Good morning everyone and thank you for inviting Audrey and me to talk to you today about RDA and BIBFRAME. The title of our program has been advertised as “RDA and BIBFRAME: From Development to Implementation.”
For the title of my presentation, I think it is more appropriate to replace the preposition “to” by
“towards” because we are not quite ready yet for implementation, but we are getting there: [change title slide] “RDA: From Development Towards Implementation.”
During my presentation, I will briefly answer five questions:

• What is the 3R Project?
• Watt is the status of the 3R Project?
• What are the next steps in the development of RDA?
• What might the future of RDA look like in a post-MARC environment?
• Should you fear the implementation of RDA???
Before I start, I’d like to do a quick survey:

• Raise your hands, if you regularly use the original RDA Toolkit in your work?
• Raise your hands, if you have never or rarely used the Toolkit?
• Raise your hands, if you’ve seen the new beta RDA Toolkit?
• If you have tried it for a few minutes to an hour?
• A few hours?
• Many hours?
What is the 3R Project?

Let me first explain what the 3R Project is.
The original RDA Toolkit, the Toolkit that some of you currently use, was first released in June 2010. Even though it is a website, it “feels” like a book, a cataloging manual with a table of contents, sections, and chapters that pretty much follow the order in which we catalog a resource. A few years ago, it became evident that maintaining the Toolkit was no longer sustainable. For instance, it became more and more cumbersome to adjust numbering when instructions were deleted.
The result is that there are currently many instructions in the Toolkit that say: “This instruction has been deleted...” Over time, this situation was just going to worsen. For this reason, and many more that I won’t go into, it was decided that the time had come
Redesigning the Toolkit

- “To adjust to changes to the online environment”
- To create “a user experience that is more intrinsically of the web”

3R Project Kickoff Announcement, 20/12/2016.
https://www.rdatoolkit.org/3Rproject/announcement

“for a site redesign to adjust to changes to the online environment” and to create “a user experience that is more intrinsically of the web.”

1 3R Project Kickoff Announcement, 20/12/2016.
https://www.rdatoolkit.org/3Rproject/announcement
This project, which started in 2017, is called the RDA Restructure and Redesign Project or 3R project. Users were finally able to see the impact of the project with the release on June 13, 2018 of the beta RDA Toolkit. I must acknowledge that the beta Toolkit was a shock for many catalogers: it was not love at first sight! Far from it.
What is the status of the 3R Project?

Where are we now in the 3R Project?
Part of the redesign portion of the 3R project involved rebuilding the website infrastructure and overhauling the Toolkit interface:
• Cataloging instructions and resources are no longer presented like a cataloging manual. Instead they have been reorganized under four tabs.
• There are tools to create bookmarks, notes, and documents, and to manage views.
• There is a new search engine that allows people to search the Toolkit several different ways, refine searches, and order and filter results.
Developers solved numbering issues... by *removing instruction numbers*(!), to the dismay of catalogers.
To respond to catalogers’ outcry, a tool to generate citation numbering was created. Nobody will ever memorize these randomly generated 8-digit numbers but at least people will be able to use them when needed.
The latest and most important redesign achievement of the 3R project was achieved a month ago when “the beta Toolkit was brought into compliance with current accessibility standards. (...) The RDA Toolkit beta site now meets requirements for the AA accessibility rating.”

2 3R Accessibility Goals Met, 10/14/2019. https://www.rdatoolkit.org/node/201
Restructuring the RDA Toolkit

✓ IFLA Library Reference Model implemented

The accomplishments of the restructuring portion of the 3R Project included:

• The implementation of the Library Reference Model. This is the conceptual model developed by the International Federation of Library Associations that consolidates the FRBR, FRAD, and FRSAD models on which the original Toolkit is based. The implementation of LRM meant adding new entities (collective agent, timespan, nomen), and modifying and adding new terms and instructions.
Restructuring the RDA Toolkit

✓ IFLA Library Reference Model implemented
✓ Instructions grouped by entities
✓ Boilerplate language used whenever possible
✓ Attributes and relationship designators replaced by 3,000+ elements

- Instructions have been grouped by entities (instead of following the typical cataloging workflow). This has been likened to “choosing your own adventure.”
- Instructions have been modified to use boilerplate language whenever possible.
- Attributes and relationship designators have been replaced by elements, over 3,000 of them!
Restructuring the RDA Toolkit

✓ Alternatives, options, and exceptions replaced by option and condition boxes
✓ Entity and element pages each given same structure

- Alternatives, options, and exceptions have been replaced by condition and option boxes.
- Entity and element pages have each been given the same structure.
The so-called “4-fold path” was implemented. Being allowed to record data as unstructured description, structured description, identifier, and/or IRI makes RDA more flexible.

Finally, a system to report revisions has been developed.
The English text of the beta Toolkit is now “stabilized.” No *major* changes to instructions will happen until the beta Toolkit becomes the official text of RDA.
While the 3R Project is well underway, the work is not done. In fact, the RDA Steering Committee is meeting as we speak in Santiago, Chile, making important decisions.
• There is still content to be added to the beta Toolkit. For example, there are currently only 73 examples in the Toolkit; obviously, many more will be added.
• Translations are in progress. This is a major undertaking that is important to non-English speaking communities around the world.
• Application profiles will be created to tell users which entities, elements, recording methods, options, and vocabulary encoding schemes they should use. The RSC is forming an international Application Profile Working Group that may create a basic RDA application profile. But it is expected that local communities, such as the Program for Cooperative Cataloging (PCC), will create their own application profiles.
• Another major undertaking is the addition of policy statements. Policy statements are types of application profiles, but they provide additional information and examples.
The Library of Congress and the PCC have created in August four task groups to review the current LC-PCC PSs. Members of these groups are working intensively and should make recommendations by November 15. Soon after, the work of adding LC-PCC PSs to the beta Toolkit will begin.
A major complaint about the beta Toolkit is that many element labels are baffling, intimidating. Let’s face it, labels such as “contributor person of still image” and “contributor agent to amalgamation,” are pretty crazy. These labels are not for “human consumption”; they were never intended to be presented to library users. Instead, they have been designed to be meaningful to machines. Recognizing a need to also please us humans, the RSC has charged the North American RDA Committee (NARDAC) to create user-friendly display labels. However, the RSC assumes that it will not be possible “to develop a single set of user-friendly labels that is suitable for the range of communities and end-users for whom RDA is designed.”³ The RSC expects communities will develop their own vocabularies.

³ RSC, Use of RDA unconstrained element set for display labels, internal document (updated July 3, 2019).
The last development I want to mention—one that will most likely be tackled after the beta Toolkit becomes the official text of RDA—is the implementation of a machine-actionable model to record extent, duration, and dimension.
Let me now go back a little bit in history to address a misconception about RDA. Once upon a time, there was a content standard called AACR2. It was a cataloging manual that told catalogers how to describe resources. To disseminate bibliographic data, there was, and still is for most of us, the communication standard MARC21. At about the same time as the original RDA Toolkit was released, a new initiative called BIBFRAME was announced as a replacement to MARC. People assume that if BIBFRAME is to be the communication standard that will replace MARC, RDA is the content standard that has already replaced AACR2. But RDA is not intended to be simply a content standard, a cataloging code.
It is much more than that. Just like BIBFRAME, RDA is “grounded in linked data principles.” In fact, if RDA was fully implemented, it could also act as a communication standard like BIBFRAME. And this brings me to my next question.

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What might the future of RDA look like in a post-MARC environment?
One way to get a glimpse of this is to use the latest iteration of RDA in Many Metadata Format or RIMMF4. This program was created by Deborah and Richard Fritz, the owners of The MARC of Quality, who originally wanted to prove that two people with little resources could create an application to catalog in RDA outside of the MARC environment. You can download RIMMF4 for free and you don’t need to have access to the beta Toolkit to use it.

Instead of doing a live demo of RIMMF4, I decided to show you some screen shots to make sure everyone can see what I want to highlight. What you are about to see are “linked data ... representations” of resources related to the author Harper Lee that I created using RIMMF4. As I proceed, there are a few facts to keep in mind:

- RIMMF4 is a prototype. You cannot use it yet as a replacement to your library catalog. It is still in beta phase: there are glitches.
- It is not an online tool: the file I created is held on my computer. However, it could be published online.
- My file is far from perfect because I don’t know everything about RDA. RIMMF4 is a sandbox to practice in, to experiment, and most importantly, to fail and try again.
Let’s now see how I cataloged the 50th anniversary edition of Lee’s *To Kill a Mockingbird* in RIMMF4.
Most of this is familiar to you: title proper, statement of responsibility, etc.
I have recorded many elements as unstructured description: I typed what I saw on the resource.
Some terms in blue are terms linked to RDA vocabulary encoding schemes, such as carrier type.
I experimented by adding the new element “authorized access point for manifestation.” I don’t know if what I did is right or if American cataloging agencies will decide to implement this element.
It is important to understand that this is not a “record” per se: it is a “metadata description set,” that is, “one or more metadata statements that describe and relate individual instances of one or more RDA entities.” “Metadata description set,” glossary, beta RDA Toolkit.
Each statement in this description set is like a little sentence. This is essentially saying: this edition of *To Kill a Mockingbird* has title proper “To Kill a Mockingbird”;

*To Kill a Mockingbird, 50th anniversary edition*
and it has a designation of edition “50th anniversary edition.”
You can see that my metadata description set relates this manifestation to two other RDA entities in my file, the expression and one item (called here examplar of manifestation). Notice that there are no relationships to author and subjects because these are work elements. Therefore, they can only appear in work “records.” The relationship tree (called R-Tree) lets us better visualize the relationships in this metadata description set.
While this manifestation only links to two RDA entities,
when I dig deeper, I can discover more related RDA entities,
among which the library where the item is held, Hamden Public Library, and the work manifested in the expression.
If I dig even deeper, I discover many more related entities. This is the power of linked data.
In a linked data environment, metadata description sets like this one grow overtime.
For instance, since place and timespan are RDA entities, instead of, or in addition to, simply recording the place and date of publication as unstructured and structured descriptions, as I have done,
I can create “records” for the entities New York and 2010 and relate these entities to the manifestation.
In doing so, my original metadata description set becomes a tad more machine-actionable. RIMMF shows this by highlighting New York and 2010 in blue.
On the screen, you see that the relationship tree for this manifestation, which originally had only links to two entities,
now has four.
Digging deeper reveals other manifestations published in New York.
This is essentially saying: New York is the place of publication of all these manifestations. If my file was larger, it would also include other entities related to New York, like people, corporate bodies, etc.
Let’s now look at the metadata description set of the “work manifested,” *To Kill a Mockingbird*. Most statements in blue are links to other RDA entities.
They include adaptations of, and works about, *To Kill a Mockingbird*. 
The subjects of this particular work are not highlighted in blue because they are topics, and topics are out of scope of RDA. Only subjects that are RDA entities, like persons, corporate bodies, works expressions, etc. fall within the scope of RDA. Nevertheless, I can still use the four recording methods to describe topics. In this description, I have chosen to record topics as structured descriptions and IRI.
I can also view the entities related to the work *To Kill a Mockingbird* using the relationship tree.
You can see relationships to other works,
expressions (such as translations and an audio book)
nomens (that is the different titles of this work),
timespan (the date of work)
and of course, a person, the author Harper Lee.
The RDA Toolkit element that relates *To Kill a Mockingbird* to Lee is “author person.” I know, it’s not very attractive; not user-friendly.
RIMMF4 shows that changing element labels is not a complex process.
By simply clicking on an option, I can replace the Toolkit labels to those in the RDA Registry.
The term “author person” has been replaced by “has author person.” Some people may find the statement “To Kill a Mockingbird has author person Lee, Harper” easier to understand because it looks more like a sentence. But I agree that this is still not as user-friendly as can be. For this reason, NARDAC has proposed—you will not be surprised to hear this—removing the word person from this element label to simply use “author” or “has author” as “user-friendly” display label.
Currently, to retrieve resources by and about Lee in a traditional library catalog, I have to do several searches: including by author, title, subject and keyword. Each list of results has to be closely examined to determine what relationship exists between each resource and Lee. Yet, Lee herself is a meaningful entity on which we should be able to focus much more directly. This is possible in a linked data environment. My RIMMF record for Lee is still rather short.
Nevertheless, you can see, the relationship tree generated from my metadata description set quickly and precisely links Lee to other entities such as:
Her various names;
A place and dates associated with her;
Works she wrote;
A work about her;
And even one of her friends.
I can delve even deeper and discover many facts about Lee, so many that they don’t all fit on one screen.
For example, I can learn that her work *To kill a Mockingbird* was translated into Latin and adapted as a graphic novel.

My RIMMF file is tiny compared to the quantity of materials related to Lee described in library catalogs. You can imagine how quickly a Lee metadata description set would grow on the Open Web if enriched by the metadata of libraries, archives, and other cultural institutions, metadata created by information professionals, such as you who are here today. Information sharing is, in fact, one of the goals and benefits of open linked data.
I’d like to show you one last RIMMF example to push this idea to the extreme. In the beta Toolkit few elements are mandatory. Defining what is core is mostly left to local communities. On the screen, you see a valid minimum RDA metadata description set for the 50th anniversary edition of Lee’s *To Kill a Mockingbird*. Obviously, such a description in today’s catalogs would not be very useful. But this ISBN is an identifier for a manifestation that already has been described by the publisher, the U.S. ISBN agency, vendors, etc. In an open linked data environment, this description could be used to harvest all the metadata that is attached to this ISBN, saving us from having to type information that already exists about this resource. This is one of the main goals of moving towards a non-MARC future: to free intelligent cataloging staff, such as you, from being glorified typists who redo work that has already been done by others, and instead to focus on enhancing description.
Should you fear the implementation of RDA?

After this quick demo of RIMMF4, let me conclude by answering a last question: Should you fear the implementation of the new RDA?
Does the idea of implementing the beta RDA Toolkit make you feel like this? If so, I am here to reassure you:
Fear not!
The anticipated date for the beta Toolkit to become the official text of RDA is December 15, 2020. Each community will then decide if this date, or a later date, will be its own implementation date. Therefore, we have plenty time to prepare for the switch over. There are many people working to make sure we will all be fine.
What you can do...

• View presentations:
  ➢ http://www.rda-rsc.org/rscpresentations
  ➢ http://www.rda-rsc.org/northamerica/presentations
  ➢ https://www.youtube.com/c/RDAToolkitVideo

• “Play” with the beta RDA Toolkit

• Download RIMMF4 and create your own metadata description sets

In the meantime, to learn about the beta RDA Toolkit, you can
• View presentations on the RSC website and YouTube;
• Play with the beta Toolkit’
• Download RIMMF4 and create your own metadata description sets;
Look for training opportunities from local groups. For example, ALCTS’s Continuing Education Committee is planning a series of “practical” RDA webinars for next summer or fall 2020.

Most importantly be open-minded: stay calm and catalog on.

Thank you.
Thanks

ALA Publishing:

- Katie Bane, Marketing & Sales Manager, ALA Digital Reference
  for giving program participants
  access to the RDA beta Toolkit
Contact

dominique.bourassa@yale.edu
dominique.bourassa@rdatoolkit.org
Questions?
Sources of images


Slide 10. 3R Project kickoff announcement.
    https://www.rdatoolkit.org/3Rproject/announcement; Angry Emoji PNG Pic.
    http://www.pngmart.com/image/7747


Sources of images

Slide 26. Confused by Ben Davis from the Noun Project.
https://thenounproject.com/search/?q=confused&i=817476


Slides 31. RIMMF4 Interface.


Slides 33-75. Personal RIMMF4 file of resources by and about Harper Lee.
Sources of images

Slide 66. Photo portrait of Harper Lee (To Kill a Mockingbird dust jacket, 1960).jpg

   https://commons.wikimedia.org/wiki/File:Edvard_Munch-The_Scream.jpg

Slide 78. Caspar David Friedrich, “Tageszeitenzyklus, Der Morgen (1821-22),”
   Wikimedia Commons, the free media repository. Retrieved Oct. 22, 2019.