

---

# DELOS NoE Evaluation Forum past, present, - ??

---

PADOVA Workshop  
October 4-5 2005

Ingeborg Torvik Sølvberg  
IDI, NTNU

---

# DELOS NoE 1999-2002

## Evaluation Forum

Main results:

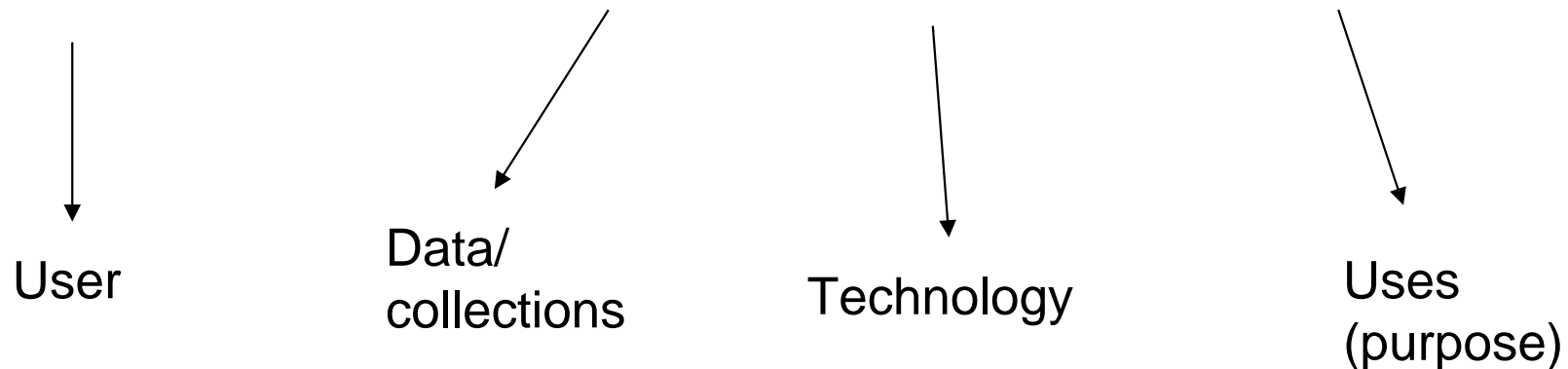
- *Testbeds, Metrics:*
    - A generic scheme for the classification of digital libraries
    - A survey exploring the needs for Digital Library Test beds as well as the existence of such test beds.
    - A MetaLibrary of existing test beds for DL evaluation
  
  - *The Budapest Evaluation Workshop:*
    - Two broad themes emerged from the workshop: the complementary needs for
      - metrics and test beds
      - evaluation in the context of specific digital library applications.
-

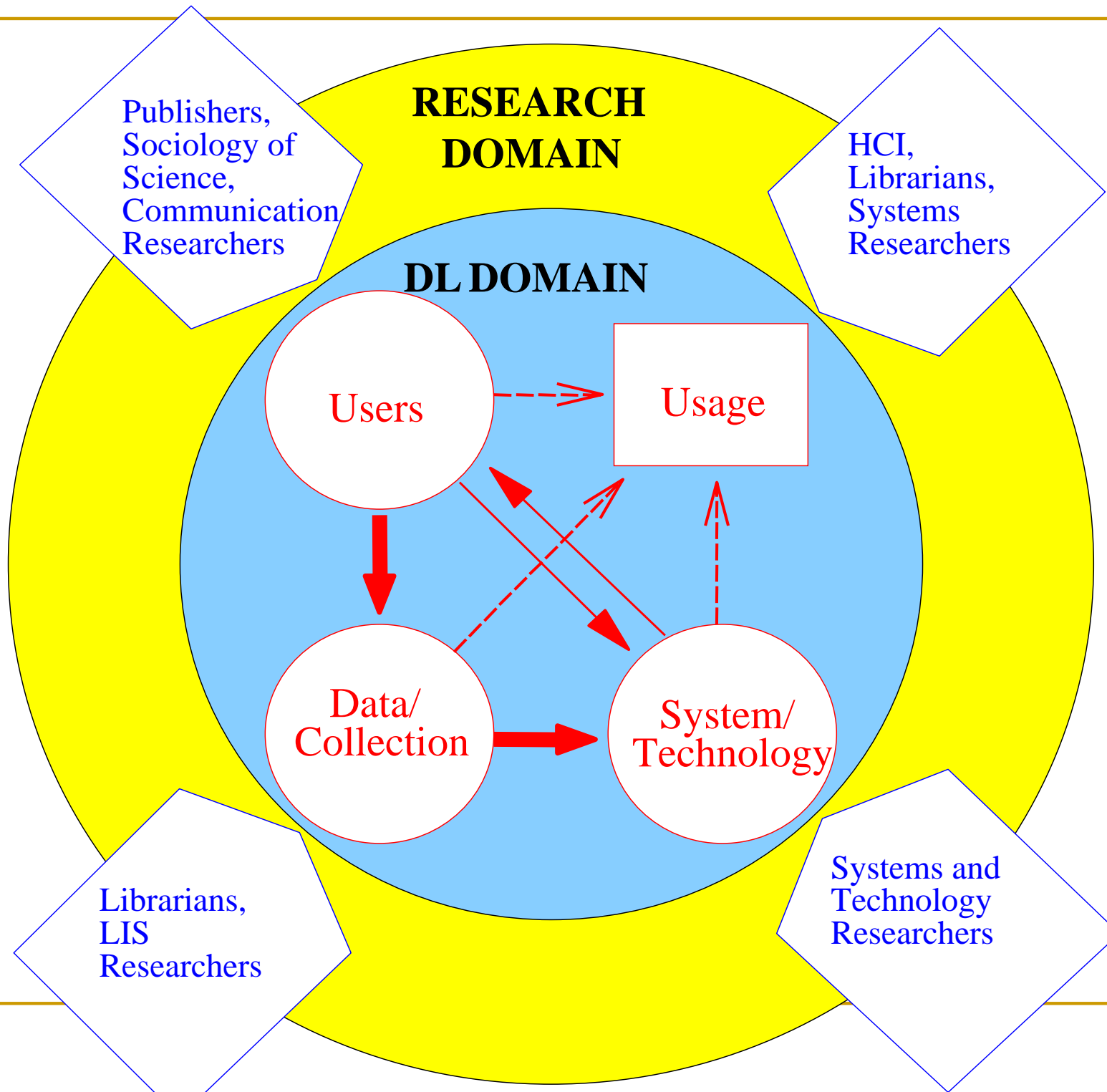
---

# Generic Classification and Evaluation Scheme for DLs

The fundamental question:

“WHO is using WHAT, HOW and WHY?”.





**Table: DL Classification Scheme and metrics, DELOS NoE**

<b>Classification</b>			<b>Metric</b>
	<i>First dimension</i>	<i>Second dimension</i>	
Users/uses	Users	Internal, general, educational, professional, research	Number Distribution
	Domain (subject area)		Distribution
	Information Encounter	Object seeking Browsing	Distribution
	Purpose	Consume Analyse Synthesize	Distribution
Data/Collection	Content	None/partial/full Audio, video, text 2D/3D	Diversity, age, size, quality (white/grey literature)
	Meta content	Bibliographic Indexing/thesaurus/ classification	Media Level of detail
	Management	Rights, workflow user management maintenance	Document age, growth rate, immediacy, completeness, maintenance intervals
Technology	User technology	Document creation, disclosure, interface, browsing, search, printing, group/individual	
	Information access	Retrieval, navigation, filtering, extraction, text mining	Efficiency Effectiveness
	Systems structure technology	Repository Transport models	
	Document technology	Document model Format	

---

# Surveys

Two surveys are conducted:

- Survey on existing digital library systems (31 questions)
  - Survey on future needs in digital library test/research environments (21 questions)
-

**4. Type of the users of the digital library [2]**

Composition of users regarding the domain they represent (type in percentage without '%')

- general  
 research  
 education  
 professional/business

Abstain

---

**5. Type of the users of the digital library [2]**

How many users are internal to the DL system? (e.g. maintainers, librarians, colleagues, etc.)

- none  
 some  
 major part  
 most  
  
 Abstain
- 

**6. Total number of users of the digital library**

- less than 100  
 100-1,000  
 1,000-10,000  
 more than 10,000  
  
 Abstain
-

**16. Document technology -- What is the internal logical structure of stored documents?**

- linear
- hierarchical
- graph (hyperlinked)
- other
  
- Abstain

Comments:

---

**17. Document technology -- What are the supported document components?**

- logical structure
- layout structure
- metadata
  
- Abstain

---

**18. Data/Collection -- extent of content.**

- only bibliographic data
- partial content (e.g. abstract)
- full document content
  
- Abstain

---

**19. Data/Collection -- content media.**



**URL:**

<http://www.iei.pi.cnr.it>

The person who filled in the questionnaire:

[erinid@hotmail.com](mailto:erinid@hotmail.com)

**Contact:**

[biagoni@iei.pi.cnr.it](mailto:biagoni@iei.pi.cnr.it) [pagano@iei.pi.cnr.it](mailto:pagano@iei.pi.cnr.it) [carlesi@iei.pi.cnr.it](mailto:carlesi@iei.pi.cnr.it)

**.4 Short description**

ETRDL is a digital library created for the ERCIM (EUROPEAN RESEARCH CONSORTIUM FOR INFORMATICS AND MATHEMATICS). It provides technical reports and documents for applied mathematics, IT and computer science.

**.5 Languages**

english, french, italian, german, hungarian

**.6 Availability**

User interface: public

Document collection: special access

DL software: private

*Comments:* revaluation of the digital libraries

**.7 Supported standards**

RFC1807 and Dublin Core

**.1 Short description of users**

research organisations

**.2 Target user domains**

research

education

**.3 Target audience**

worldwide

**.4 Subject domains**

engineering/technology

information/news

general

**.5 User studies**

no

**.1.1 User interface functionality**

searching

### .1.3 Support for multilinguality

It is possible to select the language of the user interface (e.g. by switching from the common user interface in English to an interface in another language)

The DL system is able to manage documents in languages other than English (i.e. handle issues of character encoding, alphabetic ordering, indexing and display)?

### .2.1 Type of data repository

Proprietary repository of a Digital Library System

IR (information retrieval) System

### .2.2 Is the repository distributed or centralized?

don't know

### .3.1 Internal logical structure of stored documents

hierarchical

### .1.1 Extent of content

full document content

### .1.2 Content media

text

images

### .1.3 Content format

jpg, Giff, Tiff, html, Pdf, PS

### .2.1 Heterogeneity of represented topics

almost uniform

### .2.2 Average age range of documents

3-10 years

### .2.3 Collection size (estimated number of documents)

1,000-10,000

### .2.4 Quality control of documents

mixed

### .3.1 Applied metadata schemes

DC, RFC 1807

### .3.2 Information provided by content metadata

bibliographical

indexing

classification

### .3.3 Media of content metadata

---

# Survey of future needs

## 22 respondents

- ❑ 6 female, 16 male
- ❑ Working domain: 16 research, 4 professional/business, 2 other

## The complete summary:

<http://www1.sztaki.hu/servlets/voting/delos/needs?a=view&f=result>

---

- searching
- browsing
- notification (e.g. sending out information to users about new documents)
- printing
- user groups, support for team work and collaboration
- document creation (adding new documents to the collection)

Abstain

Comments:

---

## 6. What kind of techniques should be available for information access?

- retrieval (e.g. document queries)
- navigation (e.g. hyperlinks between documents/metadata)
- filtering (based on personal interest profiles)
- extraction (e.g. automatic generation of facts/summaries)
- text mining (analysis, correlations, trends, etc.)

Abstain

Comments:

---

## 7. Systems structure technology -- the type of the data repository








- Proprietary repository of a Digital Library System
- Standard Database Management System (DBMS)
- Object-based Database System

research	0
education	0
professional/business	50

#### 4. Question: Domain/subject area

Please describe the main areas you wish to be covered by the DL, and give details in the comment area.

type: multiple selection

Answer	Points	
engineering/technology	11	
social sciences	7	
information/news	7	
general	7	
natural sciences	6	
business	4	
leisure	3	

Abstain: 1

**Choice with highest score:** engineering/technology








Voter	Vote	Voter's comment
T.C. Parziale <Catonhill@aol.com>	information/news	Vital Certificates
Dr. Jens E. Wolff <jw@informatik.uni-bonn.de>	general	

Matthias N. O. Mueller <mu@boml.z-soz.de>	partial content (e.g. abstract)
Djoerd Hiemstra <hiemstra@cs.utwente.nl>	full document content

#### 14. Question: Data/Collection -- content media.

Please give desired document formats (e.g. HTML, Postscript, GIF).

type: multiple selection

Answer	Points	
text	22	
images	16	
audio	13	
video	12	
animation	6	
3D	2	
other (please detail)	1	

Abstain: 0

**Choice with highest score: text**

Voter	Vote	Voter's comment
T.C. Parziale <Catonhill@aol.com>	text images	
Dr. Jens E. Wolff <jw@informatik.uni-bonn.de>	text	document format: XML
Vesna Turcin <vesna.turcin1@zg.tel.hr>	text	

---

# Browse the MetaLibrary

You may browse MetaLibrary entries according to the criteria in the following major dimensions:

- ❑ general data
  - ❑ about users and usage
  - ❑ about applied technologies
  - ❑ about data collection
-

---

# The Budapest Workshop

6-7 June 2002

- Cooperation DELOS/NSF
  - Open call for papers
  - Accepted papers divided in four topical groups:
    - Users and user interfaces
    - Evaluation in context
    - Metrics and testbeds
    - Evaluation of DL services and scalability
-



---

# Main recommendations

There is complementary needs for

- metrics and test beds
  - evaluation in context of specific digital library applications
-

---

# Research questions

## ■ Metrics

- ❑ Which criteria besides user satisfaction are important?
- ❑ How can user satisfaction be measured?

## ■ Testbeds

- ❑ Types of components have to be identified
  - ❑ Interfaces between subsystems have to be well defined:
    - Semantic aspects
    - Syntactic aspects
  - ❑ Which kind of collections shall be provided
-

---

# Research questions

Evaluation in context of specific digital library applications:

- E-learning
    - User groups
    - Domain
  - E-government
  - E-health
  - .....
-

---

# DELOS NoE 2004-2008

## Cluster 7

- The main funded activities in 2004:
    - INEX
    - CLEF
  - ⇒ give valuable input to  
“Testbeds and metrics”
-

---

# Evaluation Cluster, Objectives

Evaluation methodologies; infrastructure for specific evaluations

- Development of comprehensive theoretical framework for DL evaluation, which can serve as reference point for evaluation studies in the DL area
  - Research on new methodologies will be supported in order to overcome the lack of appropriate evaluation approaches and methods
  - Development of corresponding toolkits and testbeds in order to enable new evaluations and to ease the application of standard evaluation methods
-

---

# New projects will be decided in December 2004

- Evaluation in the context of specific DL applications, ?
  - focus on specific components
  - complete DLs
- Methodologies, Frameworks ?
- In cooperation with other DELOS Clusters, with external colleagues?

Activities in the next phase of DELOS NoE is now being discussed.

---