most likely successfully adapt to the changed publishing environment" (177).

What is missing from this volume is in-depth discussion of academic libraries as publishers and the special considerations that might apply when publishing scholarly content via an open access journal or institutional repository. Two chapters deal with self-publishing as an acquisitions issue in academic libraries, but there are no chapters outlining university library publishing programs or the academic library's increasing role in the scholarly communication process. While both Donald Beagle and Grobelny mention the growing prominence of institutional repositories in academic libraries, the focus of the book as a whole is squarely on selfpublishing through third-party vendors such as Smashwords, IngramSpark, and Amazon's Kindle Direct Publishing. Several authors rightly point out that public libraries are much more active in this area.

Taken in its entirety, *Self-Publishing and Collection Development* is a wide-angle view of the ways that self-publishing can impact libraries. Chapters vary from resourcerich guides containing practical advice and descriptions of self-publishing experiences to more philosophical explorations of the challenges of discovering and acquiring self-published works. At times this breadth can be a bit disorienting, as chapters jump from collection development to programming development to vendor partnerships. However, this eclecticism means that there is in some sense "something for everyone," from librarians struggling to locate, acquire and properly catalog self-published materials, to those who are considering self-publishing their own writing.—*Rebecca Brody (rbrody@westfield.ma.edu), Westfield State University, Westfield, Massachusetts*

FRBR, Before and After: A Look at Our Bibliographic Models. By Karen Coyle. Chicago: ALA Editions, 2016. 179 p. \$50.00 softcover (ISBN: 978-0-8389-1345-1). Editor's Note: as of January 2016, the full contents of the book are available for Open Access with a CC-BY license. See Coyle's website (kcoyle.net) for details.

While many in the metadata creation community are familiar with the Group 1–3 entities described in the *Functional Requirements for Bibliographic Records* (FRBR), the historical context for FRBR as a bibliographic model is less familiar.¹ In 1990, the International Federation of Library Associations (IFLA) sponsored the Stockholm Seminar on Cataloguing. One of the outcomes of this Seminar was the creation of the FRBR Study Group whose purpose was to identify a minimum set of data elements necessary to satisfy the needs of users. Using this element set in the creation of records would both further facilitate the sharing of bibliographic records and reduce the cost of cataloging for participating institutions. The FRBR Study Group's final report has far reaching influence, including serving as the conceptual model upon which *RDA: Resource Description* and Access—the successor to the Anglo-American Cataloging *Rules* as the content standard used by many libraries across the world.²

In *FRBR*, *Before and After*, Karen Coyle puts FRBR into context, both historically and with regard to earlier bibliographic models. But Coyle's book is not merely an analysis of FRBR and whether the FRBR Study Group built a model that successfully meets the objectives set forth by IFLA. Coyle also asserts that bibliographic models inform, and are informed by, the technology being used most prevalently at the time of the model's creation. In the introduction Coyle lays out her argument, writing, "This book looks at the ways that we define the things in the bibliographic world, and in particular how our bibliographic models reflect our technology and the assumed goal of libraries" (xv). Coyle's book succeeds as an analysis of the relationship between bibliographic models and technology and as an analysis of the effectiveness of FRBR as a bibliographic model.

In part one, "Work, Model, and Technology," Coyle lays the foundation upon which her claims regarding FRBR as a bibliographic model are built. She begins by introducing readers to the concept of work; drawing from the fields of philosophy, semiotics, and information science and even advancing her own theory on the topic. Coyle moves on to discuss modeling, including both a general discussion on data modeling and a more specific conversation about library data modeling. Finally, Coyle addresses advances in library technology from printed library catalog cards through the rise of the Semantic Web.

In part two, "FRBR and other solutions," Coyle builds upon the groundwork laid in the first three chapters as she addresses FRBR as a bibliographic model. She begins by recounting the history that led to the development of the FRBR Study Group and their report. Coyle follows that up with a detailed explanation of the entity-relationship model, which is the model used in the development of FRBR. She then offers a brief explanation of what is being modeled in FRBR. In Chapter 8, Coyle uses the objectives that guided the work of the FRBR Study Group as a measure of the effectiveness of the bibliographic model they created. She then addresses a few of the fundamental problems she has identified with FRBR, including the concepts of inheritance and disjoint. Coyle concludes the book by discussing the future of bibliographic description and the application of the FRBR model in the Semantic Web environment.

In chapter 3 of *FRBR*, *Before and After* Coyle addresses es the parallel development of cataloging standards and library technology standards, writing "there is no interaction between technology standards development and cataloging standards" (44). Prospective readers might imagine that Coyle's book could serve as a bridge upon which catalogers and library technologists could stand while building standards in closer alignment. However, synthesizing Coyle's deep and thoughtful analyses on the topic of bibliographic and data models may be a challenge for those without a background in data modeling. While Coyle addresses both the historical context of FRBR and the model's component parts, *FRBR*, *Before and After* should not be mistaken for a primer on the bibliographic model. Those looking for a basic introduction to FRBR will find Coyle's discussion of the both the bibliographic model and the data model upon which it is based too esoteric as to be instructive.

While the focus of Coyle's book is the development of FRBR, Coyle also attempts to contextualize bibliographic models and the technology that influence their development more generally. Each topic on its own is a significant undertaking, worthy of its own tome. Putting them together in a single book, especially one of moderate length, means that certain topics may be underdeveloped while other topics are repeated in multiple places. Coyle focuses most of part 1 on the general analysis of bibliographic models and data models, while part 2 focuses almost exclusively on FRBR. The reader may feel disjointedness between the two parts and wish that Coyle had focused exclusively on one topic or the other—especially when bits of information from part 1 are repeated in part 2.

Coyle shines brightest when she writes about library users. Throughout *FRBR*, *Before and After* Coyle returns her readers back to what should be the fundamental question of both cataloging standards and library technology standards: *Where is the user in all of this?* Coyle's most scathing critique of the work of the FRBR Study Group is the absence of users in both the development of the bibliographic model and in the final report that documents it. In chapter 8, Coyle writes, "For a study that was purported to be user-centric, the user's absence is notable" and goes on to state that "the FRBR Final report reads as a study *by* catalogers *for* catalogers" (106). Throughout the book, Coyle continually challenges readers to consider whether "find, identify, select, obtain" are the tasks that users most want to do when interacting with library technology. And, if not, what might the preferred tasks be.

In the afterword, Coyle writes "It is taken for granted by many that future library systems will carry data organized around the FRBR groups of entities. I hope that the analysis that I have provided here encourages critical thinking about some of our assumptions" (159). As an analysis of past and current developments in bibliographic modeling, *FRBR*, *Before and After* can be seen as an important contribution to the conversation about the development of bibliographic models and data models. If the reader applies to Coyle's text the same test that Coyle applies to FRBR—does this book meet its objectives?—the answer is a resounding yes. Coyle makes a cogent argument about the relationship between bibliographic models and the technology that both informs them and is informed by them.—*Erin Leach (eleach@uga .edu), University of Georgia, Athens, Georgia*

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