# **FRBR** Implementations

It's not that some people have willpower and some don't. It's that some people are ready to change and others are not.<sup>1</sup>

This chapter examines the major players in early FRBR implementations.

# AustLit and MusicAustralia

# "Austlit: A Gateway on Steriods" (Australian Literature Gateway)

www.austlit.edu.au:7777/presentations/DRRHGateway2 001.htm

http://setis.library.usyd.edu.au/drrh2001/papers/ayres .pdf

This online document (available both in HTML and PDF format, see above URLs) by Dr. Marie-Louise Ayres (executive manager, AustLit: Australian Literature Gateway, Academy Library) and by co-authors Kent Fitch (developer, Project Computing Pty. Ltd.), Annette Scarvell (content manager, University of New South Wales at the Australian Defence Force Academy [UNSW@ADFA]), and Kerry Kilner (University of Queensland), provides an overview of the Australian Literature Gateway and explains the process that went into creating AustLit; screen shots are also provided in the document.

AustLit provides access to more than 350,000 Australian creative and critical works through bibliographic citations and full text. It is administered through a consortium of eight universities and the National Library; contains information from previous databases prior to AustLit; and attempts to provide a single gateway for all Australians to information. The system was custom built, using Topic Maps for flexible relationships, the INDECS (www.indecs.org) and Harmony models for agents and their relationships with works, and FRBR for works of the consortium members. It is/was the first large implementation/prototype of the FRBR model.

#### "MusicAustralia: Experiments with DC.Relation"

www.nla.gov.au/nla/staffpaper/2003/ayres1.html

This presentation by Marie-Louise Ayres examines the metadata and FRBR models for building the MusicAustralia prototype, focusing on the music of Australia and providing access to it. This report details how the project attempted to provide support for user navigation between related versions of a music work. It was presented at the DC-ANZ (Dublin Core-Australia New Zealand) Conference (Canberra, Australia, 2003).

# "FRBR and AustLit: The Australian Literature Gateway"

www.ifla.org/IV/ifla68/papers/054-133e.pdf www.nla.gov.au/nla/staffpaper/2002/ayres1.html

This "report on the Successful AustLit: Australian Literature Gateway Implementation of the FRBR and INDECS Event Models, and Implications for Other FRBR Implementations" was presented at the 68<sup>th</sup> IFLA General Conference and Council (Glasgow, Scotland, August 18– 24, 2004). Authored by Dr. Marie-Louise Ayres and co-authors Kerry Kilner, Kent Fitch, and Annette Scarvell, this document serves as a progress report to IFLA, (similar to the one given above) and describes the implementation of the FRBR, INDECS, and Harmony models on the AustLit Gateway.

# Weekly Reports Index of the Australian Literature Electronic Gateway (ALEG)

www.austlit.edu.au:7777/WeeklyReports

This online index by Kent Fitch (ADFA) serves as a week-by-week report from May 2000 to August 2002, detailing progress on the AustLit Gateway project.

# "From Citation to Context and Beyond: Crossing Bibliographic Boundaries in the Electronic Age"

www.austlit.edu.au:7777/presentations/CarolHethering tonASALPaper.ppt

www.austlit.edu.au:7777/presentations/CarolHethering tonASALPaper.doc

This paper, and accompanying PowerPoint presentation, by Carol Hetherington was presented at the Association for the Study of Australian Literature (ASAL) Conference (Brisbane, Australia, 2003). It is an examination of the AustLit Gateway construction from the critical, interpretative literary studies aspect and contains many examples and FRBR relationship details.

# "Setting the Record Straight: Bibliography and Australian Literature"

www.austlit.edu.au:7777/presentations/SettingRecord StraightCH.doc

This is the published version of Hetherington's paper cited above; it was published in a 2003 issue of *Australian Literature Studies*.<sup>2</sup>

# "The AustLit Gateway and Scholarly Bibliography: A Specialist Implementation of FRBR"

www.austlit.edu.au:7777/presentations/ChapterFRBR HypeKK2004.doc

This chapter by Kerry Kilner in the book *Functional Requirements for Bibliographic Records (FRBR): Hype, or Cure-All?* describes how the AustLit Gateway is meeting the needs of Australian literary scholars for accurate bibliographic representations of the histories of literary texts.<sup>3</sup> It also discusses the use of the FRBR model and the alteration of the model for enhanced manifestations, allowing the full representation of all agents' contributions to be displayed in a highly granular form by enabling creation events to be incorporated at all levels of the FRBR model.

# "AustLit: Australian Literature Gateway: Interoperation with KiNETICA/NBD"

www.nla.gov.au/librariesaustralia/aum/aum02/ download/annettescarvell.ppt

This PowerPoint presentation by Annette L.M. Scarvell (August 8, 2002) is archived on the National Library of Australia's Web portal and details the decisionmaking process that went into creating AustLit.

# "ALEG Project Technical Overview"

www.austlit.edu.au:7777/presentations/aleg-partners-jul 00.ppt

www.austlit.edu.au:7777/presentations/nla-presmay 2001.ppt

These PowerPoint presentations by Kent Fitch (July 2000 and May 2001) detail the technical decisions and processes that went into designing and implementing AustLit.

# "Researching Australian Literature in the Digital Age: AustLit"

www.austlit.edu.au:7777/presentations/BASApresen tationKK2004.ppt

This PowerPoint presentation by Kent Fitch for the British Australian Studies Association (2004) provides the extensive history of what went into bringing AustLit to fruition, including details of FRBR implementation and model decisions.

# "Ensuring the Best-AustLit: The Resource for Australian Literature"

www.austlit.edu.au:7777/presentations/AusSIPaper 2005.doc

This paper by Tessa Wooldridge (senior indexer at the UNSW@ADFA) presented to the Australian and New Zealand Society of Indexers (Melbourne, Australia, 2005) provides a look at the AustLit Gateway from a senior indexer's point of view. It discusses how the database engages, enlightens, and enriches the users' experience through implementation of the FRBR, technical tools, and quality indexing.

# "Taking RDF and Topic Maps Seriously–What Happens When You Drink the Kool Aid"

http://ausweb.scu.edu.au/aw02/papers/refereed/fit ch2/paper.html

www.austlit.edu.au:7777/presentations/ausweb02/kool aid/presentation.html

In this paper and presentation for AusWeb 2002 (the eighth Australian World Wide Web conference, Queensland, Australia), the author, Kent Fitch, looks at the entire structure of the AustLit Gateway, including the RDF, Topic Maps, and FRBR implementations.

# VisualCat

# Portia VisualCat, "Cataloging Client for Different Metadata Formats with UNICODE Support"

www.portia.dk/websites/productgallery.htm

"Portia VisualCat is an integrated solution for copy cataloguing and bibliographic metadata management. VisualCat can be used as a stand-alone Cataloguing Client or integrated with other library applications (ILS)."<sup>4</sup> An accompanying PowerPoint presentation for Portia VisualCat is available at www.portia.dk/pubs/VisualCat/ Present/VisualCatOverview20050607.pdf.

# "Practical Application of FRBR and RDF"

http://w3.uniroma1.it/ssab/er/relazioni/jorgensen \_eng.pdf

This one-page description by Poul Hendrik Jorgensen (Danish Library Center) "describes how IFLA FRBR in combination with the W3C RDF is used by the VisualCat Library Technology Reports www.techsource.ala.org November–December 2006

system for Cataloguing, Authority Control and Searching across different types of electronic materials."<sup>5</sup>

### "RDF and FRBR Applications"

www.portia.dk/pubs/elag/RdfAndFrbrApplications.pdf

This presentation by Poul Hendrik Jorgensen for Semantic Web and Libraries (26 Library Systems Seminar, Rome, April 2002, a presentation at ELAG [European Library Automation Group] 2002) examines how FRBR is implemented into an RDF schema structure in VisualCat.

#### "RDF, IFLA FRBR and XML in VisualCat Client"

www.portia.dk/pubs/AccessY2K/VisualCatRdf/ VisualCatRdf\_files/frame.htm

This online document by Poul Henrik Jorgensen (2000) examines how all the current Semantic Web standards like XML and RDF work together in the VisualCat prototype and how the FRBR model integrates and interacts with these standards in this database.

# "VisualCat Client with Z39.50, IFLA 41m, XML & RDF"

www.portia.dk/pubs/elag/VisualCatElag2000\_files/ frame.htm

Also by Poul Henrik Jorgensen (for the ELAG 2000 conference, Paris), this online document provides more information on the various standards used to construct the VisualCat prototype database.

# Virtua

Virtua is an ILS (integrated library system) developed by VTLS (Virtual Technology in Library Solutions, Inc.). "With visionary features like FRBR (Functional Requirements for Bibliographic Records), Update Notifications through SDI, User Reviews & Ratings, and a Smart Device interface to the catalog, Virtua sets a new standard of excellence for the library world."<sup>6</sup>

# "Differentiating Libraries through Enriched User Searching: FRBR as the Next Dimension in Meaningful Information Retrieval"

http://konsorcjum.bg.univ.gda.pl/ewa/frbr/FRBR\_.pdf

This presentation by Jack Bazuzi (managing director, VTLS Europe) was presented to the Polish Users Group (Warsaw, Poland, June 2004) and discusses the implementation of FRBR in the VTLS Virtua online catalog.

### "VTLS Inc. Announces FRBR Implementation"

www.vtls.com/Corporate/Releases/2002/20020514b .shtml

This is a VTLS announcement (June 14, 2002) regarding the Virtua ILS supporting FRBR. The VTLS contact listed on the release is Krisha Chachra; it includes screenshots and explanations of features.

# "Differentiating Libraries through Enriched User Searching: FRBR as the Next Dimension in Meaningful Information Retrieval"

www.vtls.com/documents/FRBR.PPT

This PowerPoint presentation by Vinod Chachra and John Espley (VTLS, Inc., 2004) provides a description of how FRBR is implemented in the VTLS Virtua product. It features some appealing color graphics.

# "FRBR Serials"

www.vtls.com/documents/FRBR12.PPT

This PowerPoint presentation by Vinod Chachra and John Espley (VTLS, Inc., 2004) shows how the VTLS Virtua product uses FRBR to display serials content and context.

#### "Life after 40: Virtua and FRBR"

www.vtls.com/Support/usersgroups/2002/documents/ frbr.ppt

This PowerPoint presentation to the VTLS Users' Group Meeting (Roanoke, Virginia, April 19, 2002) by Vinod Chachra (VTLS, Inc.) outlines the release of Virtua version 40 and highlights its new enhancements and improvements of capabilities and functions.

# "Does FRBR Include Serials? A FRBR Implementation for All Formats"

www.nasig.org/newsletters/newsletters.2005/05sept/ 05sept\_other\_serials\_news.html

This review by Craig K. Thomas of a presentation by John Espley (VTLS) about the Virtua product (at the New England Technical Services Librarians [NETSL] 2005 spring meeting) appeared in the September 2005 issue of the *NASIG Newsletter*.<sup>7</sup>

#### "VTLS Announces First Production Use of FRBR"

www.vtls.com/Corporate/Releases/2004/6.shtml

This VTLS announcement (January 7, 2004) reports the release of Virtua v. 43. The VTLS contact listed on the release is Ron Passmore, and the announcement states, "The FRBR catalog was first introduced by VTLS in January 2003 in Release 42. VTLS Release 43 added features dealing with the ease of use in the day-to-day workflow in cataloging and circulation activities."<sup>8</sup>

# LibDB

LibDB is an open-source product based on the FRBR model and is available at http://sourceforge.net/proj ects/libdb.

# RedLightGreen

# "RedLightGreen Service to End"

www.redlightgreen.com

"As of November 5th, 2006, RedLightGreen will no longer be available as a service, and users are encouraged to explore WorldCat.org for locating the best bibliographic resources."<sup>9</sup>

"RedLightGreen: FRBR between a Rock and a Hard Place"

www.ala.org/ala/alcts/alctsconted/presentations/Prof fitt.pdf

This presentation by Merrilee Proffitt (program officer, RLG) was presented at an ALCTS (Association for Library Collections and Technical Services) preconference prior to the 2004 American Library Association (ALA) Conference in Orlando, Florida. According to Proffitt's presentation, RLG's Union Catalog on the Web contains 126 million bibliographic records representing 42 million titles; was undertaken as a project "to get students back into the library"; and was "generously" funded by a Mellon grant to put the FRBR model into place on MARC records. The short document features helpful graphics and screenshots.

# "Searching for Library Books with RedLightGreen"

http://searchenginewatch.com/showPage.html?page =3560121

This brief 2005 article on *SearchEngineWatch* by Gary Price states, "Google Scholar isn't the only online service that can help you track down and read scholarly or academic books and other content. The oddly named RedLightGreen is a powerful and highly useful alternative."<sup>10</sup>

# "RedLightGreen: How to Google Your Library Catalogue"

www.nla.gov.au/pub/nlanews/2005/jan05/article1.html

This 2005 article by Merrilee Proffitt in *National Library of Australia (NLA) News* provides a more detailed description of RedLightGreen, including what it is designed for, how it compares to the Google search engine, and how the FRBR model is used in its design.<sup>11</sup>

# **FRBR Floater**

# FRBR Floater by Monte Sano Associates

www.montesanoassociates.com/apps-msafrbr.htm www.montesanoassociates.com/downloads/FRBR Floater.pdf

"FRBR Floater, from Monte Sano Associates, is an innovative new service that enables users to view, in an easy-to-read OPAC window, the various editions and formats owned by the library of any title searched. The user may then simply browse the list and select the one item that is most appropriate."<sup>12</sup> This is a software application that can be downloaded to an OPAC to allow for FRBRized displays of a library's bibliographic records. It uses a proprietary algorithm to apply the FRBR model to an OPAC's already existent MARC records.

# **Various Research Projects**

# "Creating FRBR-Model Entities from Record-Based Catalogs"

www.idi.ntnu.no/~yunl/seminar/presentations/2002-10 -30/seminar-talk2.ppt

This is a very short PowerPoint demonstration by Christian Mönch (Seminar of NTNU [Norges Teknisknaturvitenskapelige universitet], 2002) that outlines the technical aspects of using existing catalogs to incorporate a FRBR model.

# "Automatic Conversion from MARC to FRBR"

www.ecdl2003.org/presentations/papers/session8b/ moenchaalberg/ECDL2003\_4.PPT

This is a more detailed presentation by Christian Mönch and Trond Aalberg (presented at 17<sup>th</sup> European Conference on Digital Libraries [ECDL] 2003, Trondheim, Norway) that features colorful graphics of how the FRBR model can be technically integrated into existing OPACs.

# "Implementation of FRBR: European Research Initiative"

This chapter by Maja Zumer in the book *Functional Requirements for Bibliographic Records (FRBR): Hype, or Cure-All?* provides a history of FRBR work in Europe, and projects by a number of European library consortia are listed and discussed in this chapter.<sup>13</sup>

# "Helping Libraries Help People"

www.nelinet.org/edserv/conf/cataloging/movingbc/ carney.ppt

This PowerPoint presentation by Bill Carney was presented at Moving Beyond the Catalog: Bibliographic Access in a Web World (NELINET 2001 Conference). It is an interesting and graphically stunning presentation about the direction that OCLC is moving in relation to metadata, new standards, and FRBR. (NELINET is a member-owned, member-governed cooperative of more than 600 academic, public, and special libraries in the six New England states.)

# "FRBR and FRBRization"

This short editorial in *OCLC Systems & Services* by Sheau-Hwang Chang discusses happenings with FRBR in 2002.

# "FRBR Status of Research and Implementation at OCLC and OCLC PICA"

www.bnf.fr/PAGES/infopro/journeespro/ppt/OCLC.ppt

A PowerPoint presentation by Janifer Gatenby serves as a report on how FRBR can improve search efficiency and search results in OPACS. ("FRBR: Due modele theorique aux realizations pratiques: vers un catalogue concu comme un site Web?" *Journee d'etude*, Paris: Bibliothèque nationale de France, 2003.)

### "FRBR Research and Implications for Implementation"

http://pepijn.pica.nl/content/1098/pdf/frbr\_fobid0303 .pdf

This is another PowerPoint presentation by Janifer Gatenby (FOBID Koninklijke Bibliotheek, 2003) and is similar to the presentation cited above ("FRBR Status of Research and Implementation at OCLC and OCLC PICA").

#### "FRBR Algorithms & Tools"

http://staff.oclc.org/~hickey/presentations/frbr Algorithms20020620\_files/frame.htm

This 2002 presentation by Thomas B. Hickey (from OCLC) serves as an introduction to FRBR algorithms and tools being developed at the OCLC Office of Research in 2002.

## "Experiments with the IFLA Functional Requirements for Bibliographic Records (FRBR)"

www.dlib.org/dlib/september02/hickey/09hickey.html

This 2002 article by Thomas B. Hickey, Edward T. O'Neill, and Jenny Toves (OCLC Research) appeared in *D-Lib Magazine* and is largely based on the 2002 PowerPoint presentation cited above ("FRBR Algorithms & Tools").

#### "FRBR Work-Set Algorithm"

www.oclc.org/research/projects/frbr/algorithm.htm

This is OCLC's promotional Web page featuring a description of and access to this tool.

### "FRBRizing OCLC's WorldCat"

This chapter by Thomas B. Hickey and Edward T. O'Neill in the book *Functional Requirements for Bibliographic Records (FRBR): Hype, or Cure-All?* provides a description of OCLC's FRBR work-set algorithm tool and includes results of the four kinds of works found (augmented, revised, aggregate, and translated) in OCLC's analysis of the WorldCat database.<sup>16</sup>

#### "Implementing FRBR on Large Databases"

http://staff.oclc.org/~vizine/CNI/OCLCFRBR\_files/ frame.htm

This 2002 presentation by Thomas B. Hickey and Diane Vizine-Goetz (both from OCLC) details the use and

the results of OCLC's FRBR algorithm on the WorldCat database.

#### "Web Services for Digital Libraries"

www.elag2003.ch/pres/pres\_hickey.pdf

This paper by Thomas B. Hickey was presented at Cross Language Applications and the Web: 27<sup>th</sup> Library Systems Seminar (Bern, Switzerland, April 2003) and examines the Simple Object Access Protocol (SOAP) and Representational State Transfer (REST); it then details how to map ISBNs to other ISBNs using the FRBR model.

### "The Library Catalog: Does It Have a Future?"

www.library.northwestern.edu/transportation/slatran/ nypresents/cataloging\_future.ppt

This PowerPoint presentation by Gary R. Houk (from OCLC) was presented at the Special Libraries Association (SLA) Conference Putting Knowledge to Work (New York, June 2003). It serves as an interesting presentation on the future of the library catalog, with reasons why it fails, and how FRBR and other options will assist in making OPACs more viable in the future.

# "FRBR: Application of the eEntity-RelationshipModel to *Humphry Clinker*"

www.acsu.buffalo.edu/~ulcjh/FRBRoneill.html

This is an online iteration of the notes (taken by Judith Hopkins) from a presentation by Edward O'Neill (OCLC Office of Research) for the ALCTS/CCS/Cataloging and Classification Research Discussion Group (ALA Annual Conference, Atlanta, June 2002); it provides information about a focused experiment of the FRBR entity-relationship model on a single work, *The Expedition of Humphry Clinker* by Tobias Smollett, which was first published in 1771.

# "FRBR (Functional Requirements for Bibliographic Records): Application of the Entity-Relationship Model to *Humphry Clinker*"

www.oclc.org/research/publications/archive/2002/ oneill\_frbr22.pdf

This article by Dr. Edward O'Neill is based on some of the content in presentation cited above and appeared in *LRTS* in 2002.<sup>17</sup>

# "OCLC Research Activities and IFLA's Functional Requirements for Bibliographic Records"

www.oclc.org/research/projects/frbr

Available on the OCLC Web site, this is a description and listing of all of OCLC's work using FRBR, including links to Curiouser, FictionFinder, xISBN, the FRBR workset algorithm, and the *Humphry Clinker* work. A short listing of presentations and publications on these projects is also provided.

# "FRBR Bookmarklets: A Way to Weave Your Library's Collection into Web Bookstores"

www.oclc.org/news/publications/newsletters/oclc/ 2004/263/bookmarklets.html

This article appeared in the January/February/ March 2004 issue of the OCLC Newsletter. It begins, "OCLC Research is integrating a technology called 'bookmarklets' with its FRBR algorithm to create an experimental service that lets Web surfers instantly search a local library catalog while browsing an online bookseller. FRBR Bookmarklets expands on work originally done by Jon Udell at InfoWorld and makes a library's holdings more visible and accessible on the Internet."<sup>18</sup>

### "xISBN Bookmarks"

http://alcme.oclc.org/bookmarks/servlet/OAIHandler ?verb=ListRecords&metadataPrefix=oai\_dc

This Web page about the OCLC bookmarklet project provides access to the Javascript code (xISBNs) developed at OCLC Research to send users of online bookstores to their local library's catalog when they search for an item.

# "xISBN"

www.oclc.org/research/projects/xisbn

This Web page provides an overview of the xISBN FRBR prototype/tool. The research team listed includes Thom Hickey (lead), Jenny Toves, and Jeff Young.

#### "OCLC Research's Experimental ISBN/FRBR Project"

www.bcr.org/publications/thirdind/2004/february/febcatisbn04.html

This 2004 article from BCR (Bibliographic Center for Research) Online's *The Third Indicator* provides a simple description of the xISBN tool based on the FRBR model from OCLC.<sup>19</sup>

### "Not Your Mother's Union Catalog"

www.libraryjournal.com/article/CA289190.html

This 2003 *Library Journal* article by Roy Tennant discusses FRBRizing the library catalog as well other new ideas about transforming the library OPAC.<sup>20</sup>

#### "FictionFinder: A FRBR Works-Based Prototype"

www.ala.org/ala/alcts/alctsconted/presentations/ VizineGoetz.pdf

This presentation by Diane Vizine-Goetz (OCLC Research) was presented in June 2004 at an ALCTS Back to the Future Preconference session prior to the 2004 ALA Annual Conference (Orlando, Florida). It outlines OCLC Research Office's FRBR prototype on 2.6 million bibliographic records for fiction and their expressions and manifestations.

# "FictionFinder: A FRBR-Based Prototype for Fiction in WorldCat"

www.oclc.org/research/projects/frbr/fictionfinder.htm

This is OCLC's promotional Web page about this prototype.

#### "FictionFinder: Don Quixote to Graphic Novels"

www.oclc.org/research/presentations/vizine-goetz/ webwise2006.ppt

This PowerPoint file by Diane Vizine-Goetz accompanied her presentation at the 2006 WebWise Conference (Los Angeles, February 17, 2006) and serves as a recent, detailed presentation about OCLC's FictionFinder project (how it was done, what it uncovered, and future directions).

#### "How Can BIBSYS Benefit from FRBR?"

www.lub.lu.se/netlab/conf/husby.ppt

This PowerPoint file by Ole Husby was presented at a 2002 NetLab Conference (Lund, Sweden, April 10–12, 2002) and discusses ways that the BIBSYS national database would benefit from FRBR implementation.

### "Automatic Conversion from MARC to FRBR"

www.ecdl2003.org/presentations/papers/session8b/mo enchaalberg/ECDL2003\_4.PPT

This PowerPoint presentation by Christian Mönch and Trond Aalberg was presented in 2003 at Research and Advanced technology for Digital Libraries (Seventh European Conference ECDL [European Computer Driving Licence Foundation], Trondheim, Norway, August 17–22, 2003: Proceedings). It is a detailed presentation on postdoctoral work related to moving BIBSYS to a FRBR model.

### "FRBR: Coming Soon to Your Library"

www.ala.org/ala/alcts/alctsconted/presentations/ Bowen.pdf

This by document by Jennifer Bowen (University of Rochester) accompanied Bowen's presentation at the June 2004 ALCTS Back to the Future Preconference prior to the ALA Annual Conference (Orlando, Florida). It examines how the application of the FRBR model will change the way OPACS display and organize content. Three other iterations of the presentation (from 2004–2006) are available online as PowerPoint files:

- http://docushare.lib.rochester.edu/docushare/ dsweb/Get/Document-22429/FRBR%20Intro%20for %20SUNYLA.ppt
- http://docushare.lib.rochester.edu/docushare/ dsweb/Get/Document-15537/FRBR%20Intro%20for %20RRLC.ppt
- http://docushare.lib.rochester.edu/docushare/ dsweb/Get/Document-14889/FRBR%20Intro%20for %20NYLA.ppt

# "Navigating Through Voyager: Should FRBR Be in Our Future?"

http://docushare.lib.rochester.edu/docushare/dsweb/ Get/Document-5288/Navigating%20through%20Voyager .ppt

This PowerPoint presentation by Jennifer Bowen was part of the 2002 Voyager Users' Group session "Visioning Voyager: What if Voyager Could Do THAT?" (Mid-Atlantic Voyager User's Group [MAVUG] meeting, Cornell University, October 2002). Bowen's presentation focused on a specific ILS (Voyager) and how FRBR implementation would affect user satisfaction and retrieval results.

### "FRBR-izing Library Collections"

www.misslib.org/activities/conf/conf04/poster.php

This Web page provides a short description of a poster session by Miao Jin and Nashaat I. Sayed presented at the 2004 Mississippi Library Association Conference (Jackson, Mississippi, October 2004) regarding the FRBR Display Tool of the Library of Congress.

### **"FRBR Display Tool"**

This chapter by Jackie Radebaugh and Corey Keith in the book *Functional Requirements for Bibliographic Records (FRBR): Hype, or Cure-All?* discusses the FRBR Display Tool developed by the Network Development and MARC Standards Office (NDMSO) at the Library of Congress.<sup>21</sup>

# "The Paradigma Project and Its Quest for Metadata Solutions and Services"

www.ifla.org/IV/ifla70/papers/009e-Nuys.pdf

This paper by Carol van Nuys, Keil Albertsen, Linda Pedersen, and Asborg Stenstad (National Library of Norway) was presented at the World Library and Information Congress: 70<sup>th</sup> IFLA General Conference and Council (Buenos Aires, Argentina, August 2004) and discusses the FRBR implementation by the National Library of Norway. The Paradigma project is another prototype of the FRBR model in action.

### "The Paradigma Project"

www.rlg.org/preserv/diginews/diginews7-2.html #feature2

This article by Carol van Nuys appeared in a 2003 issue of *RLG News* is a concise description of the Paradigma project and features colorful screenshots and graphics.<sup>22</sup>

#### "PARADIGMA: FRBR and Digital Documents"

This chapter by Ketil Albertsen and Carol van Nuys in the book *Functional Requirements for Bibliographic Records (FRBR): Hype, or Cure-All?* discusses the Paradigma project as a FRBR implementation. The new taxonomy developed during this project—which forms various relationships into component aggregates, then groups these aggregates into various classes—is also presented.<sup>23</sup>

#### "IFPA (ISIS FRBR Prototype Application)"

http://pclib3.ts.infn.it/frbr/FRBR.htm

This is the "home page" (compiled by Roberto Sturman) for a software application based on FRBR theoretical principles. It provides access to an online demo of the software, access to downloadable documents, and a presentation.

# "A Case Study of Software Implementation: IFPA (ISIS IFLA Prototype Application)"

http://pclib3.ts.infn.it/frbr/IFPA-BRAZIL-051104a.pdf

This case study by Roberto Sturman was presented at the 2nd World Congress of CDS/ISIS Users (Salvador de Bahia, Brazil, September 22, 2005) and is a detailed technical analysis of the IFPA software application, which also featured a live demonstration. More information about CDS/ISIS—software for information storage and retrieval systems developed and maintained by the United Nations Educational, Scientific, and Cultural Organization (UNESCO)—is available at www.unesco.org.

# "Implementing the FRBR Conceptual Approach in the ISIS Software Environment: IFPA (ISIS IFLA Prototype Application)"

http://pclib3.ts.infn.it/frbr/CCQ-IFPA.pdf

This chapter by Roberto Sturman in the book *Functional Requirements for Bibliographic Records (FRBR): Hype, or Cure-All?* discusses the IFPA software application.<sup>24</sup> The URL provides access to an iteration of this content.

#### **"FRBR and RDF"**

http://iandavis.com/blog/2005/07/frbr-and-rdf

This is a blog post by Ian Davis (Talis Research) on the Internet Alchemy blog. It is a brief summary of an RDF (Resource Description Framework) schema that Davis and Richard Newman published for FRBR.

### "Expression of Core FRBR Concepts in RDF"

http://vocab.org/frbr/core#

This URL provides a link Ian Davis and Richard Newman's core expression of the FRBR model in RDF (Resource Description Framework). Bruce D'Arcus is also listed as a contributor.

#### "Expression of Extended FRBR Concepts in RDF"

http://vocab.org/frbr/extended#

This URL links to an extended expression of the FRBR model in RDF (by Ian Davis and Richard Newman).

### **"FRBR in RDF"**

http://research.talis.com/2005/frbr-dc2005

This URL provides access to a presentation by Ian Davis given at the 2005 International Conference on Dublin Core and Metadata Applications (Madrid, Spain, September 2005). In it, Davis discusses the FRBR core schema and FRBR extended schema as well as relationships with the Dublin Core metadata standard.

# sw-bib (Semantic Web Bibliographic Discussions) Archives

http://holygoat.co.uk/mailman/listinfo/sw-bib \_holygoat.co.uk

This URL provides access to the archives from electronic discussions (via an electronic mailing list) related to bibliographic concepts and the Semantic Web. The archives of previous posts are available to everyone.

# "Functional Requirements for Bibliographic Records: FRBR and Millennium"

http://biblioteca.itesm.mx/blog/wp-images/posts/N10 \_frbr\_iug\_2005.ppt

This PowerPoint file by Claudia Conrad accompanied Conrad's presentation to the Innovative Users' Group (IUG) 13<sup>th</sup> conference (2005) and examines how Innovative Interfaces, Inc., (III) is integrating the FRBR model into its new versions and updates to the III integrated library system.

### "Report on Functional Requirements for Bibliographic Records for the Summit Catalog"

www.orbiscascade.org/staffhome/SCC-FRBR-report06 mar.pdf

This URL provides access to a March 15, 2006, report from a task force (composed of members of a consortium of Northwest community colleges) charged to examine the effects of implementing FRBR on their shared catalog (Summit). The authors listed are: Sharon Jackson, Mt. Hood Community College (SCC-ST Liaison); Greg Matthews, Washington State University; Cheryl Peltier-Davis, Western Washington University; Carol Drost, Willamette University; Robin Ashford, Lewis & Clark College; and Teresa Hazen, Mt. Hood Community College.

### Summit

http://summit.orbiscascade.org www.frbr.org/2006/04/03/summit

The above URLs provide links to a consortium of Pacific Northwest academic libraries actively incorporating the FRBR model into their consortium OPAC (named "Summit"). Summit is a Millennium catalog (from Innovative Interfaces), and the vendor is working with the consortium to do this. An overview of the consortium, Orbis Cascade Alliance, as well as the Summit catalog, is available at www.orbiscascade.org/overview.html

#### "FRBR: The Future of the Library Catalog"

www.masslib.org/conference/2005Conference/Pres entations/FRBRthefutureofthecatalogMLA.ppt

This PowerPoint file by Martha Rice Sanders and Mary Wu accompanied their presentation at the 2005 Massachusetts Library Association Conference (May 10, 2005). It serves as an excellent, concise presentation that introduced the FRBR concept to librarians in Massachusetts. Another plus, from my point of view (given that I am a Tolkien scholar), is the works of J.R.R. Tolkien are used as the example.

#### **OpenOffice**

#### www.openoffice.org

www.frbr.org/2006/04/04/openoffice

Its design somewhat based on the FRBR model, OpenOffice is an open-source tool and set of office applications designed to offer an alternative to Microsoft Office.

### quiddity

www.frbr.org/2006/04/01/quiddity

According to William Denton of the FRBR blog, quiddity is a major change/entity level for the FRBR model. More information will be forthcoming on the FRBR blog (www.frbr.org).

#### LibraryThing and thingISBN

www.librarything.com

www.librarything.com/thingology/2006/06/introducing -thingisbn\_14.php

www.frbr.org/2006/02/26/librarything-blog-mentions http://library.coloradocollege.edu/steve/archives/ 2006/02/librarything\_re.html

LibraryThing is a FRBR-based catalog and tool that is open to anyone and everyone. ThingISBN is a FRBRbased tool that is similar to OCLC's xISBN project. Much discussion has taken place, on a number of blogs, regarding LibraryThing, and links to various parts of the conversation are listed.

# Variations2: The Indiana University Digital Music Library

www.dml.indiana.edu

http://variations2.indiana.edu/papers.html

Variations2 has become a FRBR-based digital music catalog at Indiana University. A number of papers and presentations are available on the Indiana University Web site, which detail some of the work that went into the design and architecture of the database (see second URL above).

# DanBib

http://bibliotek.dk/?lingo=eng

Deemed "DanBib," this is the OPAC for the Danish

National Union Catalogue. The link above is to the English version. FRBRization of results is done on the fly, but can be clearly seen in the user interface. The OPAC contains about ten million records and thirty million holdings compiled by Danish libraries. Allan Forsberg, systems coordinator, suggests that a good search to see this process would be a search for author = "mozart" and title = "cosi fan tutte."

# eXtensible Catalog (XC) project

www.extensiblecatalog.info

Participants in this project, underway at the University of Rochester, have secured a one-year grant from the Mellon Foundation to develop a project plan and solicit partners for the development of an open-source library system that would be heavily influenced by FRBR. The project is led by Jennifer Bowen, one of the major players in the development of Resource Description and Access (RDA), the working title of the new standard that will succeed AACR2. This project holds some potential for libraries to move away from vendor ILS systems and to move toward the FRBR model with their MARC records. Presentations related the eXtensible Catalog (XC) project are available at these URLs:

- www.extensiblecatalog.info/?page\_id=7
- http://docushare.lib.rochester.edu/docushare/ds web/Get/Document-22361 (presentation to OCLC)
- http://docushare.lib.rochester.edu/docushare/ dsweb/Get/Document-22362 (demo of CUIPID interface)
- www.extensiblecatalog.info/wp-content/uploads/ 2006/08/PARC%20slides%20for%20XC%20blog.ppt (presentation at PARC)

# Catalog User-Interface Platform for Iterative Development (CUIPID)

http://docushare.lib.rochester.edu/docushare/dsweb/ Get/Document-18040/CUIPID%20Project.ppt

http://docushare.lib.rochester.edu/docushare/dsweb/ View/Collection-2338

http://metadata-wg.mannlib.cornell.edu/forum/index .php?date=2005-02-18

www.lita.org/ala/lita/litaevents/litanationalforum 2005sanjoseca/57\_Lindahl\_Bowen.ppt

The URLs listed above provide access to information about an XML-based project that addresses catalog usability issues and incorporates FRBR concepts in its design. Based at the University of Rochester, it seems that this project will link to the eXtensible Catalog (XC) project.

# LibX

www.libx.org

LibX is a Firefox extension that provides direct access to a library's resources. It incorporates OCLC's xISBN service and is only available via the Firefox Web browser.

# Wikicat

http://meta.wikimedia.org/wiki/Wikicat

www.frbr.org/2006/06/14/wikicat

Wikicat (according to the Wikimedia Meta-Wiki, via first URL) "is a bibliographic catalog used by the Wikicite and WikiTextrose projects." Its design is based on the FRBR model and many other library standards. The second URL listed above is to a blog post (June 14, 2006) on the FRBR blog (www.frbr.org) about Wikicat.

### "CTS and NeT-CEE"

www.frbr.org/2006/05/18/cts-and-net-cee

This URL links to a post on the FRBR blog about an NEH (National Endowment for the Humanities) draft proposal for something called "Network Tool for Collaborative Electronic Editing over the Internet (NeT-CEE)." The tool would allow humanists to collaborate interactively on text editions electronically. It would be based on the FRBR model and be supported by the Classical Text Services (CTS) protocol.

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