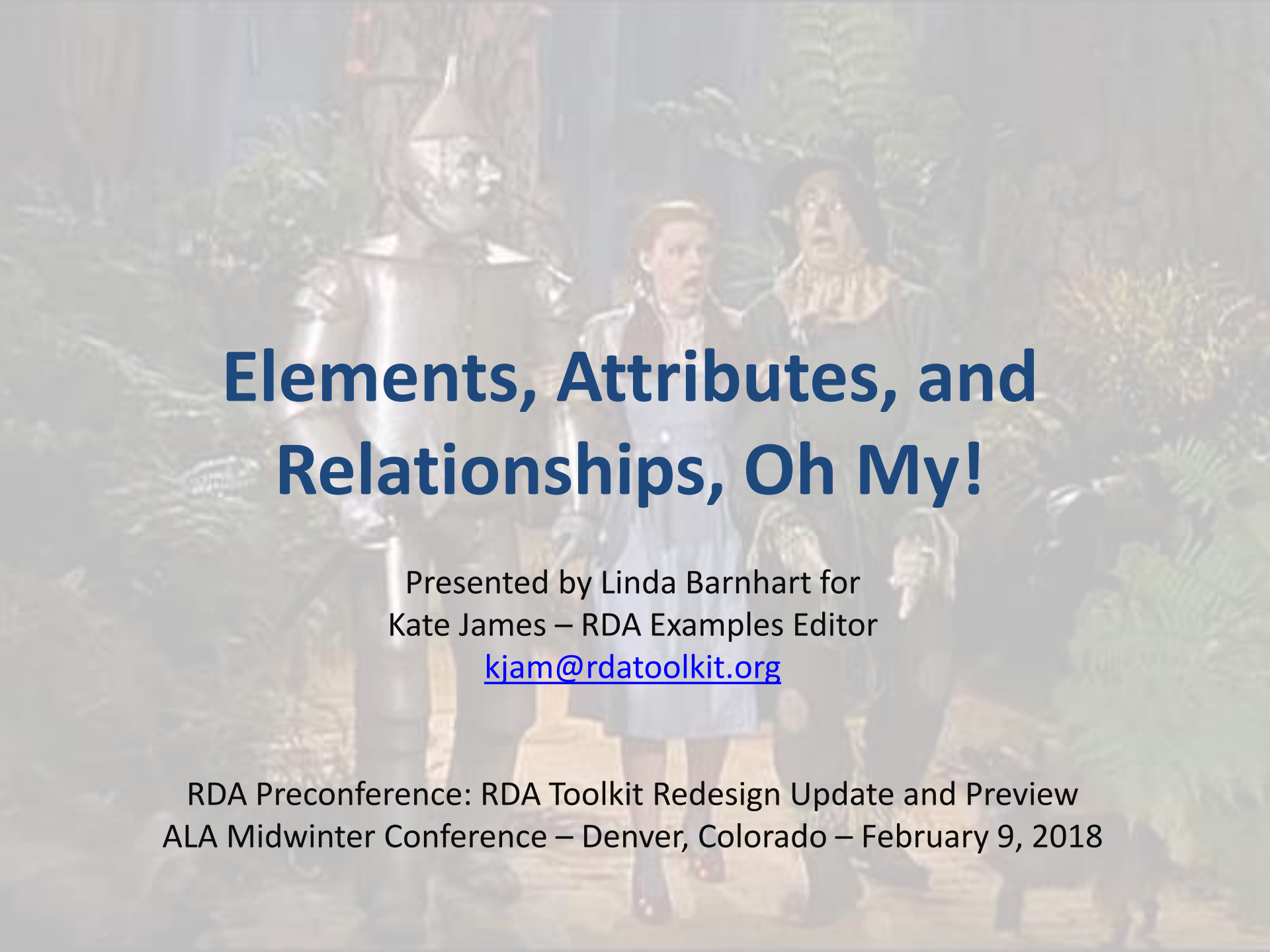

# Elements, Attributes, and Relationships, Oh My!

Presented by Linda Barnhart for
Kate James – RDA Examples Editor
kjam@rdatoolkit.org

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# Vocabulary

- Domain and Range
- Element
- Attribute
- Relationship

# Domain and Range

- Domain: entity that the element belongs to
- Range: entity that a relationship element points to
- The RDA Registry pattern for label definitions is "*Relates a/an {domain entity} to {Toolkit definition}*"
  - Definitions for relationship designators have range entity as part of definition

RDA Registry Elements Values Data Tools Releases About R|D|A TOOLKIT

# RDA element sets

## Agent properties

The Agent properties element set consists of properties representing attributes and relationsh
entities.

Each prop

- has
- is li
  rdfs
- is li
  rdfs

| | |
|---|---|
| Number | |
| Namesp | |
| Suggested prefix: | rdaa |
| Example curie (canonical)*: | rdaa:P50026 |
| Example curie (lexical)*: | rdaa:employee |
| Changelog feed: | Atom \| RDF |

*All RDA URIs have both an immutable canonical form and a "readable", lexical form, which is subject to change (changes will be redirected).

Downloads

- HTML (Open Metadata Registry)

| | | |
|---|---|---|
| rdaa:P50029 | "has founder" | "Relates a corporate body to a person who founded a body." |
| rdaa:P50030 | "has member" | "Relates a corporate body to a person who is a member of a corporate body." |
| rdaa:P50031 | "has place associated with corporate body" | "Relates a corporate body to a significant loca n associated with a" |
| rdaa:P50032 | "has name of corporate body" | "Relates a corporate body to a word, character, or group of words and/or characters by which a corporate body is known." |

Domain

Toolkit definition

Range given in definition

Norwegian Spanish Swedish

## Properties Index

# What is an Element?

- RDA Glossary: “a word, character or group of words and/or characters representing a distinct unit of bibliographic information”

- RDA 0.2.2: “The RDA data elements for describing a resource generally reflect the **attributes and relationships** associated with the entities work, expression, manifestation, and item, as defined in FRBR.”

# What is an Attribute?

- Mentioned over 50 times in RDA, but never defined
- FRBR: “The attributes of the entity serve as the means by which users formulate queries and interpret responses when seeking information about a particular entity.”
- IFLA LRM: “a type of data which characterizes specific instances of an entity”

# What is a Relationship?

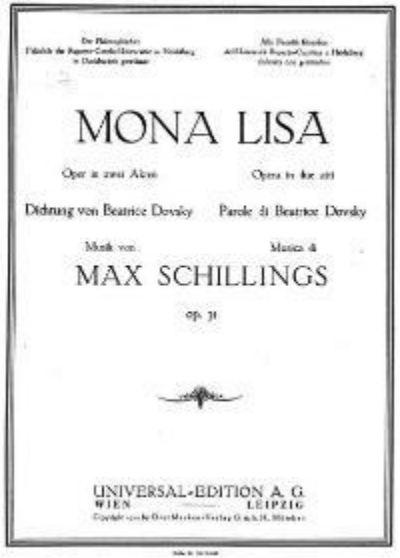
- Never defined in RDA
- FRBR: "… relationships serve as the vehicle for depicting the link between one entity and another, and thus as the means of assisting the user to 'navigate' the universe that is represented in a bibliography, catalogue, or bibliographic database."
- IFLA LRM: "a connection between instances of entities"

# Identifying an Entity

- Which Mona Lisa?

- Attribute
  - Mona Lisa
    - *Form of work:* Painting
    - *Form of work:* Opera

- Relationship
  - Mona Lisa
    - *Artist:* Leonardo, da Vinci
    - *Composer:* Schillings, Max von



# Attribute=Relationship?

- FRAD: “In certain instances, the model treats an association between one entity and another simply as an attribute of the first entity. For example, the association between a *person* and the *place* in which the person was born could be expressed logically by defining a relationship (‘born in’) between *person* and *place*.”
- In short, when one entity is recorded as an attribute of another, there is a relationship

# Example—Current

- **Attribute (RDA 11.5)**
  - **Corporate body:** Renwick Gallery
  - **Associated institution:** Smithsonian American Art Museum
  - Smithsonian American Art Museum *has associated institution* Renwick Gallery
- **Relationship (RDA 32.1)**
  - Renwick Gallery
  - *Hierarchical superior:* Smithsonian American Art Museum
  - Renwick Gallery *has hierarchical superior* Smithsonian American Art Museum

Renwick Gallery *has related corporate body (corporate body)* Smithsonian American Art Museum

# Example—Future

- **Attribute (associated institution)**
  - **Corporate body:** Renwick Gallery
  - **Associated institution:** Smithsonian American Art Museum
  - Smithsonian American Art Museum *has associated institution* Renwick Gallery
- **Relationship (related corporate body)**
  - Renwick Gallery
  - *Hierarchical superior:* Smithsonian American Art Museum
  - Renwick Gallery *has hierarchical superior* Smithsonian American Art Museum

Renwick Gallery *has related corporate body of corporate body* Smithsonian American Art Museum

# Attribute as Relationship

- RDA Registry Labels
  - Mona Lisa *has form of work* opera
    - From RDA attribute **form of work**
  - Mona Lisa *has creator* Max von Schillings
    - From RDA relationship **creator**

***or***

  - Mona Lisa *has composer* Max von Schillings
    - From RDA relationship designator **composer**

# RDA and RDF

- Resource Description and Access
- domain-registry label-range
  - Zero dark thirty *has film director* Bigelow, Kathryn

- Resource Description Framework
- subject-predicate-object
  - Zero dark thirty *has film director* Bigelow, Kathryn

http://id.loc.gov/authorities/names/no2013021406
http://www.rdaregistry.info/Elements/w/#P10013
http://id.loc.gov/authorities/names/no96020291

# RDA Registry Labels

- Distinction between attributes and relationships is meaningless when using RDA Registry Labels
  - Mona Lisa *has form of work* opera
  - Mona Lisa *has creator* Max von Schillings

  ***or***

  - Mona Lisa *has composer* Max von Schillings

# 3R Redesign

- Attributes and relationships (including relationship designators) will be listed together as RDA elements for each entity
  - Work
    - adaptation of work
    - author
    - composer
    - creator
    - date of work
    - director
    - expression of work
    - film director
    - form of work

# Implications

- Every relationship designator is an element in its own right
  - Shown in the RDA Registry already
- Relationships can be part of an authorized access point
  - Austen, Jane, 1775–1817. Emma
  - S. Dillon Ripley Center (Smithsonian Institution)
  - Turner, Chris (Author of All hat and no cattle)
  - Austen, Jane, 1775–1817

# Why?

- Easier to understand which entity relationships and attributes belong to
- New entity timespan makes current attributes relationships
- Attributes are expressed as relationships in linked data

# Element Inverses

Manifestation *has copyright date* Timespan

Timespan *is copyright date of* Manifestation

*copyright date*

*copyright date of*

Work *has creator* Person

Person *is creator of* Work

*creator*

*creator of*