**Music Discovery Requirements in Action**

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This session, cosponsored by the Emerging Technologies and Services Committee and the Cataloging and Metadata Committee, discussed the history, current status, future development, and practical applications of the Music Discovery Requirements, <http://committees.musiclibraryassoc.org/ETSC/MDR>.

Nara Newcomer and Jessica Harvey opened with "MDR Background and Current Directions." Newcomer began by exploring discovery as a concept, noting its increasing importance in discovery layers that help unite library catalogs, institutional repositories, and subscription databases. She described discovery as a puzzle, with three interlocking pieces: "Formulate," standards like RDA and AACR2; "Encode," standards like MARC, MODS, and EAD; and "Index and Display," the Music Discovery Requirements. Missing any one of these pieces can obscure the whole picture. She invited us to consider what Mary Wallace Davidson termed the "magical forces of discovery": the aha! moment of finding something new; the delight of learning a new musical work; the potential for interaction between composers, works, and performers. A study of UKMC Conservatory students Newcomer conducted with David Lindahl and Stephanie Harriman reinforced the importance of browsing in discovery: students looking for notated music liked open-stack, classified browsing, while those looking for recorded music preferred online services for quick skimming and lists of related items (results forthcoming in *Music Reference Services Quarterly*). The library catalog was identified as useful for known-item searching. With these preferences in mind, the challenge for developers of library discovery systems is to keep the ultimate goal of serendipity in mind, while still making known-item searching work.

The Music Discovery Requirements (MDR) are one part of MLA's long history of work with and advocacy for music discovery. Formulated in 2012, the MDR exists to help anyone creating or implementing discovery interfaces that will include music materials; its focus is on musical works (not secondary literature), and the audience is not just music specialists, but vendors, programmers, and system administrators. The MDR includes content guidelines, indexing and display requirements, and MARC mapping, based on a FRBR model. However, the world of metadata has changed a lot since MDR's introduction: updates were clearly necessary. MLA issued a charge to revise the MDR with a particular focus on RDA and MARC updates, the incorporation of genre/form and medium of performance terms, and updates to the appendices. The task force was urged to create an HTML version. Finally, they were instructed to develop a procedure for ongoing revisions.

Jessica Harvey, chair of the MDR Update Task Force, gave a report on the work of the task force in the world of rapidly-evolving standards. Several areas require more work, including further consideration of how archival description and finding aids are treated in the MDR. BIBFRAME is the first new, young standard the task force has addressed: while they're not quite ready to make recommendations for BIBFRAME itself, they see great value in being part of early development. An HTML version of the MDR needs to be navigable by users: scripting may allow them to view only the recommendations that apply to their standard or question. The task force also needs to develop an update method and schedule flexible enough to respond to rapid changes in standards.

Next, Nancy Lorimer offered a view of the future with "Music genre in the wild: Possibilities for music discovery with LCGFT, LCMPT & other LC vocabularies." The Genre/Form and Medium of Performance vocabularies are still very new; many catalogs use them, but they're often mixed with subject headings, or have required a great deal of custom programming. The discovery requirements for genre and medium of performance suggest distinguishing between these vocabularies and topical subjects in searching and faceting, indexing them separately (but possibly also providing a combined index), allowing customization of what genre thesauri are used (including locally-developed vocabularies), and facilitating machine-actionable, granular description of expressions for medium of performance.

Locating genre/form and medium of performance terms in LCSH causes several problems: it's difficult to find terms when they can be in different combinations, and users may not be able to find everything in one search. Pre-coordination allows an infinite number of subject headings; therefore there should be an established subject authority record for each possible heading...but we can't do that! The solution lies in the LCMPT and LCGFT. The vocabularies are based on a hierarchical thesaurus structure: the top LCGFT term is "Music." Below that level, every term has at least one--and possibly more than one--broader term. Audience ("children's songs"), language, time period, and creator characteristics ("Music by African American composers") remain in the LCSH.

An example demonstrates how an existing LCSH is reworked using LCMPT and LCGFT: the subject heading "Sonatas (Cello and piano), Arranged. Scores and parts," becomes the medium of performance terms "cello, 1" and "piano, 1," plus the genre/form terms "Sonatas," "Arrangements (Music)," "Scores," and "Parts (Music).

Even with improved vocabularies, challenges remain for discovery! If your users can't read and understand the search results, then they haven't really found the items: attention to display customization and legibility can help. Medium of performance discovery is a work in progress: should users be able to select from a list of instruments? That's usable for solo works, but many of our searches combine instruments. Could we employ multiple medium of performance facets? It's possible, but requires a lot of behind-the-scenes customization. Genre/Form terms display, but even with faceted search it's difficult to understand their hierarchy. An ideal display would show a term's position in the hierarchy, and allow users to move up and down the levels as needed (from "Surf Music" to "Rock Music"). A fully-faceted search interface would allow users to successfully find songs (genre), for solo soprano voice (medium of performance), composed by women (contributor characteristics), in the 20th century (time period).

Other challenges include dealing with inconsistent legacy data, training for both users and librarians in new thesauri and search techniques, and customizing displays through facets or linked data. However, genre/form and medium of performance terms allow infinite combinations of terms without new authority records, increased discovery through improved displays and faceted searching, hierarchies that allow searchers to move to the correct level of granularity, and cleaner, more flexible data for use in both MARC and linked data applications.

Patricia Sasser's presentation, "One Little Change: User-Driven Discovery," explored how librarians at Furman University made music materials more discoverable in their Millennium system. They recognized that if the OPAC didn't reflect how people used the library, people wouldn't use the OPAC.

All three of Furman's libraries present students with a keyword search bar, and students tended to begin their searches in very similar ways: by typing one or two keywords, then realizing they needed to limit their results. Librarians reassess the catalog's scopes (e.g. scores; books; Music Library) periodically to make sure they fit, based on circulation data, research transactions, and in-library usage statistics. Analysis showed that at the Maxwell Music Library, use of print reference was increasing, while electronic reference usage remained static. It made sense to make it easier for music library users to find Music Library print reference sources in the catalog. But since the "Reference" scope, applied at the bibliographic level, excluded items assigned the location "Music Library Reference" at the item level, Millennium's scopes couldn't accommodate the need. In order to get around the limitations of the system, Nancy Sloan heroically updated over 800 bibliographic records by hand, creating a new bib-level location, "Music Library Reference." For now, this appears as a limit on the advanced search page, but it meets a user need and opens the possibility of creating a scope in Millennium's drop-down menus in the future.

Finally, Christopher Holden gave an introduction to his application of MDR's format recommendations in the Blacklight catalog at East Carolina University. Musical works tend to have multiple formats (scores, recordings, etc.) on multiple carriers (LP, CD, etc.). East Carolina University's legacy catalog had difficulty with a number of common music discovery needs, especially since the OPAC could only assign a single format per record. Giving *Become Ocean* (CD + DVD) the format "sound recording" meant a user looking for "video" wouldn't find it. Cataloging streaming audio as "electronic" meant users searching for "sound recordings" would get incomplete search results.

A shift to Blacklight allowed librarians to improve discoverability using MDR recommendations. Blacklight allowed multiple formats per resource, solving the multiple carrier and accompanying media problems, while clarifying the distinction between carrier and content. Work in progress includes adding 006 fields to records with multiple formats and basing the format facet on the MARC record, rather than a system-defined item type. However, in the process of remapping the facet, librarians found that MARC fields weren't always up to date, and many required cleanup. The Music Library owned 700 globes!...because they were really LPs with outdated MARC records. In this case, batch cleanup was fairly easy. On the other hand, many DVDs were coded as laserdiscs, but a fix required more time-consuming analysis: some laserdiscs really are laserdiscs. Finally, librarians continue to debate refinements to distinguish types and carriers, based on what's most friendly for users; for the moment they both remain in the format facet.

The session closed with a question-and-answer period, including a comment from Mark Scharff that all of us will be using our metadata in new ways in the future, so the time to look at and clean up metadata is now. Finally, we were reminded that grassroots improvements based on user feedback, system developments, and discovery requirements can benefit not only our own library branches, but institutions and discovery platforms as a whole.