GLOBE 2.0
An International Consortium for Sharing Quality Learning Content

Center of ICT and Distance Education (CODE)

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Global Learning Object Brokered Exchange (GLOBE)

- **An international broker**
- **To reach "Critical Mass" (originally)**
- **Focus on educational/learning resources**
- **All levels**
- **Federated search and harvesting**
- **Harmonizing with international standardization organizations (e.g. IEEE, IMS-GLC)**
- **Finding scalable and interoperable infrastructure and sustainable business model**

Global Learning Object Brokered Exchange (GLOBE)

September, 2004

Education Services Australia

OUJ-CODE

February, 2007   September, 2007

April, 2008   September, 2008   March, 2009

February, 2010

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GLOBE 1.0
Cross-institutional Search

GLOBE 1.0 Search Results: Location and Abstracts

Order is decided by local rules.

Federated Search （NIME-glad）

SQI：Simple Query Interface

① Search keyword 「Science」

② query learning object include keyword "Science"
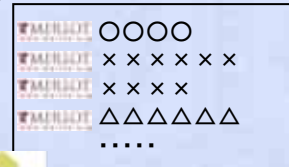
③ return search result

SQI Server

④ query learning object include keyword "Science"

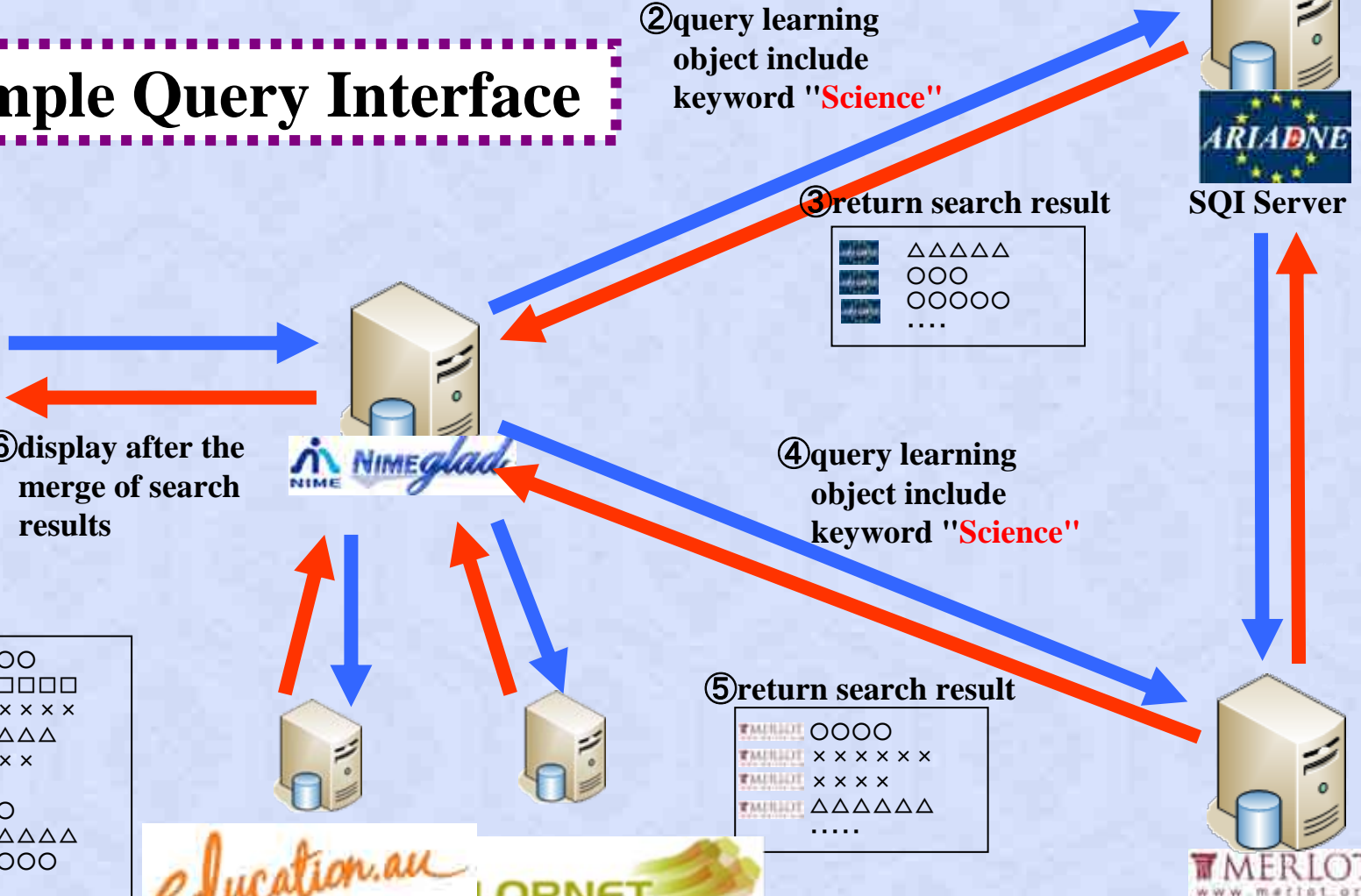⑤ return search result

⑥ display after the merge of search results

edNA API

SQI

MERLOT API

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Harvesting （GLOSS）

OAI-PMH Harvester
from ARIADNE 300K
     European Schoolnet 190K
     OER Commons (ISKME) 30K

OUJ OAI-PMH Repostory
http://lor.code.ouj.ac.jp/oai/OAI-script
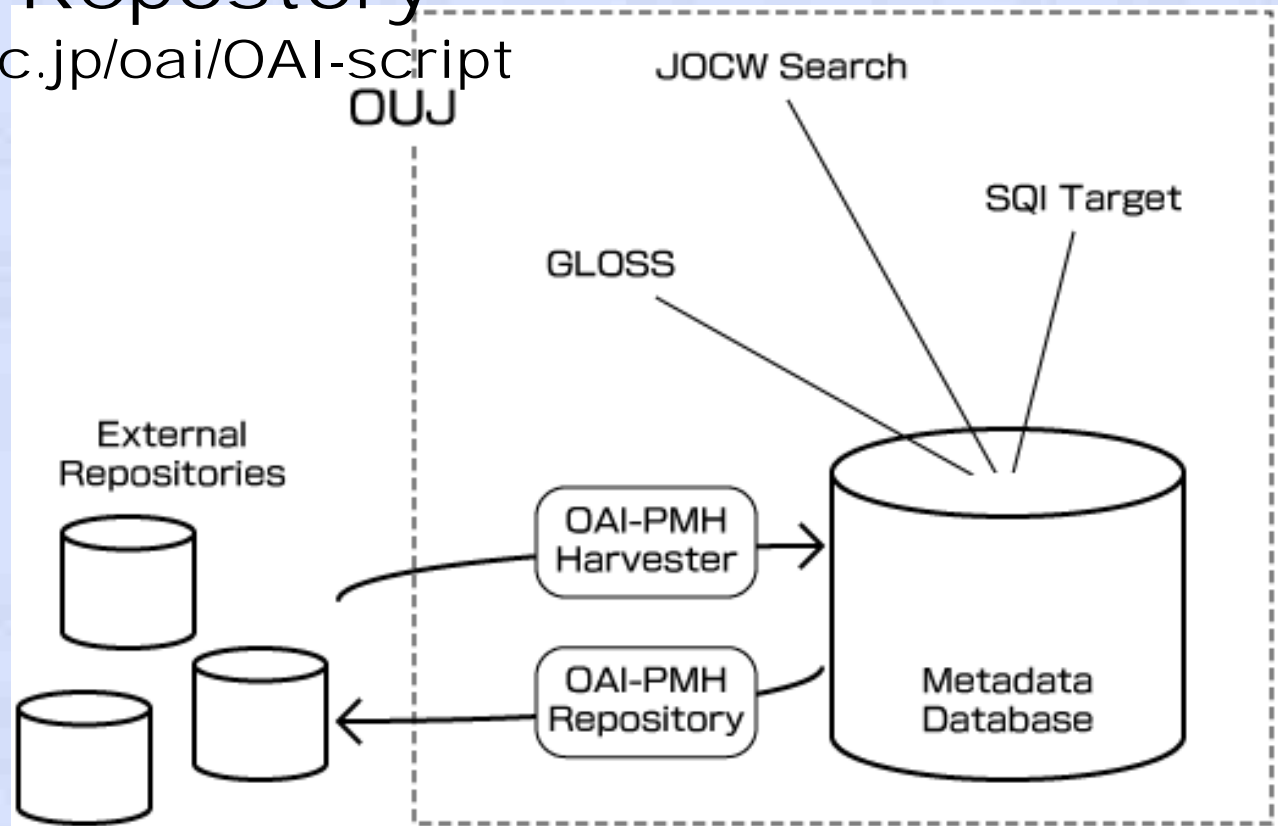
Use Cases : Tomorrow

◆ **Lifelong Learner**
A learner need not consider the optimality of the learning content. By referring to learner's profile (including, e-portfolio) and contexts, the computer finds the most appropriate modules from the content repositories from the world.

◆ **Teacher**
A teacher can find the most appropriate materials which he/she uses at the classroom by consulting with the knowledge-base on the pedagogy, quality, right and other information.

They can concentrate in learning and teaching in various contexts (incl. Social)

GLOBE 2.0 for the new value-added services

- advanced global search
- quality assurance
- optimization / recommendation
- right management / processing
- localization

Next-generation int'l standards of metadata and infrastructure for the discovery and delivery of content/metadata are indispensable
e.g. IMS/GLC LODE, SCORM....

Technologies and architecture

◆ **Federated search and Harvesting (OAI-PMH)**

plus

◆ **Federation of registries**
◆ **DRM**
◆ **Metadata auto tagging**
◆ **LOM 2.0**
◆ **Taxonomies in disciplines**
◆ **Control vocabularies bank across languages and cultures**

GLOSS: Global Learning Object Search System (GLOSS)

- **New framework in open education and lifelong learning**
- **New value-added services, e.g.**
  - **copyright management and processing**
  - **educational guidance and recommendation**
  - **quality assurance**
- **Federation of Japanese domestic repositories and referatories**

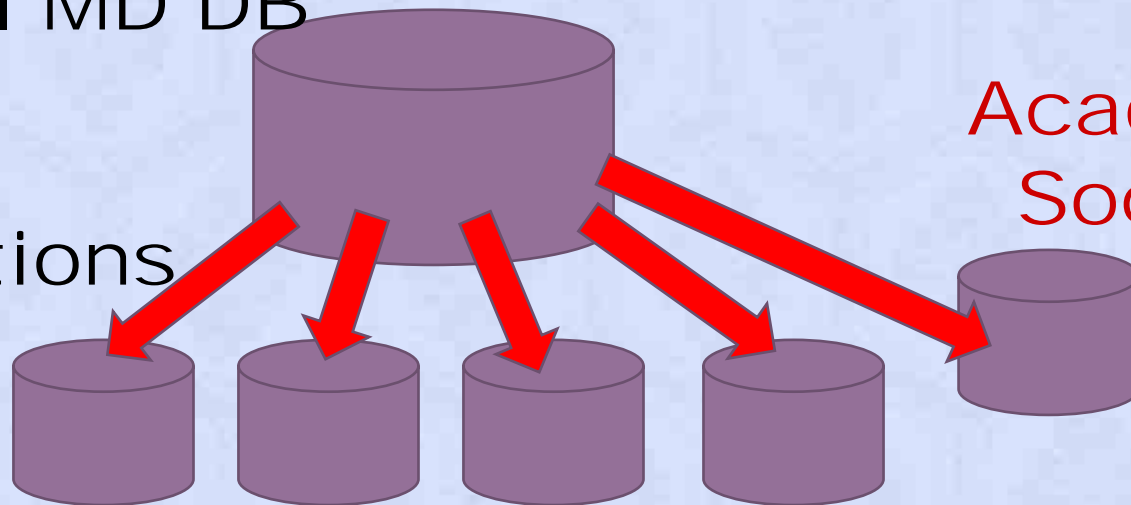# New cross-institutional search: GLOSS's features

- ◆ **Customized search engine**
- ◆ **Metadata extension**
  - ◆ **Covering both open and proprietary content**
  - ◆ **Quality evaluation**
  - ◆ **Pedagogical / learning information**
- ◆ **Domestic network for metadata**
  - ◆ **Harvesting**

New cross-institutional search: features

Central MD DB

Academic Society

Collections

JOCW   **FOLC -ACPA**   **OUJ**   **GLOBE**

JOCW_HP

GLOBE Harvester / Federated search

A Collection

GLOSS: Search Result

Metadata item for New System

- ID of metadata*
- Title*
- Language of LO**
- Description**
- Keywords**
- Aggregation level*
- Language of metadata*
- File format*
- URL*
- Technical requirements
- Educational context**
- Typical learning time
- Intended level of learners

- Cost*
- Restriction of usage
- Classification**
- Rights ("Catalog" and its "Entry" of applied license)
- Quality ("Catalog" and its "Entry" of obtained certification)
- Availability of harvesting*
- Availability of federated search*
- Collection

red item: not based on IEEE LOM

(*) mandatory item

(**) recommended item

ID of LO is made of URL (Catalog is "URI" and Entry is URL of LO)

Right description under Creative Commons (Element 19)

License System	Value
Creative Commons Version 3.0	Attribution
	Attribution- No Derivative Works
	Attribution-NonCommercial - No Derivative Works
	Attribution-NonCommercial
	Attribution-NonCommercial -ShareAlike
	Attribution-ShareAlike

JOCW-Search: Search Results

CC License

Prospects

- ✓ Lifelong Learners
  - ✓ Independent, Autonomous, Self-directed
  - ✓ Broad spectra of personal characteristics
  - ✓ Plus Internationalization and Globalization
    - ✓ languages, social customs, school systems, curricula and standards, pedagogies, ICT environments, learner characteristics and so on
- ✓ New value-added Services
  - ✓ Localization for cultural diversity
  - ✓ Personalization and optimization
    - ✓ Recommendation, (Right, Quality, Pedagogical and so on)
- ✓ Collaborations to sustain quality content and learning communities
  - ✓ Sharing courseware materials for co-development
  - ✓ Sharing information for learners
- ✓ Global search system will be effective also in both OE and LLL frameworks.

Contact Information

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