

Session 3. Various initiatives driving institutional repositories forward 機関リポジトリを推進する多様なイニシャチブ

Chair: UCHIJIMA Hideki (Kanazawa University Library)

座長： 内島秀樹(金沢大学附属図書館)

SUGITA Shigeki (Hokkaido University Library, Japan)

杉田茂樹(北海道大学附属図書館)

Marc van den BERG graduated from the Dutch agricultural university in the subject field environmental studies, in 1983. He has been working in ICT since 1984. As a programmer, a networking specialist, a developer and researcher, a project leader and finally as departmental head and manager. Most of his career in ICT has been in the R&D-area.

Employers

1984-1988 ECO Systems BV, Wageningen / Oosterbeek

1989-1996 Dutch Central Bureau of Statistics (CBS), Voorburg

1997-2004 University of Amsterdam, Computing Centre (IC)

2005 - now University of Amsterdam, University Library (UB)

Currently Marc van den Berg heads the Electronic Services department at the University Library.

As such he is responsible for developing and maintaining the library systems, including those for electronic publishing & scientific archiving (repositories), a growing number of (XML-based) research tools, and a dedicated innovation programme (called 'EDUBA').

Content integration, simplification, semantic web, ontology's, 'library 2.0', RFID, next generation repositories, enhanced publications, scientific publication packages, complex digital objects and learning objects are a few of the keywords describing current interest and current R&D-plans within the department of Electronic Services. Some are investigated in rather small internal projects ('demonstrators'), but given the complexity and the dependencies on evolving international standards taking part in national (SURF) and international (EU) projects is our preferred mode of operation.

<http://home.medewerker.uva.nl/m.j.vandenberg/page2.html>

マーク・ヴァン・デン・ベルグ 1983 年オランダ農業大学環境科学分野卒業。1984 年から ICT

分野で仕事をしている。プログラマー、ネットワーク専門家、開発者、研究者、プロジェクトリーダー、そして部門責任者を歴任。ICT 分野においては主に研究・開発に従事してきた。

1984～1988 年 ECO Systems 株式会社

1989～1996 年 オランダ中央統計局

1997～2004 年 アムステルダム大学電子計算機センター

2005～現在 アムステルダム大学図書館

現在、大学図書館において電子サービス部門長として、電子出版やリポジトリ、研究用ツールなどの責任者。現在の同部門における関心事・開発計画を表すキーワードは、コンテンツ収集、単純化、セマンティックウェブ、オントロジー、「図書館 2.0」、RFID、次世代リポジトリ、出版の改良、学術出版パッケージ、複合的デジタル著作物、学習用著作物など。いくつかは小さな内部的プロジェクトであるが、複雑で国際的標準に関係するものは、全国的(SURF)あるいは国際的(EU)プロジェクトの方へ参加している。(訳・DRFIC2008 実行委員会)

David Groenewegen has been ARROW Project Manager since January 2006, and from January 2008 combines that with the position of ARCHER Project Director. Previously he spent a number of years working in the areas of electronic information provision and information literacy at Monash University, and in information resources at the University of Ballarat. He holds a Masters Degree in History from the University of Melbourne, and a Graduate Diploma in Information Management from RMIT University.

デービッド・フロンアヴェーゲン 2006 年 1 月から ARROW プロジェクトの管理者。2008 年 1 月からは、ARCHER プロジェクトの責任者と合わせて担当する。モナシュ大学では電子情報サービス・情報リテラシー、バララト大学では情報資源を長く担当した。歴史学修士(メルボルン大学)、情報管理準修士(RMIT 大学)。(訳・DRFIC2008 実行委員会)

Digital Repository Federation : Activation of IR Community

SUGITA Shigeki*, SUZUKI Hiroko**, Uchijima Hideki***

* University Library, Hokkaido University, JAPAN

** University Library, Chiba University, JAPAN

*** University Library, Kanazawa University, JAPAN

Digital Repository Federation (DRF) is a federation consisting of 58 universities and research institutes (as of December 2007), which aims to promote Open Access and Institutional Repository in Japan.

In Japan, National Institute of Informatics (NII), Tokyo, has worked with universities to provide academic content services, including the academic union catalog, the portal to academic databases, and the citation information service of Japanese academic societies and university bulletins. NII also supports institutional repositories. In 2004, NII launched a collaborative program for institutional repositories. The program was extended as a part of the framework of Cyber Science Infrastructure (CSI) in 2005. In 2006, 57 universities joined to introduce institutional repositories. In 2007, the project added 13 new partners.

DRF is based on one of the research and development projects, managed by Hokkaido University, Chiba University and Kanazawa University. Our activities shown below will be described.

- Open Discussion List and Wiki for sharing experiences and expertises
- International Conference, Workshop Series and Regional Workshop Series

デジタルリポジトリ連合：機関リポジトリコミュニティの活性化

杉田茂樹*, 鈴木宏子**, 内島秀樹***

* 北海道大学附属図書館

** 千葉大学附属図書館

*** 金沢大学附属図書館

デジタルリポジトリ連合（DRF）は58の大学・研究機関からなる連携活動組織であり（平成19年12月現在）、日本におけるオープンアクセス思潮と機関リポジトリ構築を興隆することを目的としている。

日本では従来から国立情報学研究所が、大学の協働により、総合目録形成、ポータルサービス、学協会誌や大学紀要等の引用文献情報サービスなどをはじめとした学術コンテンツサービスの提供に取り組んできた。そして今日では、機関リポジトリのサポートをすすめている。平成16年、同研究所はこの領域における共同プログラムを開始し、平成18年には、最先端学術基盤（CSI）の構築の一環として、57の大学が、平成19年には加えて13の大学が機関リポジトリを設置しはじめている。

DRFは同プログラムの研究開発プロジェクトとして、北海道大学、千葉大学、金沢大学を中心としてすすめられている連携活動である。活動状況について報告する。

- 情報共有のための公開メーリングリスト及びWikiの運営
- 国際会議、ワークショップ、地域ワークショップの開催

Digital Repository Federation

SUGITA Shigeki <sugita@lib.hokudai.ac.jp>*,
SUZUKI Hiroko <suzuki@ll.chiba-u.ac.jp>**,
UCHIJIMA Hideki <uchijima@ad.kanazawa-u.ac.jp>***

* University Library, Hokkaido University
** University Library, Chiba University
*** University Library, Kanazawa University

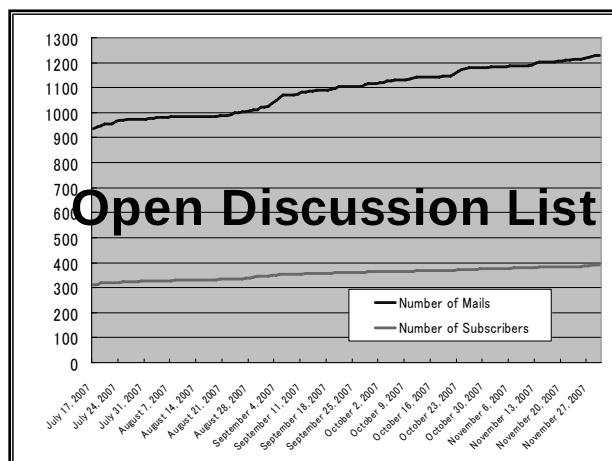
DRF International Conference 2008, Osaka, 31st January, 2008

What is DRF?

- One of the NII-CSI programs
- Board: Hokkaido, Chiba and Kanazawa
- 58 universities and research institutes
- aims to promote OA and Institutional Repository in Japan

Activities

- Open Discussion List and Wiki –for sharing experiences and expertises
- Workshops and Conferences



Digital Repository Federation (in English)

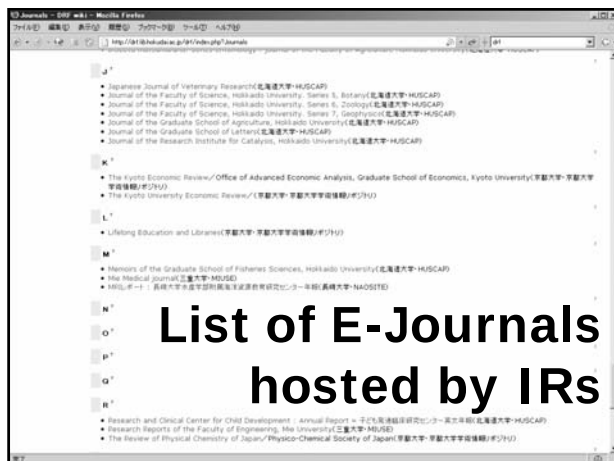
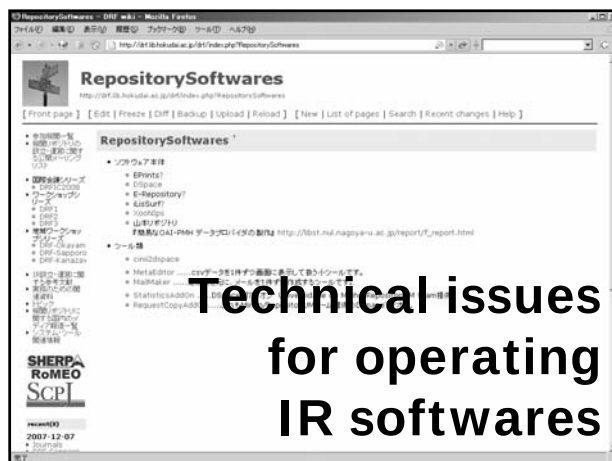
Activities:

- Open Discussion List
- Wiki for sharing experiences and expertises
- Domestic Workshop Series
 - DRF1 in Chiba University (Nov., 2006)
 - DRF2 in Waseda University (Feb., 2007)
 - DRF3 in Library Fair & Forum 2007 (Nov., 2007)
- International Conference Series
 - DRFIC2008 in Osaka University (Jan., 2008)

DRF1

Activities:

- Open Discussion List
- Wiki for sharing experiences and expertises
- Domestic Workshop Series
 - DRF1 in Chiba University (Nov., 2006)
 - DRF2 in Waseda University (Feb., 2007)
 - DRF3 in Library Fair & Forum 2007 (Nov., 2007)
- International Conference Series
 - DRFIC2008 in Osaka University (Jan., 2008)



Workshops and Conferences

- DRF1 in Chiba (Nov. 2006)
- DRF2 in Waseda (Feb. 2007)
- DRF3 in Library-Fair (Nov. 2007)
- DRF-Okayama (Nov. 2007)
- DRFIC2008 (Jan. 2008)
- DRF-Kanazawa (Feb. 2008)
- DRF-Sapporo (Feb. 2008)





Conclusion and the Future

- The 2nd period: Apr.2008-Mar.2010
– The 1st period: Aug.2006-Mar.2008
- Continuously sharing experiences and expertises
- International Relationship

Keep active!

DAREnet, DRIVER & next generation repositories

Marc van den Berg

University of Amsterdam, University Library

In the Netherlands every university has one or more institutional repositories (IR). The IR's containing academic publications are connected in DAREnet which harvests all the metadata from the publicly accessible full text documents from the connected IR's. The full text documents themselves are archived 'forever' in the e-depot of the Royal Library by means of an XML-gateway using the DIDL schema.

On a European scale the DRIVER-project has developed a test bed to expand the DAREnet model to Europe adding the necessary features such a large scale service needs like better searching tools, adding a repository to or removing a repository from the network, quality control (e.g. repository certification) etc.

The new DRIVER-II project aims to build on these developments and add a new kind of functionality: the proper handling of 'enriched publications'. For this we need 'next generation' repositories that can handle complex objects and persistent identifiers and a international repository infrastructure that allows the searching, manipulation, composition, decomposition and the rearranging of complex objects and their constituting parts.

DAREネット、DRIVER、そして次世代リポジトリ

マーク・ヴァン・デン・ベルグ

アムステルダム大学図書館

オランダでは全ての大学が一つ以上の機関リポジトリを持っている。学術出版物を登録した機関リポジトリはDAREネットに接続されており、DAREネットは誰でもアクセス可能なフルテキストドキュメントの全てのメタデータをこれらのリポジトリからハーベストしている。フルテキストドキュメントそのものは、DIDLスキーマを用いたXMLゲートウェイを通して、王立図書館のe-depotに「恒久的」にアーカイブされている。

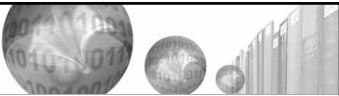
DRIVERプロジェクトは、DAREネットモデルをヨーロッパ全域に拡張するための試験環境を開発し、そのような大規模サービスが必要とする、より優れた検索ツール、ネットワークへのリポジトリの追加や削除、品質管理（例 リポジトリ認証）のような諸機能を追加してきた。

新たなDRIVER-IIプロジェクトはこれらの開発の上に構築され、“より豊かな刊行物”を適切に取り扱うための新たな種類の機能を追加する。そのために、複合オブジェクトや永続識別子を扱うことができる次世代リポジトリと、複合オブジェクトとその構成部分を検索・操作・構成・分解・再構成できる国際的なリポジトリインフラストラクチャーが必要である。

（訳：DRFIC2008 実行委員会）



Library of the University of Amsterdam
Digital Library



DAREnet, DRIVER & nextgen repositories

Marc van den Berg
University of Amsterdam
University Library
Electronic Services

Save a Copy

Search

Select

154%

Download New Rights Item

Permitted Performativities

The Construction of Youth in Music Videos

ACADEMISCH PROEFSCHRIFT
ter verkrijging van de graad van doctor
aan de Universiteit van Amsterdam
op gezag van de Rector Magnificus
prof. mr. P.F. van der Heijden
ten overstaan van een door het college voor promoties ingestelde commissie,
in het openbaar te verdedigen in de Aula der Universiteit
op dinsdag 27 juni 2006, te 10.00 uur door

Helena Ripmeester
Geboren te Amsterdam

1 of 200

Done

zotero

Dutch repository network: DAREnet

The screenshot shows the DAREnet website with the KNAW logo and navigation links. The search interface includes fields for search terms, author name, year, and institution. A dropdown menu for institutions is open, showing a list of Dutch universities and research centers. The list includes: Amsterdam University Press, Delft University of Technology, Eindhoven University of Technology, Erasmus University Rotterdam, KNAW, Leiden University, Maastricht University, NWO, National Institute for Public Health and the Environment, Naturalis, Open Universiteit Nederland, Radboud University Nijmegen, Tilburg University, University of Amsterdam, University of Groningen, University of Twente, Utrecht University, Vrije Universiteit Amsterdam, and Wageningen University & Research Centre.

Worldwide access to Dutch academic research results

DAREnet is a search service which gives free access to academic research output in the Netherlands. This is a broad collection which guarantees digital accessibility to the full text without any restrictions. DAREnet consists of 137.790 digital objects.

Search options:

- Searchterm(s)
- Part of authorname
- Year
- Institute
- Sort on

You can search with:

- DAREnet containing 137.790 digital objects
- Cream of Science containing 137.790 digital objects
- Promise of Science containing 137.790 digital objects

Universities, scientific institutes, KNAW and NWO prominent scientists in the Netherlands.

Search for a specific author.

National Library of the Netherlands, the Royal Netherlands Academy of Arts and Sciences.

Read more

German universities launch information platform about open access

2007-06-19

The Universiteit of Bielefeld, Goettingen, ...

Read more

news overview

The screenshot shows the DAREnet website with the KNAW logo and navigation links. The search interface includes fields for search terms, author name, year, and institution. The search results are displayed in a list format, showing the title, author, and a link to the full text.

Search options:

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- DAREnet containing 137.790 digital objects
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Universities, scientific institutes, KNAW and NWO prominent scientists in the Netherlands.

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National Library of the Netherlands, the Royal Netherlands Academy of Arts and Sciences.

Read more

German universities launch information platform about open access

2007-06-19

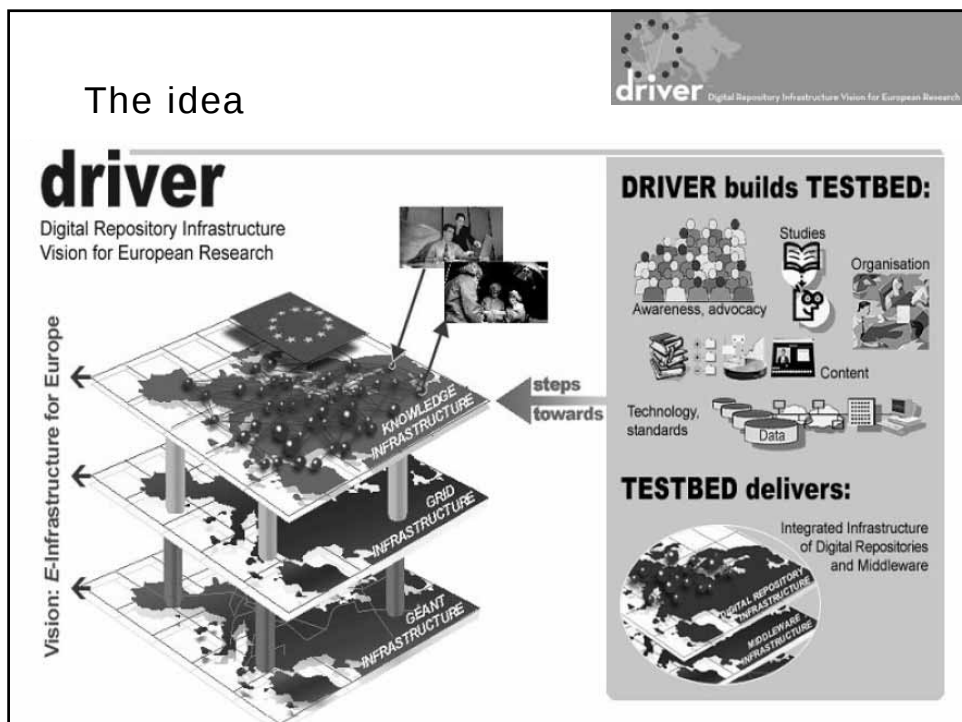
The Universiteit of Bielefeld, Goettingen, ...

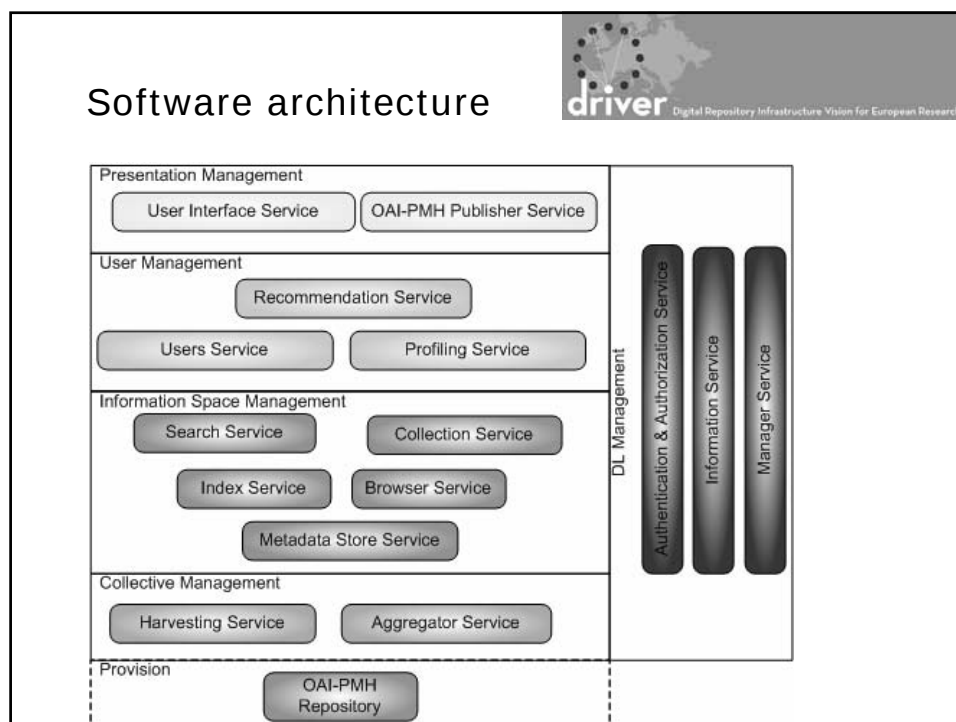
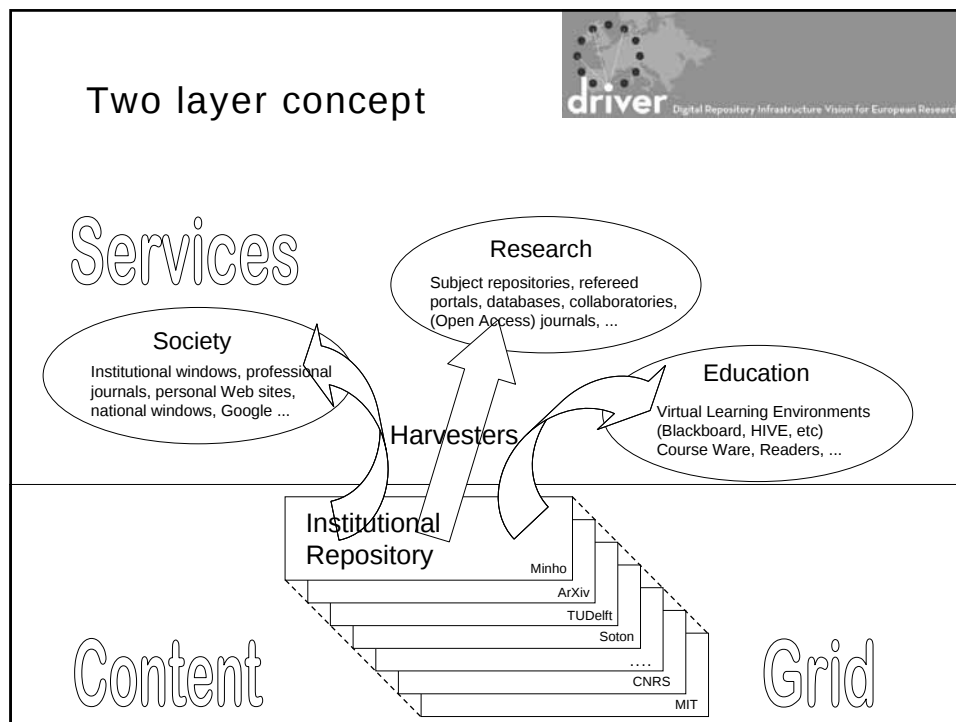
Read more

news overview

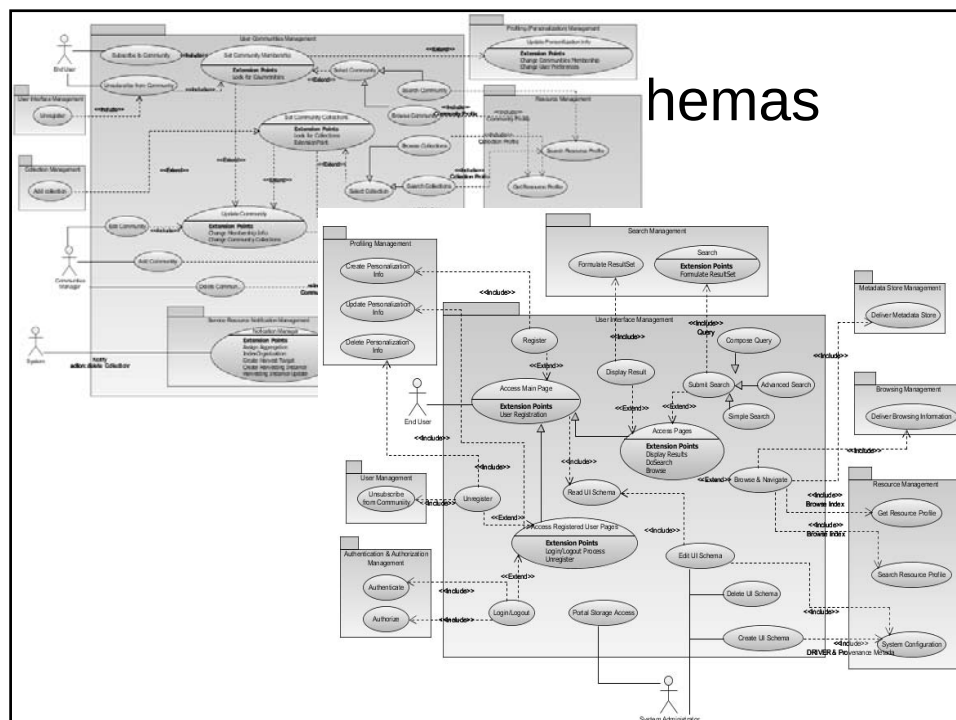
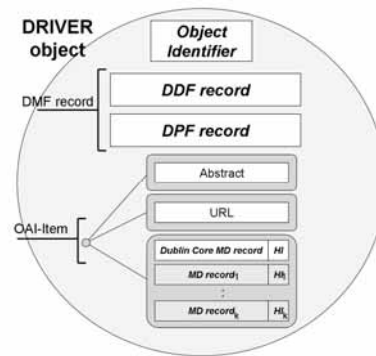
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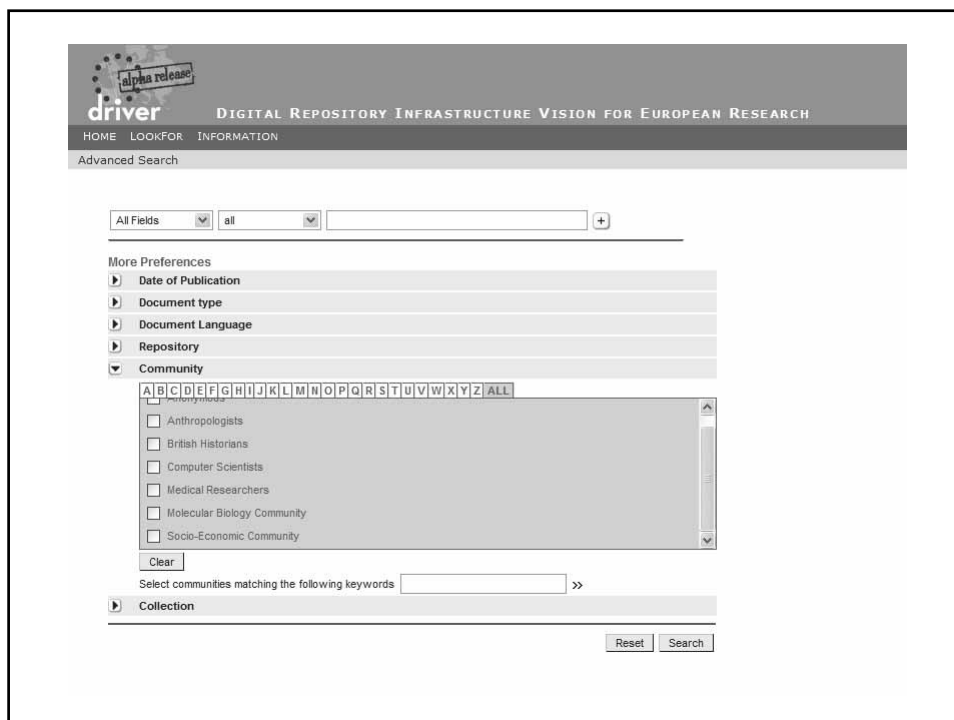
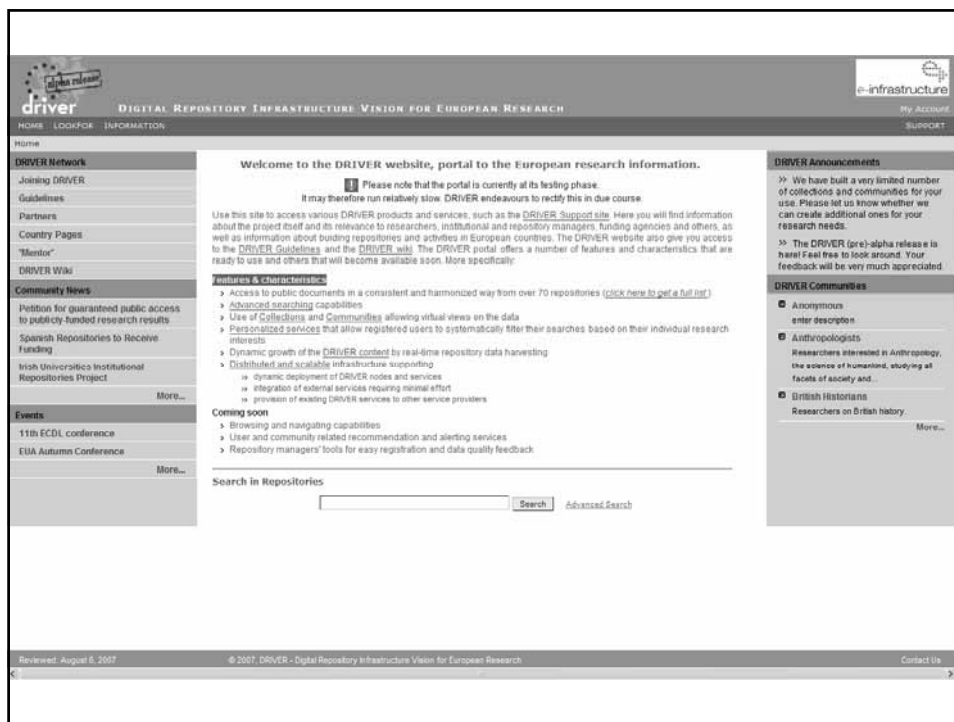
- Hedgehog Wnt interaction in colorectal cancer
2005 Brink, G.R. van den, Hardwick, J.C.H.,
Gevonden in:
bibliografische informatie
- High-dose chemotherapy with hematopoietic stem-cell rescue for high-risk breast cancer
2003 Rodenhuis, S., Bontebal, M., Beex, L.V.A.M., Wagstaff, J.,
Gevonden in:
bibliografische informatie
- Successful autologous stem cell transplantation in a patient with chronic inflammatory demyelinating polyneuropathy [letter]
2002 Vermeulen, M., Oers, M.H.J. van,
Gevonden in:
bibliografische informatie
- In vitro migratory capacity of CD34(+) cells is related to hematopoietic recovery after autologous stem cell transplantation
2001 Voermans, C., Koo, M.L.K., Rodenhuis, S., Lelle, H. van der, ...
Gevonden in:
bibliografische informatie
- Stem cell transplantation as a new method for the induction of tolerance in organ transplantation
1997 Vries-van der Zwan, H.M. de, Pol, M.A. van der, Besseling, A.C., Waal, L.P. de, ...
Gevonden in:
bibliografische informatie
- Analysis of variation in results of CD34+ hematopoietic progenitor cell enumeration in a multicenter study
1997 Gratama, J.W., Kraan, J., Levering, W., Bockstaele, D.R. van, ...
Gevonden in:
bibliografische informatie

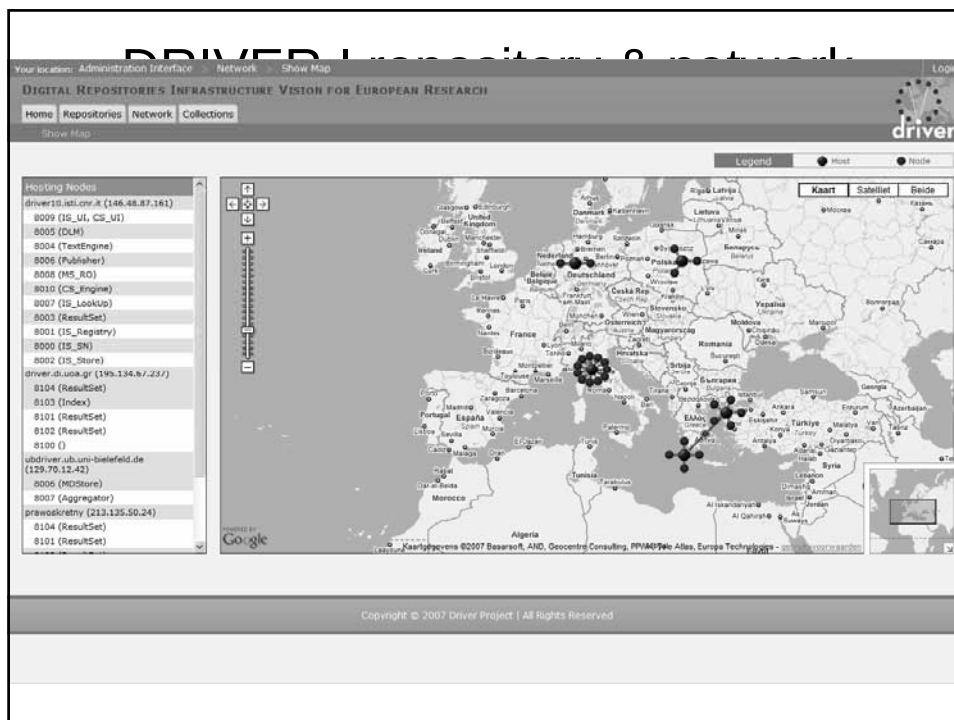




DRIVER I object model OAI







PDF, the 'stone age' of repositories

Things we would like to see

- ▶ Covers
- ▶ Table of contents
- ▶ Abstracts
- ▶ Chapters
- ▶ Structure, links, references



DRIVER II

- ▶ European Confederation of Digital Repositories
- ▶ state-of-the-art and future-direction studies
- ▶ inclusion of non-textual and/or non-publication content
- ▶ 'enhanced publications' (presentations / datasets)
- ▶ from test-bed to production-quality infrastructure
- ▶ expand geographical coverage
- ▶ escalate dissemination, training and community building activities



Enhanced publications

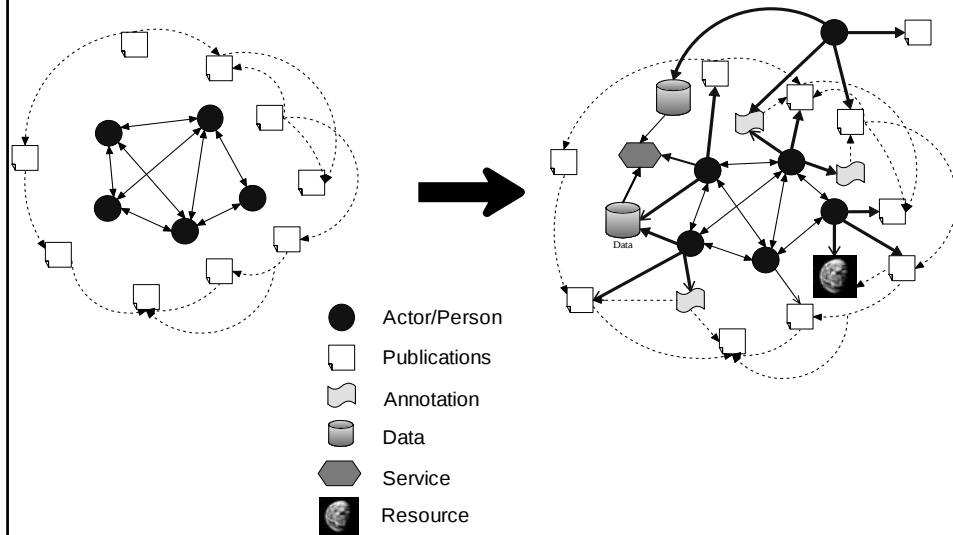
PDF is good for viewing and printing only

- ▶ no structure
- ▶ no components
- ▶ no 'knowledge' about the document's content (methods, citations, data)

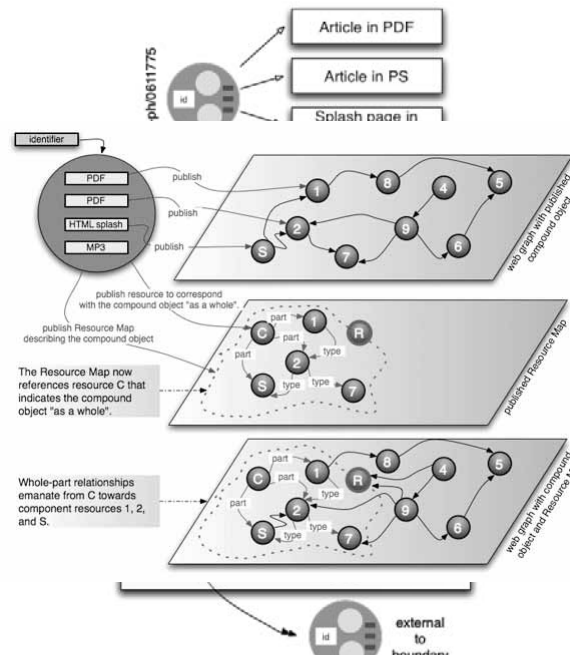
We have to do better. Three examples

1. Information Networks (model)
2. Object Re-use and Exchange (OAI-ORE, developing standard)
3. Scientific Publication Package (experiment)

Documents → Integrated Information Networks



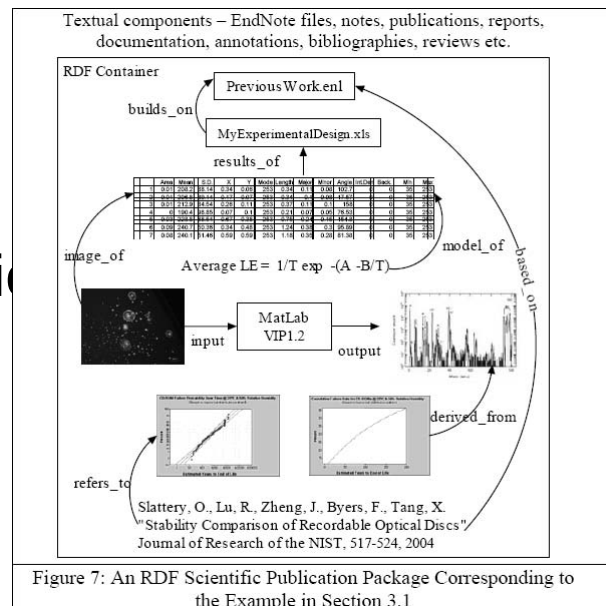
ORE



Van de Sompel, H., Lagoze, C. "Interoperability for the Discovery, Use, and Re-Use of Units of Scholarly Communication," *CTWatch Quarterly*, Volume 3, Number 3, August 2007.

Sci

age



Hunter, Jane, *Scientific Publication Packages – A Selective Approach to the Communication and Archival of Scientific Output*, International Journal of Digital Curation, IJDC, 1746-8256, volume 1, number 0, 2006



Persistent identifiers

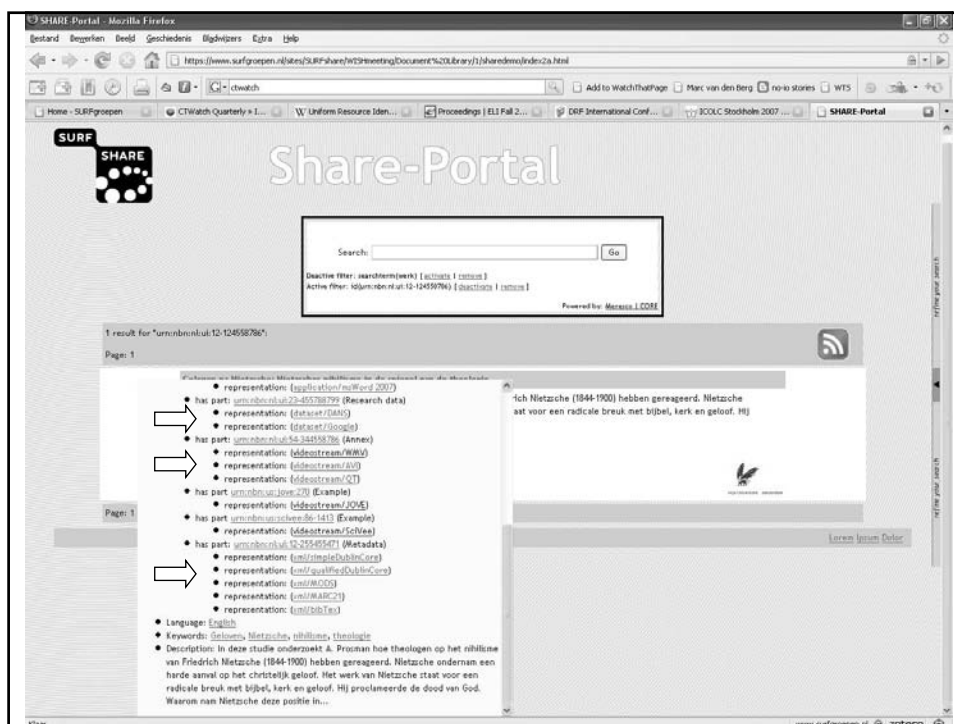
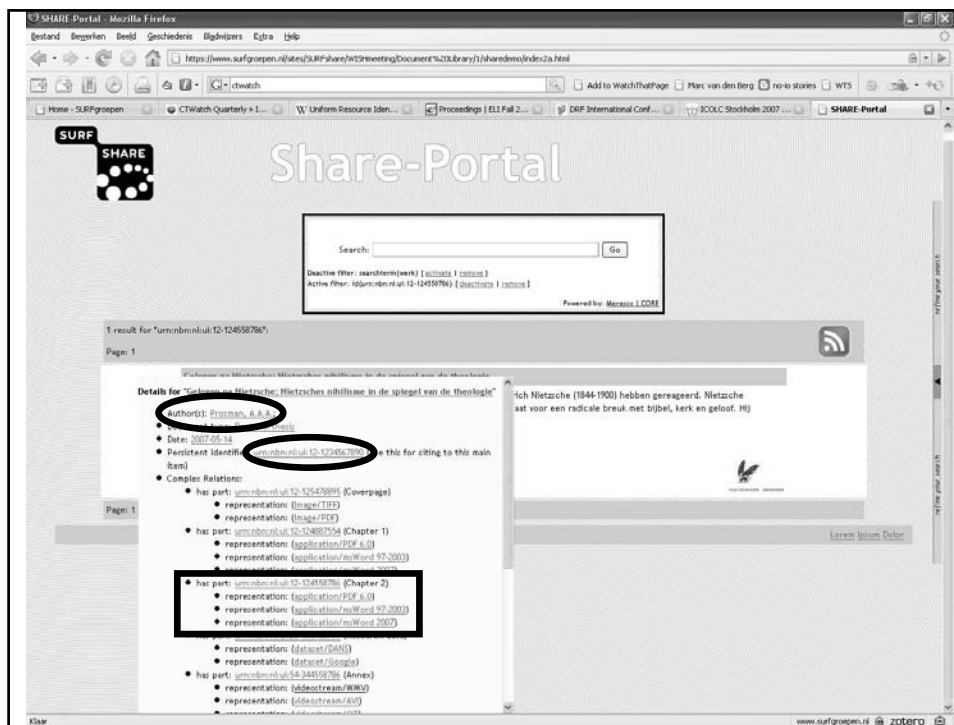
For objects: national bibliographic number (URN:NBN:nl ...)

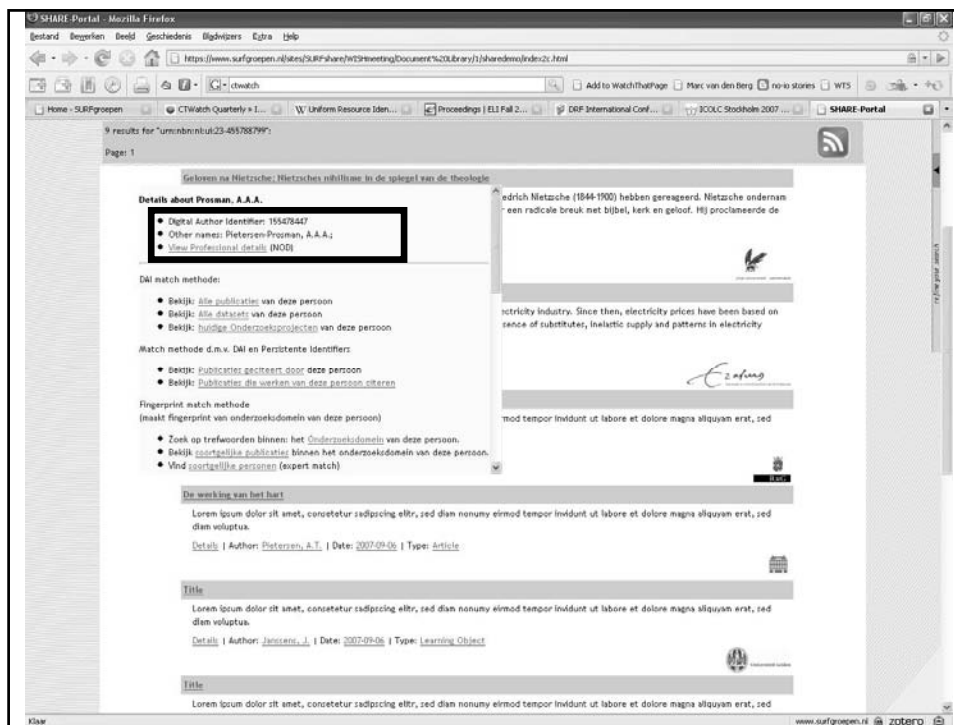
For authors: digital author identifier (DAI)

DAI = Dutch national project

-> a unique identification for each (Dutch) researcher

- ▶ in the catalogue
- ▶ in the institutional repository
- ▶ in the Current Research Information System





The ARROW Project
David Groenewegen
Monash University Library

The Australian Research Repositories Online to the World (ARROW) Project came into existence in response to a call for proposals issued in June 2003 by the Australian Commonwealth Department of Education, Science and Training (DEST) under the banner of the Systemic Infrastructure Initiative (SII), a part of Backing Australia's Ability - An Innovation Action Plan for the Future. DEST were interested in furthering the discovery, creation, management and dissemination of Australian research information in a digital environment. Specifically, they wanted to fund proposals which would help promote Australian research output and build the Australian research information infrastructure, through the development of distributed digital repositories and common technical services that manage access and authorisation to these.

The project has co-developed the VITAL software with VTLS Inc, and this has been adopted by 16 institutions within Australia, as well as others around the world. One of the key aims of the Project has been the desire to build a Community of users that will persist and grow beyond the end of the project itself to ensure the sustainability of the work done. This presentation will look at the history of the project and its aims, current areas of work, and future directions.

ARROW プロジェクト
デービッド・フロンアヴェーゲン
モナシュ大学図書館

オーストラリアオンライン研究リポジトリプロジェクト (ARROW) は、オーストラリア能力支援プログラム—未来のための改革行動計画の一部である体系的システム基盤イニシャティブの下、オーストラリア連邦教育・科学・訓練省 (DEST) によって 2006 年 6 月に発表された提案の求めに応じて開始された。DEST はデジタル環境下におけるオーストラリアの研究情報の発見・創造・管理・配布を促進することに関心を持っていたのであり、特に、分散配置されたデジタルリポジトリと、リポジトリへのアクセスと認証を管理するための共有技術サービスの発展を通して、オーストラリアの研究の生産性と研究情報基盤の構築を促進する提案に資金供与することを望んでいたのである。

このプロジェクトでは VTLS 社とともに、オーストラリア内の 16 の機関と世界の他機関で採用されている VITAL ソフトウェアを共同開発した。ARROW プロジェクトの主な目的の一つは、プロジェクトの終了後も持続・成長するユーザコミュニティを確立し、プロジェクトの成果の持続性を確実にしたいということである。このプレゼンテーション (発表) では、プロジェクトの歴史、目的、現状の作業範囲、将来の方向性を概観する。

(訳 : DRFIC2008 実行委員会)

The ARROW Project

David Groenewegen
ARROW Project Manager
ARCHER Project Director



MONASH
University



UNSW



The ARROW Project is funded by the Australian Commonwealth Department of Education Science and Training, under the Research Information Infrastructure Framework for Higher Education

What is ARROW?

- Funded by the Australian Commonwealth Department of Education, Science and Training (DEST), under the banner of the Systemic Infrastructure Initiative (SII), a part of *Backing Australia's Ability – An Innovation Action Plan for the Future*
- Original consortium comprised Monash University (lead institution), National Library of Australia (NLA), the University of New South Wales (UNSW), and Swinburne University of Technology. Now joined by University of Southern Queensland.
- Originally funded 2003-6, now extended

- *"The ARROW project will identify and test software or solutions to support best practice institutional digital repositories comprising e-prints, digital theses and electronic publishing."*



What did the ARROW project set out to achieve?

- Solution for storing any digital output
 - Initial focus on print equivalents – theses, journal articles
 - Now looking at other datasets, learning objects
- More than just Open Access – some things need to be restricted
 - Copyright
 - Confidentiality/ethical considerations
 - Work in progress



The ARROW Project - DRF-IC, Osaka, Japan, January 2008

3

What did the ARROW project set out to achieve? (2)

- Meeting DEST reporting requirements
- Employ Open Standards
 - Making sure the data is transferable in the future
- Deliver Open Source Tools back to the FEDORA Community
- Solution that could offer on-going technical support and development past the end of the funding period

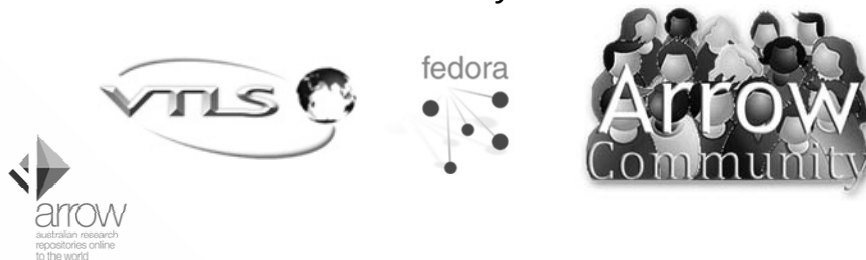


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4

What is the ARROW solution?

- VITAL software developed in partnership with VTLS Inc.
- Proprietary software built on top of Fedora Open Source architecture
- ARROW Community



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5

The development process

- Entered into a partnership arrangement with VTLS Inc. (www.vtls.com)
- VTLS provided:
 - Development expertise and staff
 - Infrastructure for future support and development
- ARROW provided:
 - Intellectual property and design specifications - Versions 2 through 4 of VITAL largely based on ARROW input
 - “Real world” use cases, testing and feedback



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6

Why a commercial partner?

- Time to market – hopefully faster than doing it ourselves
- Focus on defining what we want, rather than trying to develop it ourselves
- Sustainability once project funding ends
- Offering a vendor for members to turn to for support and advice



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7

The result?

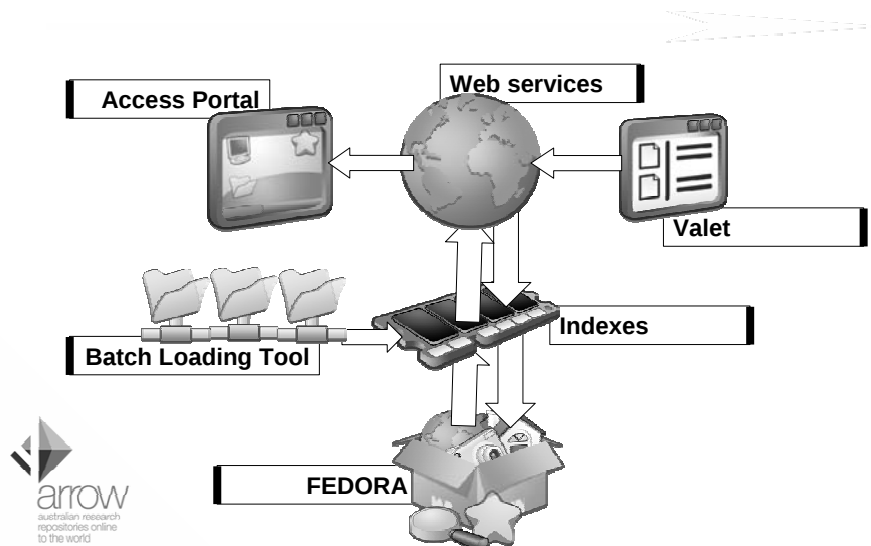
- VITAL:
 - VITAL Manager Online
 - VITAL Access Portal
 - VALET - Web Self-Submission Tool
 - Batch Loader Tool
 - Handles Server (CNRI)
 - Google Indexing and Exposure
 - SRU / SRW Support



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8

VITAL architecture overview



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9

What has ARROW been working on?

- Supporting the Research Quality Framework (RQF)
- Creative development of institutional repositories
- Supporting Australian engagement with institutional repositories
- Building partnerships to further enhance repositories
- Persistent Identifiers and Linking Infrastructure (PILIN)



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10

What is the ARROW Community?

- Any institution with the ARROW repository solution is a member
- Designed to:
 - Share knowledge and experiences
 - Share information and solutions
 - Develop Open Source software
 - Coordinate future development of VITAL and other relevant software
 - Promote institutional repositories



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11

What services does the Community provide?

- GoogleGroup
- ARROW Repository Managers Group
- ARROW Development Group
- Metadata Advisory Committee for Australian Repositories (MACAR)



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12

Who are the members of the ARROW Community?

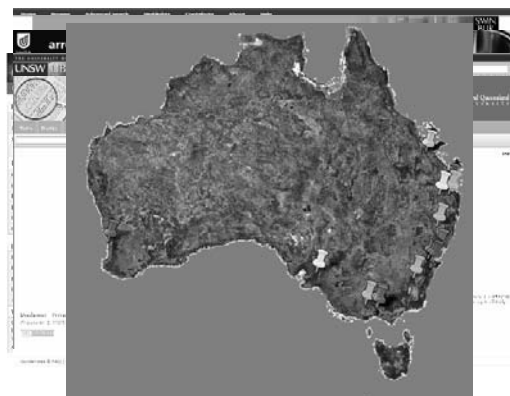
- Monash
- UNSW
- NLA
- Swinburne
- South Australia
- Central Queensland
- LaTrobe
- Murdoch
- RUBRIC
- Macquarie
- USQ
- UNE
- Sunshine Coast
- Newcastle
- New England
- Ballarat
- Western Sydney



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13

16 members in 2007



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14

Future Directions

- Closer integration of ARROW with ARCHER
- Preparing the Community for life after ARROW
- Further development of VITAL and related tools



What is ARCHER?

- Australian ResearCH Enabling enviRonment
- Also part of Systemic Infrastructure Initiative (SII), a part of *Backing Australia's Ability – An Innovation Action Plan for the Future*
- Aims to productionise the software tools developed under the DART project and adapt them to
 - to assist researchers collect and store data
 - share it securely with collaborators,
 - plus access many of the DART developed tools, such as annotations, electronic publication, replication and backup, communication tools, search tools, etc.



Current areas of interest

- both traditional and emerging data objects

Showing results 1 - 5 of 5.

First Previous | 1 | Next Last

Title	Creator	Date	Full Text
 DATASET 1 Native 2.0 Angstroms			—
 DATASET 1 Unmerged reflection intensities			
 DATASET 2 Native 2.5 Angstroms Part 1			—
 DATASET 2 Native 2.5 Angstroms Part 2			—
 DATASET 2 Unmerged reflection intensities			—

First Previous | 1 | Next Last

Format Type

Tape Archive (3)
Text Document (2)



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17

The Community after ARROW

- Free and open source tools
 - Google
 - Groups
 - Calendar
 - Documents
 - Blogger
 - del.icio.us tagging
 - Skype



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18

Developing the repository

- Easier to ingest
- Discipline based “slices”
- Better access control
- Support for different types of users



Thank you for your attention

Questions?

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<http://www.arrow.edu.au>

