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Hello BIBFRAME 2.0: Changes from 1.0 and Possible Directions for the Future

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HELLO BIBFRAME 2.0: CHANGES FROM 1.0 AND POSSIBLE DIRECTIONS FOR THE FUTURE

Presented by Angela Kroeger, University of Nebraska at Omaha

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Hello BIBFRAME 2.0: Changes from 1.0 and Possible Directions for the Future

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NLA/NSLA Annual Conference

Omaha, Nebraska

October 20, 2016

BIBFRAME is . . .

- A data model for resource description
- Linked data (RDF)
- Not based on RDA or FRBR, but mostly compatible with them
- Still not finished, but getting closer
- One hailstone in a metadata maelstrom

BIBFRAME is intended to . . .

- Replace MARC
- Break apart the bibliographic record into atomistic metadata statements
- Play well with other metadata standards
- Make library resources more easily discoverable on the open web

BIBFRAME Development

- 2012 – Data model released to public
- 2013 – Early experimenters
 - Vocabulary testing, transformation tools
- 2014 – Implementation Testbed
 - Stable RDF vocabulary, refined transformation, draft specifications, input tools
- 2015 – Library of Congress pilot project
 - Profile editor and new search tools
- And then, a few upheavals

BIBFRAME Upheavals

- Library of Congress and Zepheira went their separate ways, pursuing variant models, vocabularies, and tools.
 - Library of Congress: BIBFRAME 2.0 <http://www.loc.gov/bibframe/docs/index.html>
 - Zepheira: Bibframe Lite <http://bibfra.me/>
- BIBFRAME 2.0 draft specifications released in October 2015.
 - Significant changes in core classes, vocabularies, and specifications.

RDF Statements, aka Triples

RDF

subject—predicate—object

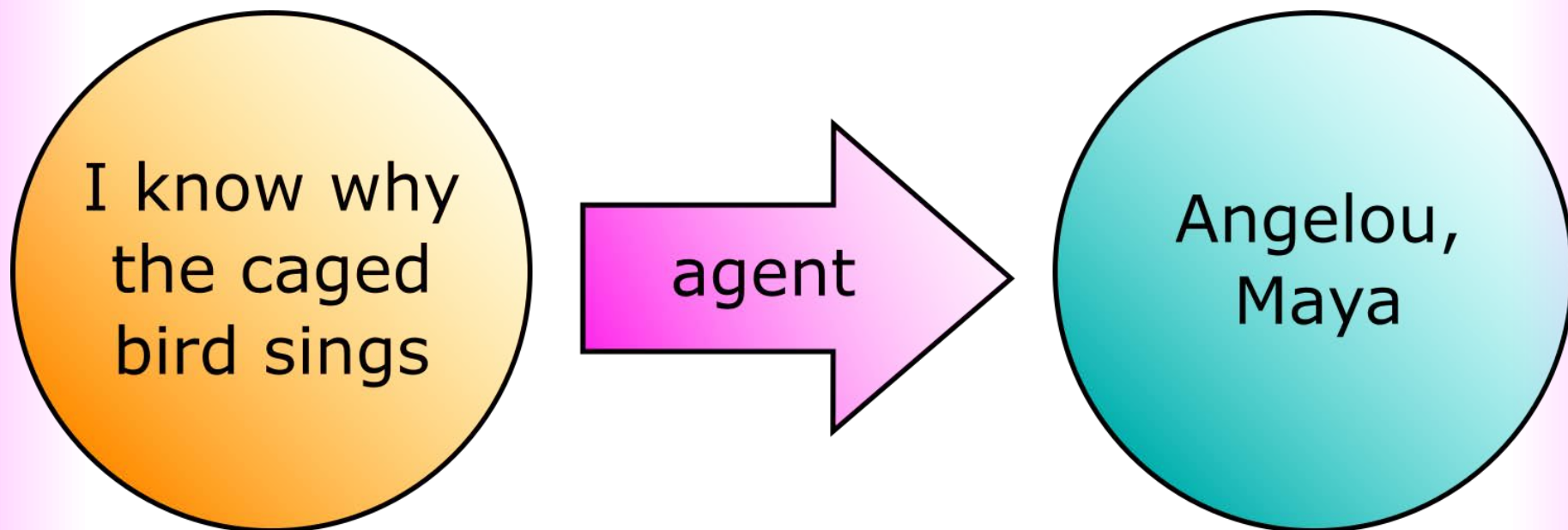
FRBR

entity—relationship—attribute

BIBFRAME

resource—relationship—property

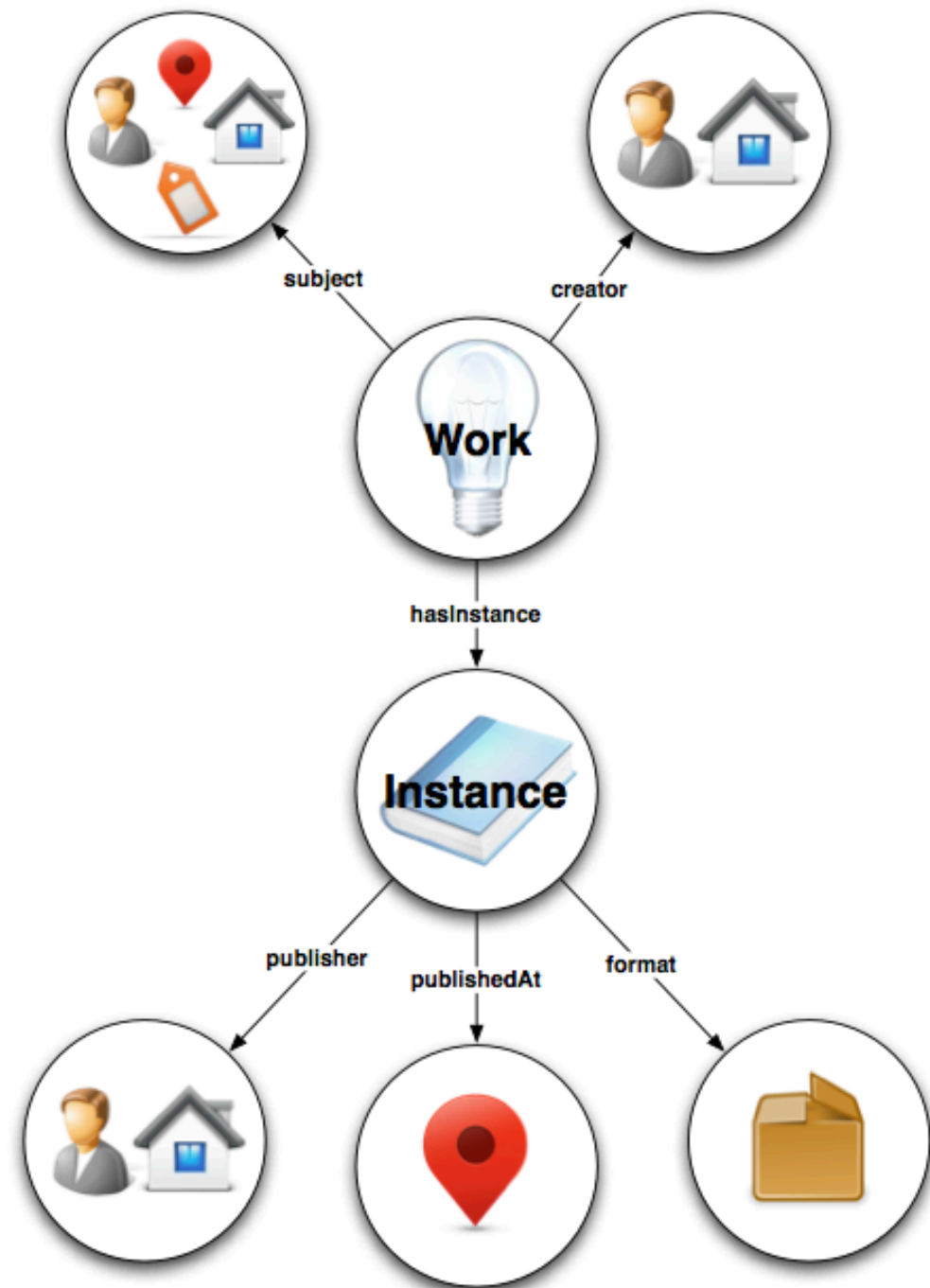
Subject - Predicate - Object



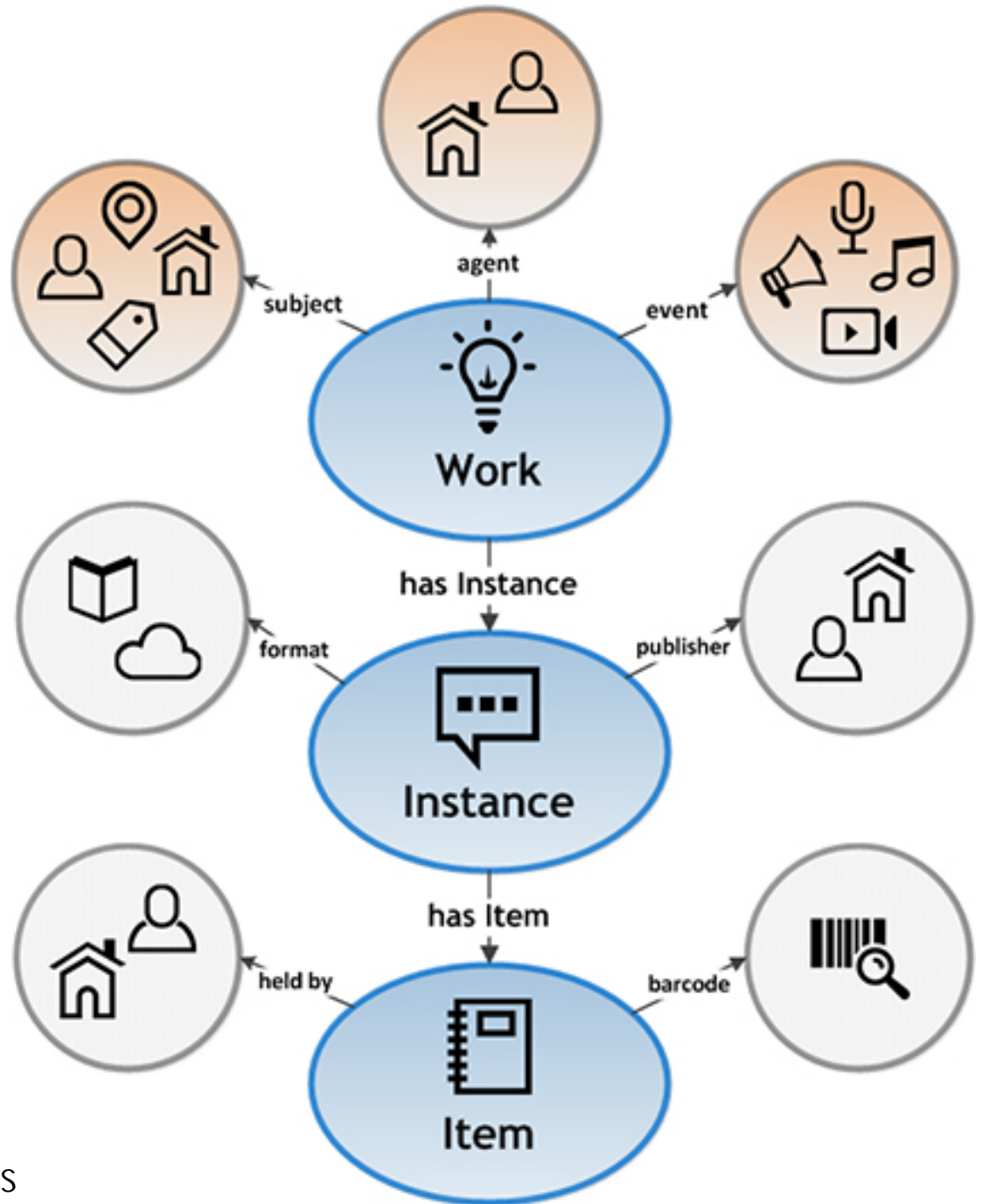
LC Linked Data Service

- <http://id.loc.gov/>
- Home of more than LC name and subject authorities
- BIBFRAME 2.0 ontology located here
- Many other available datasets, vocabularies, schemes and codesets suitable for use with BIBFRAME

BIBFRAME 1.0 MODEL



BIBFRAME 2.0 MODEL



Source: Library of Congress

BIBFRAME 1.0 Core Classes

- Creative Work
 - = FRBR Work + FRBR Expression
 - Properties applicable to all editions and formats
- Instance
 - = FRBR Manifestation
 - Properties specific to one edition or format
- Authority
 - Agent, place, temporal, or topic
- Annotation
 - = FRBR Item + a whole lot of other stuff
 - Summaries, reviews, holding information, etc.

BIBFRAME 2.0 Core Classes

- Work
 - = FRBR Work + FRBR Expression (no change)
 - Properties applicable to all editions and formats
- Instance
 - = FRBR Manifestation (no change)
 - Properties specific to one edition or format
- Item
 - = FRBR Item (huuuuuge change)
 - Properties specific to a single copy

Holdings Information in BIBFRAME 1.0

- HeldMaterial was a subclass of Annotation
 - Properties applied to every copy of an Instance owned by the library
- HeldItem was a subclass of HeldMaterial
 - Unique, copy-specific information
 - Here was the FRBR Item entity, an annotation of an annotation

Holdings Information in BIBFRAME 2.0

- bf:Item is a core class, not an annotation
- bf:Item can be simple (representing a single thing) or compound (representing components of a multipart thing)

BIBFRAME 2.0 Key Concepts

- Agents
 - People, organizations, or jurisdictions with some relationship to a Work or Instance (e.g.: author, illustrator, translator, publisher, etc.)
- Subjects
 - Topical, temporal, geographic, etc.
 - Includes Works, Instance, Items, Agents, Events, etc.
- Events
 - Any human or natural activity that is recorded and may serve as the content of a Work.

Events

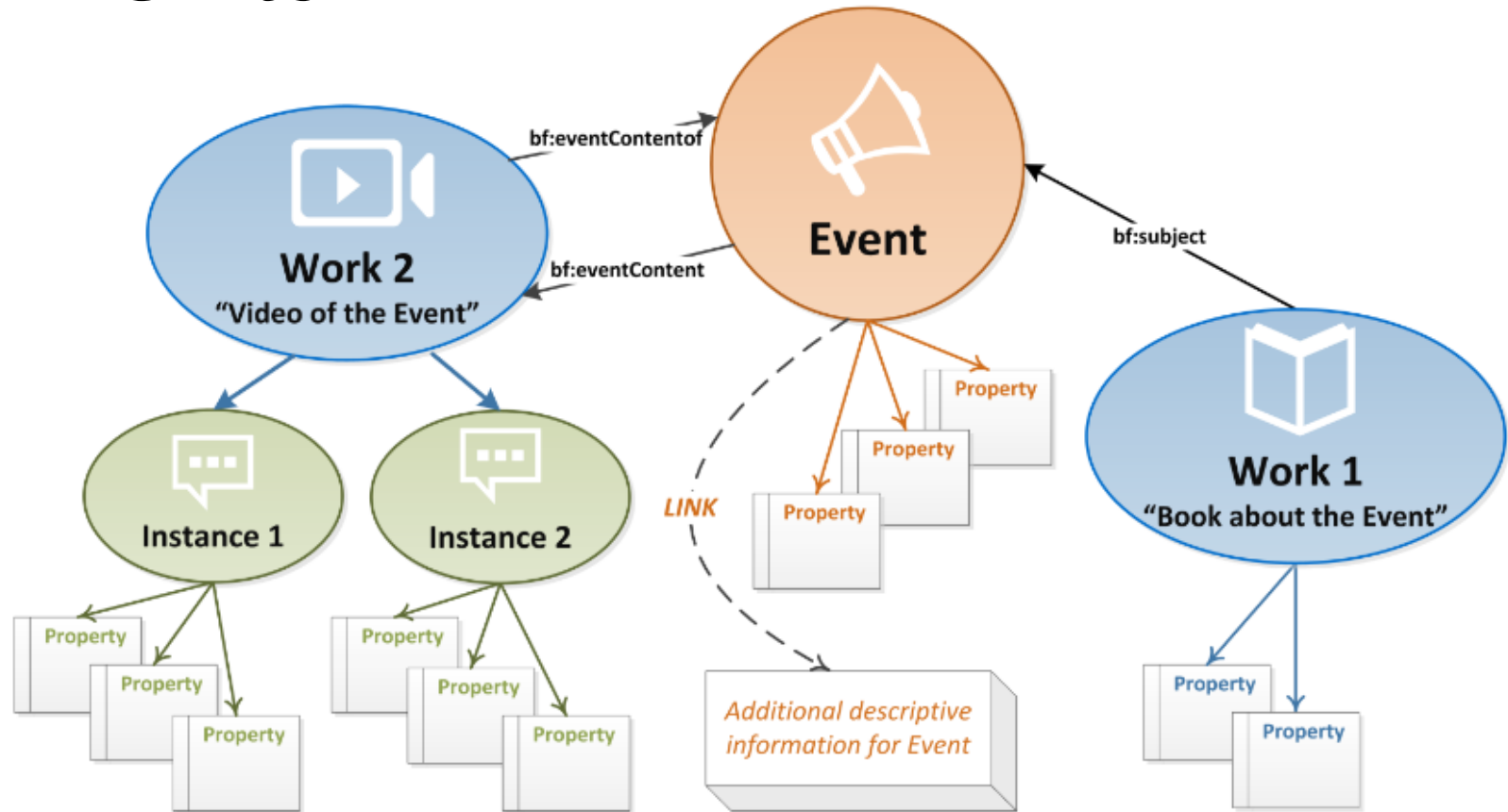
- Events are modeled as Works
- Events have relationships to Works (bf:eventContent and bf:eventContentOf)
- Event content may or may not be creative content

Source:

United States Library of Congress. "BIBFRAME 2.0 Events." Draft specifications written for the Library of Congress, Washington, D.C., October 20, 2015.

<http://www.loc.gov/bibframe/docs/pdf/bf2-draftspecevents-10-29-2015.pdf>

Events

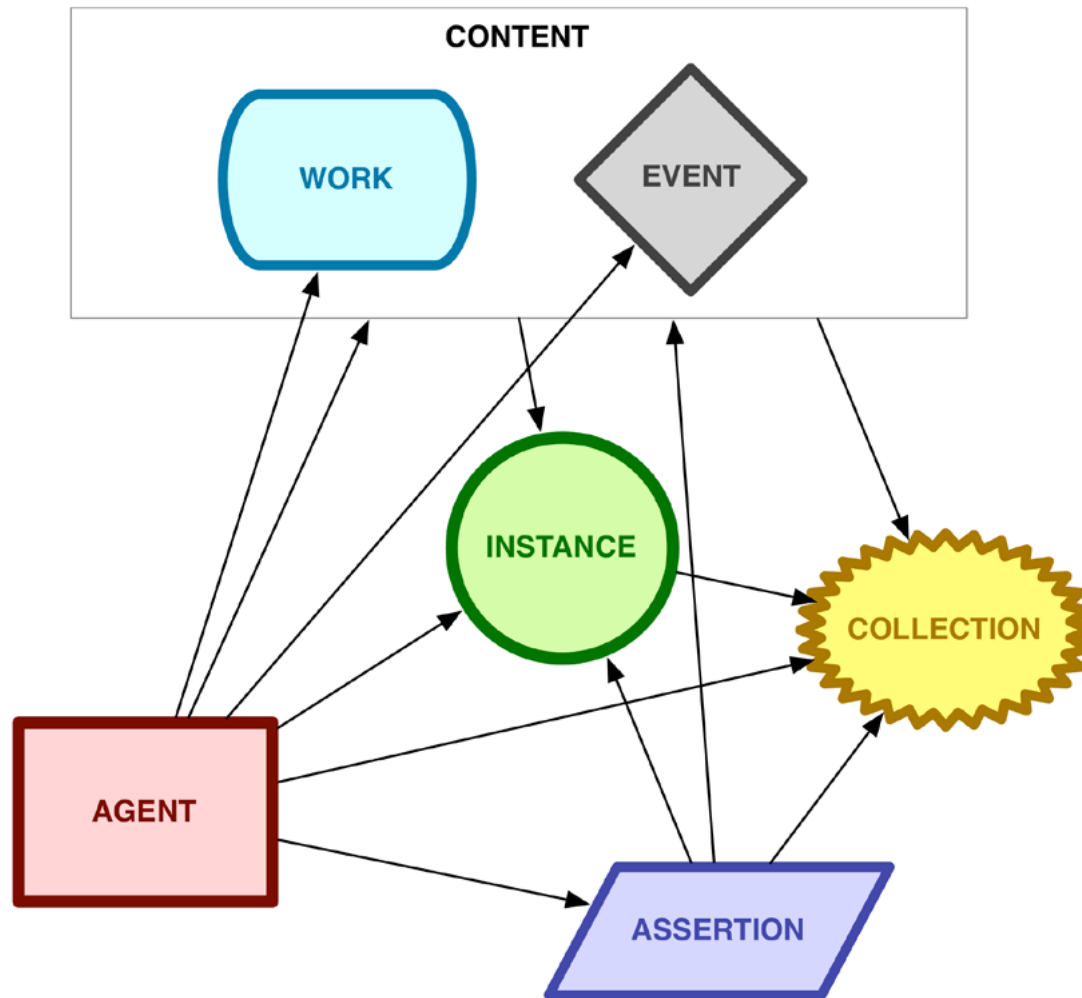


Source:

United States Library of Congress. "BIBFRAME 2.0 Events." Draft specifications written for the Library of Congress, Washington, D.C., October 20, 2015.

<http://www.loc.gov/bibframe/docs/pdf/bf2-draftspecevents-10-29-2015.pdf>

AV Modeling Study: Content Data Description Model



Source:

Van Malssen, Kara, with Caitlin Hunter and Andrea Leigh. "BIBFRAME AV Modeling Study: Defining a Flexible Model for Description of Audiovisual Resources." Model analysis, Library of Congress, Washington, D.C., May 15, 2014.

<http://www.loc.gov/bibframe/pdf/bibframe-avmodelingstudy-may15-2014.pdf>

Official BIBFRAME Website

<http://www.loc.gov/bibframe/>

Delete your bookmark

~~<http://bibframe.org/>~~

Bibframe Lite (Zepheira)

<http://bibfra.me/>

Bibframe Lite

- 22 classes (compared to 66)
- 59 properties (compared to 138)
- Bibframe Lite was developed from BIBFRAME 1.0, but its focus on Events and Agents does kind of anticipate some of the BIBFRAME 2.0 changes.

Two Editors, Two Different Approaches

- BIBFRAME Editor (Library of Congress)
 - <http://bibframe.org/tools/editor/>
 - Detailed workform
 - Geared toward trained catalogers
- BIBFRAME Scribe (Zepheira)
 - <http://editor.bibframe.zepheira.com/static/>
 - Simplified workform
 - Usable by non-catalogers

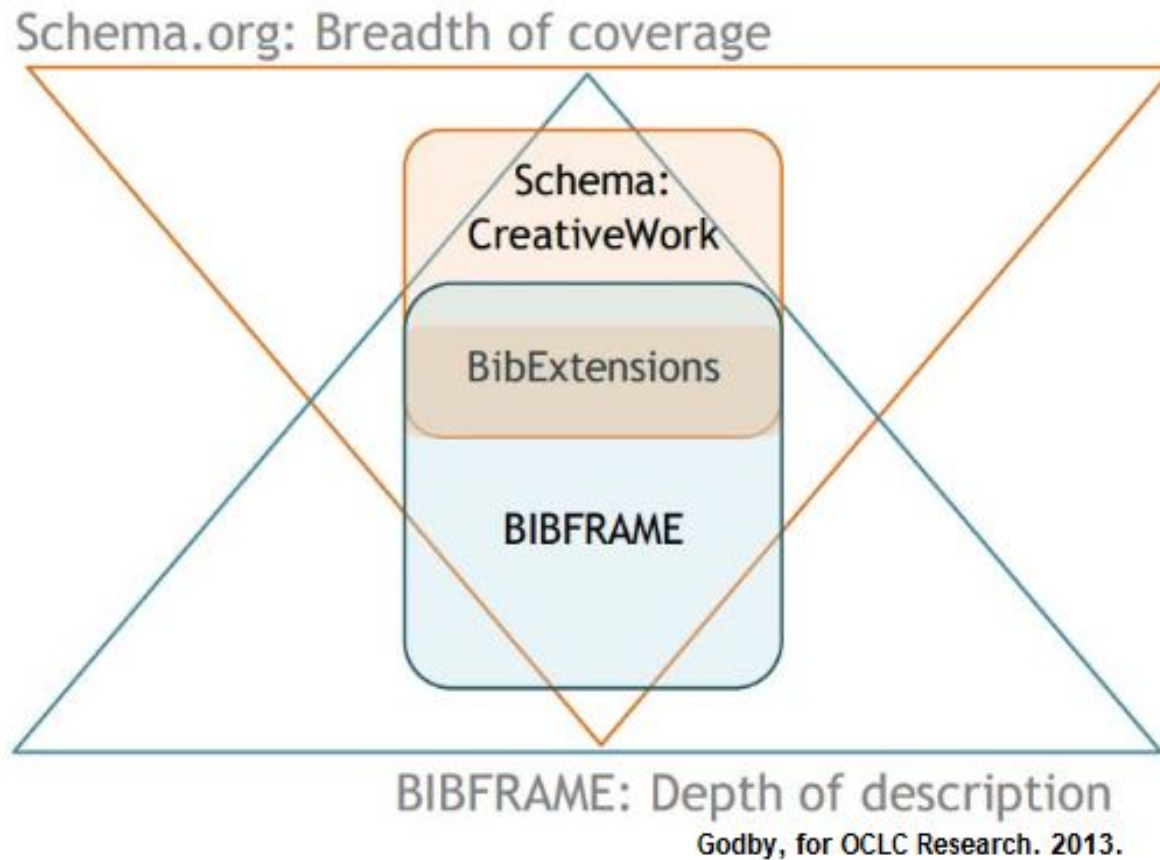
BIBFRAME and Schema.org

- OCLC and W3C Schema Bib Extend Community Group's Schema.org extension vocabulary evolved into BiblioGraph.net
- LC and OCLC are working toward one another
- BIBFRAME for description, curation, and data exchange
- Schema.org for discovery via common search engines

Source:

Godby, Carol Jean, and Ray Denenberg. "Common Ground: Exploring Compatibilities Between the Linked Data Models of the Library of Congress and OCLC." White paper, Library of Congress and OCLC Research, Dublin, Ohio, January 2015. <http://www.oclc.org/research/publications/2015/oclcresearch-loc-linked-data-2015.html>

BIBFRAME and Schema.org



Source:

Godby, Carol Jean, and Ray Denenberg. "Common Ground: Exploring Compatibilities Between the Linked Data Models of the Library of Congress and OCLC." White paper, Library of Congress and OCLC Research, Dublin, Ohio, January 2015. <http://www.oclc.org/research/publications/2015/oclcresearch-loc-linked-data-2015.html>

Mixing Metadata

- For Audio/Visual resources, BIBFRAME is insufficiently granular
- Rather than reinventing the wheel with BIBFRAME, resource descriptions could be composed of mixed metadata
- Example: a BIBFRAME resource description could include PREMIS preservation metadata
- Other RDF ontologies could be employed to fill gaps in BIBFRAME

Source:

Lyons, Bertram, and Van Malssen, Kara. "BIBFRAME AV Assessment: Technical, Structural, and Preservation Metadata." (revised January 4, 2016).

<http://www.loc.gov/bibframe/docs/pdf/bf-avtechstudy-01-04-2016.pdf>

BIBFRAME AV Assessment

- Preservation Metadata
 - PREMIS
- Structural Metadata
 - AV files are complex, may include multiple tracks (audio, video, captions, etc.)
 - Each bitstream may have different characteristics (e.g.: frame rate, aspect ratio, sampling rate, etc.)
- Technical Metadata
 - May be wise to use different standards for different formats (e.g.: MLA for music, FIAF for film, etc.)

Source:

Lyons, Bertram, and Van Malssen, Kara. "BIBFRAME AV Assessment: Technical, Structural, and Preservation Metadata." (revised January 4, 2016).

<http://www.loc.gov/bibframe/docs/pdf/bf-avtechstudy-01-04-2016.pdf>

BIBFRAME 2.0 + schema.org + PREMIS + . . .

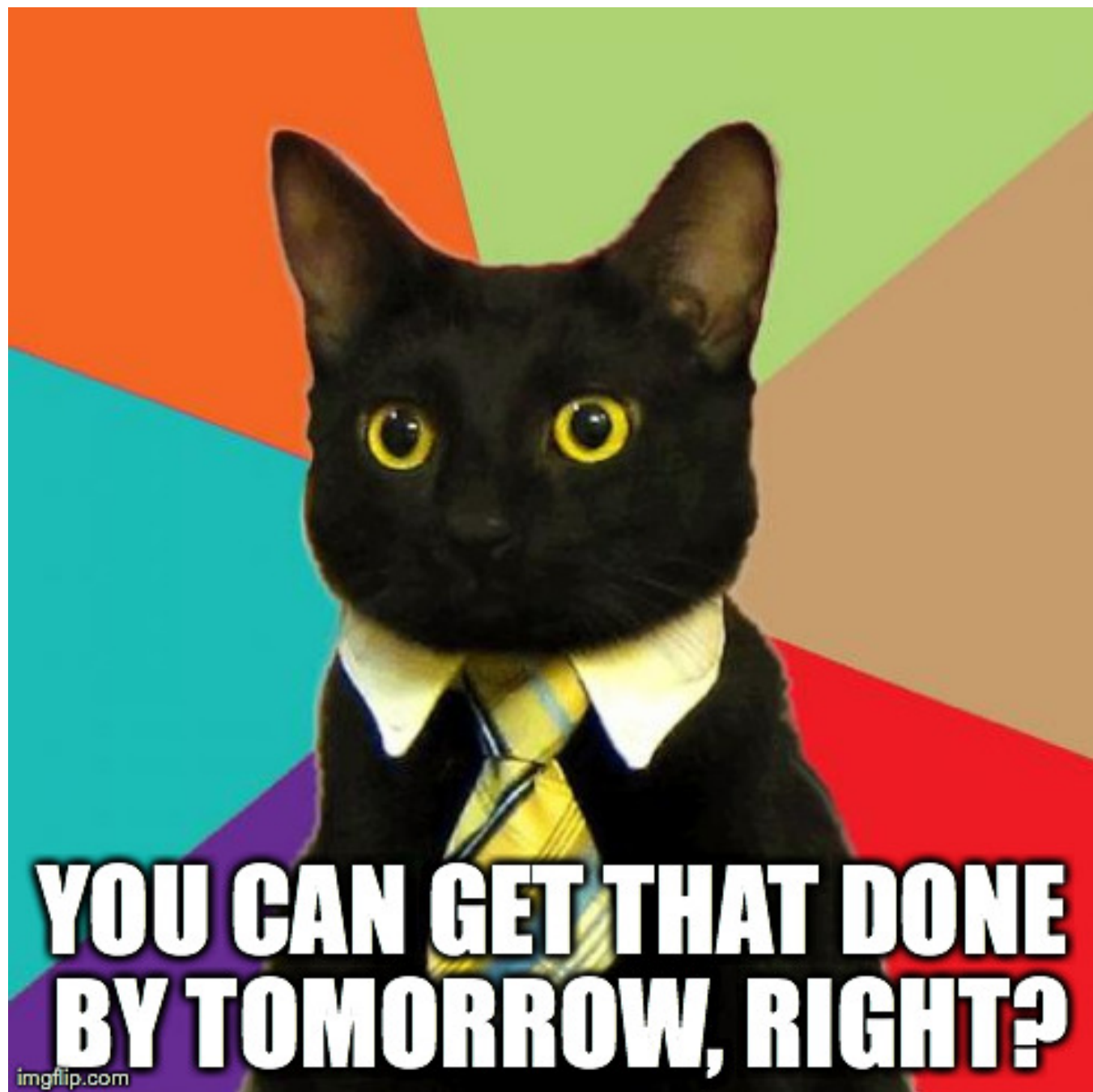
- In theory, infinitely modular and extensible resource description
- Pragmatically, as modular and extensible as we are willing to allow it to be
- In practice, as modular and extensible as we are capable of supporting

BIBFRAME 2.0 + schema.org + PREMIS + . . .

- Dependence on standards and vocabularies from external communities
- Trust?

BIBFRAME 2.0 is . . .

- Maturing
- Linking up with other metadata standards
- Still not inevitable
- But starting to really take shape



**YOU CAN GET THAT DONE
BY TOMORROW, RIGHT?**

Selected and Condensed Bibliography

- Godby, Carol Jean, and Ray Denenberg. "Common Ground: Exploring Compatibilities Between the Linked Data Models of the Library of Congress and OCLC." White paper, Library of Congress and OCLC Research, Dublin, Ohio, January 2015.
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<http://www.loc.gov/bibframe/docs/pdf/bf-avtechstudy-01-04-2016.pdf>
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Extended bibliography available via email upon request.

Thank you!

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<http://dx.doi.org/10.1080/01639374.2013.823584>

or <http://bit.ly/1IEOFsG>