
- **Work**
  - is realized through
  - **Expression**
    - is embodied in
      - **Manifestation**
        - is exemplified by
          - **Item**

- recursive
- one
- many
Work

Expression

is realized through

Intellectual/artistic content

Manifestation

is embodied in

Physical - recording of content

Item

is exemplified by
FRBR Entity Levels

**Work:**
- The Novel

**Expression:**
- Orig. Text
- Transl.
- Critical Edition
- Orig. Version

**Manifestation:**
- Paper
- PDF
- HTML

**Item:**
- Copy 1 Autographed
- Copy 2
Part-to-Part Relationships

WORKS WITHIN WORKS
Components-to-Component

Sequential Relationships

Accompanying Relationships

Shape = container/center
Color = context
Attributes FRBR

- **Work**
  - ID
  - Title
  - Date
  - etc.

- **Expression**
  - ID
  - Title
  - Form
  - Date
  - Language
  - etc.

- **Manifestation**
  - ID
  - Title
  - Statement of responsibility
  - Edition
  - Imprint (place, publisher, date)
  - Form/extent of carrier
  - Terms of availability
  - Mode of access
  - etc.

- **Item**
  - ID
  - Provenance
  - Location
  - etc.
OCLC Research Activities and IFLA's Functional Requirements for Bibliographic Records

FRBR (Functional Requirements for Bibliographic Records) is a 1998 recommendation of the International Federation of Library Associations and Institutions (IFLA) to restructure catalog databases to reflect the conceptual structure of information resources.

More technically, FRBR uses an entity-relationship model of metadata for information objects, instead of the single flat record concept underlying current cataloging standards. The FRBR model includes four levels of representation: work, expression, manifestation, and item. (See Background section below.)

If fully implemented, FRBR would produce the biggest change cataloging has seen in the last century.

Why OCLC is conducting this research and how it helps libraries

- Having resources brought together as "works" will help users sift through the myriad information resources available digitally.

- Widespread adoption of FRBR will produce major changes to bibliographic databases, including OCLC's WorldCat.
  - Manual conversion of existing files is likely to be prohibitively expensive, so algorithms must be developed to automate as much of the process as possible.
  - The techniques and approaches developed by OCLC researchers should facilitate conversion of WorldCat, and possibly other bibliographic databases, to FRBR standards.
  - Experience from the projects has resulted in recommendations about how FRBR should be evaluated and implemented in large databases.

- Prototype services, such as FictionFinder, demonstrate the power of the model and suggest the type of services that might be developed with similar approaches.
Goals

The goals of OCLC's FRBR projects are to:

- test the feasibility of implementing the FRBR structure in a large catalog database
- examine the issues associated with the conversion of a set of bibliographic records to conform to FRBR requirements.
  - This process sometimes is informally referred to as "FRBRization."
- build prototype services utilizing the FRBR-ized database.

Projects

Using an exemplary work as a case study, researchers hope to better understand the relationship between the bibliographic records and the bibliographic objects they represent, and to determine if the information available in the bibliographic records is sufficient to reliably identify FRBR entities.

1. xISBN
2. FictionFinder
3. Algorithm
4. Extending the Case of Clinker
5. Case Study: The FRBRization of Humphry Clinker

Publications

"NISO Digital Rights Expression Workshop Targets Standards-Related Action Items"

NISO's May 18-19 workshop on rights expression resulted in a set of tactical proposals to help resolve problems related to digital rights expression. The workshop raised awareness of issues relevant to the NISO community and stimulated discussion of standardized rights expression among the 50 participants from libraries, the distance learning community, publishing and content aggregators, and technology vendors.

Highest-ranked recommendations included:

- Extend the Electronic Resources Management Initiative (ERMI) model to include non-licensed objects and communities in addition to libraries. For more on ERMI, visit http://www.ciglib.org/standards/dlf-erm02.htm.
- Create a standardized collection of rights "bundles" similar to the Creative Commons licenses.
- Identify a core set of requirements for rights expression relevant to the NISO community.
- Build a reference model for content providers, libraries and museums that includes a glossary of standardized terms for rights expression.
- Launch a campaign to educate both users and practitioners about rights and permissions.

Details on the workshop, including presentations and the final Workshop report are at http://www.niso.org/news/events_workshops/RE-workshop.html.

"Blue Ribbon Panel Cites Action Areas to Shape NISO's Future"

A Blue Ribbon Panel of eleven experts from industry, academia, and the library community has issued its strategic planning recommendations to NISO. With a charter to evaluate NISO's progress, challenges, and opportunities, the Panel played a
As the diagrams illustrate, there are substantial differences between physical and electronic product management. Electronic products routinely require a licensing process, and may pose technological challenges for implementation. Acquiring and activating an electronic product differs substantially from the receipt and physical processing procedures for physical items, and ongoing maintenance, troubleshooting, and license renewal for electronic products are quite
### Data Element Name

<table>
<thead>
<tr>
<th>Data Element Name</th>
<th>Identifier</th>
<th>Definition</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clickwrap Modification Clause Indicator</td>
<td>clickwrapmodification</td>
<td>A clause indicating that the negotiated agreement supersedes any click-through, click-wrap, other user agreement, or terms of use residing on the provider's server that might otherwise function as a contract of adhesion</td>
<td></td>
</tr>
<tr>
<td>Completeness of Content Clause Indicator</td>
<td>completenessofcontent</td>
<td>The presence of a provision in the contract stating that the licensed electronic materials shall include all content found in the print equivalent</td>
<td></td>
</tr>
<tr>
<td>Concurrency with Print Version Clause Indicator</td>
<td>concurrencywithversion</td>
<td>The presence of a provision in the contract which states that the licensed materials will be available before, or no later than the print equivalent, and/or will be kept current</td>
<td></td>
</tr>
</tbody>
</table>
| Concurrent User                                | concuser        | 1. The licensed number of concurrent users for a resource  
2. The number of concurrent users if shared across an interface rather than for a specific resource                                                                                         |                                                                                                                                                                                                           |
| Concurrent User Note                           | concusernote    | 1. A specific explanation of how users are allocated or shared if pooled or platform-based  
2. Additional information about the number of concurrent users                                                                                                                                         |                                                                                                                                                                                                           |
| Confidentiality of Agreement                   | confidentialityofagreement | The presence or absence of clauses that specify or detail restrictions on the sharing of the terms of the license agreement                                                                                          | The clause may specify terms to be held confidential, or may refer to the entire agreement. This clause may be limited by state law for U.S. public institutions                                               |