regained? D-Lib Magazine, 13(1/2). https://doi.org/doi:10.1045/january2007-markey

McCallum, C., Gilbertson, K., Kelley, S., & Corbett, L. E. (2017). Can RDA Content, Media, and Carrier Coding Improve Discovery Facet Mapping? Library Resources & Technical Services, 61(2), 93. https://doi.org/10.5860/lrts.61n2.93

McGrath, K. (2007). Facet-Based Search and Navigation With LCSH: Problems and Opportunities. The Code4Lib Journal, 1. http://journal.code4lib.org/articles/23

McGrath, K. (2019). Beyond the Subject: Non-Topical Facets for Exploration and Discovery. OLA Quarterly, 25(1), 9–16. https://doi.org/10.7710/1093-7374.1970

McGrath, K., Kules, B., & Fitzpatrick, C. (2011). FRBR and facets provide flexible, work-centric access to items in library collections. Proceedings of the 11th Annual International ACM/IEEE Joint Conference on Digital Libraries, 49–52. http://dl.acm.org/citation.cfm?id=1998085

McGrath, K., & Lowery, L. (2018a). Getting More out of MARC with Primo: Strategies for Display, Search and Faceting. The Code4Lib Journal, 41. https://journal.code4lib.org/articles/13600

McGrath, K., & Lowery, L. F. (2018b, May 4). Getting More out of MARC with Primo: Strategies for Display, Search and Faceting. ELUNA 2018 Annual Meeting, Spokane, Washington. https://pages.uoregon.edu/kelleym/publications/Getting_more_out_of_marc_with_primo-Eluna2018.pdf

Muglia, C., & Namei, E. S. (2017). Academic libraries, filtering, and the “tyranny of choice.” At the Helm Leading Transformation: Proceedings of the Association of College and Research Libraries 2017 Conference, March 2017, 1–14.

Mullin, C. A. (2018). An Amicable Divorce: Programmatic Derivation of Faceted Data from Library of Congress Subject Headings for Music. Cataloging & Classification Quarterly, 56(7), 607–627. https://doi.org/10.1080/01639374.2018.1516709

Music OCLC Users Group (MOUG) Reference Services Committee. (2009). WorldCat Local Enhancement Recommendations for Music. http://www.musicoclcusers.org/WorldCatLocal20100412.pdf

Nelson, D., & Turney, L. (2015). What’s In A Word? Rethinking Facet Headings in a Discovery Service. Information Technology and Libraries (Online); Chicago, 34(2), 76–91. https://doi.org/10.6017/ital.v34i2.5629

Niu, X., Fan, X., & Zhang, T. (2019). Understanding Faceted Search from Data Science and Human Factor Perspectives. ACM Transactions on Information Systems (TOIS), 37(2), 14:1–14:27. https://doi.org/10.1145/3284101

Niu, X., Lown, C., & Hemminger, B. M. (2009). Log based analysis of how faceted and text based search interact in a library catalog interface. Proceedings of Third Workshop on Human-Computer Interaction and Information Retrieval, 62–65. http://www.ils.unc.edu/bmh/tmp/endeca/facetsearch-revised_repaired.pdf

Olson, T. A. (2007). Utility of a faceted catalog for scholarly research. Library Hi Tech, 25(4), 550–561. https://doi.org/10.1108/07378830710840509

Ramdeen, S., & Hemminger, B. M. (2011). A tale of two interfaces: How facets affect the library catalog search. Journal of the American Society for Information Science and Technology. http://onlinelibrary.wiley.com/doi/10.1002/asi.21689/full

Randtke, W., Fischer, R., & Lewis, G. (2019). Consortial RightsStatements.org Implementation and Faceted Search for Reuse Rights in Digital Library Materials. The Code4Lib Journal, 45. https://journal.code4lib.org/articles/14745

Thomas, B. (2011). Creating a specialized music search interface in a traditional OPAC environment. OCLC Systems & Services: International Digital Library Perspectives, 27(3), 248–256. https://doi.org/10.1108/10650751111164588

Walsh, L. (2012). The Faceted Catalog as a Tool for Searching Monographic Series: Usability Study of Lens. Cataloging & Classification Quarterly, 50(1), 43–59. https://doi.org/10.1080/01639374.2011.610433

Young, J. L. (2017). Unlimited Opportunities for Enhanced Access to Resources: The Library of Congress' Faceted Vocabularies. Subject Access: Unlimited Opportunities, Columbus, Ohio, USA. http://library.ifla.org/2074/

Yoon, C.-O. (2019). A Research on the Use of Faceted Navigation of KOLIS-NET. Journal of the Korean Society for Library and Information Science, 53(1), 109–132. https://doi.org/10.4275/KSLIS.2019.53.1.109

Zhang, H., Durbin, M., Dunn, J., Cowan, W., & Wheeler, B. (2012). Faceted Search for Heterogeneous Digital Collections. Proceedings of the 12th ACM/IEEE-CS Joint Conference on Digital Libraries, 425–426. https://doi.org/10.1145/2232817.2232924