To DSpace and beyond

What’s new and upcoming in DSpace

www.atmire.com
To DSpace and beyond

What’s new and upcoming in DSpace

www.atmire.com
Growing DSpace community
New in DSpace 5
Future of DSpace
Q & A
Ever growing community

1958 DSpace installations worldwide
Quick uptake of new versions
Version uptake

- **Late 2014**
  - 187 active DSpace 4.x installations
  - 5 active DSpace 5.x installations

- **June 2015**
  - 359 DSpace 4.x
  - 27 DSpace 5.x
New in DSpace 5
Mirage 2 theme
Mirage 2 responsive theme

A theme optimized for different screen sizes increasing the repository’s usability on mobile devices such as tablets and smartphones.

Included in standard codebase, only needs to be activated.
Mirage 2 responsive interface

Responsive: website layout adapts to device screen, leading to minimum of resizing, panning, and scrolling

One repository url, no need for multiple websites or apps
WHAT IS RESPONSIVE?

http://liquidaptive.com/
Mirage 2
Mirage 2: enhancements

Code cleanup (e.g. eliminating dependencies only used by particular features)

Browsing and searching

Submissions

Item pages
BROWSING AND SEARCHING

Search

Now showing items 1-10 of 10

Making DSpace 1.5 Your Own: Customization tips & tricks
Donohue, Tim
DSpace 1.5 represents a big step towards the future of DSpace software. Are you still trying to wrap your mind around 1.5 or wanting to ready yourself for an upgrade? Get a better understanding of the new DSpace 1.5 ...

Depth Customization of DSpace: Best Practices and Techniques of Institutional Repository at IIT Kanpur, India
Shrivastava, V. D.; Shukla, Gaurav; Vijaianand, S. K.
Realizing the importance and magnitude of Institutional Repository and global visibility and further research scope, Indian Institute of Technology Kanpur, India has intensively planned and designed a full fledged IR project ...
BROWSING AND SEARCHING

Search

Filters
Use filters to refine the search results.

Title

Contains

Reset  Apply
BROWSING AND SEARCHING

Search

Now showing items 1-10 of 10

Making DSpace 1.5 Your Own: Customization tips & tricks

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BROWSING AND SEARCHING

Communities in the Mirage 2 Preview Repository

Select a community to browse its collections.

+ Community with several levels of sub-communities and collections
  Demonstration for the new communities & collections tree. This text will automatically hide when you resize the screen to a width resembling a phone display.

- Harvested items
  Items harvested from international DSpace repositories, using the standard DSpace OAI-PMH Client

- SMARTech - Scholarly Materials and Research at Georgia Tech
  Harvested collections courtesy of Georgia Tech Library

  4th International Conference on Open Repositories
  Accepted submissions from the 4th International Conference on Open Repositories

  OAI-ORE Test
Item submission

Describe Item

Authors:

Last name, e.g. Smith

First name(s) + "Jr", e.g. Donald Jr

Enter the names of the authors of this item below.

Title: *

Enter the main title of the item.

Other Titles:

If the item has any alternative titles, please enter them below.
Wake Vortex Study at Wallops Island

The air flow from the wing of this agricultural plane is made visible by a technique that uses colored smoke rising from the ground. The swirl at the wingtip traces the aircraft's wake vortex, which exerts a powerful influence on the flow field behind the plane. Because of wake vortex, the Federal Aviation Administration (FAA) requires aircraft to maintain set distances behind each other when they land. A joint NASA-FAA program aimed at boosting airport capacity, however, is aimed at determining conditions under which planes may fly closer together. NASA researchers are studying wake vortex with a variety of tools, from supercomputers, to wind tunnels, to actual flight tests in research aircraft. Their goal is to fully understand the phenomenon, then use that knowledge to create an automated system that could predict changing wake vortex conditions at airports. Pilots already know, for example, that they have to worry less about wake vortex in rough weather because windy conditions cause them to dissipate more rapidly.
CUSTOMIZING MIRAGE 2

Implementing your local institutional style guidelines can be done just like before, through CSS and XSLT changes.

A few examples
Welcome to eScholarShare!

eScholarShare is the open access repository of Drake University that collects, preserves, and distributes materials produced or maintained by the Drake community. The purpose of eScholarShare is to make Drake University's digital scholarship available to a global audience and to provide reliable digital storage. Journal articles, conference papers, instructional resources, student projects, theses, dissertations, and university archival materials are all candidates for deposit.

Submitting your work to eScholarShare is easy. For more information, please contact Katherine Lincoln, katherine.lincoln@drake.edu.

Communities in DSpace

Select a community to browse its collections.

College of Arts & Sciences
publications submitted by A&S faculty
Scholarly Commons @ MIU

http://sc.lib.muohio.edu/

Scholarly Commons @ Miami

The repository is a service of the Miami University libraries. Research and scholarly output included here has been selected and deposited by the individual university departments and centers on campus.

Communities in Scholarly Commons

Select a community to browse its collections.

Faculty Research and Scholarship

Research Centers
Minerva Digital Commons

MDC is a digital repository that collects, preserves, and distributes digital material. Repositories are important tools for preserving an organization's legacy; they facilitate digital preservation and scholarly communication.

Communities in DSpace

Select a community to browse its collections.

University Archive
Simulating Distributional Impacts of Macro-dynamics: Theory and Practical Applications

Olivieri, Sergio; Radyakin, Sergiy; Kolenikov, Stainiav; Lokshin, Michael; Narayan, Ambar; Sánchez-Páramo, Carolina
(2014-09-23)

Simulating Distributional Impacts of Macro-dynamics: Theory and Practical Applications is a comprehensive guide for analyzing and understanding the effects of macroeconomic shocks on income and consumption distribution, as well as using the ADePT Simulation Module. Since real-time micro data is rarely available, the Simulation Module (part of the ADePT economic analysis software) takes advantage of historical household surveys to estimate how current or proposed macro changes might impact household and individuals welfare. Using examples from ...

Purchasing Power Parities and Real Expenditures of World Economics: A Comprehensive Report of the 2011 International Comparison Program

World Bank (2014-11-05)

The International Comparison Program (ICP) is a large and highly complex worldwide statistical program conducted under the charter of the United Nations Statistical Commission (UNSC). The ICP is designed to provide globally comparable economic aggregates in national accounts that can be used by individual researchers, analysts, and policymakers at the national and international levels and by international organizations such as the European ...
UNDERLYING TECHNOLOGIES

Beyond plain CSS  Build process  Dependency management
UNDERLYING TECHNOLOGIES

Beyond plain CSS

Build process

Dependency management

Sass

Grunt

Bower
“Some authors have different name variants in my repository”
USE CASE

1000 Genomes Project
2010 Debrecen-Hungary, iGEM
880-01 Chen, Li jin
Aad, G.
Aaker, Jennifer
Aakre, Christopher David
Aalberts, Daniel P.
Aalberts, Daniel Paul, 1966-
Aaltonen, T.
Aanestad, Jon
Aaron, Benjamin S. (Benjamin Samuel)
Aarsonson, Scott
Aas, Finn Erik
Aashtiani, Hedayat Zokaei
Ababneh, Mohammed T.
Ababou, R. (Rachid)
Abad, Antonio Manuel, 1976-
Abadi, Daniel J.
Abadi, Daniel J.
Abadie, Alberto

Aazami, Amir Babak
Aazami, Amir Babak
Aballay, A
Aballay, Alejandro
Abbott, Kelsey
Abdelwahid, E
Abdi, K
Abdulkadiroglu, A
Abdulkadiroglu, Atila
Abdullah, Hasan
Abedini-Nassab, Roozbeh
Abe, K
Aberger, Marie
Abernethy, Amy Pickar
Abernethy, AP
Abernethy, Ashley L.
Abgrall, N
Abraham, SN
Abrahamsson, CK
Abramczyk, Robert
WHAT DSPEACE ALREADY OFFERED
What is ORCID?

Registry of unique researcher identifiers
Open, non-profit, community-driven effort
APIs that support system-to-system communication and authentication
ORCID Identifiers

Item submission

Describe Item

Authors:
Enter the names of the authors of this item below.

Last name, e.g. Smith
First name(s) + "Jr", e.g. Donald Jr

Add Lookup & Add

Person Lookup
Search: haak

- last name: Haak
- first name: Laurel
- orcid: 0000-0001-5109-3700

Items in this repository: no

Add This Person
**BACK-END: LOCAL AUTHORITY CACHE**

String representation of the name in standard Dublin Core metadata enhanced with DSpace compliant authority control id

"authority cache" stores extended contributor metadata, including ORCID ID and alternative names

Apache Solr

```xml
<doc>
  <date name="creation-date">2013-12-23T20:51:03.714Z</date>
  <date name="last-modified-date">2013-12-23T20:51:03.714Z</date>
  <bool name="deleted">false</bool>
  <str name="field">dc_contributor_author</str>
  <str name="first_name">Laurel</str>
  <str name="last_name">Haak</str>
  <str name="orcid_id">0000-0001-5109-3700</str>
  <str name="id">fb4a91cb-3383-4044-a1ba-b6be57b6547d</str>
  <arr name="name_variant">
    <str>Laurel L. Haak</str>
    <str>L Haak, Laure Haak</str>
    <str>L. L. Haak</str>
    <str>Lara L. Häka</str>
  </arr>
</doc>
```
Author CSV Import

Administrator exports existing work metadata

Staff enhances contributor string names with ORCID

Administrator finalizes by re-uploading edited file
**Author CSV import**

Add ORCID identifier to spreadsheet for batch deposit of metadata into DSpace: “ORCID: dc.contributor.author”

Non-ORCID authors can still be imported: “dc.contributor.author”

<table>
<thead>
<tr>
<th>dc.title</th>
<th>ORCID: dc.contributor.author</th>
<th>dc.contributor.author</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORCID CSV import example</td>
<td>0000-0001-8932-6871</td>
<td></td>
</tr>
<tr>
<td>Test item 2</td>
<td>0000-0002-2276-4656</td>
<td></td>
</tr>
</tbody>
</table>

Pending changes are listed below for review:

- New item
  - Add to owning collection: 1234567892
  - Add: (dc.title): ORCID CSV import example
  - Add: (dc.contributor.author): Smith, Benjamin
  - Add: (dc.contributor.author): Hancock, Roeland
  - Add: (dc.contributor.author): Vandekerckhove, Bram

Apply changes | Return
AUTHORITY CONTROL IN DSPACE

Simple dropdown lists

Hierarchical taxonomies managed in local XML files

Lookup through external authority services and storage of a key value

**DSpace 5**: ORCID integration with local storage of imported authority metadata
Publisher copyright policies checkup tool provides submitters with information on what they are allowed to submit, and if an embargo is required.

Automated lookup based on ISSN number
Publisher information

Journal: A Life in the Day (1366-6282)
Publisher information: Emerald
RoMEO Colour: green (More info)

Journal: A obra nasce (1645-8729)
Publisher information: Edições Universidade Fernando Pessoa
RoMEO Colour: blue (More info)

Journal: AAOHN Journal (0891-0162)
Publisher information: Slack
RoMEO Colour: white (More info)

Journal: Abacus (0001-3072)
Publisher information: Wiley
RoMEO Colour: yellow (More info)

To check the copyright and self-archiving policies per journal or publisher, please consult SHERPA/RoMEO.
**Sherpa Romeo: what do the colors mean**

Green: can archive pre-print and post-print or publisher's version/PDF

Blue: can archive post-print (ie final draft post-refereeing) or publisher's version/PDF

Yellow: can archive pre-print

White: archiving not formally supported
XML based markup language enabling the use of scientific formulas in DSpace

Integrated in abstract field
Test submission from home May 31st

This is the abstract of my test submission. \[
\frac{n!}{k!(n-k)!} = \binom{n}{k}
\]

URI
http://dspace.shepherd.nz/handle/or2015/204

Collections
Self-submission demonstration collection

View/Open
IntroducingDSpace5-Proposal.pdf (78.92Kb)

(Screenshot by Kim Shepherd, University of Auckland)
PDF Citation cover pages

Automatically generates a cover page containing configurable metadata fields and fixed information
PDF Citation cover pages

DSpace Institution
DSpace Repository
http://dspace.org
Reports Community
Annual Reports Collection

2015-01-12
2015 Annual Report

Dietz, Peter
Longsight Inc

http://hdl.handle.net/123456789/13470
Downloaded from DSpace Repository, DSpace Institution's institutional repository

Source: DSpace 5 Documentation
Batch item import

Administrators can bulk input items through SimpleArchiveFormat packages (e.g. ZIP file)

Available in admin UI, no commandline needed.
Batch Item import

Select the type of the input data
Simple Archive Format (zip file via upload)

Select data file to upload
Choose File imports.zip

Select the owning collection of the items (Optional)
This field is optional meaning that if you leave it empty, you are supposed to include per item collection information in the Simple Archive Format
Item import demonstration collection

Select other collections that the items will belong to (Optional)
Fake Computer Science Research Papers
Item Import demonstration collection
Self-submission demonstration collection

Upload

(Screenshot by Kim Shepherd, University of Auckland)
LOWER CHANCE OF HUMAN ERRORS DURING UPGRADES

Underlying Database updates when running DSpace 5

Solr / Lucene indexes upgrade automatically during Ant upgrade step
Supported DSpace versions
DSpace provides security updates/support for the 3 most recent major versions of DSpace. (At this moment DSpace 3.x, 4.x & 5.x)

This policy has proven to be effective
Example: DSpace 5.1
security fixes
Path traversal vulnerabilities

Unauthorized users moving up the directory ladder to retrieve private information

Both XMLUI and JSPUI were vulnerable
JSPUI cross site scripting

User input parameters not sufficiently filtered from code snippets or database queries.

Could be used to inject code in DSpace to gain access to private information.

Infected pages

recent submissions listing
discovery search form
Secured DSpace versions

DSpace 3.4
DSpace 4.3
DSpace 5.1 and up
Upcoming in DSpace
Upcoming in DSpace

Up to now: spontaneous, self proposed contributions by service providers and institutions

No specific future vision of the way DSpace should evolve

A roadmap and strategic plans for the future were needed
upcoming in DSpace

Strategic plan
  Technology
  Community
  Sustainability

DSpace roadmap
**Strategic plan for technology**

1. DSpace will focus on the fundamentals of the modern "Institutional Repository" use case.

2. DSpace will be "lean", with agility and flexibility as primary goals.

3. DSpace will include a "core" set of functionality that can be "extended".

4. DSpace will be designed in such a way that it can be easily/quickly configured to integrate with new & future tools/services in the larger digital scholarship "ecosystem".

5. DSpace will support low-cost, hosted solutions and deployments (by featuring an easy, "just works" setup).

Source: DuraSpace.org
STRATEGIC PLAN FOR COMMUNITY

1. Expand the DSpace governance model to recognize managed, in-kind developer contributions.

2. Increase participation in membership and governance by the international DSpace community

3. Coordinate project activity for more managed, predictable results

4. Develop partnerships with other organizations and projects in the repository ecosystem

Source: DuraSpace.org
Strategic plan for sustainability

1. Develop a clear value proposition for DSpace that explains its benefits to all stakeholders
2. Increase DSpace membership
3. Establish a stronger DSpace presence internationally
4. Fill the Product Manager role for the DSpace project
5. Increase project revenue to support these growth and sustainability initiatives

Source: DuraSpace.org
DSpace Roadmap

Technical plan containing prioritized candidate features for DSpace 6 & 7

Based on the decisions made in the strategic plan for technology and use case analysis.
Thank you!
Questions?

@MIRE

www.atmire.com

Wednesday 24 June 15