

Information Networks

Hacettepe University

Department of Information Management

DOK 422: Information Networks

Z39.50, ISO ILL Protocol and OAI MHP

Some Slides taken from: Barbara Shuh and UKOLN web site

ISO ILL Protocol

- **ISO 10160:** Information and Documentation - Open Systems Interconnection - Interlibrary Loan Application Service
- **ISO 10161-1:** Information and Documentation - Open Systems Interconnection - Interlibrary Loan Application Protocol Specification - Part 1: Protocol Specification
- **Peer-to-Peer**
- **Unconfirmed Service**
- **Designed to be supported by OSI stack**



Z39.50

- "Z39.50" refers to the International Standard, ISO 23950: "Information Retrieval (Z39.50): Application Service Definition and Protocol Specification",
- Also ANSI/NISO Z39.50.
- The Library of Congress is the Maintenance Agency and Registration Authority for both standards, which are technically identical
- Z39.50 standard specifies a client/server-based protocol

International Standard Maintenance Agency **Z39.50** The Library of Congress Network Development & MARC Standards Office

[Z39.50 Resources](#) - [Z39.50 Document](#) - [Related Specifications](#) - [Object Identifiers](#)
[Implementor Register](#) - [Z39.50 Profiles](#) - [ZIG Meetings](#) - [Site Index](#)

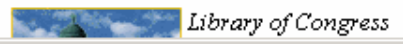
This page provides links to information about Z39.50 resources and about the development and maintenance of Z39.50 (existing as well as future versions) and the implementation and use of the Z39.50 protocol.

"Z39.50" refers to the International Standard, ISO 23950: "Information Retrieval (Z39.50): Application Service Definition and Protocol Specification", and to ANSI/NISO Z39.50. The Library of Congress is the Maintenance Agency and Registration Authority for both standards, which are technically identical (though with minor editorial differences).

The standard specifies a client/server-based protocol for searching and retrieving information from remote databases.

[Comments: z3950@loc.gov](mailto:z3950@loc.gov)
[Maintenance Agency Procedures](#)

[Library of Congress Home](#) - [Other Standards Maintained by the Library](#) - [Z39.50 Gateway](#)



ZING *Z39.50 International: Next Generation*

SRW/U || CQL
Version 1.1 Announced
February 13

[SRW/Metasearch Meeting, October 30 -- Meeting Summary](#)

Proposals
(new proposal March 24)

Query Results

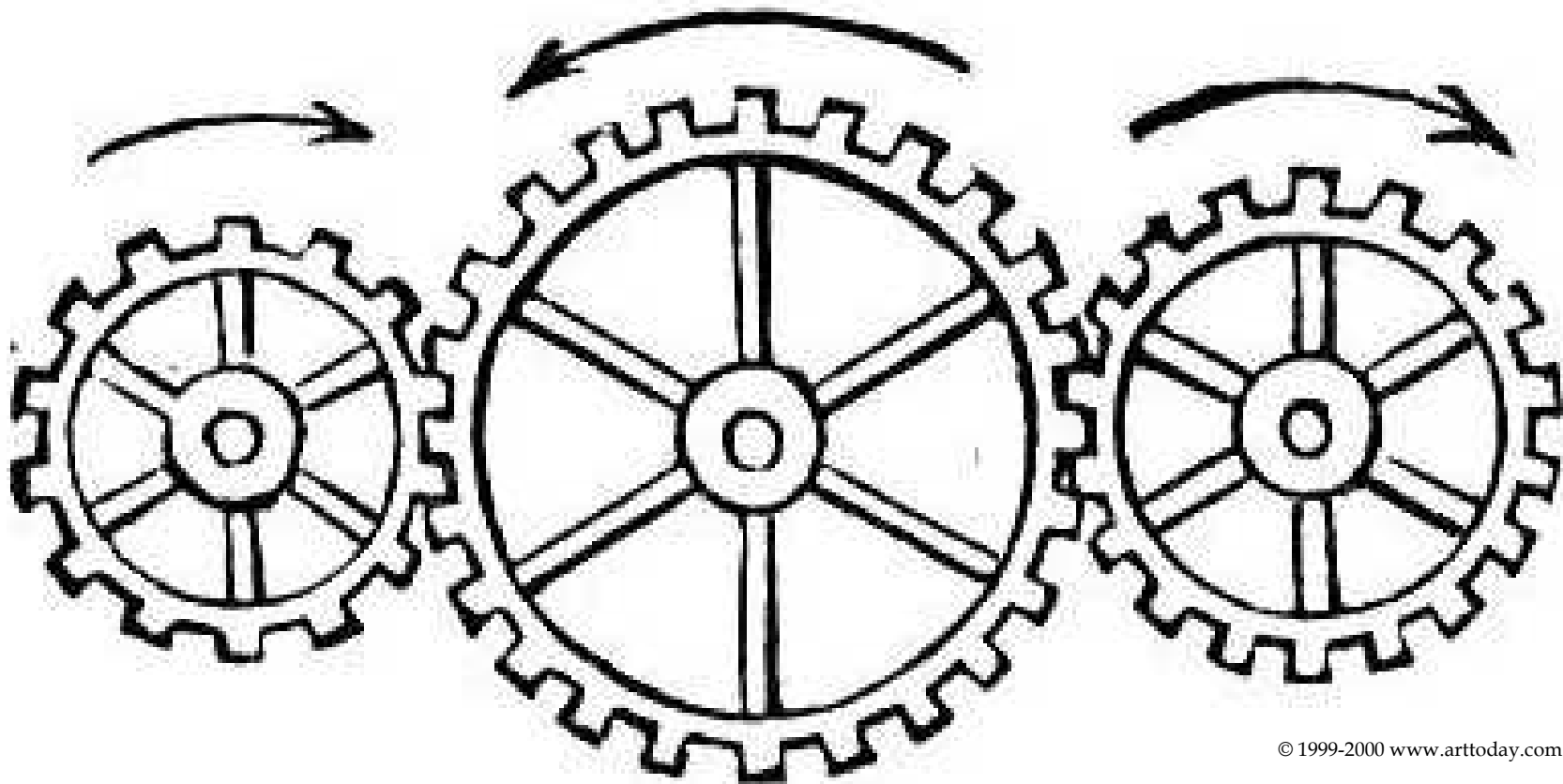
Records 1 through 5 of 5 returned.

Title: Bilgi edinme özgürlüğü / yay,na
haz,rlayanlar, Yağsar Tonta, Ahmet Çelik.
Edition: 1. bas,m.
Published: Ankara : Türk Kütüphaneciler Derneği, 1996.
Description: 98 p. ; 24 cm.
Series: Türk Kütüphaneciler Derneği Genel Merkezi
Yay,nlar, ; 21
LC Call No.: JC598.B543 1996
ISBN: 9757653543
Notes: Includes bibliographical references.
Subjects: Freedom of information -- Turkey.
Censorship.
Other authors: Tonta, Yağsar Ahmet.
Çelik, Ahmet.
Location: LAD URLSTAX JC598 .B543 1996 URLSTAX-STAX
Control No.: 07-ATO-4163

[Tagged display](#)

Author: Tonta, Italo.
Title: Raggi di Röntgen e loro pratiche applicazioni /
di Italo Tonta.
Published: Milano : Ulrico Hoepli, 1898.
Description: 160 p., [24] leaves of plates : ill. ; 16 cm.
Series: Manuali Hoepli
Notes: Includes bibliographical references.
Subjects: X-rays.

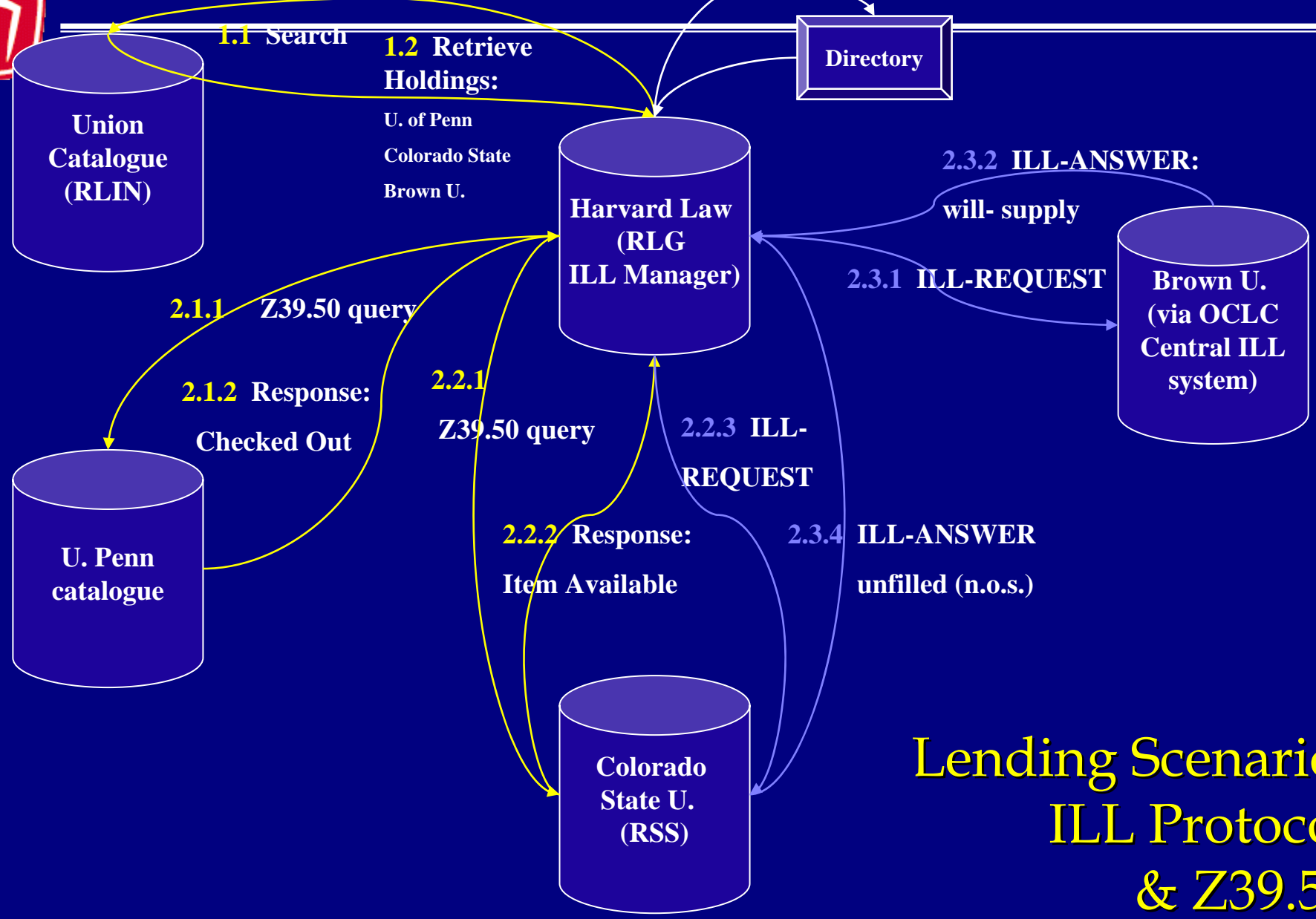
Z39.50 & ISO 10161 Working together



© 1999-2000 www.arttoday.com



"DOK 422 Information Networks"



Lending Scenario: ILL Protocol & Z39.50



1.1 Z39.50 query



"DOK 41"



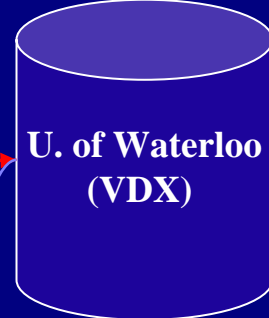
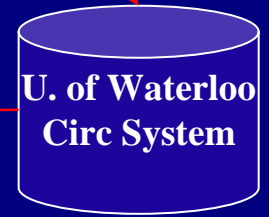
1a.1 Directory Lookup: Library Name & Address Info

1.2 Response

Holdings:
NLC
Simon Fraser U.
U. of Guelph

1a.2 Patron Initiated Request

1a.3 NCIP User Lookup & Response



2.1 NCIP Item Lookup

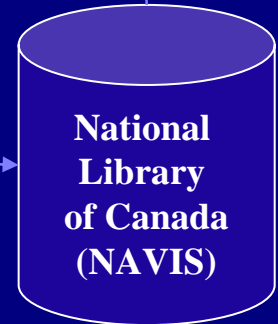
2.2 Response:
Circ Status: On Loan



3.1 ILL-REQUEST

4.2 ILL-ANSWER:
will-supply

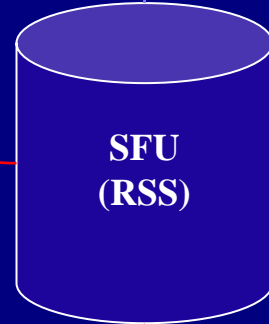
4.1 ILL-REQUEST



3.3 ILL-ANSWER
unfilled (n.o.s.)

3.2.1

NCIP Item Lookup



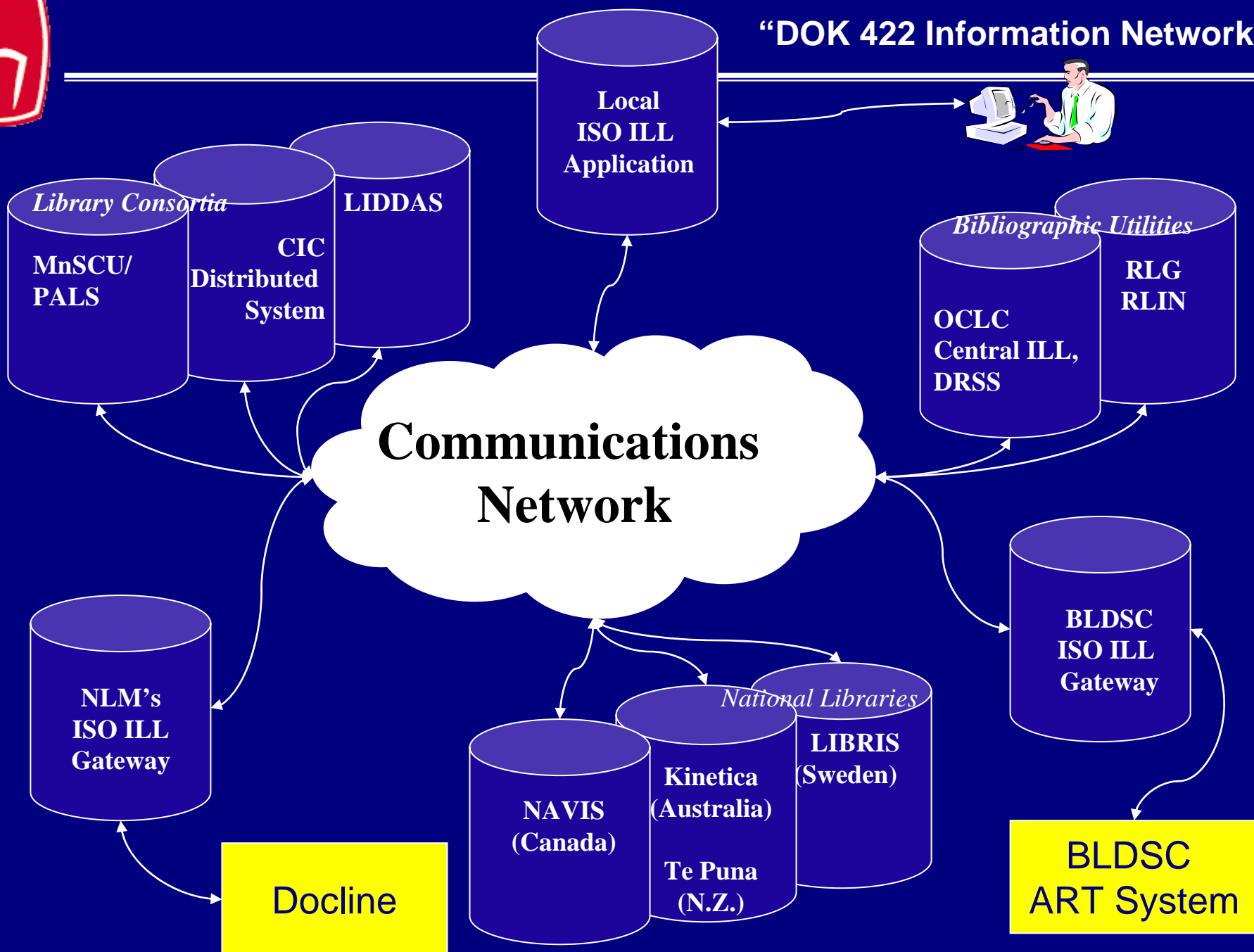
3.2.2

Response:
Circ Status:
Lost

Patron Initiated Interlending Scenario:
Z39.50, ILL Protocol & NCIP



"DOK 422 Information Networks"





OAI background

ks”

- background in the e-prints (pre-prints) community
- need to provide ‘search’ services across multiple e-prints archives
- distributed cross-searching felt not to be appropriate
- adopted approach based on metadata harvesting
- OAI has been linked to political agenda that wants to change the academic publishing model, but...
- ...core activity is the OAI-MHP - the OAI Metadata Harvesting Protocol



What's in a name?

ks”

- ‘open’ means that specs are freely available
- may be some formal standards activity in the future
- currently at version 1.1 (upgraded from 1.0 because underlying XML and XML schema W3C recommendations changed)
- ‘archive’ as in e-print archive - i.e. repository of documents
- NOT ‘archive’ as used by the library and archival communities

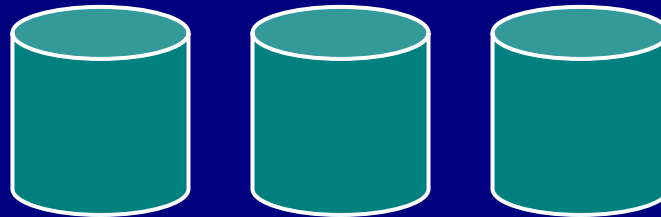


OAI-MHP

ks”

- generic protocol for sharing metadata between services
- NOT a distributed search protocol

Repositories



Databases of stuff - metadata and/or full-text. May be partitioned into 'sets'.

request

response

Service providers





OAI-MHP

ks”

- ☞ requests sent as HTTP GET
- ☞ responses returned as XML over HTTP
- ☞ OAI-MHP based on HTTP, XML, XML schemas, XML namespaces
- ☞ 6 requests
 - Identify, ListIdentifiers, ListRecords, GetRecord, ListMetadataFormats, ListSets
- ☞ large responses may be split using simple ‘resumption token’ mechanism



Harvesting metadata

ks''

- 👉 service provider can ask repository for
 - all records
 - records in particular set
 - records modified in particular date span
- 👉 metadata records returned using XML
- 👉 support for arbitrary XML schemas
- 👉 repositories **MUST** support 'simple DC' XML record format
- 👉 some existing support for other schemas including an XML encoding for MARC