

# Introduction to DSpace



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MIT Libraries

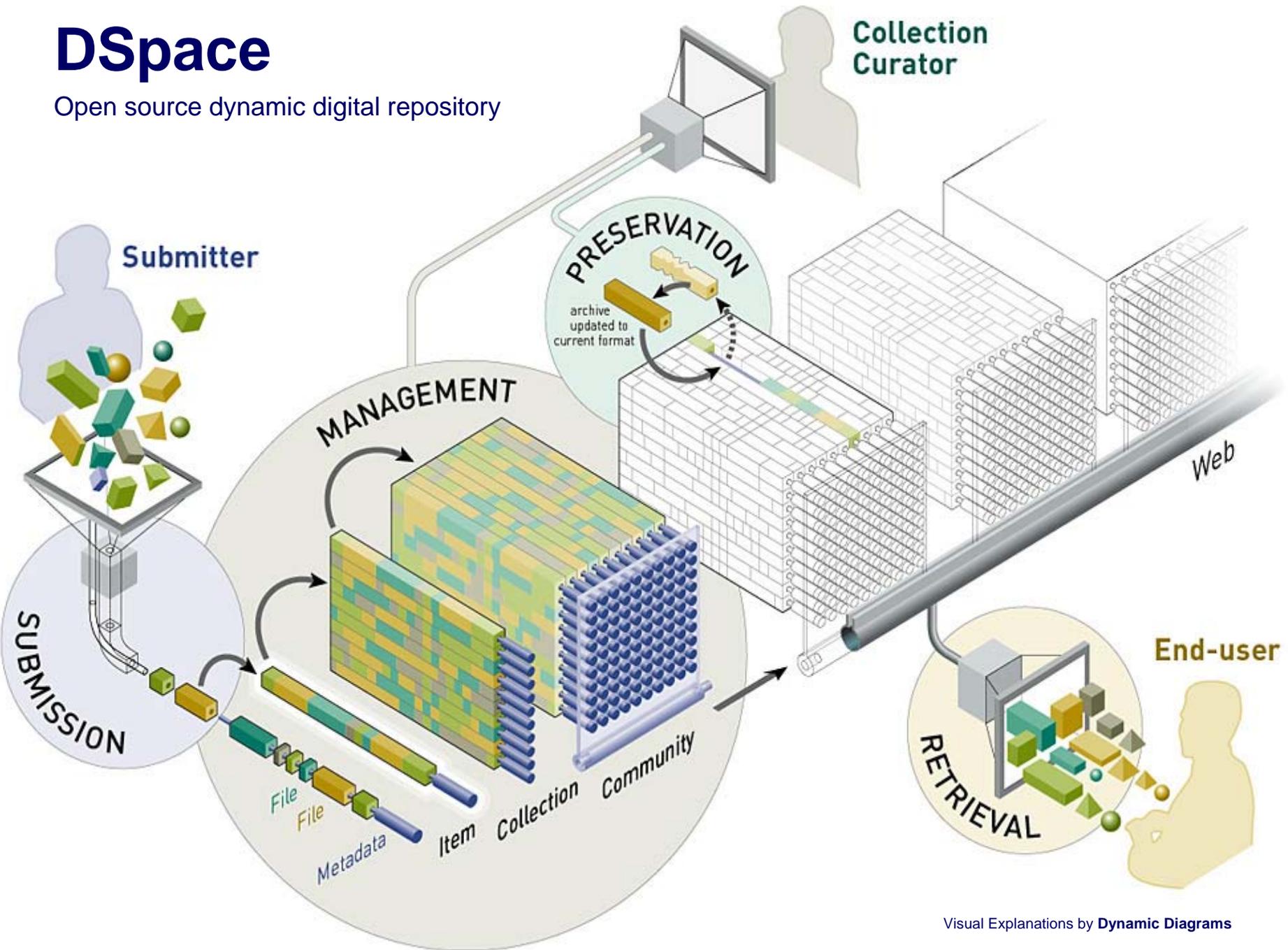
NARA Symposium: Partnerships in Innovation  
November 15-16, 2004

# DSpace - Definitions

- **Software Platform and Tools**
  - Focus on access and preservation services
- **Set of Service Models for Digital Asset Management**
  - Institutional Repository is exemplar case
  - LOR, Records Management
- **Open Source Development Community**
- **Federation of Content Providers**
- **Set of Research Initiatives**

# DSpace

Open source dynamic digital repository



# Open Source Development

- Code available to all, free of charge
- Support is community-based
- Developers are custodians of platform architecture and evolution
- 'Spiral' or iterative development model is agile and adaptable for rapidly changing landscape
- Adherence to open standards

# Standards-based

- OAIS modeled repository
- Java language (OS platform independent)
- Standards Compliant
  - X.509 digital certificates for access control
  - OAI-PMH
  - Z39.50 and SRW/U
  - CNRI Handles
  - Qualified Dublin Core metadata
  - METS packaging

# Digital Preservation - Focus

- Much digital material lost or at risk
- Bit preservation is first step
- Capture technical, descriptive, provenance etc metadata
  - History system captures events
- Characterize formats vis-à-vis preservation:
  - Supported (e.g. text, XML )
  - Known/Unsupported (e.g. MS Word, Excel)
  - Unknown/Unsupported (one-of-a-kind research data)

# Digital Preservation - Strategy

- Leverage international infrastructure
  - Global Digital Format Registry
- Leverage tools and services
  - Harvard's JHOVE
  - U of Pennsylvania's TOM
- Leverage different approaches
  - DAITSS (FCLA) – format-based preservation strategy
  - LOCKSS (Stanford) – safety through replication
  - SRB (UCSD) – distributed storage architectures

# Adoption

- > 16K software downloads since first release
- Over 500 subscribers to general mailing list
- Over 115 CNRI prefix registrations
- Over 65 live production sites
- Many in pre-production: 125 total online soon
- Broad geographic distribution
- A small sample gallery...

# RIT Digital Media Library

## Information

- What is RIT DML?
- Guidelines
- How to Contribute Content
- Receive Email Alerts
- Copyright Policy
- FAQ
- Help
- RIT Home



## Contribute Content

- Register
- Edit Account
- Submit Content

## Inside RIT DML

- Communities
- Collections
- E-prints
- Theses, Projects & Dissertations
- Images
- Audio
- Video



## Search Content

Go to [Advanced Search](#) or [Browse](#)

Powered by **DSpace**

**Search ScholarBank:**  
   
[Advanced Search](#)

[Home](#)

**Browse**

- [Communities & Collections](#)
- [Titles](#)
- [Authors](#)
- [By Date](#)

**Sign on to:**

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authorized users
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DSpace at the University of Oregon >

**ScholarBank news**

1 Dec 2003: The name of the UO institutional repository is now officially "ScholarBank".

16 Sept 2003: We have upgraded to DSpace 1.1.1. See [DSpace documentation](#) and [release notes](#) for details.

[More UO library news...](#)

**Search**

Enter some text in the box below to search ScholarBank.

**Communities in ScholarBank**

Select a community to browse its collections.

- [Department of Computer and Information Science](#)
- [Department of Economics](#)
- [Department of Planning, Public Policy, and Management](#)
- [Department of Psychology](#)
- [Department of Sociology](#)
- [UO Libraries](#)

**What is ScholarBank?**

This site is an institutional repository for University of Oregon research in digital form, including preprints, technical reports, working papers, student terminal projects, and more. It's a tool for collecting, disseminating, and preserving the intellectual output of the UO community.

It's a small part of all of UO's research, though. Check the library's catalog and [home page](#) for other collections.

ScholarBank uses MIT's [DSpace](#) software.

For information on the institutional repository project at the UO Libraries, see the team's [internal web site](#).

[Feedback](#)

*Last update: 6 June 2003 by JQJ*  
<https://ir.uoregon.edu:8443/dspace/index.jsp>

Search:

# Portfolio @ Duke

Sunday December 7, 2003

<a href="#">Browse By &gt;&gt;</a>	<a href="#">File Name</a>	<a href="#">Last Name</a>	<a href="#">Date</a>	<a href="#">All Resumes</a>
<a href="#">Manage &gt;&gt;</a>	<a href="#">View/Edit</a>	<a href="#">Add To</a>	<a href="#">Folders</a>	<a href="#">Edit Profile</a>

- [Home](#)
- [About](#)
- [On-line Help](#)
- [Duke Home](#)
- [A&S Home](#)

## About

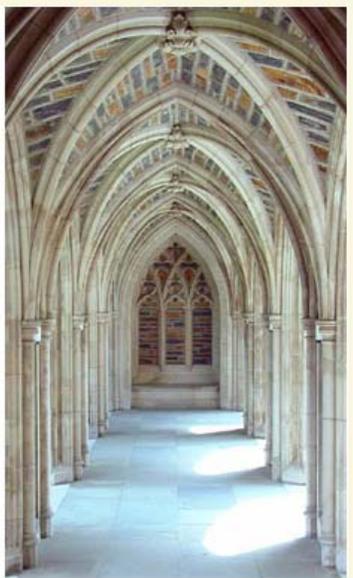
Portfolio @ Duke was developed from a requirement of the Deans' Office to improve its ability to accurately assess the progression of intellectual growth at the University. One particular mode of assessment is the objective comparison of documents written by individual students over time as a part of the regular curriculum.

The Deans' Office was interested in an easy-to-use, Web-based interface which would allow undergraduates to upload writing samples to a centralized, secure repository which would be accessible to the office's assessment experts. In addition to this official assessment space, they were interested in providing unofficial personal space that undergraduates might use to publish information of their own choosing, such as Web pages of their own design, resumes and/or curricula vitae to facilitate educational and/or career aspirations, or image files to be shared with family and friends.

It was decided that programmers from Arts & Sciences Computing, specifically ([CSILL](#)), would work with representatives of OIT and the Deans' Office to come up with a viable solution that would meet the requirements.

The programmers found an open-source solution. [DSpace](#) is a newly developed (available Nov 2002) digital repository created to capture, distribute and preserve the intellectual output of MIT. As a joint project of MIT Libraries and the Hewlett-Packard Company, it provides stable long-term storage needed to house the digital products of MIT faculty and researchers.

The system was molded into the Portfolio @ Duke system that you are using today. It was beta-tested by student, faculty, and staff in the summer of 2003 and is slated to be broadly used in the fall of 2003.



[Home](#)

DSpace at Cambridge &gt;

**Browse**[Communities & Collections](#)[Titles](#)[Authors](#)[By Date](#)**Sign on to:**[Receive email updates](#)[My DSpace](#)  
authorized users[Edit Profile](#)[Help](#)[About DSpace](#)**Search DSpace:** [Go](#)[Advanced Search](#)**Welcome to DSpace @ Cambridge**

- ◆ [2004-03-25] A first version of a DSpace@Cambridge FAQ (Frequently Asked Question) is now [available here](#).

DSpace is a digital repository; a system to store digital information and its descriptive "metadata". Its main purpose at Cambridge is to capture and preserve academic and related content and to make it available online.

**Communities in DSpace@Cambridge**

Select a community to browse its collections.

- ◆ [CRASSH](#)
- ◆ [CamRAD](#)
- ◆ [DSpace](#)
- ◆ [Horse Palaeopathology](#)
- ◆ [Pathology](#)
- ◆ [Social Anthropology](#)
- ◆ [Taylor-Schechter Genizah Research Unit](#)

**Welcome to DSpace@Cambridge**

If you would like to know more about DSpace or are possibly interested in becoming a DSpace early adopter, contact [Tom De Mulder](#) or [Peter Morgan](#).

You can also find out more about the DSpace system on [the DSpace website](#).

**Search DSpace:**


  
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DSpace at Erasmus &gt;

**DSpace@Erasmus**

Welcome to the repository of research documents of the Erasmus University of Rotterdam!

Feel free to search, browse, and retrieve all documents from DSpace@EUR

**Search**

Enter some text in the box below to search DSpace.


[Advanced Search](#)
**Communities in DSpace**

Select a community to browse its collections.

- [Annual Reports](#)
- [Arts \(FHKW\)](#)
- [Erasmus centre for Sustainability and Management \(FSW\)](#)
- [Erasmus MC \(University Medical Center Rotterdam\)](#)
- [Erasmus Research Institute of Management \(ERIM\)](#)
- [Erasmus School of Law](#)
- [History \(FHKW\)](#)
- [institute of Health Policy and Management \(BMG\)](#)
- [Proceedings of Conferences](#)
- [Psychology \(FSW\)](#)
- [Public Administration \(FSW\)](#)
- [Research School Safety and Security in Society](#)
- [Rotterdam School of Economics \(RSE\)](#)
- [Sociology \(FSW\)](#)

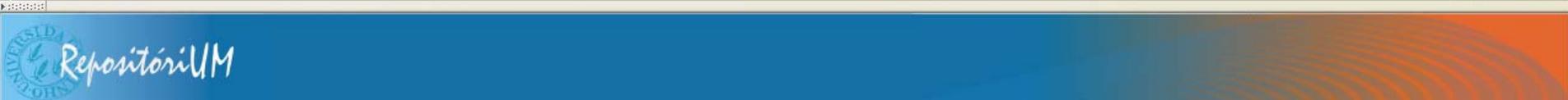
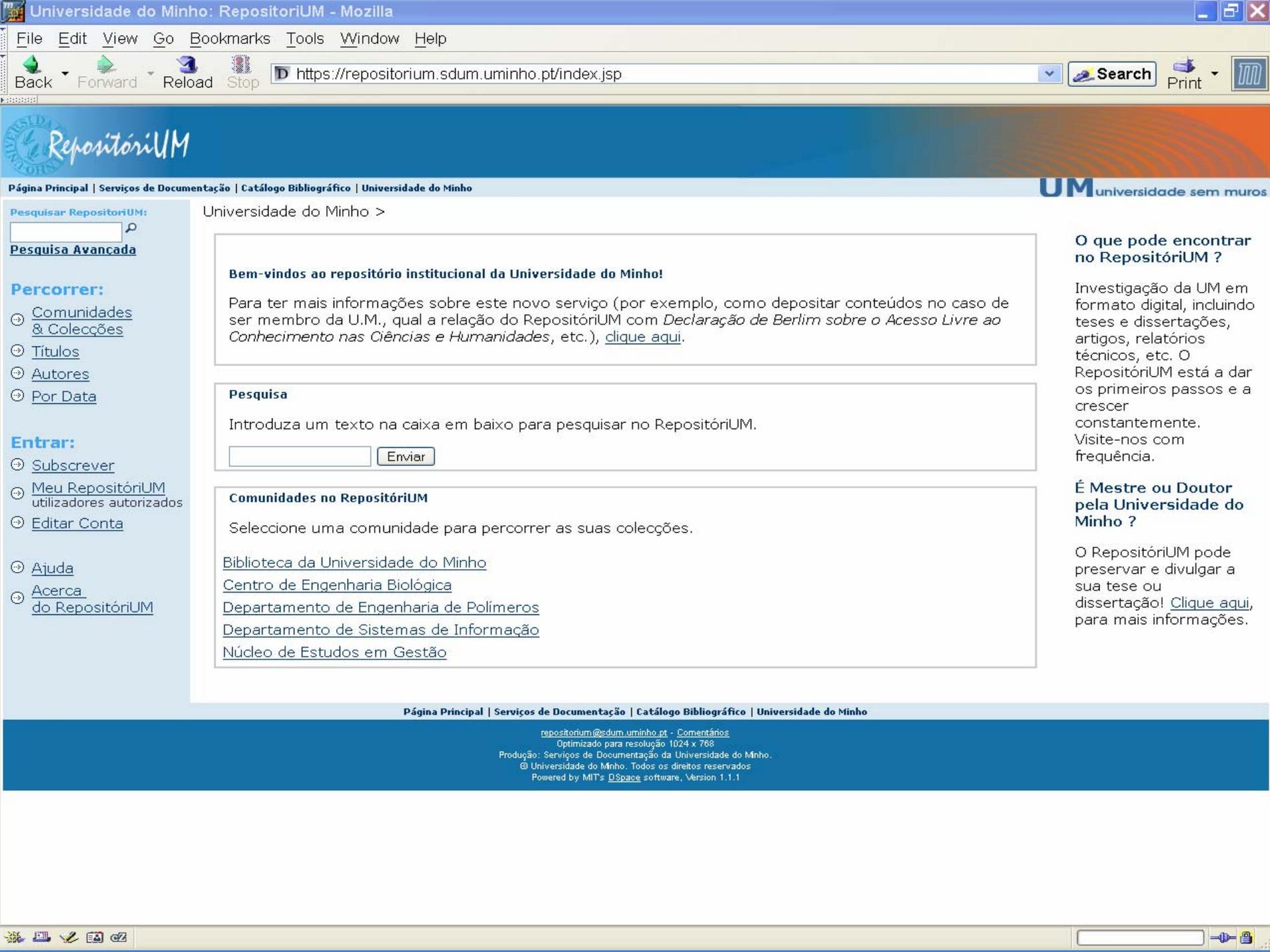
**Erasmus  
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EUR Research in digital form, including preprints, technical reports, working papers, images, videos, and more.

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Contact: [dr. H.H. Ellermann](#)



**Pesquisar RepositóriUM:**

**Pesquisa Avançada**

**Percorrer:**

- ⊕ [Comunidades & Coleções](#)
- ⊕ [Títulos](#)
- ⊕ [Autores](#)
- ⊕ [Por Data](#)

**Entrar:**

- ⊕ [Subscrever](#)
- ⊕ [Meu RepositóriUM](#)  
utilizadores autorizados
- ⊕ [Editar Conta](#)
- ⊕ [Ajuda](#)
- ⊕ [Acerca do RepositóriUM](#)

Universidade do Minho >

**Bem-vindos ao repositório institucional da Universidade do Minho!**

Para ter mais informações sobre este novo serviço (por exemplo, como depositar conteúdos no caso de ser membro da U.M., qual a relação do RepositóriUM com *Declaração de Berlim sobre o Acesso Livre ao Conhecimento nas Ciências e Humanidades*, etc.), [clique aqui](#).

**Pesquisa**

Introduza um texto na caixa em baixo para pesquisar no RepositóriUM.

**Comunidades no RepositóriUM**

Selecione uma comunidade para percorrer as suas colecções.

- [Biblioteca da Universidade do Minho](#)
- [Centro de Engenharia Biológica](#)
- [Departamento de Engenharia de Polímeros](#)
- [Departamento de Sistemas de Informação](#)
- [Núcleo de Estudos em Gestão](#)

**O que pode encontrar no RepositóriUM ?**

Investigação da UM em formato digital, incluindo teses e dissertações, artigos, relatórios técnicos, etc. O RepositóriUM está a dar os primeiros passos e a crescer constantemente. Visite-nos com frequência.

**É Mestre ou Doutor pela Universidade do Minho ?**

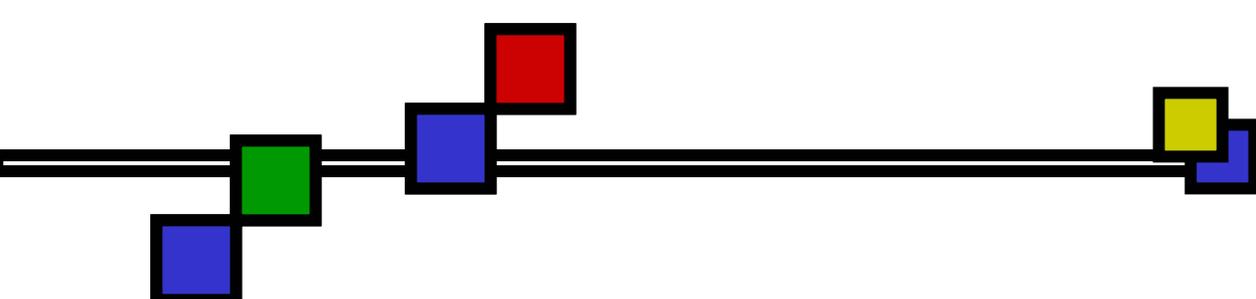
O RepositóriUM pode preservar e divulgar a sua tese ou dissertação! [Clique aqui](#), para mais informações.

# Research Initiatives – DSpace 2.0

- Focus on modularity – ‘plug-in’ components
- New web user interface framework
- Better preservation support – OAIS AIPs
- Scalability considerations
- Migration from DSpace 1.X and to future systems

# Research Initiatives – Con't

- DSRB – integrating DSpace with SRB data grid (NARA: SDSC, UCSD Libraries)
- CWSpace – archiving OpenCourseWare content (iCampus: OCW, CSAIL)
- [DSpace@Cambridge](#) - preservation and interoperation with LMS systems (Cambridge-MIT Institute: CUL, CUCS)
- SIMILE – RDF and semantic web technologies for heterogeneous metadata (HP, W3C, CSAIL)



# DSpace Federation

<http://dspace.org>

