

# A Semantic Web-based Model for Evaluation of Electronic Resources and Services

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PNC 2007 Annual Conference and Joint Meetings  
Sibley Auditorium, UC Berkeley  
19 Oct. 2007

## Outline

- Background
- RDF Graph for Semantic Web
- Adapted model for evaluation of e-resources and services
- Case Study
- Findings

## Background

- **No. of equivalent titles** either of e-journals or e-books corresponding to **the paper format**.
- **No. of titles** either of e-journals or e-books.
- **Usage** of search, browse, article, journal, book and database.
- **Cost** of per access.

## Background



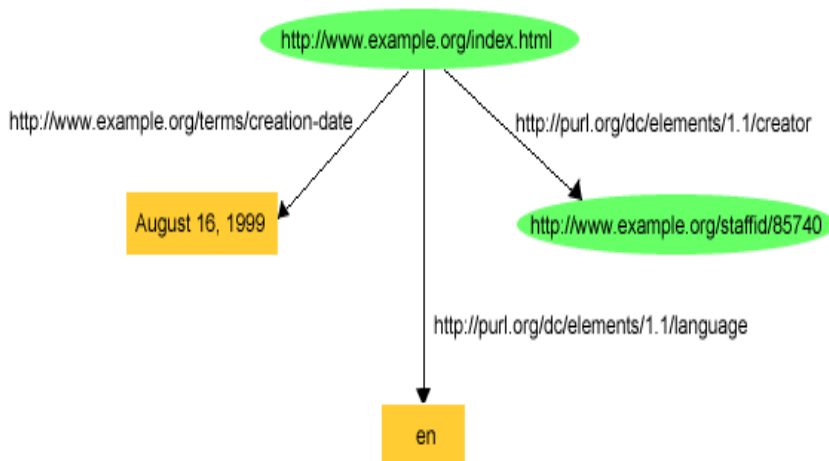
- It **lacks a holistic view** for analyzing the information resources and services together to serve as an integrated base for decision making.

# RDF Graph for Semantic Web

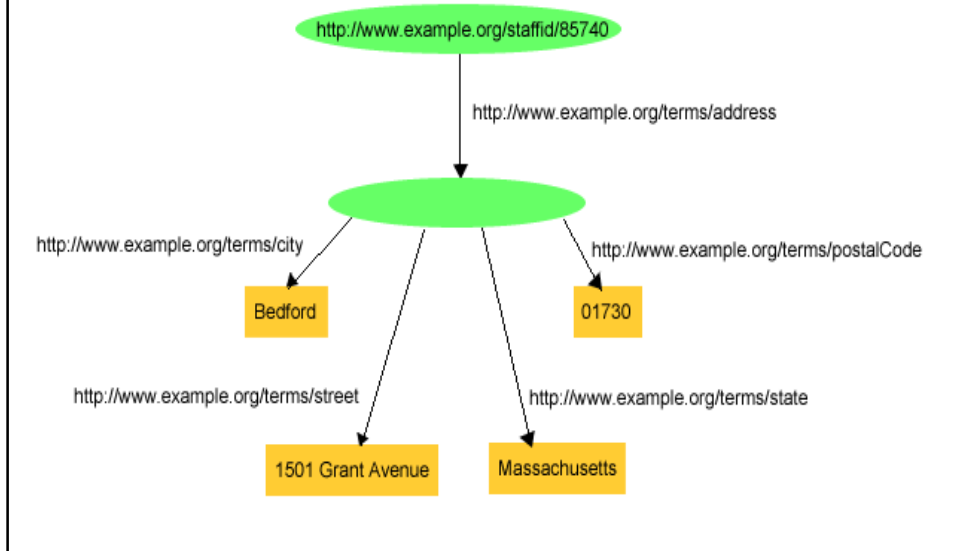


- Each triple represents a **statement of a relationship** between the things denoted by the nodes that it links.
- Each triple has **three parts**:
  - a subject,
  - an object, and
  - a predicate (also called a property) that denotes a relationship.

## An example of RDF Graph<sup>1</sup>



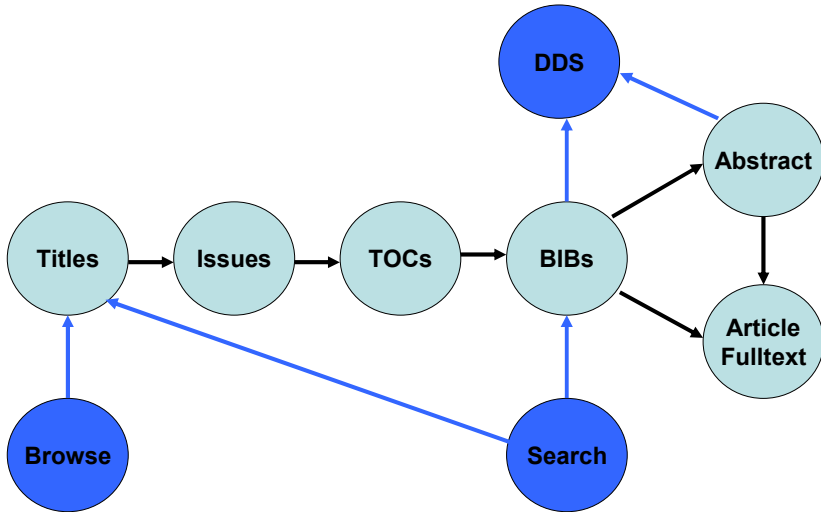
# An example of RDF Graph<sup>2</sup>



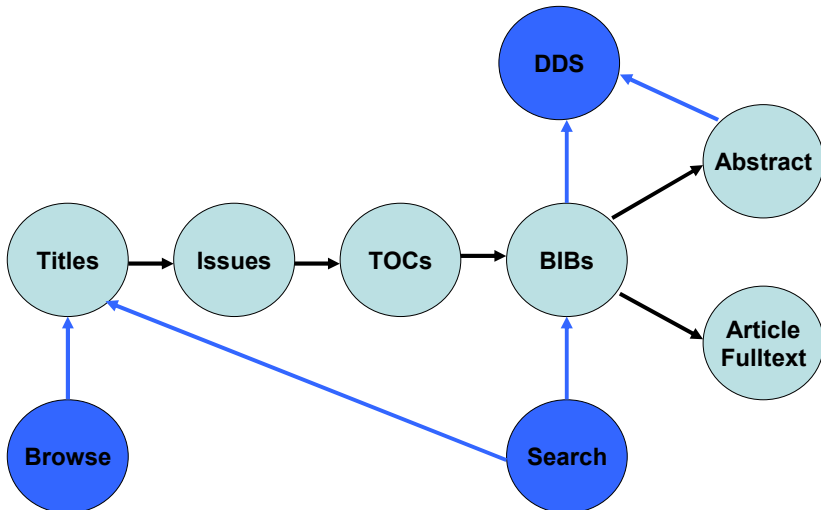
## Adapting RDF concept for e-resources and e-services

- Each subject or object can be an **information resource or service** for users and libraries.
- Predicate denotes a functional direction or link to **indicate the relationship** between resource and service.
  - Predicate is redefined to be “is accessible to”

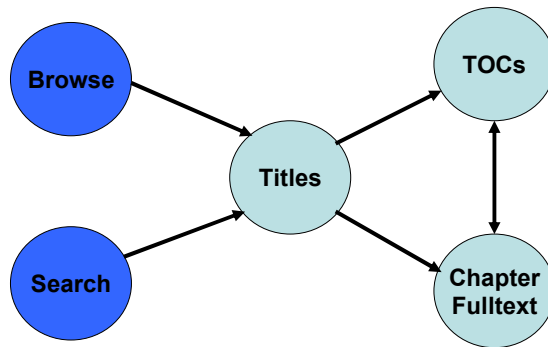
## An example – Journal DB<sup>1</sup>



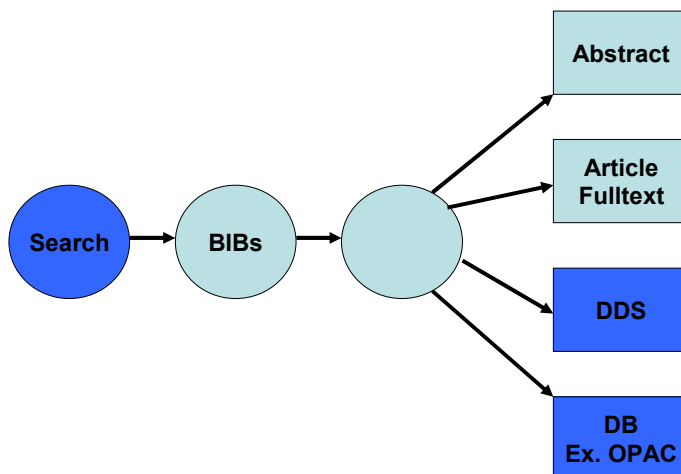
## An example – Journal DB<sup>2</sup>



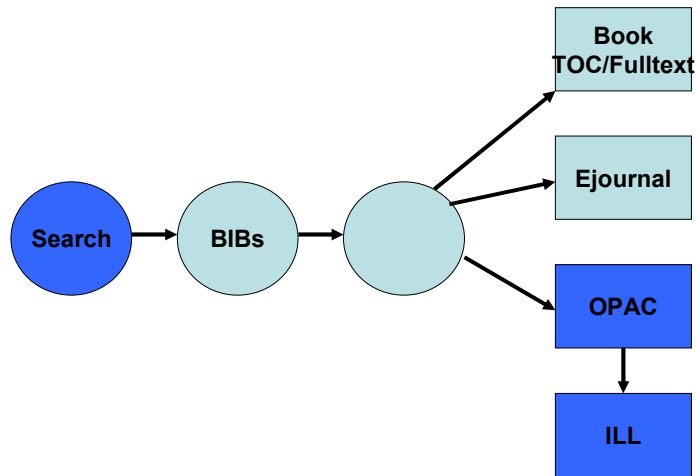
## An example – Ebook DB



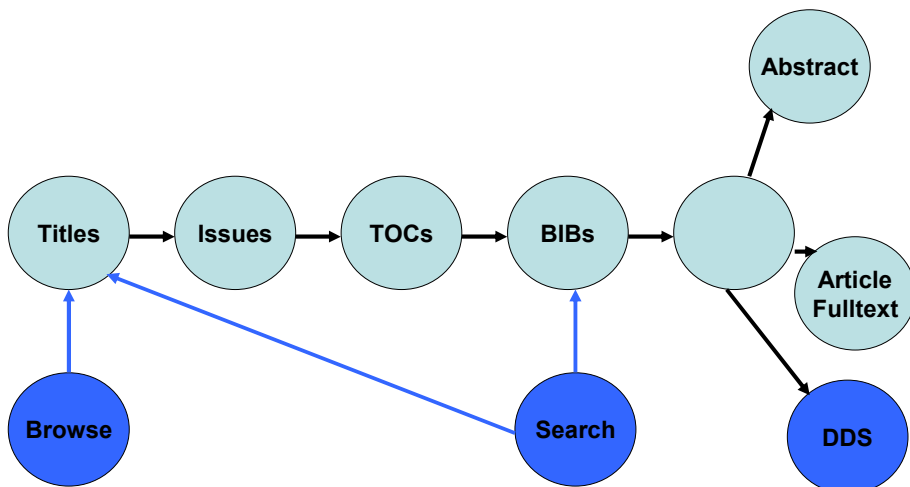
## An example – A&I DB



## An example – LIS DB



## An example – DDS DB



# Results<sup>1</sup>

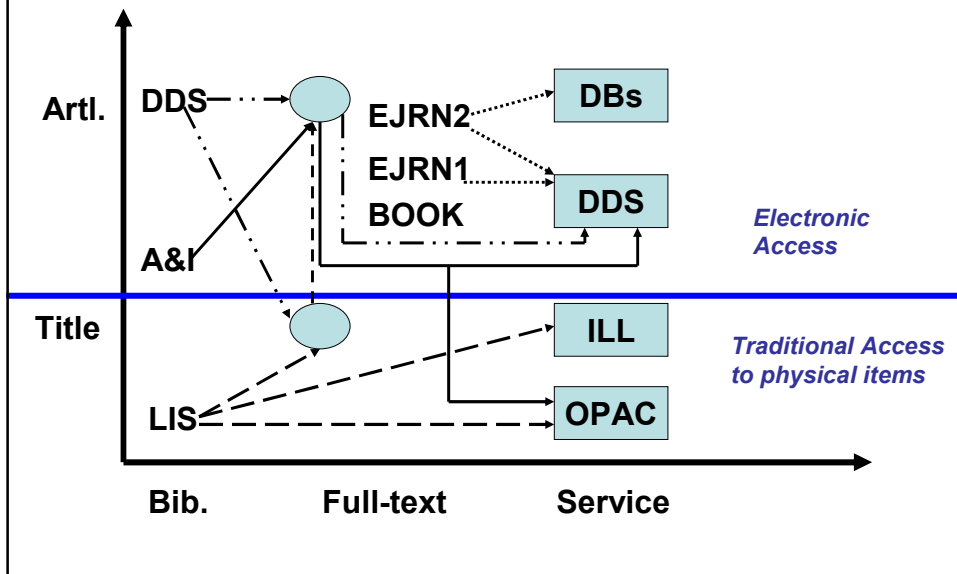
	Title	TOC	BIB	ABS	Artl.	Chap.	DBs	DDS	ILL
EJR1	◆ A1	◆	◆	◆	◆ A2			◆	
EJR2	◆ B1	◆	◆	◆	◆ B2			△	
Book	◆ C	◆	◆			◆			
AI	△ D1		◆	◆	△ D2		◆	◆	
LIS	△ E1	◆	◆ E2		△ E3	△	△	◆	◆
DDS	△ F1	◆	◆	◆	△ F2			◆	

# Results<sup>2</sup>

- Content-based level
  - To offer full-texts directly.
- Value-added Service level
  - To offer functional services for users based on the discovery of existing TOCs and bibs, such as DDS, ILL, and linkage access to other DBs. Granularity includes title and article level.



# Results<sup>3</sup>



## Question

- Do we know what kind of e-resources and services and their purposes are required for this library?
  - ERM (Electronic Resources Management)
  - Federated Search
  - Google
  - Amazon

## Findings<sup>1</sup>

- This model is useful for decision making to
  - Analyze existing electronic contents of electronic journals and books. ([resource-based view](#) - collection development)
  - Show current services and their positions and functions each other, including ILL, DDS, linkage access, etc. ([functional service-based view](#) – service delivery)
  - Illustrate the relationship between e-resources and services. ([an integrated view](#) – link the relationship between resources and services)

## Findings<sup>2</sup>

- This model is
  - a [RDF-based path model](#) for planning integrated e-resource service to evaluate or include other resources and services [in a component approach](#)
  - a complement rather than a replacement to other models.

***Thank for your attention!***