

Integration of Disciplinary Repository, Institutional Repository and National Portal

NAMIKI Takao*,
HORIKOSHI Kunie, SUZUKI Masako , SUGITA Shigeki**,
KIKUCHI Mitsushi, OJIRO Koichi***

* Faculty of Science, Hokkaido University

** University Library, Hokkaido University

*** National Institute of Informatics

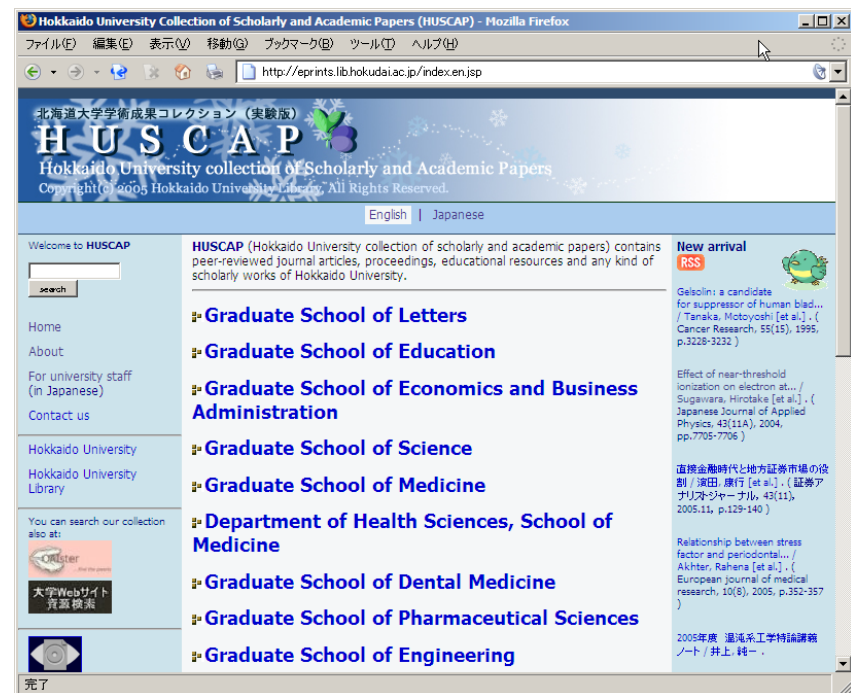
We are

- Hokkaido University, JAPAN
 - 2,100 researchers and 17,500 students
 - Disciplinary repository
 - The Sea of Mathematics (Faculty of Science)
 - Institutional repository
 - HUSCAP (University Library)
- National Institute of Informatics, JAPAN
 - National portal “JuNii” for IRs in Japan

HUSCAP

<http://eprints.lib.hokudai.ac.jp>

- Institutional repository
 - Hokkaido University Collection of Scholarly and Academic Papers
 - Journal articles
 - Proceedings
 - Learning objects
 - Since Jul. 2005
 - 200 OA materials



HUSCAP (continued)

- Dspace 1.2.2
- CJK searchable for fulltext of assets
 - Japanization How-to by SUZUKI Keiji
(<http://www12.ocn.ne.jp/~zuki/Japanization/>)
- 2 metadata schema
 - oai_dc
 - junii (Original DC Application Profile defined by National Institute of Informatics)
 - NDC ('Nippon Decimal Classification' like DDC)
 - Original dc:type vocabulary
 - Research Output – Article
 - Research Output – Others

The Sea of Mathematics

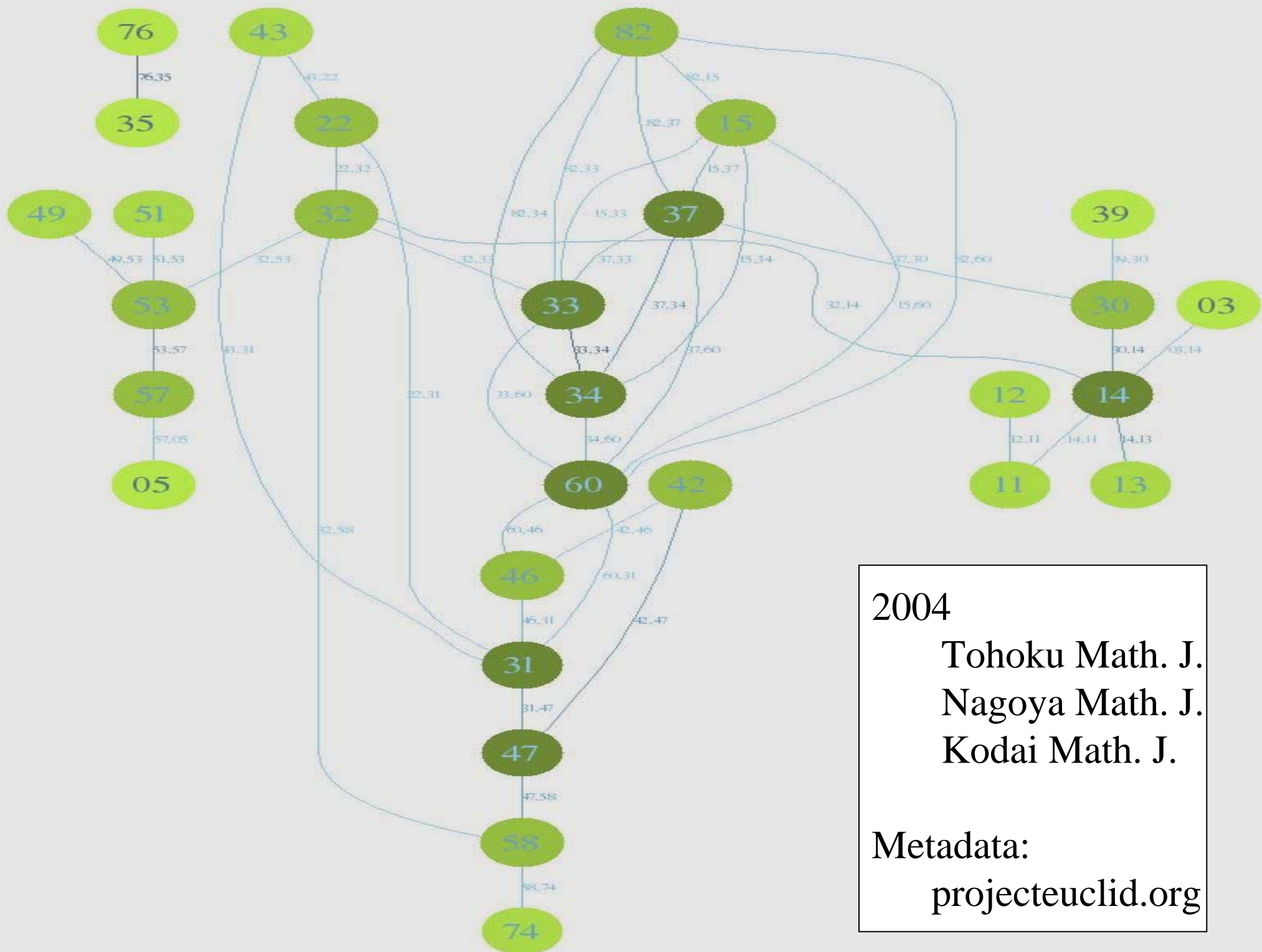
<http://eprints.math.sci.hokudai.ac.jp>

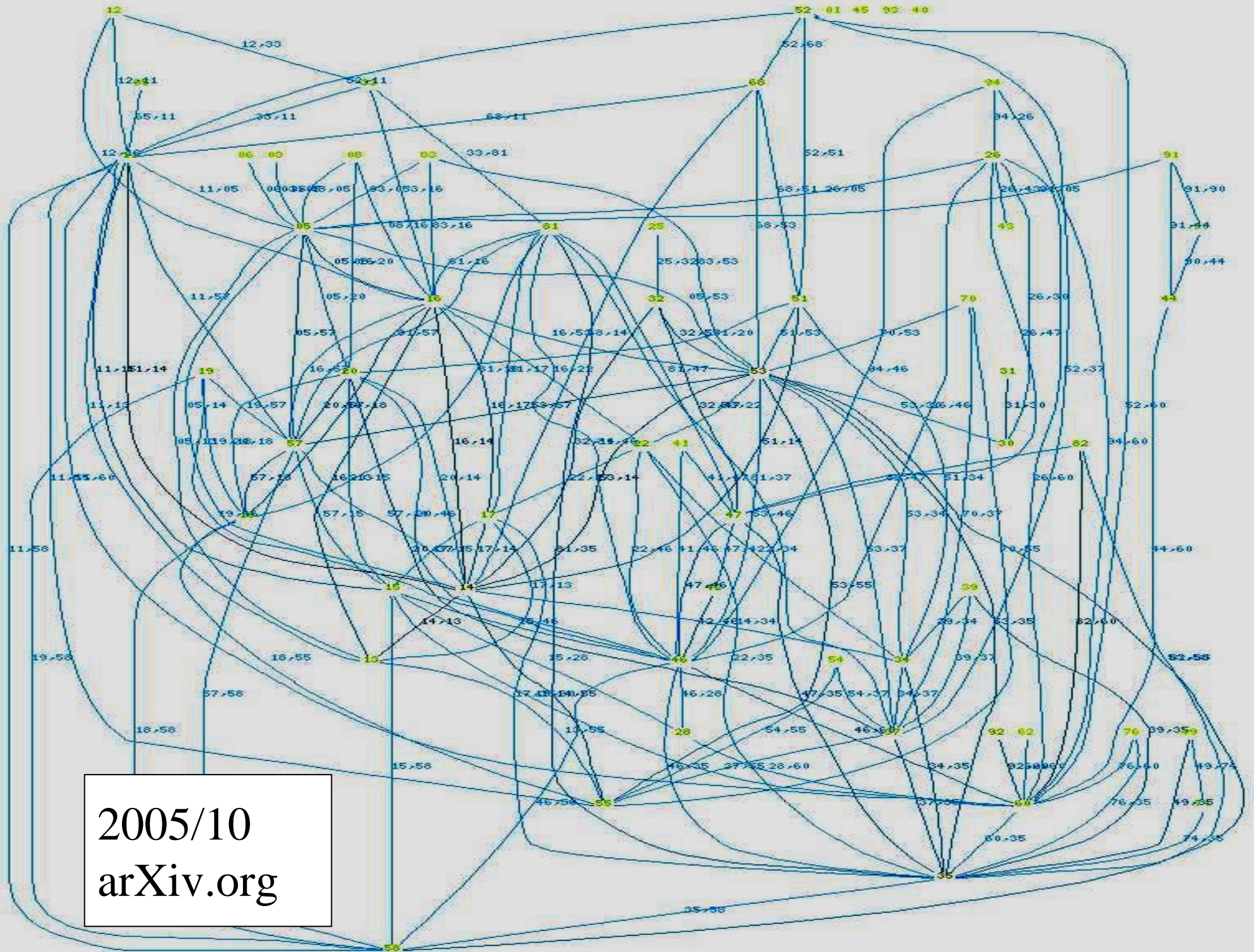
<http://coe.math.sci.hokudai.ac.jp>

- Disciplinary Repository
- EPrints 2.2.1
- First 2 digits of Mathematics Subject Classification
- As a Data Provider
 - Self-archiving by mathematicians
 - To write, print and advertise are our routine work
 - Preprint, Technical Report, Institutional Journal, Conference paper, Video, Software,.....

The Sea of Math. (continued)

- As a Service Provider
 - Metadata Mirroring and Search (arXiv, EUCLID, NUMDAM,...)
 - Visualized Subject Correlation Map
 - <http://metron.math.sci.hokudai.ac.jp/search-new/navi/jp/>
 - Selection by Classification
 - MSC XX-0X means Review or Educational articles
 - Mapping to Curriculum

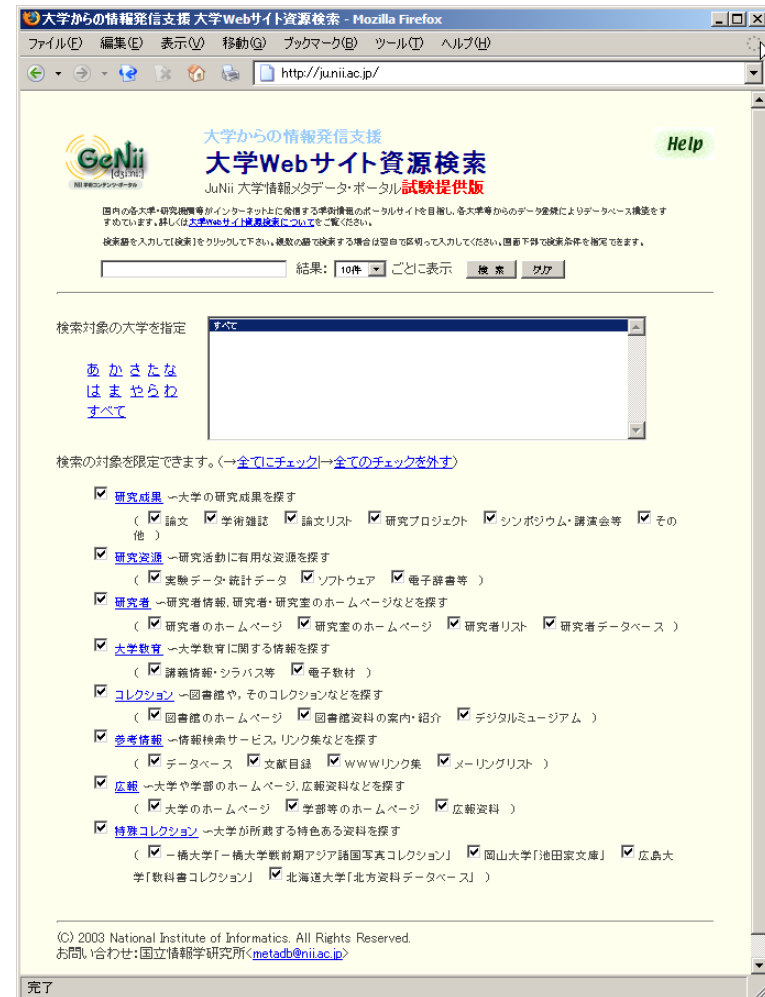




2005/10
arXiv.org

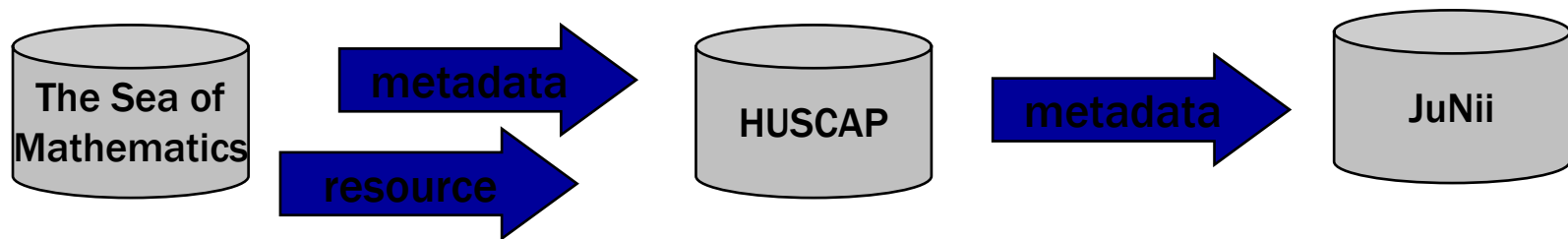
JuNii

- National portal for Japanese scientific information
 - Comprehensive search of information on universities resource through metadata
 - JuNii's backend database includes metadata harvested from institutional repositories in Japan
 - Total number of metadata stored: 80,000 (as of Nov. 2005)



Harvesting framework

- Metadata and Resource Harvesting from the Sea of Mathematics into HUSCAP
 - Archiving as a library collection
- Metadata Harvesting from HUSCAP into JuNii



The Sea of Mathematics: Co-operation with HUSCAP

- Subject Conversion
 - HUSCAP uses Nippon Decimal Classification
 - Constructing Translation Table from MSC to NDC
 - Realized by Perl Subroutine in EPrints 2.2.1 which is called within oai-pmh support function
- Embedding Full-Text URIs into dc:relation
 - Simple wget command
- Problem: Non-HTTP protocol
 - Video --- Streaming Media

HUSCAP: Metadata Harvesting from SoM

- make-dspace-import-data.pl
 - To get other DP's metadata and setup for ItemImport
 - Available at:
<http://www12.ocn.ne.jp/~zuki/Japanization/make-import.html> (in Japanese Only)

HUSCAP: Resource Harvesting from SoM

- Adding codes to make-dspace-import-data.pl
 - “wget -nd -np -r -q *[identifier_uri]*”
 - Check previous log (correspondence table of OAI Identifier of SoM and DSpace handle)
 - Store into two directories (new / update)
 - ‘deleted’ records -> manually check and withdraw

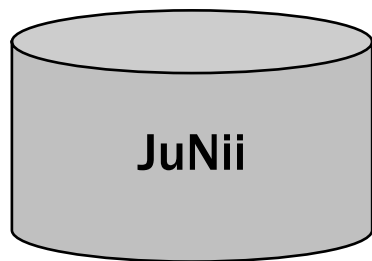
HUSCAP: ItemImport

- In the two (**new** / **update**) directories,
 - dsrun org.dspace.app.itemimport.ItemImport
--**add** / **replace**
--eperson=xxx@zzz.hokudai.ac.jp
--collection=230
--source=importDIR
--mapfile=**mapfile** / **mapfile.update**

HUSCAP: as a Data Provider for JuNii

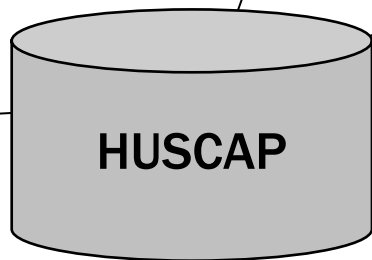
- JUNIICrosswalk.java
 - <http://ju.nii.ac.jp/oai/junii.xsd>
 - University ID Number
 - DSpace resource type -> JuNii vocabulary
 - Ex. Article, Preprint, Thesis -> 'Research Output – Articles'
 - identifier xsi:type="URL"
 - <http://hdl.handle.net/2115/XXX>
 - subject.ndc→subject xsi:type="NDC"

For researchers in Japan



Conclusion

For research community on
mathematics and related discipline



As the showcase of research activities
in Hokkaido University

