Library Linked Data Interest Group

BIBFRAME: The way forward for library visibility on the web

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Hi, i'm Vicki

- Senior Information Architect at Zepheira

- Former Product Manager, OCLC

- Co-chair ALA ALCTS MARC Formats Transition Interest Group

- Chief BIBFRAME Data Geek

Zepheira

- Web company with deep roots in library and web standards

- Data Architects of BIBFRAME

- Building Library Solutions to leverage linked data (including BIBFRAME)

- Focused on accelerating access to library assets on the web

Theme: Library Web Visibility

"When my community searches the Web for something we have, we better show up as an option."

- Chuck Gibson, Director & CEO
Worthington Public Library

WORTHINGTON LIBRARIES

You are here

Talk in 3 parts

1. Set context with a peek into the history of linked data on the web

2. What is BIBFRAME and what will it do for me?

3. Taking Action - make library assets visible on the web

Part 1

"The Web as I envisaged it,we have not seen it yet. The future is still so much bigger than the past."

–Tim Berners-Lee, April 2009

Vague but exciting ...

Information Management: A Proposal

Abstract

This proposal concerns the management of general information about accelerators and experiments at CERN. It discusses the problems of loss of information about complex evolving systems and derives a solution based on a distributed hypertext sytstem.

Keywords: Hypertext, Computer conferencing, Document retrieval, Information management, [...] control
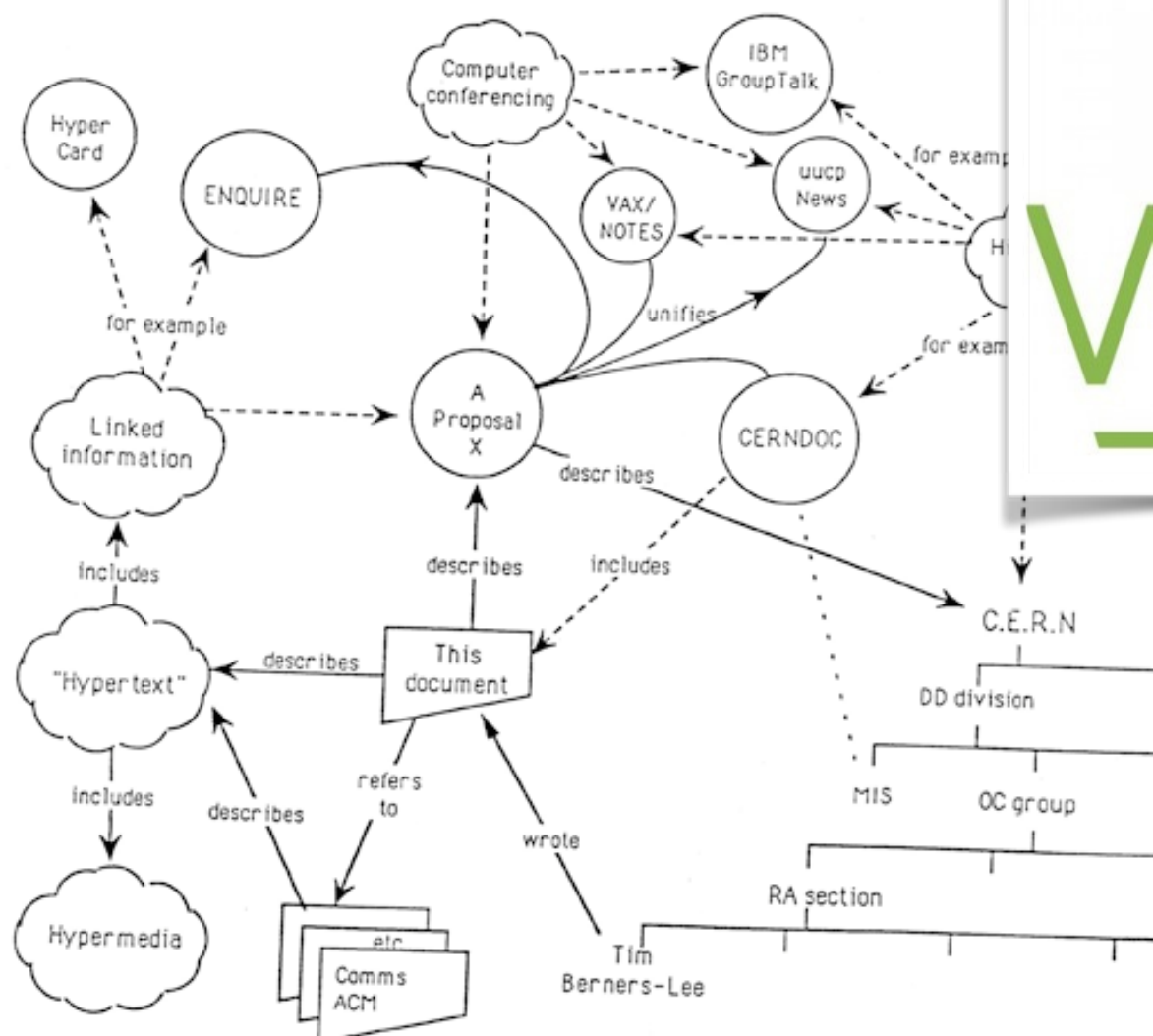
Not a Product, but a Community

- A community

- A social process designed to bring together different stakeholders who moved the standards forward together

- Weaving the best of People and Data

Librarians ahead of our time

- The new norms can happen extremely fast

  - "Data Scientist" anyone?

Part 2

"New paradigm: library data can be found using Semantic Web search engines—library data can be found outside of libraries!"

–Allison Jai O'Dell
"On BIBFRAME Interfaces:The Application of Linked Data in Libraries"
Medium. July 11, 2014

The new platform

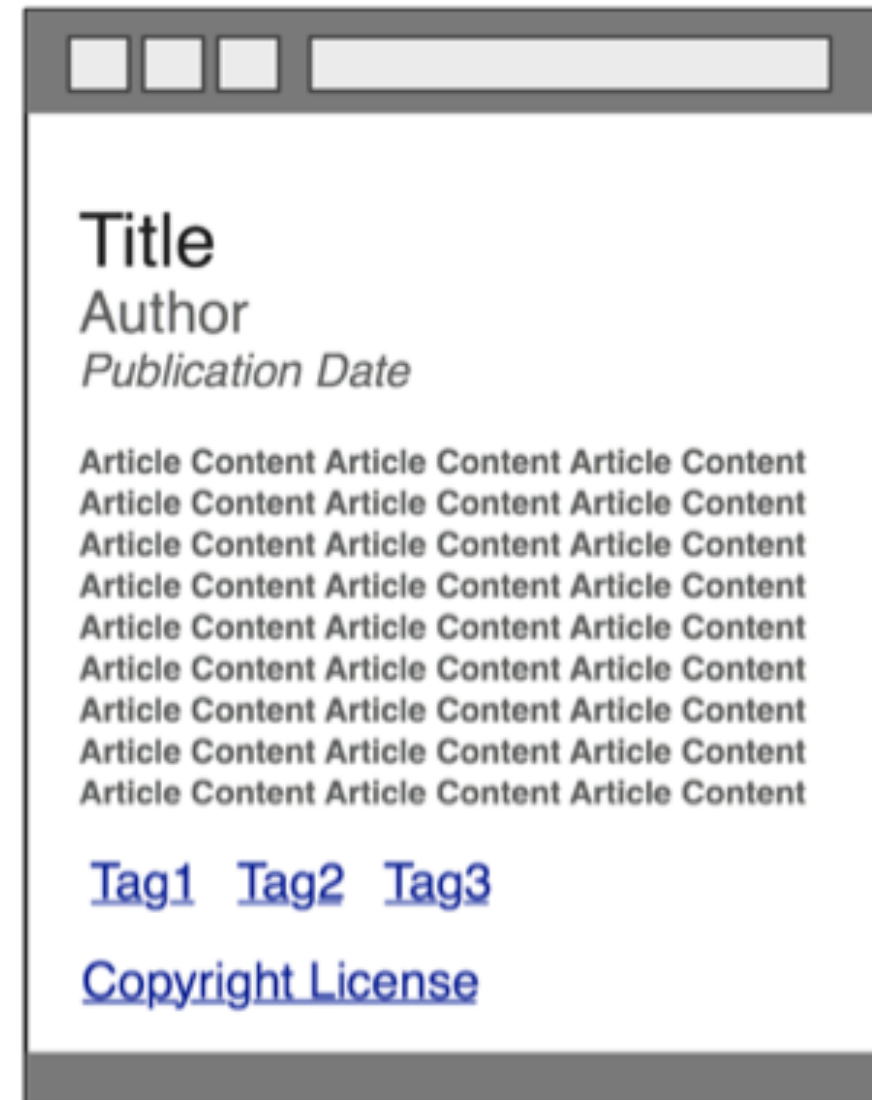The Web is increasingly becoming the most pervasive data management and integration platform ever imagined

By exposing library assets in a way the web understands, we gain all the benefits of this platform

Most of the Web is…

- Pages and links

- Designed for direct human consumption

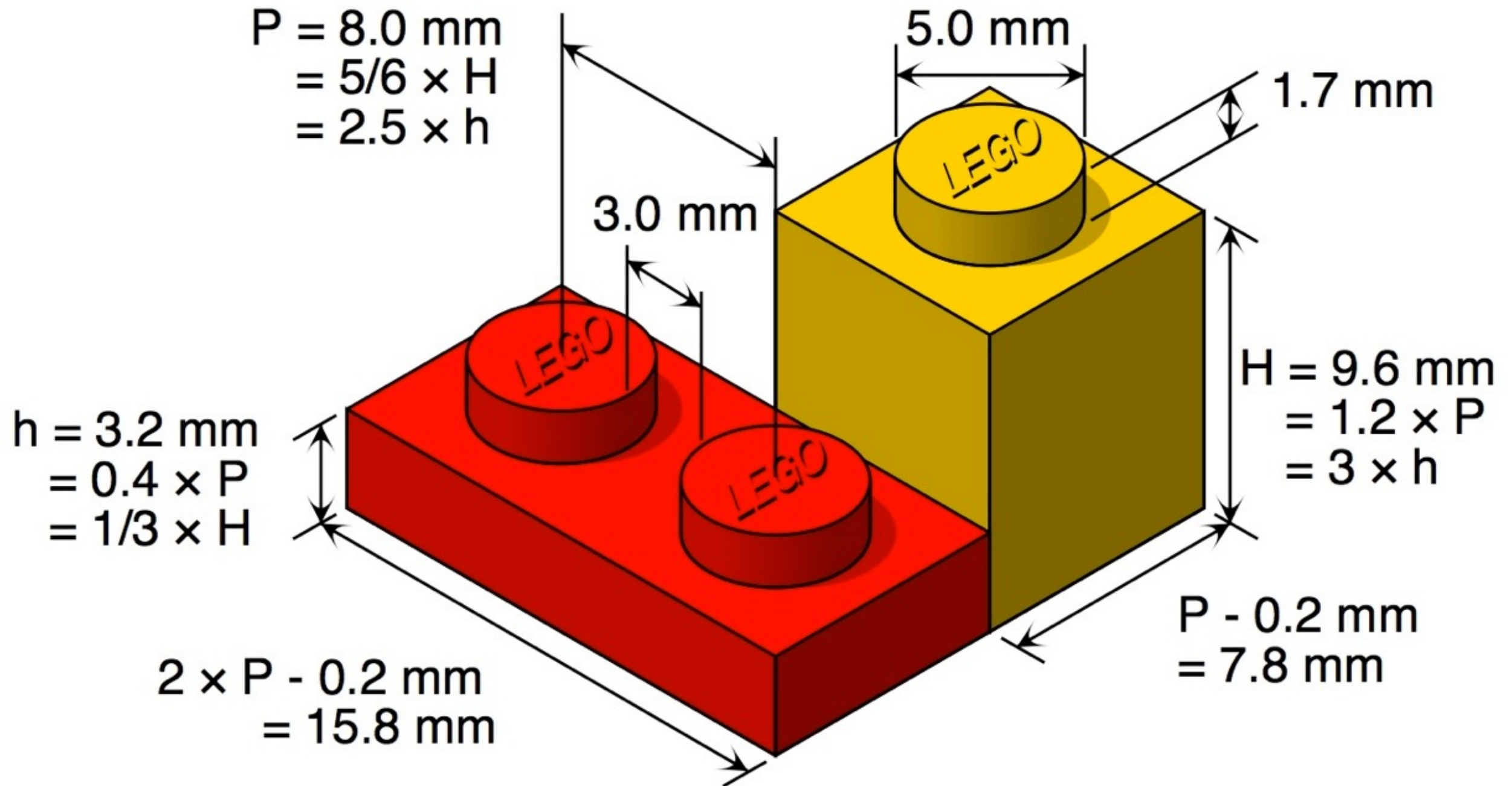- Simple linking ("points at")

- Data is hidden

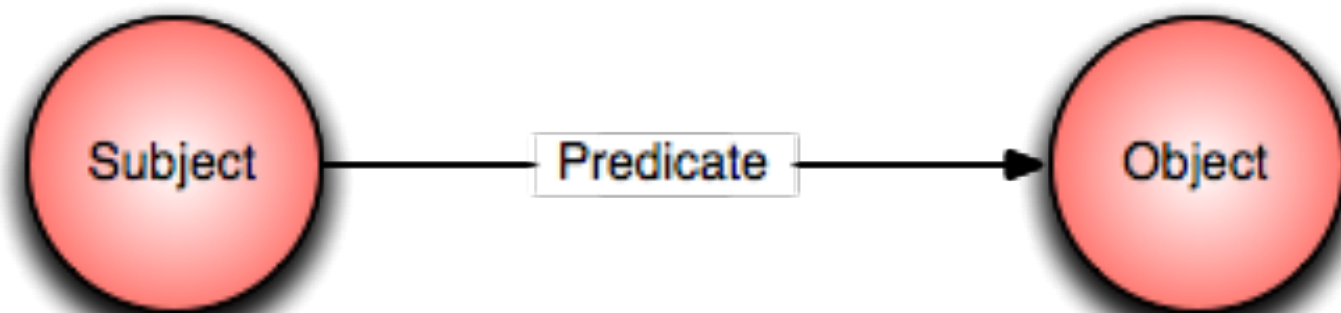A significant gap between what browsers and humans see

RDF

$P = 8.0$ mm
$= 5/6 \times H$
$= 2.5 \times h$

5.0 mm

1.7 mm

3.0 mm

$h = 3.2$ mm
$= 0.4 \times P$
$= 1/3 \times H$

$H = 9.6$ mm
$= 1.2 \times P$
$= 3 \times h$

$2 \times P - 0.2$ mm
$= 15.8$ mm

$P - 0.2$ mm
$= 7.8$ mm

14

Resource Description Framework

Common Model for creating Web Data

Linked Data

"a term used to describe a recommended best practice for exposing, sharing, and connecting pieces of data, information, and knowledge on the Semantic Web using URIs and RDF."

http://en.wikipedia.org/wiki/Linked_Data

BIBFRAME

For the vocabulary, tools and technical documents, visit the BIBFRAME technical site at:

bibframe.org

Related Resources

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A Bibliographic Framework for the Digital Age (October 31, 2011)

« Back to BIBFRAME Announcements, Resources, and Reports | Download and Print [PDF, 58 KB]

The Working Group of the Future of Bibliographic Control, as it examined technology for the future, wrote that the Library community's data carrier, MARC, is "based on forty-year-old techniques for data management and is out of step with programming styles of today." [1] The Working Group called for a format that will "accommodate and distinguish expert-, automated-, and self-generated metadata, including annotations (reviews, comments) and usage data." [2] The Working Group agreed that MARC has served the library community well in the pre-Web environment, but something new is now needed to implement the recommendations made in the Working Group's seminal report. In its recommendations, the Working Group called upon the Library of Congress to take action. In recommendation 3.1.1, the members wrote:

"Recognizing that Z39.2/MARC are no longer fit for the purpose, work with the library and other interested communities to specify and implement a carrier for bibliographic information that is capable of representing the full range of data of interest to libraries, and of facilitating the exchange of such data both within the library community and with related communities." [3]

This same theme emerged from the recent test of the Resource Description and Access (RDA) conducted by the National Agricultural Library, the National Library of Medicine, and the Library of Congress. Our 26 test partners also noted that, were the limitations of the MARC standard lifted, the full capabilities of RDA would be more useful to the library community. Many of the libraries taking part in the test indicated that they had little confidence RDA changes would yield significant benefits without a change to the underlying MARC carrier. Several of the test organizations were especially concerned that the MARC structure would hinder the separation of elements and ability to use URLs in a linked data environment.

With these strong statements from two expert groups, the Library of Congress is committed to developing, in collaboration with librarians, standards experts, and technologists a new bibliographic framework that will serve the associated communities well into the future. Within the Library, staff from the Network Development and Standards Office (within the Technology Policy directorate) and the Policy and Standards Division (within the Acquisitions and Bibliographic Access directorate) have been meeting with Beacher Wiggins (Director, ABA), Ruth Scovill (Director, Technology Policy), and me to craft a plan for proceeding with the development of a bibliographic framework for the future.

Below this cover note, you will find our thoughts about the way ahead. We have identified the requirements for the new bibliographic framework, based on the recommendations made by both the Working Group on the Future of Bibliographic Control and the final report on the RDA Test.

We at the Library are committed to finding the necessary funding for supporting this initiative, and we expect to work with diverse and wide-ranging partners in completing the task. Even at the earliest stages of the project, we believe two types of groups are needed: an advisory committee that will articulate and frame the principles and ideals of the bibliographic framework and a technical committee that has the in-depth knowledge to establish the framework, itself.

When MARC was created in the late 1960s, early 1970s, the Library community, along with computer scientists, took a bold step that

"Recognizing that Z39.2/MARC are no longer fit …facilitating the exchange of such [bibliographic] data both within the library community and with related communities."

"The new bibliographic framework project will be focused on the Web environment, Linked Data principles and mechanisms, and the Resource Description Framework (RDF) as a basic data model. … Likewise, it is expected that the use of RDF and other W3C (World Wide Web Consortium) developments will enable the integration of library data and other cultural heritage data on the Web for more expansive user access to information."

BIBFRAME

"The Initiative aims to re-envision and, in the long run, implement a new bibliographic environment for libraries that makes "the network" central and makes interconnectedness commonplace."

- Bibliographic Framework as a Web of Data: Linked Data Model and Supporting Services, Library of Congress, November 21, 2012 - Prepared by Zepheira

The BIBFRAME Model

- **Work** - Reflect a *conceptual essence* of the cataloging item

- **Instance** - Reflects the *material embodiment* of the Work.

- **Authority** - Reflects the *key authority concepts* that have defined relationships reflected in the Work and Instance.

- **Annotation** - *decorates* other BIBFRAME resources with additional information.

BIBFRAME

Core model for defining Web control points for more effective sharing, navigation and collaboration

Modern Fairy Tale
http://bibframe.org/auth/subject/modern-fairy-tale

Juster, Norton
http://bibframe.org/auth/person/norton_juster
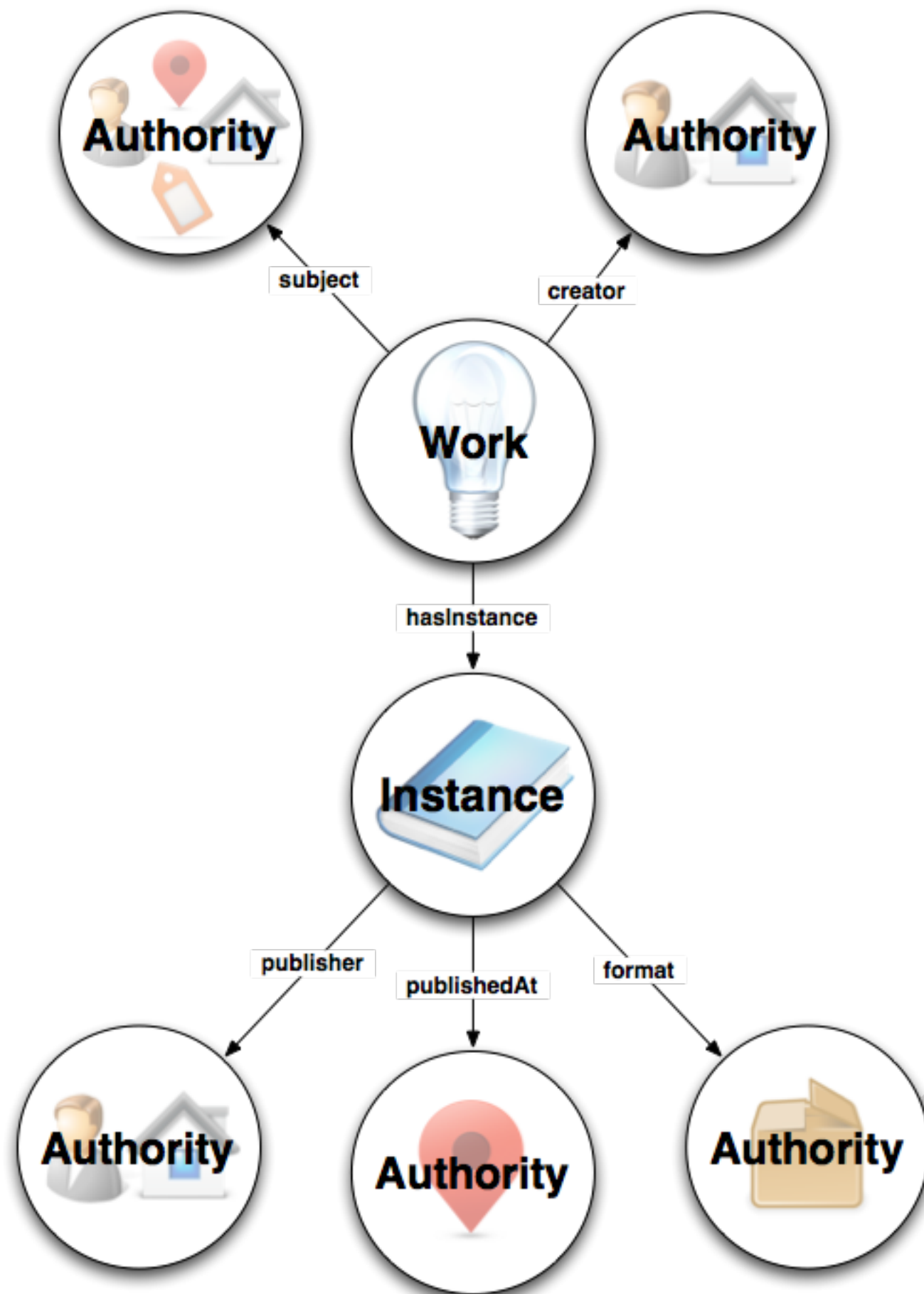
Authority
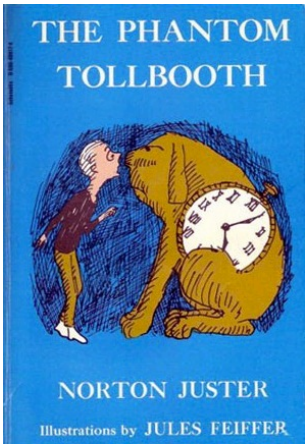
Authority

subject

creator

Work

Phantom Toll Booth
http://local.library.org/examples/phantom-tollboot/test001/w1

hasInstance

annotation

Instance

Hardcover
ISBN "0-394-81500-9"
date "1961"
http://local.library.org/examples/juster/test001/

publisher

publishedAt

format

Authority

Authority

Authority

Random House
http://bibframe.org/auth/org/Random-house

New York, NY
http://bibframe.org/auth/place/NewYorkNY

Print
http://bibframe.org/auth/format/print

Not all about the "BIB"

- Initial focus on Bibliographic Data

- Quick to see benefits in non-bibliographic data (music, visual resources)

- Communities can define BIBFRAME Profiles to meet their data needs

- Anything can be modeled in BIBFRAME

BIBFRAME
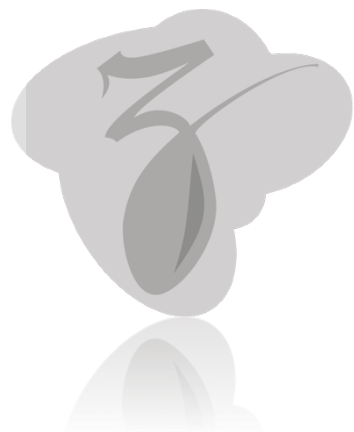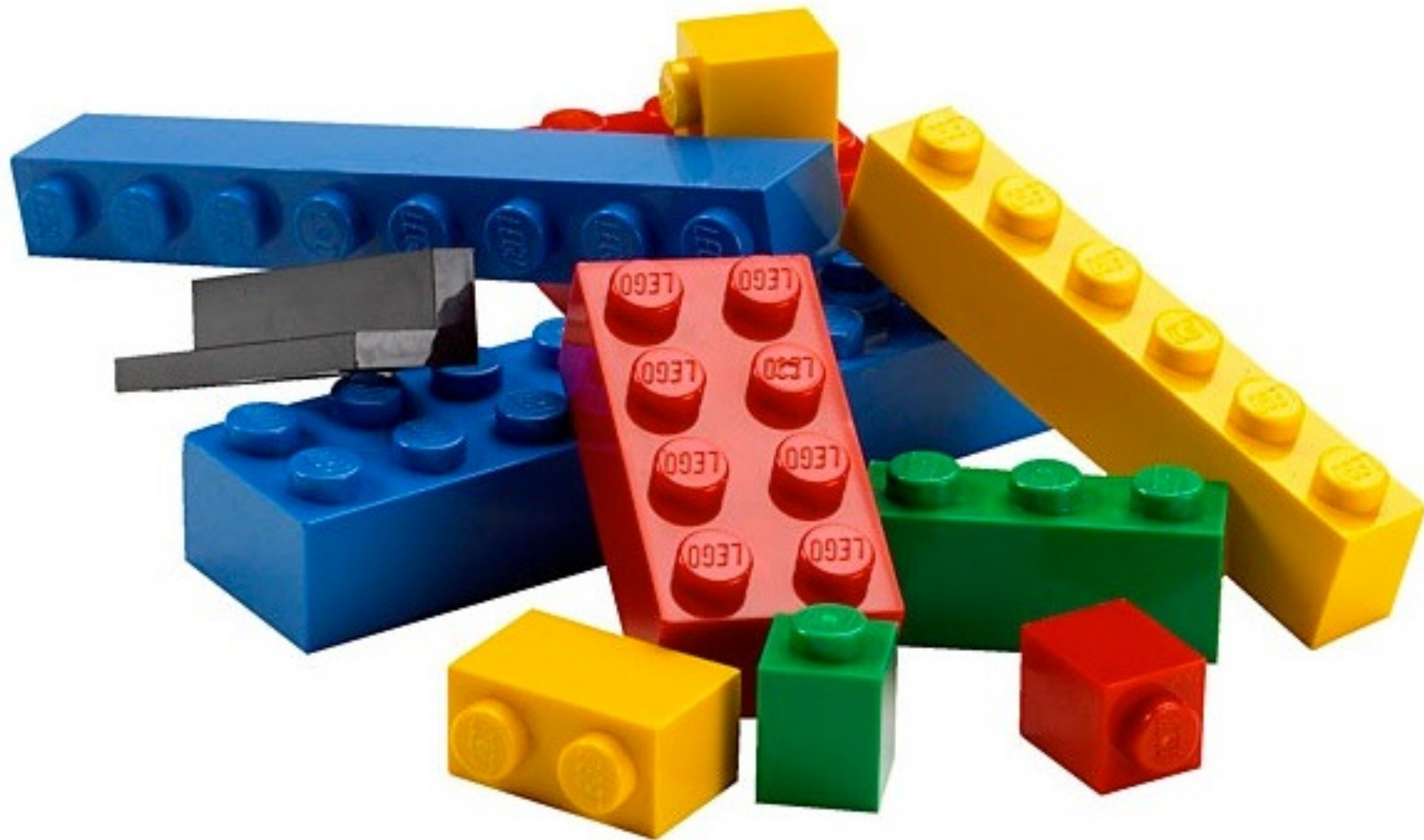
www.loc.gov/bibframe/docs/bibframe–profiles.html

LIBRARY OF CONGRESS

ASK A LIBRARIAN   DIGITAL COLLECTIONS   LIBRARY CATALOGS   Search   Search Loc.gov   GO

The Library of Congress > BIBFRAME > Model & Vocabulary > BIBFRAME Profiles: Introduction and Specification (Draft — 5 May 2014)

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BIBFRAME Profiles: Introduction and Specification

Draft — 5 May 2014

This document introduces and defines BIBFRAME Profiles, and describes how they are created, maintained and used. It gives an overview of the purpose of BIBFRAME Profiles, describes how they can be used to support unique community's descriptive practices, and provides specific examples of how profiles can be constructed.

Status of this Document

- Draft for public review (5 May 2014)
- Please send general comments about this document to the listserv bibframe@loc.gov or via email to bfcomments@loc.gov.
- To the extent possible under law, the Library of Congress has waived all copyright and related or neighboring rights to this work.

Table of Contents

1. Introduction

BIBFRAME is the result of the Bibliographic Framework Initiative. It is a framework or metamodel for discovery and exchange of library and other memory organization information using Web technology, publicly or privately. The BIBFRAME metamodel is designed to be lightweight, flexible and able to accommodate the declarative needs of both existing (RDA, DACS, VRA, etc..) and yet-to-be-developed community vocabularies. To best accomodate these communities the BIBFRAME RDF Schema is intentionally underspecified in terms of constraints such as domain and range. This same flexibility comes at a cost; without a way of constraining these vocabularies, authoring tools, for example, are unable to provide guidance to content authors for specific vocabularies and derived models. BIBFRAME Profiles provide such supplementary descriptions.

A BIBFRAME Profile is a document, or set of documents, that puts a Profile (e.g. local cataloging practices) into a broader context of

Profiles
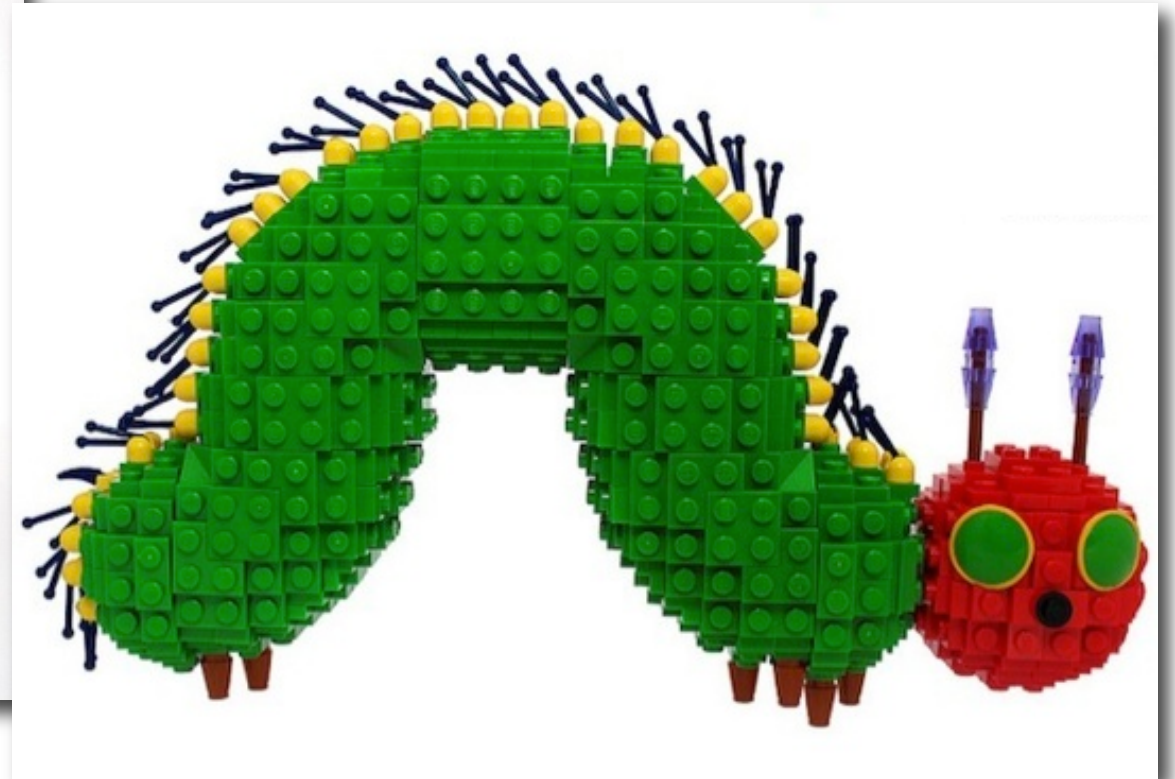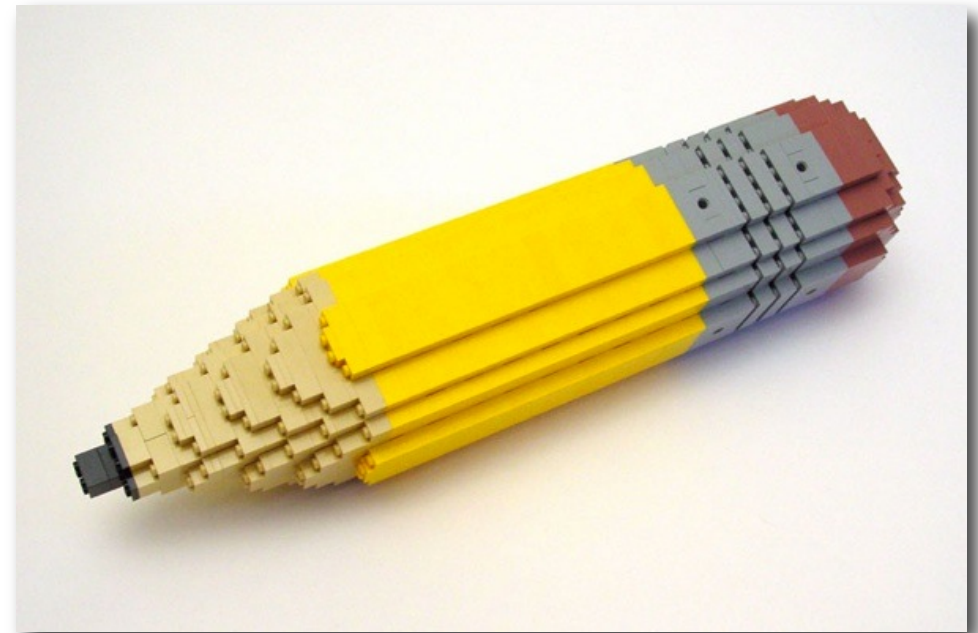
Small is Beautiful
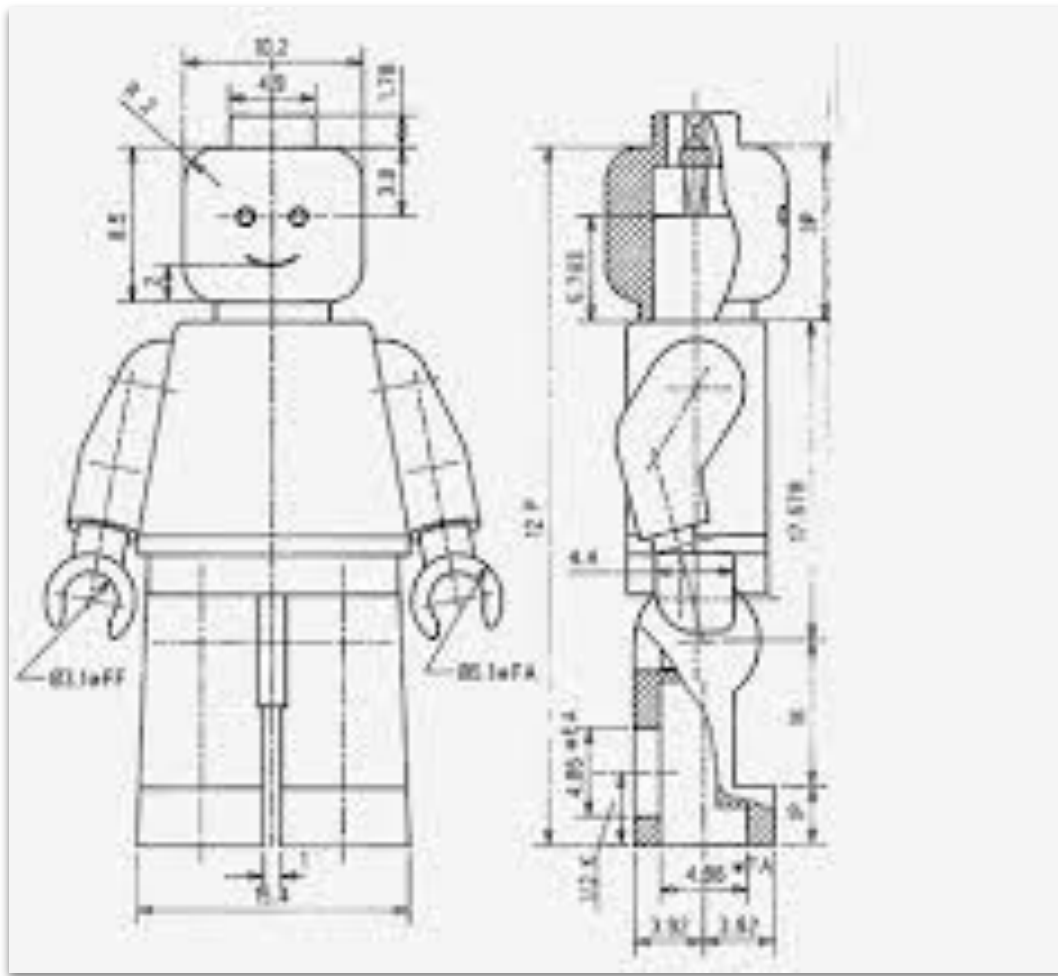
- BIBFRAME common model - flexible, designed to accommodate the needs of our community.

- Recognize creative tension between past and future

- Profiles are a blueprint for a specific community or entity description

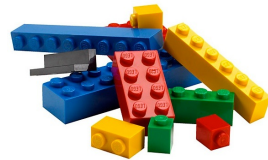# Combining Profiles

- BIBFRAME Lite

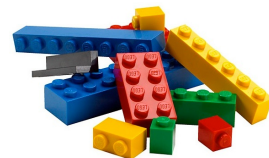 - Series

  - Monograph

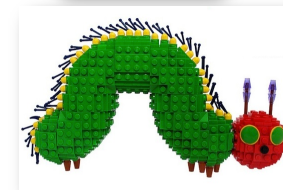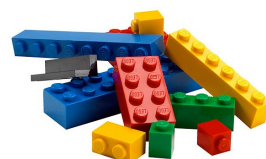   - RBMS

  - A/V (Music)

  - VRA

  - ISAD(G)

Part 3

"The best way to predict your future is to write it."

–Abraham Lincoln

This is the now

60+ Pages later.... still not even one entry that had anything to do with Libraries

This is what a search engine harvester sees. Unconnected data results in poor page rank.
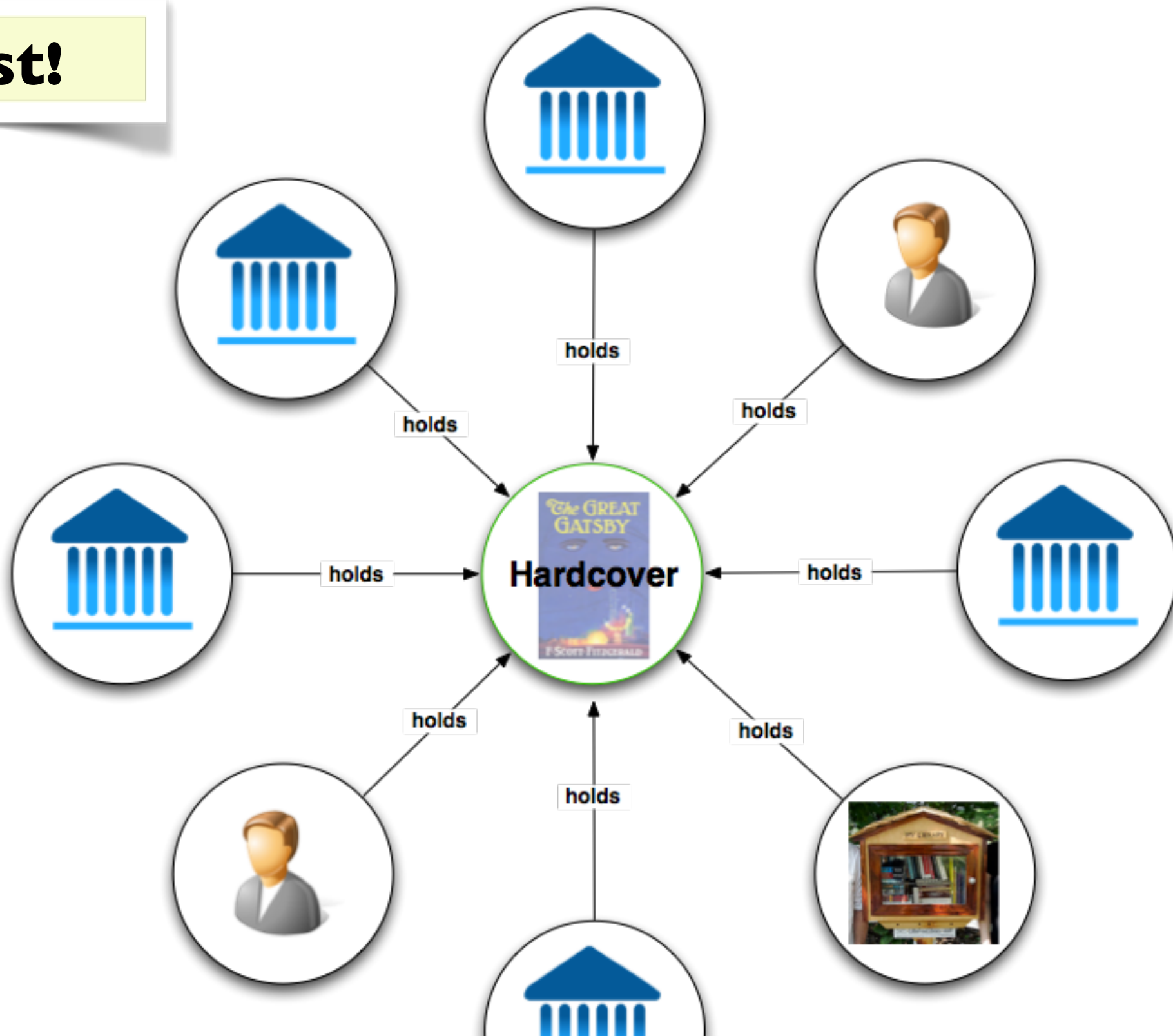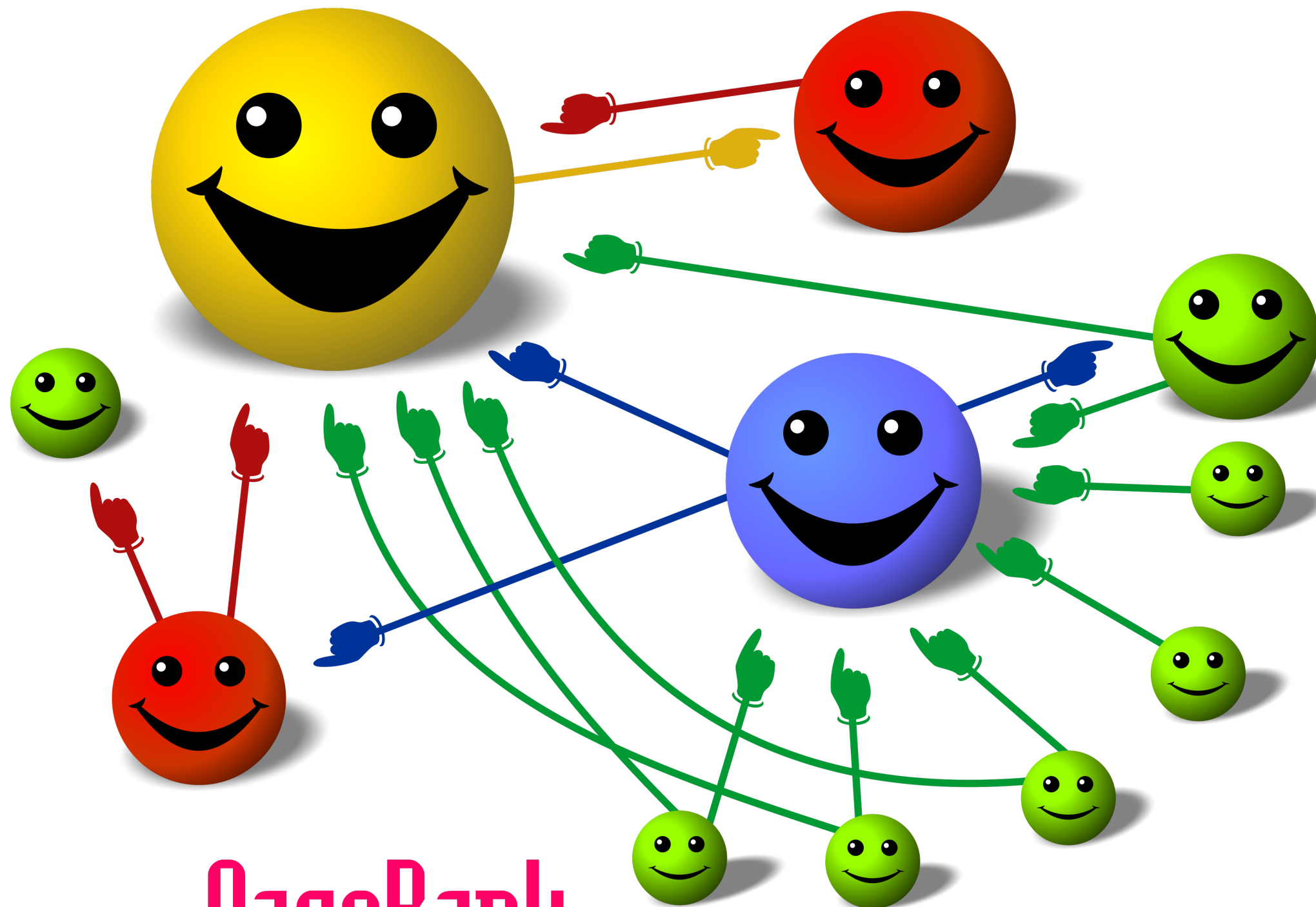
Good

isHeldBy

isHeldBy

isHeldBy

Hardcover

isHeldBy

isHeldBy

Better

holds

holds

holds · Hardcover · holds

holds
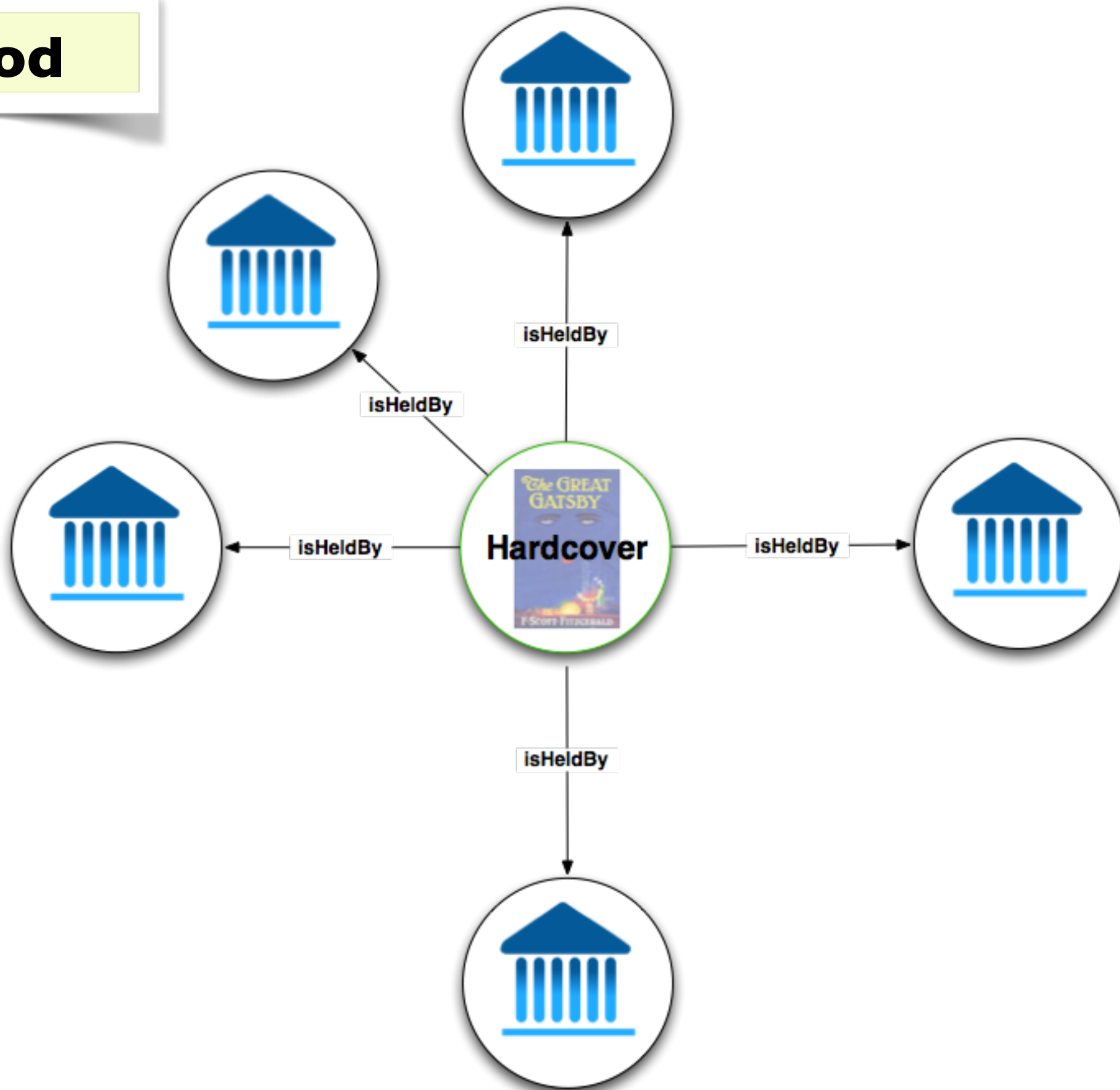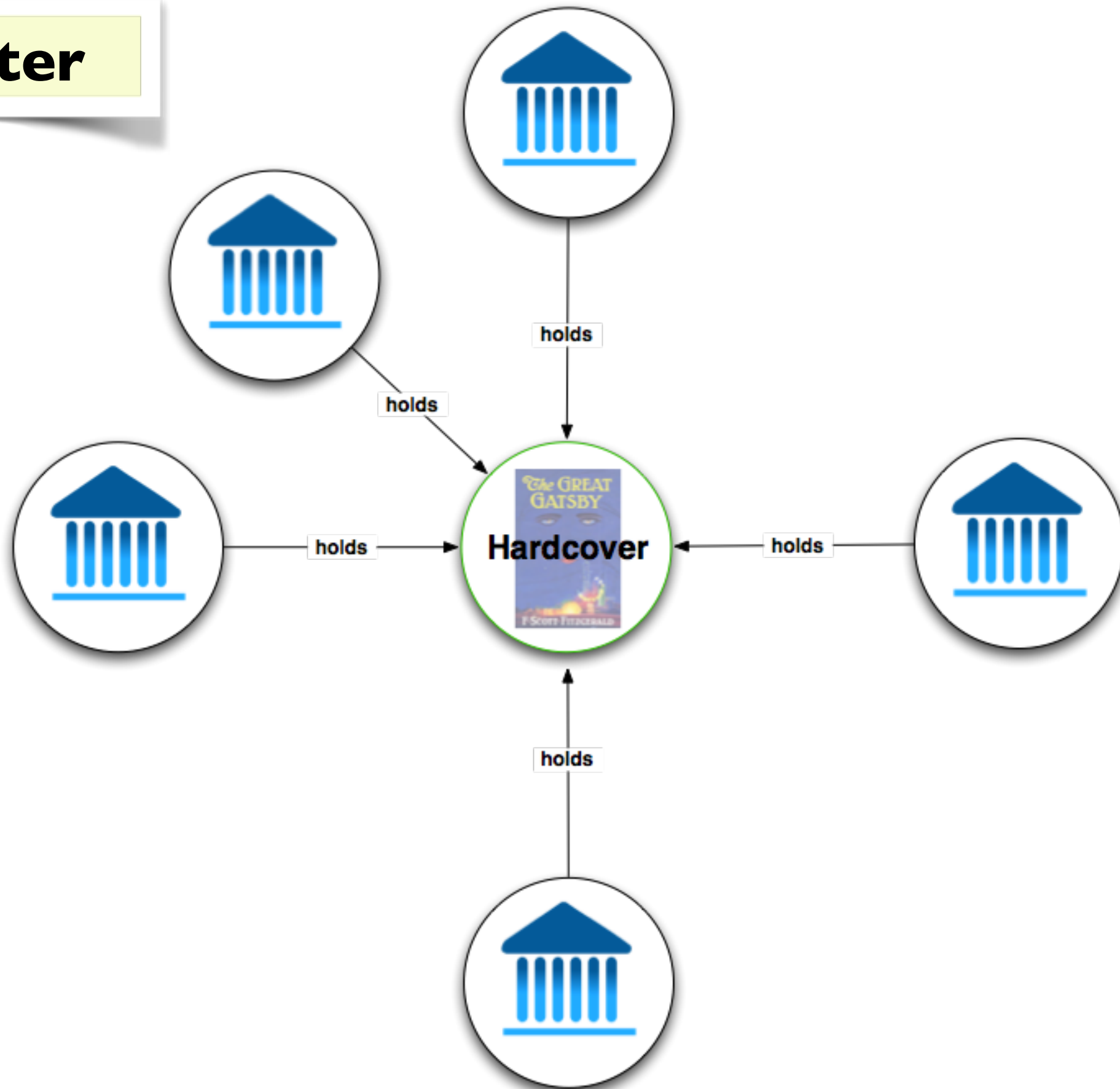
Best!

And Linked Data is a key

A link is worth a 1000 words

PageRank

"Let's increase the Web visibility of all libraries"

Learning, Leading, Linking

- Libraries have spent a considerable amount of time, energy and effort to describe knowledge assets

- BIBFRAME is about reflecting these knowledge assets in the Web

- Building off the cooperative infrastructure the Web provides

- Accelerating the cooperative nature Libraries do better than any market

What's Involved

1. Make it *extremely* easy to project Library data to Linked Data (BIBFRAME)

2. Visibility - publish this to the Web in a way the Web understands

3. Increased discovery - accelerate Linking among / across assets

You can
www.libhub.org

- As individual - "take the pledge"

- As library - get involved

  - Early Adopter

  - Attend Linked Data/BIBFRAME Training

Learning though action together
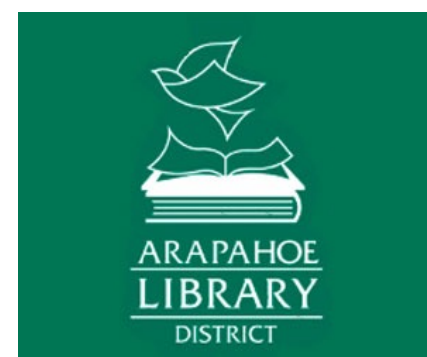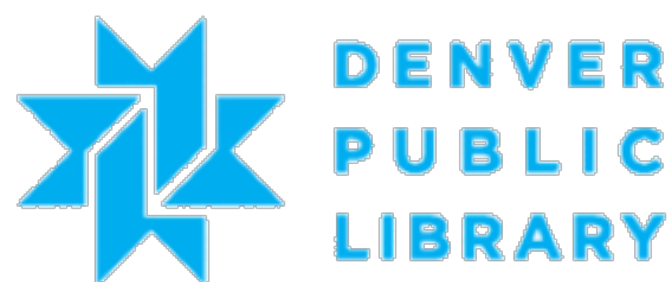
What can you do today?

- Re-think your role in making Memory organizations become the **credibility** engines for the Web

- Learn about linked data standards schema.org and BIBFRAME

- Participate in Libhub to help weave the best of the Web and Libraries together

Thank you

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