



BIBFRAME2.0的特征及其在中国的前景探讨

中山大学图书馆
朱美华

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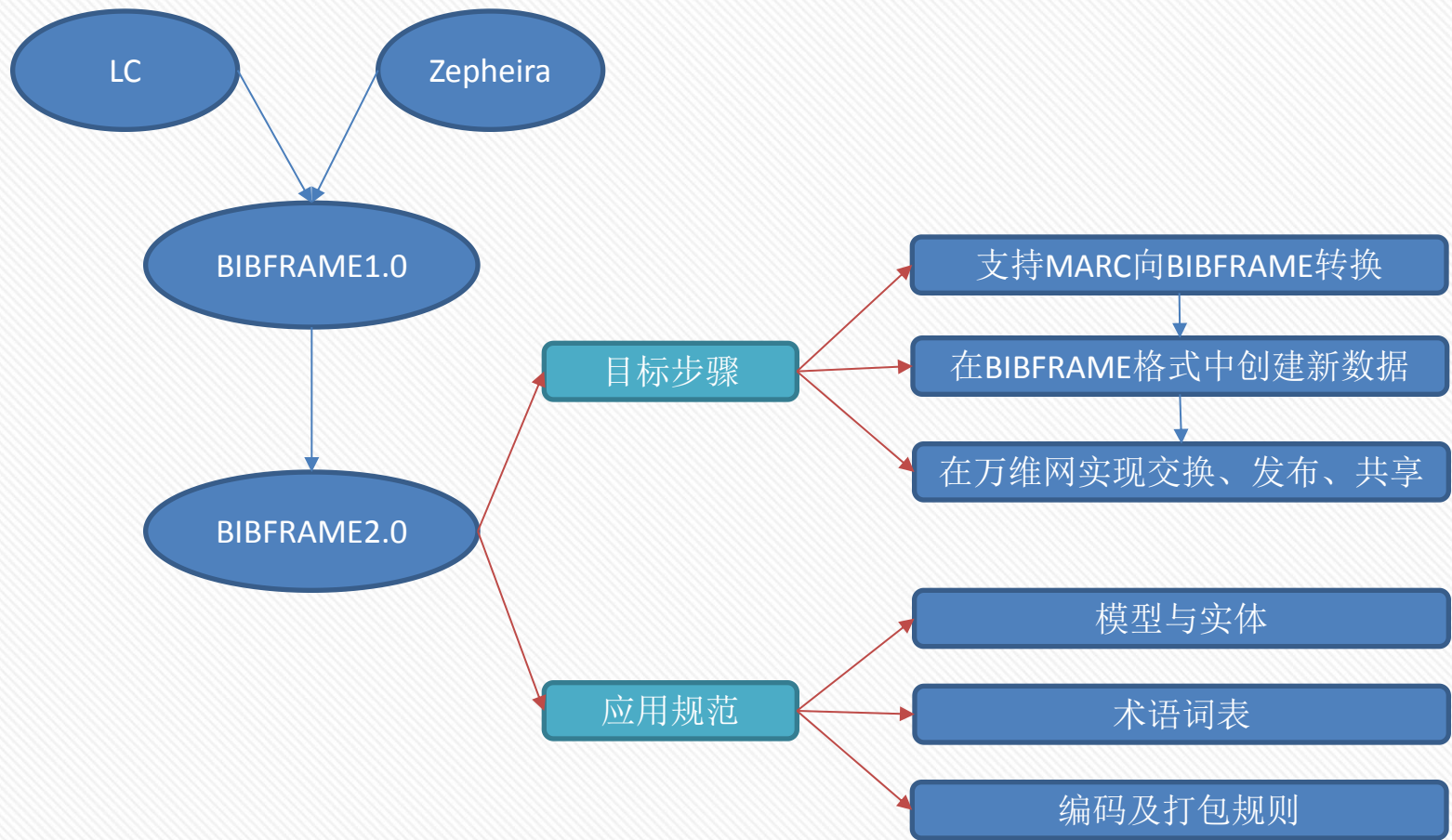
目 录



1. BIBFRAME推出的背景

2. BIBFRAME2.0的特点

3. BIBFRAME在中国的前景



BIBFRAME概况示意图

Part1 BIBFRAME推出的背景

历史前提

MARC无法满足数字时代资源编目的需求

技术支撑

语义网和关联技术

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042		apcc
050	00	aJC233.H46 bC6813 2015
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100	1_	aCortella, Lucio, d1953- eauthor.
240	10	aEtica della democrazia. English
245	14	aThe ethics of democracy : ba contemporary reading of Hegel's philosophy of right / cLucio Cortella ; translated by Giacomo Donis.
264	_1	aAlbany : bState University of New York Press, c2015.
336		atext btxt 2rdacontent
337		aunmediated bn 2rdamedia
338		avolume bnc 2rdacarrier
490	1_	aSUNY series in contemporary Italian philosophy
500		a"Originally published as L'etica della democrazia. Attualità della Filosofia del diritto di Hegel (Marietti Editore, 2011)"--Title page verso.
504		aIncludes bibliographical references and index.
546		aTranslated from the Italian.
600	10	aHegel, Georg Wilhelm Friedrich, d1770-1831.
650	_0	aState, The.
650	_0	aDemocracy.
650	_0	aEthics

头标

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d1770-1831.- 0aState, The.- 0aDemocracy.- 0aEthics"

可变长字段

MARC特点与局限



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graph LR; A[MARC特点与局限] --- B[与编目规则牢固绑定]; A --- C[采用ISO 2709作为固定的数据交换格式]; A --- D[不能通过HTTP直接访问]; A --- E[不能从根本上突出RDA所强调的E-R<br/>（实体-关系）模型];
```

与编目规则牢固绑定

采用ISO 2709作为固定的数据交换格式

不能通过HTTP直接访问

不能从根本上突出RDA所强调的E-R
（实体-关系）模型

MARC Must Die!

MARcing time

Just look at a raw MARC record to see what I mean. But don't get too much of a headache. There are only two kinds of people who believe themselves able to read a MARC record without referring to a stack of manuals: a handful of our top catalogers and those on serious drugs. In MARC, fields are not explicitly labeled but coded with a numbering scheme that cannot be read by someone unfamiliar with the complicated syntax. But needless obfuscation, as annoying as it may be, is not the real nature of our emerging difficulty with MARC.

The problems with MARC are serious and extensive, which is why a number of us are increasingly convinced that MARC has outlived its usefulness. See, for example, Dick Miller's slides, "XML and MARC: A Choice or Replacement?" "The rigidity and internal



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MARC Exit Strategies

tion of the METS record. We were then able to index and display fields selectively from either metadata source for the same item.

Or maybe migration

Then there is migration. A complete transition to a new set of bibliographic standards would require migrating our existing record base into whatever we devise.

Before you object to the scale of such an undertaking, consider how only a few years ago there were no records at all in digital form. And migrating digital information from one format to another will be easier, since some parts (but likely not all) can be automated. The point here is to do this migration once and to a standard that is flexible enough to allow future extensions and changes without requiring another migration.

So am I out of my mind? Possibly. Am I stirring up trouble? Likely. Have I stated facts and outlined possibilities that are worth considering? Certainly. We have nothing to lose by considering what our future could be, even if it means questioning our most basic professional assumptions.

Part2 BIBFRAME2.0的特点

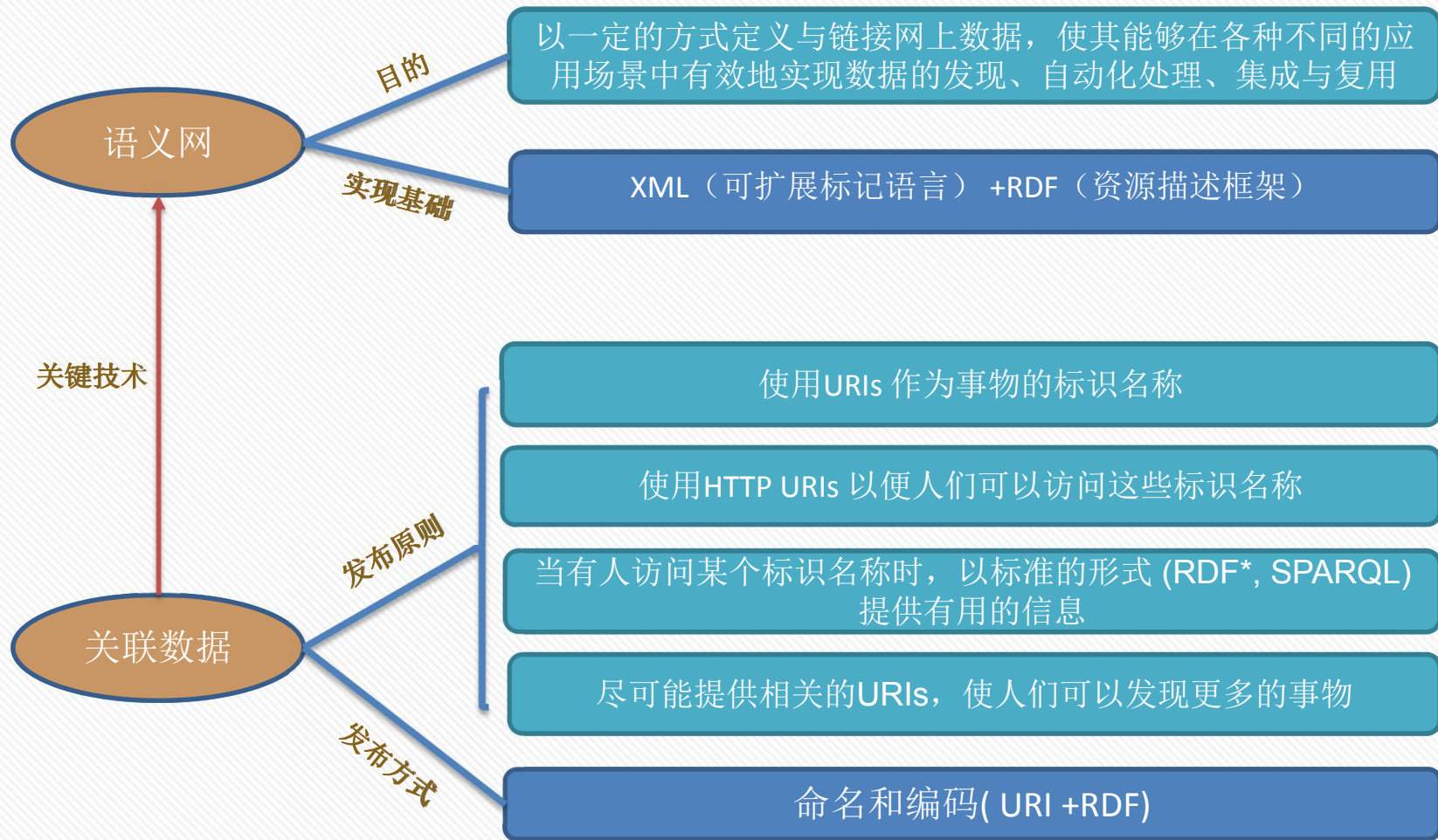
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面向语义网和
关联数据

采纳并简化FRBR
的E-R概念模型

开放性与
兼容性

2.1 面向语义网和关联数据



图书馆界对数据语义化和关联化的积极探索：

◆美国国会图书馆用SKOS(Simple Knowledge Organization System, 简单知识组织系统)实现了主题标引词表(Library of Congress Subject Headings)的语义化描述；

◆大英图书馆将国家书目从MARC21格式转换为关联数据的RDF/XML格式，并通过Web提供数据集的下载；

◆瑞典国家图书馆早在2008年就尝试将瑞典联合目录(Swedish Union Catalogue)发布为关联数据；

◆ OCLC2012年开始通过Schema.org词汇表加以描述，将WorldCat数以亿计书目数据发布为关联数据。

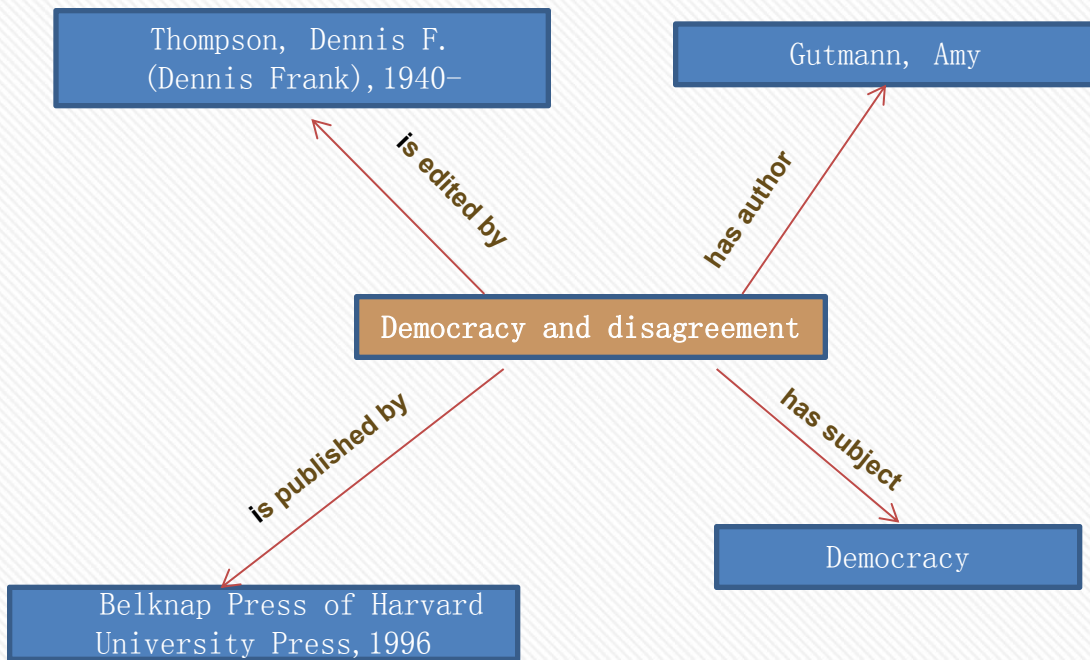
“The new bibliographic framework project will be focused on the web environment, Linked Data principles and mechanisms, and the Resource Description Framework (RDF) as a basic data model.”

—Library of Congress, May, 2011

RDF三元组 (triple) 结构及示例

资源 (subject) — 属性 (predicate) — 属性值 (object)

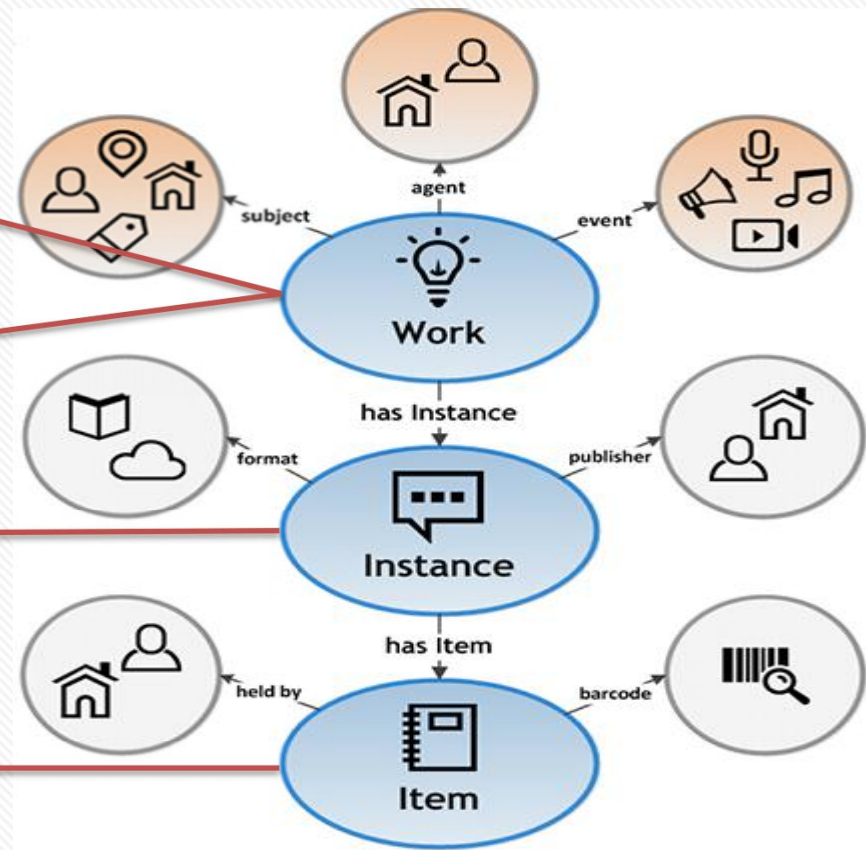
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245 10|aDemocracy and disagreement /|cAmy
Gutmann ; edited by Dennis Thompson.
264 #1|aCambridge, Mass.:|bBelknap Press
of Harvard University Press,|c1996.
300 ##|aviii, 422 pages ;|c24 cm.
336 ##|atext|btxt|2rdacontent
337 ##|aunmediated|bn|2rdamedia
338 ##|avolume|bnc|2rdacarrier
504 ##|aIncludes bibliographical
references (pages 363-410) and index.
650 #0|aDemocracy.
700 1#|aThompson, Dennis F.|q(Dennis
Frank),|d1940-|eeditor.



2.2 采纳并简化FRBR的E-R概念模型



FRBR第一组实体及基本关系



BIBFRAME2.0模型

2.3 开放性与兼容性

◆取消“规范”核心类

“在关联数据中，身份控制不是经由‘名称’形式上的规范，而是通过统一资源标识符（URI）或国际资源标识符（IRI），达到机器可操作的目的。在这个体系中，规范检索点和其他名称一样，只是一个显示标签，不同国家地区、不同机构完全可以有不同的选择名称”

◆复用其他关联数据词表

“关联数据的最佳实践途径是在建立自己的词表时，复用已有词表中的类和属性”

—Rob Sanderson, “Analysis of the BIBFRAME Ontology for Linked Data Best Practices”

“Don't ignore giant shoulders”

—Rob Sanderson, “Linked Data Best Practices and BibFrame”

◆兼容MARC及其他元数据格式

爱荷华大学图书馆、加州大学洛杉矶分校图书馆测试了本馆书目数据从MARC21向BIBFRAME的转换；

大英图书馆在探索MARC向BIBFRAME转换的同时，实现了MAB-MARC-BIBFRAME的转换；

欧洲数字图书馆测试了EDM（Europeana Data Model，欧洲数据模型）和BIBFRAME核心类的映射

Part3 BIBFRAME在中国的前景探讨

BIBFRAME尚待完善

◆ BIBFRAME 试点项目 (BIBFRAME Pilot Project) 暴露诸多问题;

◆ 加州大学洛杉矶分校图书馆: 图书馆不能通过BIBFRAME充分利用关联数据环境提供的资源、BIBFRAME记录馆藏的方法需要进一步测试;

◆ BIBFRAME2.0 Editor尚未发布, 1.0编辑器存在诸多缺陷

BIBFRAME的高技术门槛

◆ 国会图书馆: BIBFRAME编辑器、MARC21至BIBFRAME2.0的转换工具、MARCXML向 BIBFRAME的转换软件等;

◆ 图书馆系统服务商VTLS公司推出支持BIBFRAME的Open Skies图书馆服务平台;

◆ 斯坦福大学图书馆、康奈尔大学图书馆等多家机构合作, 围绕LD4L (Linked Data for Libraries) 和LD4Prod (Linked Data for Production) 项目组织技术研发;

◆ OCLC积极将网络资源描述规范Schema.org纳入BIBFRAME体系并设计了一套用于图书馆的书目扩展, 即Schema BibEX

多种元数据格式的存在及词表待关联化

◆ MARC21、CNMARC、DC等多种元数据并存, 庞大的CNMARC数据的转换需谨慎对待;

◆ CNMARC数据在转换前是否要先采纳RDA标准?

◆ 中国图书馆分类法、分类主题词表、中文名称规范档等属性值词表有待关联化

Create Resource

RDA Work

Monograph ▾

Notated Music ▾

Serial ▾

Cartographic ▾

BluRay DVD ▾

35mm Feature Film ▾

Audio CD ▾

Creator of Work (RDA 19.2)

Principal Creator

Other Creators

Preferred Title for the Work (RDA 6.2.2)

Title

Variant Title for the Work (RDA 6.2.3)

Title

Form of Work (RDA 6.3)

Form of Work

Date of Work (RDA 6.4)

Date of Work (RDA 6.4)

Place of Origin of the Work (RDA 6.5)

Place

Other Distinguishing Characteristic of the Work (RDA 6.6)

Other Distinguishing Characteristic of the Work (RDA 6.6)

Nature of the Content (RDA 7.2)

Nature of the Content (RDA 7.2)

Coverage of the Content (RDA 7.3)

Coverage of the Content (RDA 7.3)

MARC

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100 1 $aCortella, Lucio,$d1953-
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245 14 $aThe ethics of democracy :$ba contemporary reading of Hegel's philosophy of right
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264 1 $aAlbany :$bState University of New York Press,$c2015.
300 $axxvi, 215 pages ;$c24 cm.
336 $atext$btxt$2rdacontent
337 $aunmediated$bnd$2rdamedia
338 $avolume$bnc$2rdacarrier
490 0 $aSUNY series in contemporary Italian philosophy
500 $a"Originally published as L'etica della democrazia. Attualità della Filosofia del

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BIBFRAME (Turtle)

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      rdfs:label "DLC" ] ;
    bf:identifiedBy [ a bf:Local ;

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谢谢关注
敬请指正