

Digital Repositories, Interoperability and Services

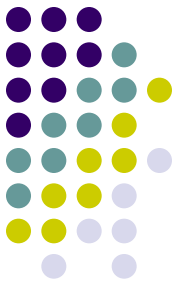
Devika Madalli

Documentation Research and Training Center

Indian Statistical Institute

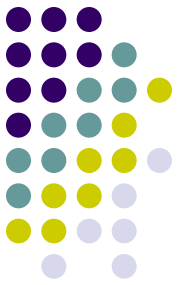
Bangalore, INDIA

COAR meeting, Uppsala, 22nd May 2012



Overview

- Digital Repositories are used as Institutional publishing tools
- Encourage self archiving

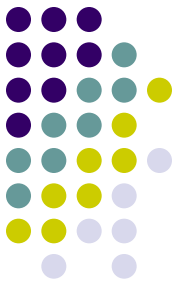


Today's OARs

OARs are used for:

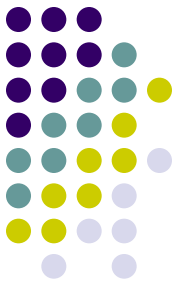
- collecting, archiving, and disseminating research outputs, for instance
 - research articles, conference proceedings, dissertations, data sets, working papers and reports

Classification of OARs

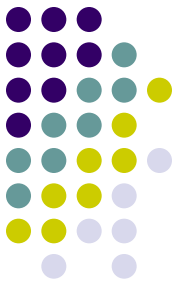


- Discipline based
 - Arxive.org
 - PubMed Central
 - LDL
- Resource type specific
 - ETDs

Issues

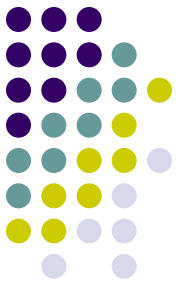


Individual vs Collaborative



Each individual repository is of value

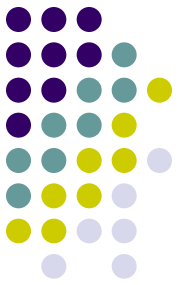
- only to the extent of its own collection and purview



Limits of individual repositories

Open Access aim,

- Should not only be to collect and disseminate open content
- The real value lies in the possibility of connecting and networking repositories



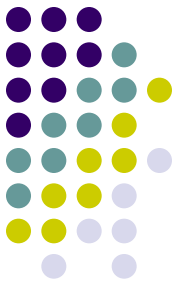
Interoperability

- Establishing communication between repositories
- Interoperability opens up possibilities for unprecedented collaboration in terms of enhancing resources, collaborative research, data mining, aggregation among several other benefits
- Basic need: a common mode of communication



Features of Information Objects

- **Content:** What it is about
- **Context:** who, what, why, where, how aspects of the object.
- **Structure:** formal set of associations within or among individual information objects.

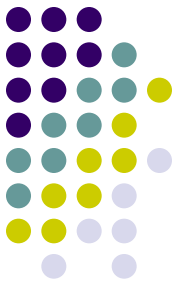


Interoperability: Levels

In order to achieve seamless access to content irrespective of its location, interoperability has to be achieved at various levels

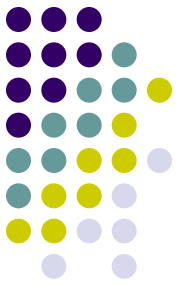
- Technical
 - Syntactic
- Semantic
- Administrative and organizational

Technical



Metadata and agreed upon universal syntactic structure for exchange of data

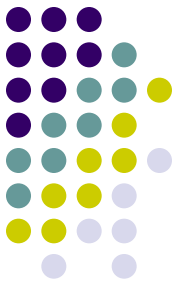
Minimize overheads of normalization, crosswalks



Protocols for interoperability

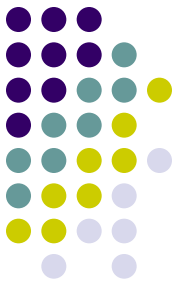
- Metadata harvesting
OAI-PMH, SRU/SRW
- Sharing content
OAI-ORE
- Multiple repository deposit
SWORD
- OpenUrl

Semantics



- shared connotations
- Semantic interoperability ensures that '*meaning*' as '*shared common understanding*' of exchanged information

Semantics

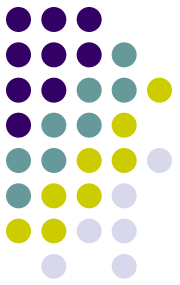


Ontologies support to repositories through domain modeling creating a shared conceptual understanding

Further

Relationships mapping for intra as well as cross domain applications

Faceted Ontologies

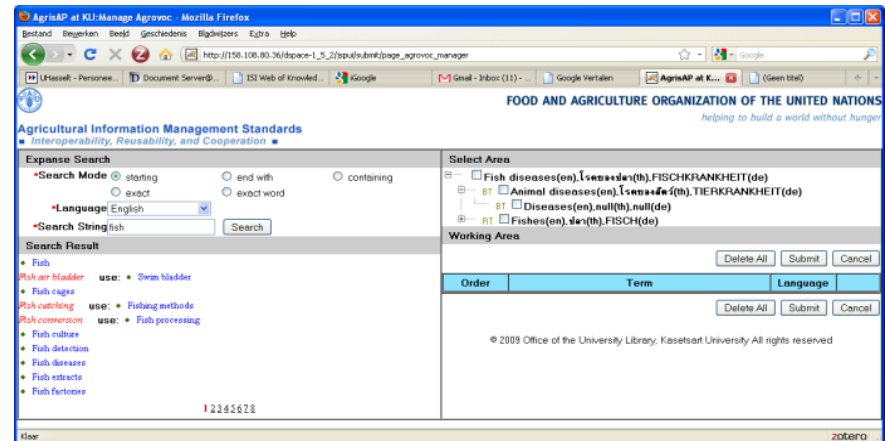
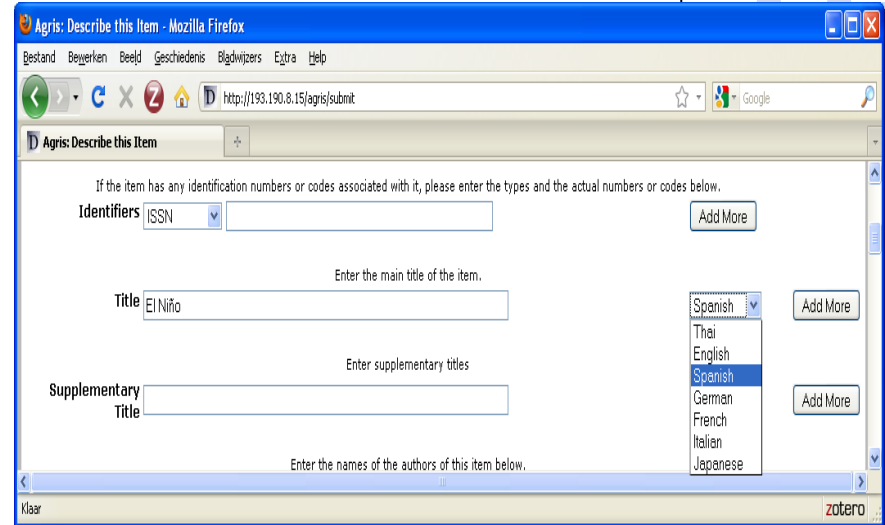


ISI partnered EU FET project 'Living Knowledge' deploying Faceted ontologies for representation of diversity along domain(Topic), temporal, spatial dimensions that helps in opinions and bias detection. Application built for Media Content Analysis



FAO and Dspace

- Agris Dspace (ARD Prasad at ISI -Bangalore, India)
- Agris AP integration:
 - Adapted submission module
 - Agris AP export -OAI-PMH
- Thesaurus plug in (Kasetsart University - Bangkok, Thailand)
 - Web services: use local or remote version of AGROVOC thesaurus/SKOS

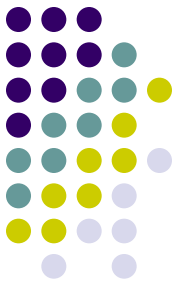


AgInfra



Taking forward the work interoperability in agricultural repositories to build infrastructure that makes building collections, services and access seamless for all types resources including data

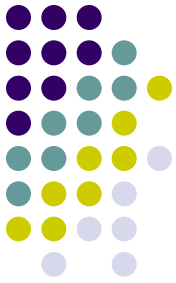
COAR



Exemplary work in OARs and interoperability through OpenAIRE, OpenAIRE plus and COAR

DRTC, ISI and COAR

COAR workshop at the ICTK2012



The screenshot shows a Mozilla Firefox browser window displaying the website for the International Conference on Trends in Knowledge and Information Dynamics (ICTK-2012). The browser's address bar shows the URL drtc.isibang.ac.in/ictk/. The website's header features a large purple banner with the conference title and a logo celebrating the 50th anniversary of DRTC (1962-2012). Below the banner is a navigation menu with links for Themes, Guidelines to Authors, Dateline, Feedback, DRTC, News, Bangalore, Locations, Galleries, and Contact. A left-hand navigation sidebar lists various options such as Home, Call For Papers, Registration, and Login. The main content area prominently displays the conference title and dates (10-13 July, 2012) and identifies the host as the Documentation Research and Training Centre (DRTC) at the Indian Statistical Institute (ISI). At the bottom, a detailed paragraph describes the DRTC's history and its role in organizing the conference.

ICTK - 2012 | International Conference on Trends in Knowledge and Information Dynamics - Mozilla Firefox

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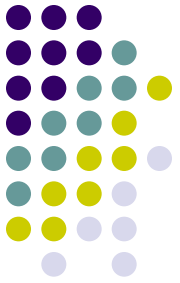
ICTK - 2012

International Conference on Trends in Knowledge and Information Dynamics
10-13 July, 2012

Hosted by:
Documentation Research and Training Centre (DRTC)
Indian Statistical Institute (ISI)

Documentation Research and Training Centre (DRTC) established by Prof. S R Ranganathan (considered as the father of Library and Information Science in India), is a research centre at **Indian Statistical Institute** conducting Research, Training and Higher Education in the field Library and Information Sciences and allied areas. With the encouragement and expression of approval and support by Prof. P C Mahalanobis, Ranganathan established DRTC in 1962 as a division of the Indian Statistical Institute at Bangalore. DRTC has since been involved in Research, Education, Training and cutting edge applications of Information and Communication Technology to Libraries and Information Centres, Knowledge centers and systems. 2012 marks the Golden jubilee of DRTC and we are happy to announce 'Golden Jubilee Celebrations' and the 'International Conference on Trends in Knowledge and Information Dynamics' (ICTK-2012), as a part of it.

11:37 AM



Thank you!

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