DSpace JSPUI Reborn

Presented by:
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This work is the result of the DSpace Team lead by Andrea Bollini at Cineca

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Open Repositories, Helsinki 2014, June 9-13
This presentation is about...

• User experience improvements available with DSpace 4

• Available for the JSPUI, which is our favourite UI

• Some of them available for the XMLUI

• Comparison of JSPUI and XMLUI to help you choose which UI better fits your requirements
The big one: JSPUI redesign

Clean and modern look & feel
Contributed to the community by Cineca
Built with professional CSS Frameworks: Bootstrap 3 + JQueryUI 1.10
...how JSPUI looked before 4.0
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How JSPUI looks now!
Different headers for public and backend pages
### Unfinished Submissions

This section is for use in the continued authoring of your document.

<table>
<thead>
<tr>
<th>Submitted By</th>
<th>Title</th>
<th>Submitted to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Demo</td>
<td>Untitled</td>
<td>Collection of Sample Items</td>
</tr>
<tr>
<td>Administrator</td>
<td></td>
<td>[Remove]</td>
</tr>
<tr>
<td>Open Demo</td>
<td>The &quot;J curve&quot; problem revisited: old and new findings</td>
<td>Testdspace content</td>
</tr>
<tr>
<td>Administrator</td>
<td></td>
<td>[Remove]</td>
</tr>
<tr>
<td>Open Demo</td>
<td>Untitled</td>
<td>1. HH</td>
</tr>
<tr>
<td>Administrator</td>
<td></td>
<td>[Remove]</td>
</tr>
<tr>
<td>Open Demo</td>
<td>Diseño de un sistema de capacitación para los comerciantes de playa Santa Marianita del canton Salitre</td>
<td>Collection of Sample Items</td>
</tr>
<tr>
<td>Administrator</td>
<td></td>
<td>[Remove]</td>
</tr>
</tbody>
</table>

### Exported Resources

1. item_export_2014_Jan_24_1_1.zip
Submit: Describe this Item

Please fill in the requested information about this submission below. In most browsers, you can use the tab key to move the cursor to the next input box or button, to save you having to use the mouse each time.

Enter the names of the authors of this item below.

Authors
- Grassi
- Quartu-Trevano
- Dell'Oro
- Mancia
- Last name, e.g. Smith
- Guido
- Fosca
- Raffaela
- Giuseppe
- First name(s) + "Jr", e.g. Donald Jr

Enter the main title of the item.

Title *
The "J curve" problem revisited: old and new findings

If the item has any alternative titles, please enter them below.

Other Titles

Please give the date of previous publication or public distribution below. You can leave out the day and/or month if they aren't applicable.

Date of Issue *
Month: August
Day: 
Year: 2010

Enter the name of the publisher of the previously issued instance of this item.

Publisher

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Administration Tools

Please select an operation from the main menu.
Administration Tools

Please select an operation from the main menu:

- Metadata
- Registry
- Bitstream Format
- Registry
- Edit News
- Edit Default
- License
Media Query Browser support

• Chrome, Firefox, Safari, Opera
  • All reasonably recent versions
• IE10 fully supported
• IE9: except for a few CSS enhancements
• IE8: requires respond.js and html5shiv.js (included in DSpace 4)
• IE7: not officially supported, but
  • “should look and behave well enough”

Source “Building Responsive Websites with the Bootstrap 3 Framework”, Webvanta
Change the look & feel

In 4 steps

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Change the look & feel: step 1/4

Replace the DSpace logo with your institution logo

1

/jspui/image/dspace-logo-only.png (fixed to a height of 25px)

/jspui/image/logo.gif (width adapted to max 3/12 of the viewport)

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Change the look & feel: step 2/4

Replace the Bootstrap CSS theme file...
...with a generated one

/jspui/static/css/bootstrap/bootstrap-theme.min.css

http://getbootstrap.com/customize/ - the generator form
http://bootswatch.com/ - gallery of free themes
http://www.lavishbootstrap.com/ - generate the palette from an image
(maybe the Repository logo or banner)
Buttons

@btn-font-weight

@btn-link-disabled-color

Default

@btn-default-color

#333

@btn-default-bg

#fff

@btn-default-border

#ccc

Primary

@btn-primary-color

@btn-default-color

@btn-primary-bg

Download

Hooray! Your custom version of Bootstrap is now ready to be compiled. Just click the button below to finish the process.

Compile and Download
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Step 2: Customize everything

<table>
<thead>
<tr>
<th>Body background</th>
<th>#D4D8D1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disabled input &amp; button background, input addon background, nav &amp; tabs &amp; pagination link hover background, jumbotron background</td>
<td>#A8A8A1</td>
</tr>
<tr>
<td>Disabled link color, input placeholder color, dropdown header color, navbar inverse &amp; link color</td>
<td>AA9A66</td>
</tr>
</tbody>
</table>
Change the look & feel: step 3/4

Check the dspace-theme CSS file, maybe you want to make changes

/jspui/static/css/bootstrap/dspace-theme.css

.banner img {background-color: #FFFFFF;padding:15px;margin:20px;}
.brand h4 {color: #999999}
ol.breadcrumb li {color: white; font-style: italic;}
ol.breadcrumb li a {color: white; font-weight: bold; font-style: normal;}

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Change the look & feel: step 4/4

Replace JQuery UI CSS & images...
...with a generated one

/http://jqueryui.com/themeroller/ - the generator form & free gallery

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Change the look & feel

...done!

You only need to re-package your JSPUI webapp and deploy it!

mvn package
Some examples
Bootwatch

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Lavish DuraSpace logo

Step 1: Provide an image

https://wiki.duraspace.org/download/attachments/31656033/duraspace_stickr_logo_2.5in.png?version=1&modificationDate=1356530852000&api=v2

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DSpace JSPUI

DSpace preserves and enables easy and open access to all types of digital content including text, images, moving images, mpegs and data sets.

DSpace is Live
Welcome to our digital repository of My University research!
More exciting news to appear here.

Recent Submissions
Test Word Document
This is a sample abstract. But, to fill up some space, here's "Hello" in several different languages!
How does it work? much like the old versions

• You can think the whole page as a big table of 12 columns...
  ...but it is tableless! (all content in HTML <div> elements)

• You have precise positioning (fix «column» size)
  ...but it is fluid (better, it is responsive, mobile friendly)

• It uses the custom tags dspace:layout and dspace:sidebar
  ...but the layout tag now knows about the sidebar tag early*.

* You can do the math about how many columns are in your central panel and you can also put the sidebar on the left
Provided by the specific jsp
(home.jsp, display-item.jsp, etc.)

Layout structure

- Branding content – provided by the layout/<skin>/header-<style>.jsp file
- Sidebar content
  - Injected by the specific jsp
- NavBar – injected by the content jsp using the navbar attribute (layout/<skin>/navbar-<navbar>.jsp)
- LocationBar – injected by the content jsp using the locbar attribute (layout/location-bar.jsp)
- Footer content (layout/<skin>/footer-<style>.jsp)

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Four key elements

• Skin (undocumented feature 😞)
  • Configured in the dspace.cfg allow to use layout files from the subdirectory <skin> of
    • dspace-jspui/src/main/webapp/layout or
    • dspace/modules/jspui/src/main/webapp/layout

• Style
  • Used in the dspace:layout tag to define which style apply to the current content,
    current used styles are:
    • Default
    • Submission (not yet an appropriate name... backend could be a better name)

• NavBar
  • Used in the dspace:layout tag to define which navigation menu include

• LocationBar
  • Used in the dspace:layout tag to define or turn off the breadcrumbs
Twitter Bootstrap

• Grid system
  • Breaking point: xs (<768px); sm (≥768px); md (≥992px); lg (≥1200px)

• Responsive utilities
  • hide / visible / pull / push / reset / clearfix for specific device (xs, sm, md, lg)

• UI Components CSS + JS:
  • NavBar, Menu, Carousel, List media item, panel, badge, etc.
Bootstrap: the grid system

on small and extra small devices
Bootstrap: responsive system

You can also play with offset, visible and hidden classes.
See http://getbootstrap.com/css

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JQuery UI is actually used for...

Autocomplete widget
  • Search filter
  • Submission, authority controlled metadata

Tabs / Accordion
  • Submission lookup (see later)

Progress bar
  • File upload

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Guidelines & design decision

• The current implementation is not perfect but it is much better than the previous one.
  • We expect wide adoption and lot of improvements and fix, specially for mobile device, in the next versions
  • At Cineca we are going to install DSpace 4 with this UI for over 60 universities and research centres in 2014/2015

• Rely only on standard bootstrap CSS classes
• Focus on middle size desktop screen col-md-* (more work to do for mobile devices)
• Uniform use of metaphors and navigation patterns
Common UI experience patterns: examples

• In a wizard
  • The next button goes on the right
  • The previous button goes on the left

• When a link makes changes it is always rendered as a button

• The state classes are used as follows:
  • Primary (blue): the expected button(s) to be used in a form
  • Success (green): add/update content, «save» buttons. Success acknowledgment
  • Danger (red): remove/delete content, «remove» buttons. Information that you MUST read before going ahead
  • Warning (yellow): change that can be reverted with some work, information to understand before going ahead
  • Info (blue): access to additional information
JSPUI Extensions

• The use of a CSS Framework with a solid grid system can facilitate the implementation of an extension mechanism “build by blocks”

• DSpace already has a basic support for that on the controller side. The main “pages”: home, community, collection and item all support injection of logic via “processor”

• The view fragments actually need to be included “manually” editing the main jsp but... nobody stops us to dream about UI to configure the content order and positioning
Home page processors

- dspace.cfg: plugin.sequence.org.dspace.plugin.SiteHomeProcessor
- TopCommunitiesSiteProcessor
- RecentSiteSubmissions
- SideBarFacetProcessor

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Does Bootstrap matter for XMLUI?

Yes, recent news say that also XMLUI developers are looking to bootstrap as CSS framework to support new themes

MIRAGE2

“This theme for the DSpace "Manakin" XML User Interface was built on modern web technologies including Bootstrap, SASS/Compass and Grunt. Mirage 2 offers a fresh look and feel together with an entire range of optimizations behind the scenes. The public face of the theme is available for evaluation in a dedicated preview repository. The associated source code will be released after the release of DSpace 4.”

http://duraspace.org/mirage-2-freshlook-and-feel-dspace-4

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Search User experience improvements

JSPUI & XMLUI

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Search User experience improvements

• ICU accent folder
  • Solve transliteration problem for UTF-8 characters so that you can for example search for Martínez, entering martìnez or martinez to get the same results
  • It is enabled out-of-box, just be sure to re-index your content after the upgrade

Martínez
Martinez

Juan Martínez

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Search User experience improvements

• Spellchecker SOLR component: “Did you mean?”
  Help the user when the input query has a match using a n-gram index but no match with the “standard” index

It is almost ( 😞 see DS-1899 ) enabled out-of-box in a fresh DSpace 4 installation.
<bean id="defaultConfiguration"
class="org.dspace.discovery.configuration.DiscoveryConfiguration" scope="prototype">
    ....
    <property name="spellCheckEnabled" value="true"/>
</bean>

Pay attention: you have multiple configurations!

<bean id="org.dspace.discovery.configuration.DiscoveryConfigurationService" ...

    <property name="map">
        <map>
            <entry key="site" value-ref="homepageConfiguration" />
            <entry key="default" value-ref="defaultConfiguration" />
            <entry key="123456789/1" value-ref="customCommunityConfiguration" />
            ....
        </map>
    </property>
Search: user mishaps... tips

• Hei my publication doesn’t appear in the browse by title list or in search results!
  • Is your publication published in the repository? Publications under workflow are not searchable
  • Is your publication publically accessible? Discoverable and without embargoes?
  • Is your publication just approved for entry in archive? Give the system the time to index it! By default new content becomes available for search and browse within 10 seconds
Ok, you could be right, the indexing procedure in DSpace is separate from the main process that manages item editing and workflow. There is a little chance that SOLR was in trouble when you made the changes and was not able to index.

Check the dspace.log files, if this is the case, restart the SOLR webapp and reindex your content.
Enhanced Submission
New submission: get data from bibliographic external service

Search Form | Results

- Default mode Submission
  - Select collections:
  - Manual submission
- Search for identifier
- Upload a file

Go to
DSpace Home
My DSpace

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New submission: get data from bibliographic external service

Search Form

Default mode Submission

Search for identifier

Fill in publication identifiers (DOI is preferable) and then press "Search". A list of all matching publications will be shown to you to select in order to proceed with the submission process.

PubMed ID:
e.g. 20524090

DOI (Digital Object Identifier):
e.g. 10.1021/ac0354342

arXiv ID:
e.g. arXiv:1302.1497

CiNii NAID:
e.g. 110004744915

Search
The "J curve" problem revisited: old and new findings

Grassi, Guido
Quarti-Trevano, Fosca
Dell'Oro, Raffaella
Mancia, Giuseppe

2010-08

This paper critically addresses the issue of the "J-curve" paradox—the finding described in studies performed about 30 years ago indicating that treatment-induced systolic blood pressure values below 120 or 125 mm Hg and diastolic blood pressure values below 75 mm Hg are characterized by an increase, rather than a reduction, in the incidence of coronary events. This paper focuses on four major subjects: 1) the benefits of a lower blood pressure target during treatment; 2) the historical background of the "J-curve" phenomenon; 3) the evidence collected in recent clinical trials regarding the existence of a "J-curve" in treated hypertensive patients; and 4) the recent recommendations by the Task Force Committee of the European Society of Hypertension on blood pressure goals to be achieved during treatment.

doi: 10.1007/s11906-010-0121-7

Current hypertension reports
<table>
<thead>
<tr>
<th>journal</th>
<th>Current hypertension reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>volume</td>
<td>12</td>
</tr>
<tr>
<td>issue</td>
<td>4</td>
</tr>
<tr>
<td>issn</td>
<td>1522-8417</td>
</tr>
<tr>
<td></td>
<td>1534-3111</td>
</tr>
<tr>
<td>mesh</td>
<td>Antihypertensive Agents</td>
</tr>
<tr>
<td></td>
<td>Blood Pressure</td>
</tr>
<tr>
<td></td>
<td>Blood Pressure Determination</td>
</tr>
<tr>
<td></td>
<td>Coronary Artery Disease</td>
</tr>
<tr>
<td></td>
<td>Humans</td>
</tr>
</tbody>
</table>

Select collections:

- HH
- LMH
- DBH
- BATX
- Collection of Sample Items
- Collection with embargo feature enabled (use only with XMLUI)
- Erreferencia materialak
- Testdspace content
- Untitled
- Videos Historicos

Fill data and start submission
New submission: get data from bibliographic external service

Upload a file

Select a file to upload and its type from the drop-down menu. If "Preview Mode" is enabled, the list of the publications in the file will be shown to you to select the one for submission. If it is disabled, all publications will be imported in your MyDSpace page as "Unfinished Submissions" while the first one will go through the submission process.

Select data type: [Select...]

File: [Scegli file] Nessun file selezionato

Preview mode

Collection: [1. HH]
Select a file to upload and its type from the drop-down menu. If “Preview Mode” is enabled, the list of the shown to you to select the one for submission. If it is disabled, all publications will be imported in your M Submissions” while the first one will go through the submission process.

Select data type:

File:

Preview mode

Collection:
New submission: get data from bibliographic external service

Search Form | Results

**BibTeX**

Design of a Carbon Fiber Composite Grid Structure for the GLAST Spacecraft Using a Novel Manufacturing Technique

*von Hicks, III, Michael*

2001

See details & import the record

**BibTeX**

Handbook of Mathematical Functions with Formulas, Graphs, and Mathematical Tables

*Milton Abramowitz and Irene A. Stegun*

1964

See details & import the record

Select collections: Select... Manual submission

Exit
StartSubmissionLookup step

• Available only for JSPUI but doesn’t break the XMLUI. Must be enabled in item-submission.xml

```xml
<step id="collection">
  <processing-class>org.dspace.submit.step.StartSubmissionLookupStep</processing-class>
  <jspui-binding>org.dspace.app.webui.submit.step.JSPStartSubmissionLookupStep</jspui-binding>
  <xmlui-binding>org.dspace.app.xmlui.aspect.submission.submit.SelectCollectionStep</xmlui-binding>
  <workflow-editable>false</workflow-editable>
</step>
```

• Built on top of BTE can be further configured and extended via the config/spring/api/bte.xml
  • New providers
  • Tuning metadata mapping
  • Enabling search functionalities

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Enabling the free search

The system allows a further “submission mode”: free search across Bibliographic Database. The target provider must supply API to query its internal database with free text or optionally title, authors and date indexes.

[dspace-dir]/config/spring/BTE.xml
<!-- PubMed -->
<bean id="pubmedOnlineDataLoader“
class="org.dspace.submit.lookup.PubmedOnlineDataLoader">
    <property name="searchProvider" value="true" />
    <property name="fieldMap" ref="pubmedInputMap" />
</bean>

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New submission: get data from bibliographic external service

Default mode Submission

Select collections:
- Free search
- Search for identifier
- Upload a file

Free search “mode”
New submission: get data from bibliographic external service

Free search

Title:

Year:

Authors/Publishers:

Search for identifier

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Free search mode

• It is disabled by default
  • It is supported by all the providers supplied out-of-box
  • Current implementations are sub-optimal
Embargo improvements
Edit Bitstream Access

Emargo Date:
The first day from which access is allowed. Accepted format: yyyy, yyyy-mm, yyyy-mm-dd

Reason:
The reason for the embargo.

Cancel | Save
Group policies

<table>
<thead>
<tr>
<th>Name</th>
<th>Action</th>
<th>Group</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ</td>
<td>Anonymous</td>
<td>2014-02-19</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Edit Bitstream Access

Name:
A short, descriptive name for the policy (up to 30 characters). May be shown to and used. Example: "Staff-only". Optional but recommended.

Groups:
Anonymous

Access for selected group:
- Allow access once item is accepted into archive
- Embargo until specific date

Embargo Date:
The first day from which access is allowed. Accepted format: yyyy, yyyy-mm, yyyy-mm-dd

Reason:
The reason for the embargo, typically for internal use only. Optional.

[Options: Confirm Policy & another, Cancel, Save]
Review embargo
(also for XMLUI)
Upload step improvements
Submit: Upload a File

Please enter the name of the file on your local hard drive corresponding to your item. If you click "Browse...", a new window will appear in which you can locate and select the file on your local hard drive.

Please also note that the DSpace system is able to preserve the content of certain types of files better than other types. Information about file types and levels of support for each are available.

Document File: [Select a file]

Please give a brief description of the contents of this file, for example "Main article", or "Experiment data readings".

File Description:

[Skip file upload] [Next]
Configure the Sherpa/RoMEO integration

• It is enabled by default but can be disabled via dspace.cfg, i.e.
  webui.submission.sherparomeo-policy-enabled = false

• It is configurable
  • [dspace-dir]/config/spring/sherpa.xml
    • Decide which metadata use for the Sherpa/RoMEO lookup (default dc.identifier.issn)
    • Switch to a different “ISSN Extractor” Strategy. For example you could look in the
      authority field of a metadata, useful in conjunction with SHERPARoMEOJournalTitle
  • [dspace-dir]/config/dspace.cfg
    • Enable the use of a specific apikey, anonymous user are limited to 500 query/day
      sherpa.romeo.apikey = YOUR-API-KEY
DS-1897 JavaScript bug 🎁
Fix available → 4.1

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Request a copy

JSPUI & XMLUI

OR 2014, Helsinki
OR 2014, Helsinki
Request a document copy: **DSpace CRIS Technical Documentation**

**Requester name:** John Smith

**Requester e-mail:** xxxxx@yyyy.com

**Files:**
- [ ] all files (of this document) in restricted access
- [ ] the file(s) you requested

**Message:**
I'm doing a cool research about CRIS system and want to evaluate your software... [...]

[Send]
Subject: Request a document copy

IF YOU ARE AN AUTHOR OF THE DOCUMENT, DSpace CRIS Technical Documentation, use one of the buttons below to answer the request for a copy made by the user, John Smith.

This repository will propose an appropriate model reply, which you may edit.

Don't send a copy  Send a copy
Accept the request

This is the email that will be sent to the requester along with the file(s).

Subject: Request copy of document

Message:
Dear John Smith,
In response to your request I have the pleasure to send you in attachment a copy of the file(s) concerning the document: "DSpace CRIS Technical Documentation" (http://hdl.handle.net/10673/9), of which I am author (or co-author).

Best regards,
Demo Administrator <bollini80@gmail.com>
Your answer was sent successfully to the e-mail indicated by the requester. Thank you.

You may use this occasion to reconsider the access restrictions on the document (to avoid having to respond to these requests), if there is no reason to keep it restricted. To do so, after inserting your name and e-mail (for authentication), click the button "Change to Open Access".

Name: 
E-mail: 

Change to Open Access

→ Repository administrators
Request a copy configuration

• Who can made the request? dspace.cfg : request.item.type
  • Anonymous users - all
  • Logged-in users - logged
  • Nobody (disable the feature) – empty

• Who receive the request a copy emails?
  [dspace.dir]/config/spring/api/requestitem.xml
  •Submitter
  • Corresponding author as noted in metadata

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A personal comparison of JSPUI vs XMLUI

The following slides reflect the opinion of the presenter, but it is not an official statement from DuraSpace nor the DSpace Committers Group.
**JSP UI**

**PROS:**
- Lightweight easy-to-learn standard-based technology
- First DSpace UI, widely adopted
- Skinnable
- Mobile friendly

**CONS:**
- Layout hard to customize in depth
- Content creation & view logic mixed-up

**XML UI**

**PROS:**
- Clear separation between content and visualization XML / XSLT
- Come by default since DSpace 1.6+
- Possibility to use themes also for single community/collection (some themes freely available)
- Mobile themes available

**CONS:**
- Complex technology
- Strongly coupled with the Apache Cocoon framework (almost stale)
- Hardware consumer
- Need to be cached for reasonable performance

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JSP UI vs XML UI: End user functionalities

- Enhanced submission
  - Bibliographic database integration
  - Sherpa/RoMEO
  - AJAX progress bar
- DSpace-CRIS module*
  - Researcher/OrgUnit/Project profiles
  - Management of authority lists (journals, etc.)
  - Disambiguation for researchers
  - Collaboration Network analysis
  - ........
- un-official module supported by Cineca
  http://cineca.github.io/dspace-cris

- Advanced workflow
  - Customizable through XML
- Discovery extra features
  - Highlighting
  - Related items
- Statistics extra features
  - Workflow events
  - Search usage

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Choose a UI based on your local preferences and expertise

“Both the JSPUI and XMLUI are supported and in use by members of our Committers Team. Both UI platforms have their advantages and disadvantages. So, we recommend choosing a UI based on your local preferences and expertise. At this point in time, there are no plans to deprecate either UI as they are both in active use throughout our community. If UI deprecation was ever being considered, we would consult with the DSpace Community before making any decisions.”

-- The DSpace Committers Group
Thank you!

Susanna Mornati
IT Solutions for Institutional Research Dept., Head
s.mornati@cineca.it
for Cineca’s DSpace Team (Andrea Bollini & Co.)

Link to the Duraspace Webinar with more details and Q/A: