

## FRBR, FRAD and music: Theory and practice

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*Summary by Casey Mullin*

Kathy Glennan, who moderated the session, introduced the three presenters, each of whom discussed implications of the Functional Requirements for Bibliographic Data (FRBR) and Functional Requirements for Authority Data conceptual models (FRAD) from a different perspective.

Ed Jones, of National University, gave a brief introduction to FRBR and FRAD, beginning with a short history and context of the models' development (growing out of the ever-evolving cataloging paradigm, beginning with the Paris Principles of 1960 and culminating in RDA, to be released later this year). He described, in turn, the entity-relationship structure of the models, the sources used in developing the models (e.g. ISBD, UNIMARC, etc.), the user tasks identified in the reports, along with the intended users (i.e. users of all types in FRBR, as opposed to authority data creators in FRAD), and subsequently the entities, attributed and relationships identified in the reports. Along the way, Jones showed several supporting illustrations. The first was Barbara Tillett's visualization of the continuum of "equivalent" Expressions, to new Expressions/Works ("derivative"), to bona fide new Works ("descriptive"). Next were examples of catalog displays, in which he compared an alphabetic list of access points (showing relationships syntactically), a faceted browse display, and a theoretical "FRBRized" display, which shows relationships explicitly.

Jones stressed two further points. He identified FRBR/FRAD relationships as a "new concept", as they have not been treated as explicitly or consistently in MARC. Next, he discussed two distinct approaches to thinking about the models: the "top-down" (real world) approach, exemplified by the Object-oriented FRBR model (FRBRoo), which starts from creation of the Work; and the "bottom-up" (empirical) approach, which more closely reflects activities the cataloger engages in (i.e. starting with an Item in hand and determining associated entities). Finally, Jones introduced RDA as a content standard which employs FRBR/FRAD terminology, and is organized according to the user tasks and entities described therein. Three implementation scenarios are outlined in RDA: 3. unlinked bibliographic and authority files; 2. linked bibliographic and authority files (most current systems); and 1. relational database structure with records for individual entities. As a marked departure from current practice, a Scenario 1 implementation will likely have to await a successor or competitor to the MARC format.

Caitlin Hunter, of the Library of Congress (formerly of Indiana University), described her experiences creating metadata for ethnic music resources, as it relates to FRBR/FRAD concepts. She first described her varied musical background, in both Western and non-Western realms, which has informed her work as a music cataloger. The specific work described here was on the Variations2 Digital Music Library project at Indiana University, where she was the first cataloger in a newly-developed Work-based music discovery tool. This tool provides granular access to digitized scores and sound recordings, using a data model roughly analogous (though not identical) to FRBR, with separate records for Works, Instantiations (roughly: Expressions), Containers (roughly: Manifestations), and Contributors. The metadata used to populate these records is partially derived from MARC records, though, as she pointed out, many salient attributes of non-

Western music have not been accommodated as well in cataloging practice as have been attributes of Western music.

Hunter went on to describe the numerous challenges of providing Work-level access to non-Western musical resources. First she identified specific attributes users of this content search for: most frequently, geographic location, ethnic group, form/genre, instrumentation, and various “second tier” elements, which include languages, dates, and content (the “Works”). Next she described the corpus of resources she used to develop practices for cataloging non-Western music; this included both commercial and field recordings. Lastly, she treated, in turn, the vagaries associated with Works (which are difficult to define in non-Western music), contributors, form/genre, instrumentation, geographic location, and other issues.

Jenn Riley, of Indiana University, presented the most current phase of the Variations initiative at IU, which aims to create fully FRBRized metadata for all scores and sound recordings in IU’s Cook Music Library, as well as share this data, and the technical specifications of the underlying data model, as a testbed for the broader library community (to this end, XML schemas were released in March 2010.) She began by identifying, as warrant, specific queries not handled well by current library catalogs (as she posed, “Can the catalog be a research tool as well as a finding tool?”) As she observed, other experimental FRBRized systems (e.g. WorldCat Local) are a step in the right direction, but are only a start. She then described how Variations uses the FRBR model, with certain additions and omissions, to provide granular access to musical works contained in library resources. Among the other goals of the current project, the Variations/FRBR project team wishes to apply innovative, evidence-based interface design techniques to both cataloging and search interfaces.

Next, Riley showed a mock-up of the Variations/FRBR search interface, which accommodates user access to alternatively Works or Manifestations, though in separate panes within the same screen. The design exhibits other crucial design decisions. The interface gives results right away, allowing the user then to refine, using both facets (this is in line with next generation catalogs) as well as disambiguation, using the Work pane. She disclaimed that the interface was still under heavy development, with many other design details yet to be ironed out (e.g., what to display in the Manifestation pane, how to sort facet values, etc.)

A more efficacious metadata creation interface is another goal of the Variations/FRBR project. Riley described the various issues associated with creating such an interface, including machine-mapping and harvesting of MARC records to the fullest extent possible (using sophisticated algorithms), transparency for the cataloger, by hiding complexity whenever possible and allowing easy retrieval of already existing entities, data clean-up, and the need for statistics on time and money required to upgrade and create records.

A question and answer period followed, with most queries directed at Riley. Issues raised included the abundance of digital music content available online, and how it might be useful to FRBRized discovery systems, the large number of unanalyzed collections in libraries, and other gaps in existing library metadata.