



# Evolution of the RDA Toolkit and Its Impact on Catalogers

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R | D | A  
Resource Description & Access

# Transformation in Cataloging

- Conceptual models
  - IFLA Functional Requirements models (FRBR, FRAD, FRSAD) replaced by IFLA Library Reference Model (IFLA LRM, 2017)
- Descriptive/content standards
  - RDA: Resource Description and Access (integrating resource, 2010- )
  - ISBD (consolidated edition, 2011; complete revision process started in 2018)
- Encoding standards
  - MARC 21 (ongoing development)
    - Significant additions made in response to RDA, 2008-2011)
- Data models
  - BIBFRAME (ongoing development)
- Introduction of LCGFT, LCMPT, LCDGT, FAST

# IFLA LRM

- Framework for the analysis of non-administrative metadata relating to library resources
  - High-level, enhanced entity-relationship model
- Consolidation and update of existing IFLA conceptual models
  - FRBR: Functional Requirements for Bibliographic Records (1998; amended 2009)
  - FRAD: Functional Requirements for Authority Data (2008, amended 2013)
  - FRSAD: Functional Requirements for Subject Authority Data (2010)
- Compatible with CIDOC Conceptual Reference Model (CRM) (2011; version 6.2, 2015)  
(CIDOC = International Council of Museums Committee on Documentation)
  - And its extensions
    - FRBRoo (2009; version 2.4, 2015) – object oriented version of FRBR
    - PRESSoo (2013) – Describes serials and continuing resources

# Applying LRM

- Cataloging code implementations
  - Must respect the basic structure of the entities and relationships among them
  - May add expansions within the basic framework (specialized attributes, specific subclasses, refinements of relationships, etc.)
  - May focus only on WEMI attributes and relationships, omitting the others
  - May use either literals (strings) or URIs/IRIs (things) to represent attributes
    - In the latter case, these really become *relationships*
- RDA (beta Toolkit) is the first implementation of LRM
  - With expansions

# IFLA LRM – Elements

- User tasks – 5 total
  - Find, Identify, Select, Obtain, Explore
  - The functional scope of the model: everything supports at least one of these tasks
- Entities – 11 total
  - Key objects of interest to users – define the framework of the model
  - Abstract class of conceptual objects
  - Serve as domains and ranges of the relationships
- Attributes – 37 total
  - Data that characterize specific instances of an entity
  - Recorded when considered relevant
  - LRM listing not exhaustive
- Relationships – 36 total
  - Connect entities to each other and provide context for them
  - Relationships between WEMI are the core of the model

# Scope of RDA

- *RDA: Resource Description and Access* is a package of data elements, guidelines, and instructions for creating library and cultural heritage metadata that are well-formed according to international models
- Focused on “things” of bibliographic interest
- A refinement of IFLA LRM
  - Elements fulfill one or more LRM user tasks
    - Other information is out of scope
      - Administrative metadata
      - Rights metadata
      - Subject access beyond RDA entities

# 3R Project: RDA Toolkit Restructure and Redesign

- Goals

- Implement IFLA LRM entities
  - *New*: Agent, Collective agent, Nomen, Place, Timespan
  - *Revised*: Person
- Retain current RDA elements unless they conflict with LRM
  - Redundant elements will be removed after sometime after 3R
    - Unstructured description of an element (e.g., *type of recording*) preferred over old “details of” approach (e.g., *details of type of recording*)
- Generalize the instructions
- Offer more flexibility in choosing how to record a piece of information
- Develop a new approach to relationship designators

# 3R Project: RDA Toolkit Restructure and Redesign

- Goals, continued

- Promote even greater international adoption of RDA
  - Original Toolkit available in 8 languages
  - RDA vocabularies (in whole or in part) available in 18 languages now
- Better position RDA for use in linked data applications
- Improve the Toolkit interface and address long-standing problems
- Restructure the underlying data
  - Provide efficient and reliable work processes and tools for RDA editors and translators



# 3R Project Milestones

- 2016: Some wording changes start
  - “agent” replaced “person, family, or corporate body”
  - Wording in relationship definitions standardized
- April 2017: Original RDA Toolkit content frozen
- June 13, 2018: Beta Toolkit publicly released
  - Undergoing continuous improvement
    - Based in part on feedback from users
  - Certain changes announced as “releases”
    - The most recent of these was on Oct. 9, 2018

# 3R Project Next Steps

- Stabilize the English text (anticipated April 2019)
  - Identify which elements have “final” wording and which will undergo development in the “post 3R” period
    - For the former, commit to no substantive rewording that would lead to new translations
  - Critical step before work can begin in earnest for translators and policy statement creators
- Add policy statements and translations to beta site
- Remove the “beta” status – the new Toolkit becomes official
  - Requires unanimous votes from RSC, RDA Board, and the copyright holders
  - One year countdown clock starts on original Toolkit
  - Late 2019?

# RDA – Entities

- Entities – 13 total
  - Same scope as LRM
  - *Corporate Body* and *Family* retained as subclasses of LRM's *Collective Agent*
  - *RDA entity* is highest entity in model, rather than LRM's *Res*



# RDA – Elements

- Specific aspects, characteristics, attributes, or relationships used to describe an entity
- Each element has its own page in RDA, with the following structure
  - Definition and Scope
  - Element Reference – includes
    - Canonical IRI
    - Domain and Range
    - Alternate labels
    - MARC 21 and Dublin Core mappings
  - Prerecording
  - Recording
  - Related Elements

# RDA – Elements

- Elements – over 1700

|               |     |                  |     |
|---------------|-----|------------------|-----|
| Work          | 388 | Agent            | 175 |
| Expression    | 291 | Person           | 85  |
| Manifestation | 282 | Collective Agent | 34  |
| Item          | 70  | Corporate Body   | 84  |
| Place         | 45  | Family           | 46  |
| Timespan      | 54  | Nomen            | 169 |
| RDA Entity    | 27  |                  |     |

# RDA – Attributes, Relationships

- Attributes

- Same scope as LRM

- Relationships

- Same scope as LRM
- Represented as elements – no longer “relationship designators”
- Includes inverses
- Relationship matrix – 13 x 13 categories
  - Browse all entities and relationships in a two-level hierarchy (domain & range) that places all of the RDA relationships in context

# RDA – Guidance Chapters

- Contain general information, such as
  - Background statements
  - Guidance that applies to more than one element
  - Explanations of concepts and specific terminology
- Some chapters built on text in the original Toolkit; others are brand new
- Designed for various audiences
  - Catalogers
  - Administrators
  - Application developers

## GUIDANCE

Introduction to RDA

Recording methods

Transcription guidelines

Resource description

Application profiles

Aggregates and diachronic works

Manifestation statements

Representative expressions

Use of Nomen Entity

Data provenance

Content and carrier

Terminology

R | D | A  
Resource Description & Access

# Changes with 3R Project

- Organization
  - Data focused, not workflow driven
    - Instead, choose your own adventure!
- Consistent presentation of four recording methods
  - Unstructured, Structured, Identifier, IRI
  - Indication when one or more of them are not applicable
  - Choice of which one(s) to use up to cataloging agencies
- Access points have become elements
  - Three tiers
    - Access point for [manifestation, person, place, etc.]
    - Authorized access point for [expression, agent, timespan, etc.]
    - Variant access point for [work, corporate body, etc.]



# Changes with 3R Project

- Concepts introduced or refined
  - Aggregate and diachronic works
    - Significant impact on serials
    - Instructions under development, with advice from serials experts
  - Manifestation statements
  - Representative expression elements
  - Data provenance
    - Includes sources of information
  - Application profiles
  - Nomen and nomen string
- New terminology and phrasing
  - Including how to present options and exceptions

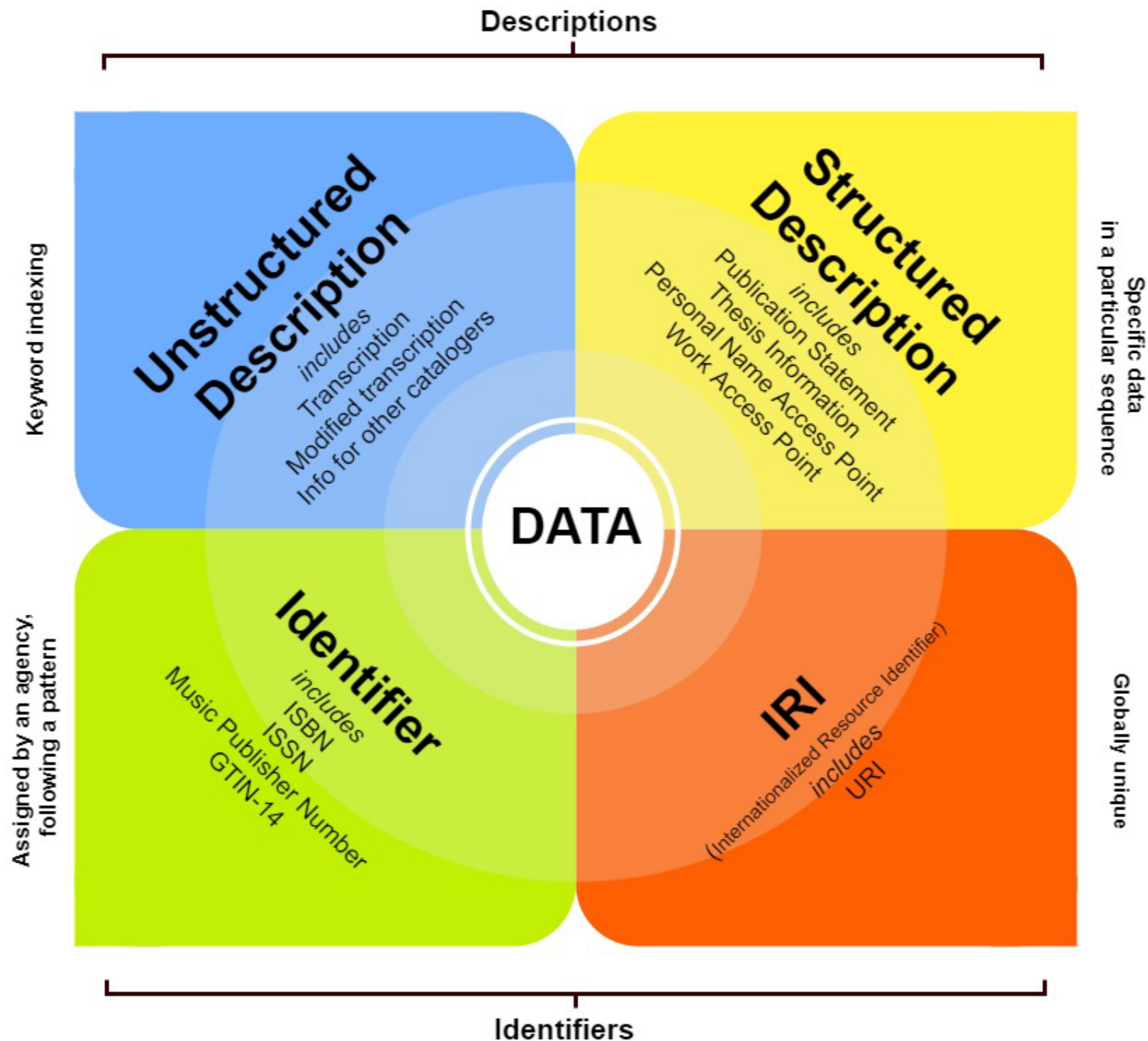
# Changes with 3R Project

- Removal of analytical, hierarchical, and comprehensive descriptions
  - In favor of overall guidance about describing the work in focus
- Elimination of instruction numbers
  - Plan to create “citation numbers” instead
  - These will refer to specific sections in an element chapter
- No more core elements
  - Application profiles and/or policy statements will address this

# Recording Methods

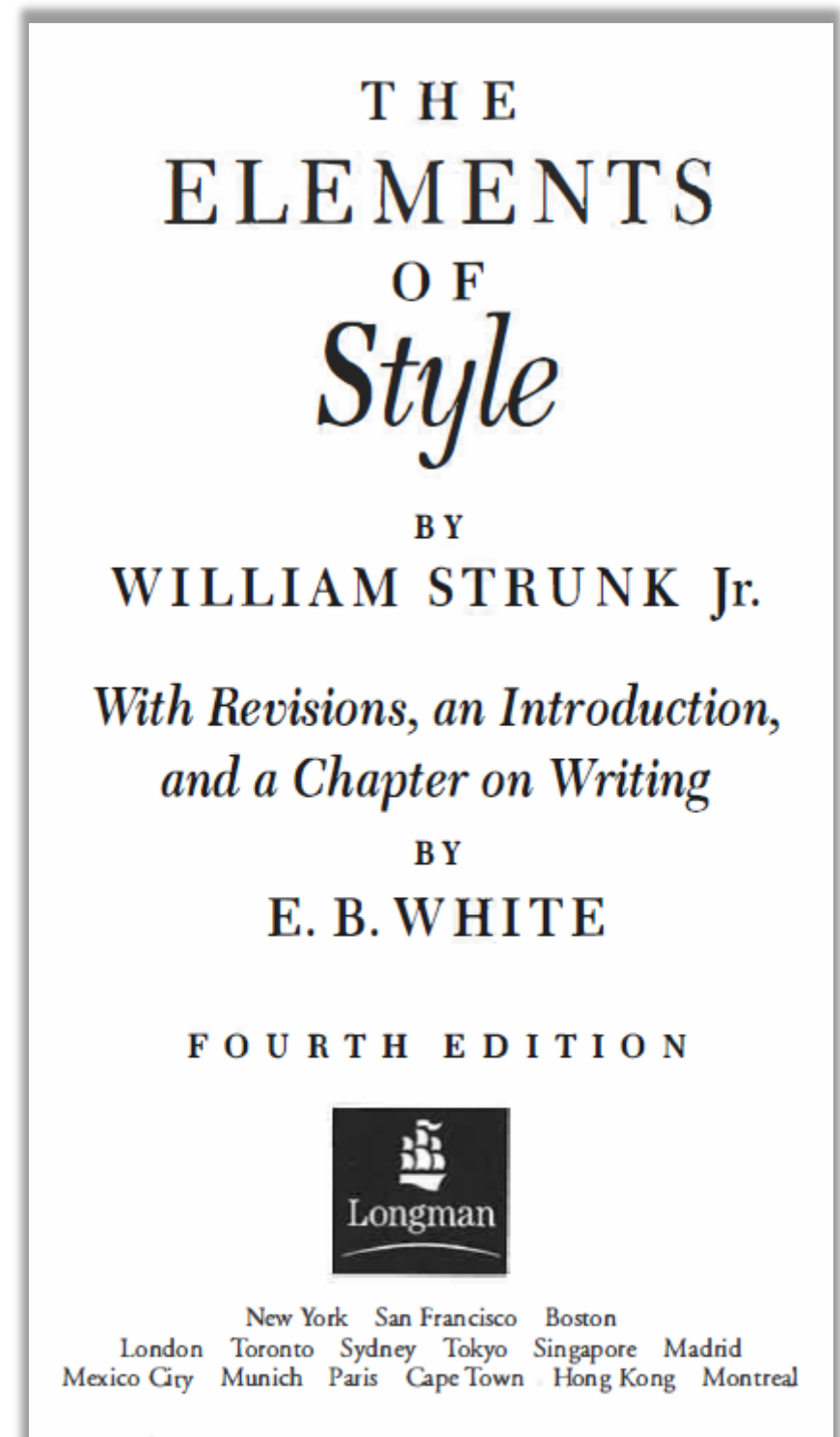
# Recording Methods (4-fold path)

- Four ways to capture data
- Included in every element page
- Flexible – supports:
  - Different implementation scenarios
  - Different approaches (internationalization)
  - Multiple choices within a given cataloging agency
    - Can use more than one, if applicable and desired



# Which Method?

- Unstructured
  - E. B. White [transcribed from title page]
    - May also be recorded as name of person
- Structured
  - White, E. B. (Elwyn Brooks), 1899-1985
    - May also be recorded as authorized access point for person
- Identifier
  - 0000 0001 1028 499X [ISNI]
    - May also be recorded as identifier for person
- IRI
  - <http://viaf.org/viaf/66475004> [VIAF]
    - IRI of person



# Aggregates

# Aggregate Manifestations

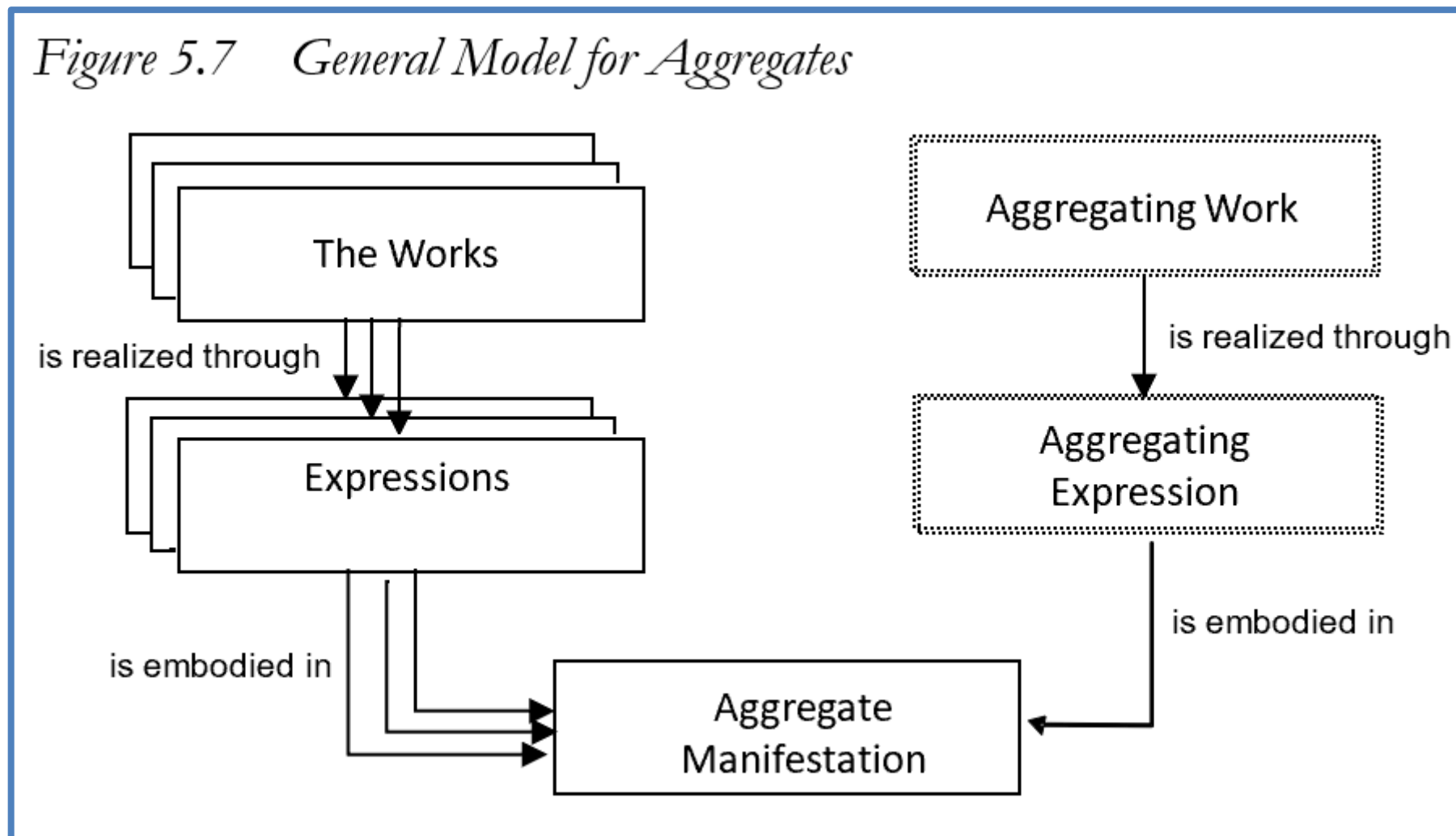
- Three types
  - Collection: gathering of independent works
    - Anthology of short stories
    - Compact disc with multiple works
  - Augmentation: one main work with supplemental work(s)
    - Book with introduction, index, etc.
    - Novel with illustrations
  - Parallel: more than one language expression of the same work
    - Multi-lingual government publications
    - Text in the original language with a translation
    - DVD with a choice of spoken and/or subtitle languages
- An aggregate may consist of more than one type

# An Aggregate Manifestation...

- Has an aggregating expression
  - The selection of the expressions to be published together
  - Not a whole/part relationship
- Which in turn has an aggregating work
  - The plan for selecting the expressions to be published together
  - Creator is responsible for the plan
    - May or may not have creative responsibility for the intellectual content of the works in the resulting manifestation
  - Realized by only one aggregating expression
    - But an aggregating expression can be embodied by more than one manifestation
    - Any change in content means it's a new work



# LRM Model for Aggregates

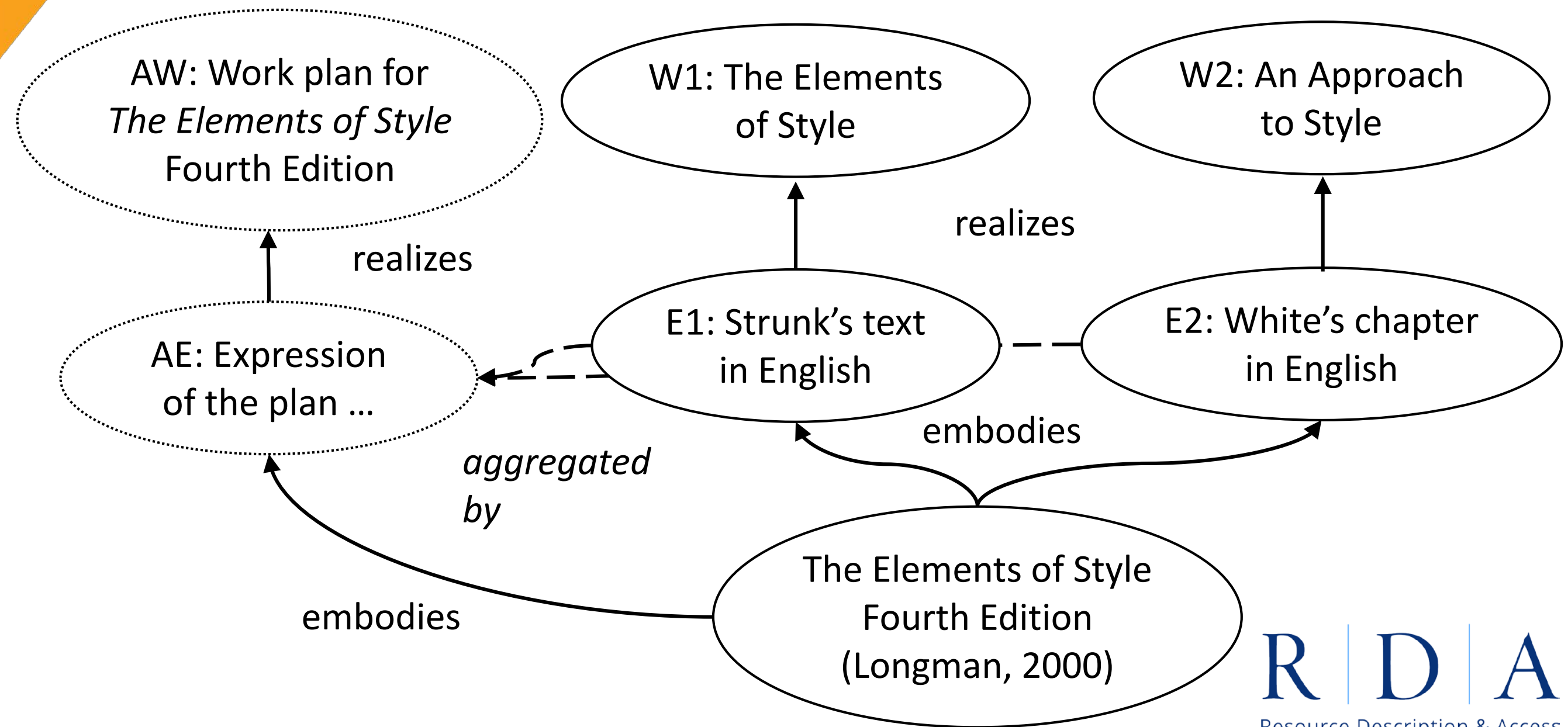


# In Real Life...

- Sometimes the cataloging agency cares about more than one part of the aggregate manifestation (but often not)
  - Contributor is employed by your institution
  - Author of introduction and/or chapter is famous
  - Archival or special collections considerations
- If important, describe the related work, etc.
- If not of great importance, recording methods to the rescue!
  - Unstructured description:
    - Include the information when transcribing the title page, or make a note
  - Structured description:
    - Provide an authorized access point (work, person, etc.)

*With Revisions, an Introduction,  
and a Chapter on Writing*  
BY  
E. B. WHITE

# Elements of Style



# Diachronic works

# Diachronic Works

- Planned to be embodied over time
  - As opposed to static works, which are embodied in a single act of publication
- A new way of categorizing works
  - Different mind set from the familiar multipart monograph, serial, and integrating resource
  - Instead, three new concepts
    - Extension requirement: essential vs. inessential
    - Extension mode: integration/replacement vs. accumulation/succession
    - Extension termination: predetermined end vs. ongoing

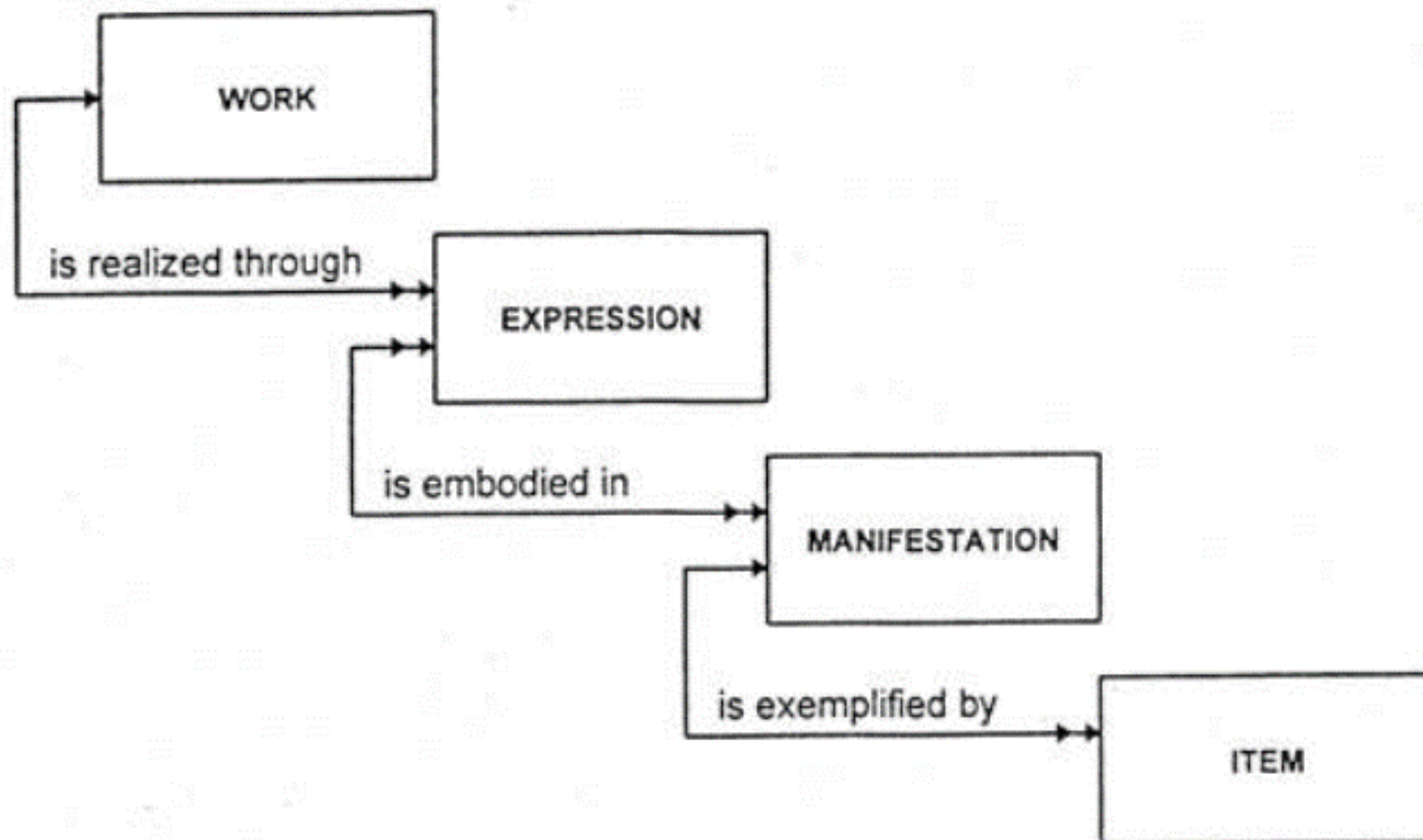
# New Element – Extension Plan

- Categorization that reflects intention to extend content of work
  - Integrating determinate plan
    - Example: conference website
  - Integrating indeterminate plan
    - Example: ongoing wiki
  - Successive determinate plan
    - Example: serialized version of novel
  - Successive indeterminate plan (serial work plan)
    - Example: newsletter
  - Static plan
    - Example: novel in one volume

# Diachronic Works

- Concept applies to more than just serials
  - Includes multipart monographs that are not complete when first published
    - The complete poetical works / Lord Byron ; edited by Jerome J. McGann: 7 volumes, 1980-1993
  - But not all multipart monographs are diachronic
    - The winning of the West / by Theodore Roosevelt: 4 volumes, [2004]

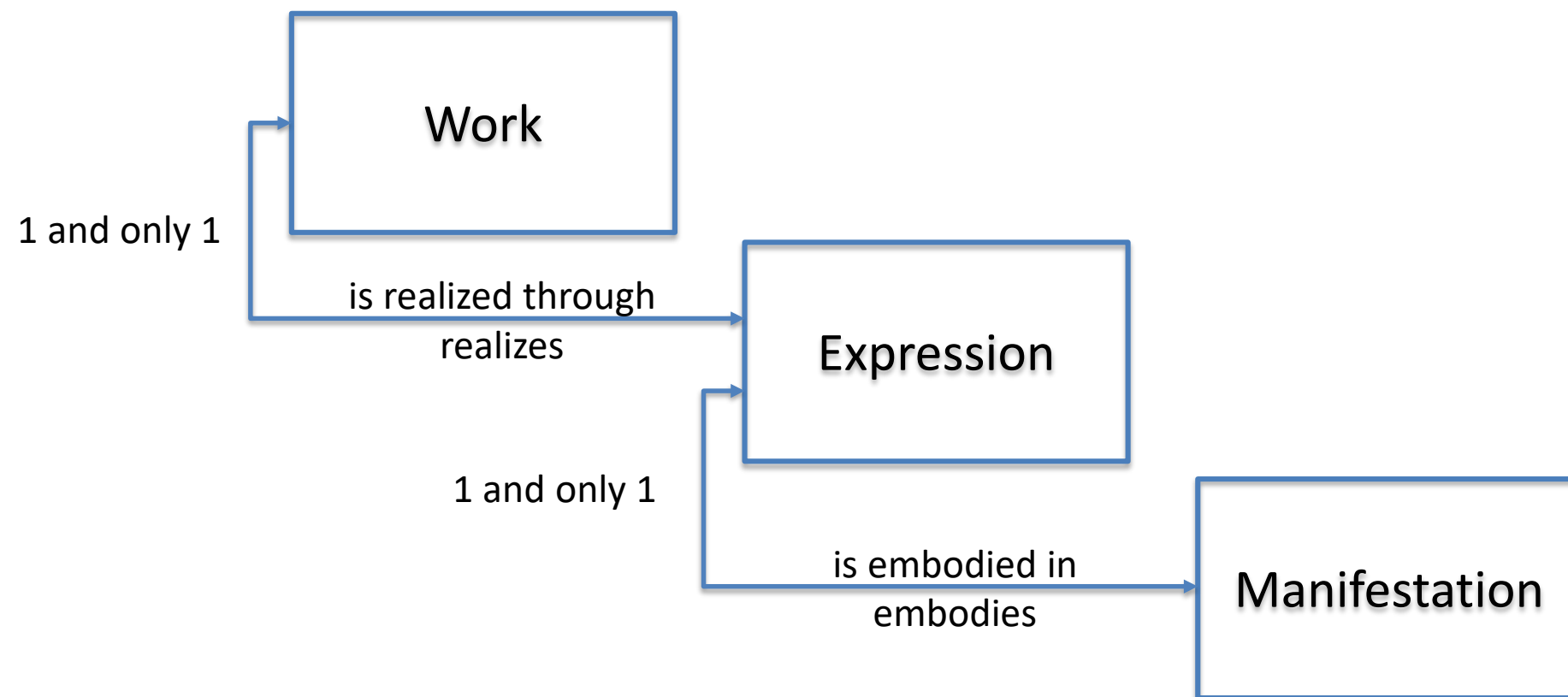
# WEMI Relationships (FRBR)





# WEM Lock – Diachronic Works

- Diachronic plan creates one-to-one links between Work, Expression, and Manifestation



# Challenges with Serials

- A change in plan = New work
  - Different carrier types
  - Regional editions
  - Translations
  - Cessation of the print version in favor of the online version
- But these different works are still closely related
  - RDA introducing new concept of “work group”
    - A group of two or more works that have a common appellation assigned from a vocabulary encoding scheme [such as an authority file]
    - Will allow collocation of serial works in the same “family”
  - ISSN-L already functions in this way

# Challenges with Serials

- In many cases, serials are aggregates of aggregates
  - An issue contains different articles
  - The serial consists of many issues
- RDA uses three high-level relationships from LRM to model the complexity of serials – implemented as elements in RDA
  - Work-Work relationships
    - LRM-R19 precedes [logical, not chronological]
    - LRM-R22 was transformed into [by policy, etc.]
  - Expression-Expression relationship
    - LRM-R25 was aggregated by

# Options

# Why So Many Options?

- Internationalization
  - No single way to describe and access a resource
- Four different recording methods
  - Two or more are valid for many elements
    - Choice depends in part on local cataloging environment
- Nothing is mandatory
  - Except “nomen string” – the combination of signs that forms an appellation associated with an entity

# Evolution of Options

## Original Toolkit

- *Alternative*: a different approach to what is called for in the preceding instruction
- *Optional addition*: data that supplements what is called for in the preceding instruction
- *Optional omission*: ability to omit specific data called for in the preceding instruction
- *Exception*: takes precedence over the preceding instruction
- Policy statements often provide guidance about which of these to apply

## Beta Toolkit

- Option
  - Optional guidelines and instructions (covers *optional additions/omissions*)
  - Different choice for the same set of conditions (covers *alternatives*)
  - Different set of conditions (covers *exceptions*)
- Conditions
  - Many instructions apply only when one or more conditions are met
- Application profiles or policy statements provide guidance about which to apply

# Original Toolkit Example

## 2.10.4.4 Statement of Function

Record words or phrases indicating the function performed by an agent as they appear on the source of information.

### EXAMPLE

Manufactured and marketed by PolyGram Video, a division of PolyGram Records, Inc.

### *Optional Addition* **LC-PCC PS**

If the function of an agent recorded as a manufacturer's name is not explicit or clear, add a term indicating the function. Indicate that the information was taken from a source outside the manifestation itself (see [2.2.4 RDA](#)).

# Beta Toolkit Example

name of agent of manifestation

...

**Statement of function**

## **OPTION**

Include words or phrases indicating the function performed by an agent as they appear on the manifestation.

## **CONDITION**

A function is performed by an agent that is not explicit or clear.

## **OPTION**

Add a term indicating the function.

Indicate that the information was not taken from the manifestation itself.



# Application Profiles

# Purpose

- Manages the choices – what to record
  - Mandatory elements
  - Recommended elements
  - Repeatability
  - Vocabularies
  - Recording method(s)
  - Which options to apply
- Differs in part from policy statements – if they offer...
  - Guidance about how to record
  - Supplemental information
  - Examples

# Application Profiles in the New Toolkit

- Multiple ways to implement
  - Bookmarks and notes (in your institutional subscription)
  - Policy statements (linked to instructions)
  - Workflows and other user documentation (can be shared locally or globally)
  - External documents

For More Information



# Helpful Resources

- RDA Beta Toolkit: <https://beta.rdatoolkit.org/RDA.Web>
- RDA Toolkit website: <https://www.rdatoolkit.org/>
  - 3R Project website: <http://www.rdatoolkit.org/3Rproject>
- RDA Steering Committee: <http://www.rda-rsc.org/>
  - Presentations: <http://www.rda-rsc.org/rscpresentations>
  - Documents: <http://www.rda-rsc.org/documents>
  - 3R Project FAQ: <http://rda-rsc.org/node/551>
- IFLA Library Reference Model
  - [https://www.ifla.org/files/assets/cataloguing/frbr-lrm/ifla-lrm-august-2017\\_rev201712.pdf](https://www.ifla.org/files/assets/cataloguing/frbr-lrm/ifla-lrm-august-2017_rev201712.pdf)



# Questions?

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