Integrating the UPV Institutional Repository (RiuNet - DSpace) in the Courseware Management System (PoliformaT - Sakai) via the Digital Library Portal (PoliBuscador - MetaLib)

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1. UPV in figures. Universidad Politécnica de Valencia

Some UPV figures
Universidad Politécnica de Valencia [http://www.upv.es](http://www.upv.es)

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position in Shanghai World Ranking</td>
<td>388</td>
</tr>
<tr>
<td>Number of students</td>
<td>38,864 (2006)</td>
</tr>
<tr>
<td>Number of professors</td>
<td>2,741 (2006)</td>
</tr>
<tr>
<td>Number of degrees</td>
<td>61 (2006)</td>
</tr>
<tr>
<td>Number of masters</td>
<td>45 (2006)</td>
</tr>
<tr>
<td>Number of e-journals</td>
<td>15,548 (2007)</td>
</tr>
<tr>
<td>Number of e-books</td>
<td>79,839 (2007)</td>
</tr>
<tr>
<td>Number of databases</td>
<td>29 (licensed databases)</td>
</tr>
<tr>
<td>ExLibris products</td>
<td>MetaLib, SFX, X-Server, metaindex</td>
</tr>
<tr>
<td>CWM (Courseware Manager) or LMS (Learning Management system)</td>
<td>PoliformaT (Sakai)</td>
</tr>
<tr>
<td>Institutional repository</td>
<td>RiuNet (Dspace):</td>
</tr>
<tr>
<td></td>
<td>• theses: 207</td>
</tr>
<tr>
<td></td>
<td>• learning objects: 761</td>
</tr>
</tbody>
</table>

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2. Integrating E-Contents in Learning-Research UPV Scenario

Element one…

...as a Digital Library portal

- Access from main Library Web
- It holds all electronic resources
- As a complementary tool with catalog
- Necessary strategic vision for further developments, about interface and information architecture
Element two…

… as a Courseware Management System

- All UPV courses are in PoliformaT
- The syllabus is constructed from PoliformaT elements
- Searches in PoliBuscador or Google run from “Resources” element and bibliographic lists are produced
- Stable URLs are obtained
- To run searches the system uses:
  - Sakaibrari Module
  - X-Server (ExLibris) Module

Reference: Dunn, Jon (IGelu 2006) Sakaibrari: Bridging Course Management and Digital Libraries
How searches run in PoliBuscador

Element three…

… as a resource integrated in PoliBuscador

- Configuring RiuNet in MetaLib
  - Making RiuNet (DSpace) a metasearch resource
  - Activating SFX from MetaLib to get full text
- Configuring RiuNet as a target in SFX
  - SFX is the only way to get full text from PoliformaT
RiuNet as a resource in PoliformaT

Access to full text via SFX
E-Contents UPV model in Learning-Researching scenario

Integrating contents, integrating software...

RiuNet
DSpace
PoliBuscador
MetaLib
Sakai
PoliformaT
The goal!!!
3. Configuring RiuNet in MetaLib

Steps for RiuNet configuration in ML

- Configuring RiuNet as a metasearchable resource
- Activating SFX services in ML
Looking for options…

- Loughborough University option (Jason Cooper)
  - Not enough time
- Do Minho University option
  - SFX service not available
- MetaIndex

Protocols, metadata transformations and services involved in RiuNet metaindex

We found some problems, so that customization of metaindex configuration was necessary
Customizing RiuNet metaindex configuration

<table>
<thead>
<tr>
<th>Problems</th>
<th>Solutions</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>In MetaLib fields: • Authors • Date • Collection • Link</td>
<td>Modifying configuration: • Conversion Screen • Subscription Screen • Presentation Primary Screen</td>
<td></td>
</tr>
<tr>
<td>In SFX: • Full Text Service didn’t work</td>
<td>From MetaLib: • Adding DOI field: it is the key field for SFX full text service</td>
<td></td>
</tr>
<tr>
<td>From SFX: • Configuring a parser to get full text via handle, doi, url or urn or the possibility to construct an advanced search from title, author, date or any other variable if no unambiguous identifier is available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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UPV RiuNet metaindex.
Original RiuNet metaindex record interface

Presentation problems with fields: • Authors • Date • Collection • Link

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**Splitting 0248 tag in two fields:**
- 0248
- Adding 856$u$ field

**Changing subfield order**
- Collaborators → 700field
- Main author → 100 field

**Splitting 0248 tag in two fields:**
- 0248
- Adding 856$u$ field

Converting field 260 in format yyyy

Adding $0248_a$ here
UPV RiuNet MetaIndex configuration. Presentation Primary Screen

Adding $0248_a$ here

UPV RiuNet metaindex. Customised RiuNet metaindex record interface

Presentation problems are solved (collection searchable is pending)
UPV RiuNet metaindex.
Addition of DOI field in OpenURL configuration

Adding DOI field

UPV RiuNet metaindex.
Customised DSpace parser in SFX

Example: aspect-oriented software architectures

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4. Future plans

Future plans

• Improving integration of RiuNet in MetaLib/SFX
  – Migration from metaindex to SRU/W protocol
  – All fields in RiuNet metasearchable in PoliBuscador

• Improving integration of RiuNet in PoliformaT
  – Improving information architecture
  – Improving interfaces

• Improving integration of RiuNet with others UPV applications
  – Bypass to student assignments administration application, specially Final Projects
  – Bypass to academic staff CVs applications
5. Configuring RiuNet as a target in SFX

5.1 Integration Solution
5.2 Generic Parser

5.3 Handle Id. Parser
5.4. ByPassing Handle System

5.5 DSpace Handle Generic Parser
### 5.6 Metadata translation

<table>
<thead>
<tr>
<th>Metadata</th>
<th>MetaLib</th>
<th>Metadata</th>
<th>Metadata</th>
<th>Link Z39.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifier</td>
<td>1. - 856 $u = 024 8 $a 2. - ID = Thesis</td>
<td>Identifier</td>
<td>024 8 $a 856 $u</td>
<td>rft.856_url</td>
</tr>
<tr>
<td>DOI</td>
<td>UID (creado por MetaIndex_doi) do:identifier.uri</td>
<td>doi (defined by UPV)</td>
<td>rft.doi = &quot;info:doi&quot;+rft.doi</td>
<td></td>
</tr>
<tr>
<td>Author</td>
<td>1. - the fields have been renewed 2. - 100 $a = $e + author</td>
<td>dc:contributor.author 100 $a</td>
<td>rft.aufirst @rft.aufirst @rft.aulast</td>
<td></td>
</tr>
<tr>
<td>Secondary author</td>
<td>1. - the fields have been renewed 2. - 700 $a = $e + collaborator</td>
<td>dc:contributor.advisor 700 $a</td>
<td>rft.aufirst @rft.aufirst @rft.aulast</td>
<td></td>
</tr>
<tr>
<td>Year of publication</td>
<td>1. - 260 $c = YR $a 2. - 4 characters from first position 3. - deleted 260</td>
<td>dc:date.accessioned</td>
<td>rft.year</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>dc: title</td>
<td>245 $a</td>
<td>rft.title</td>
<td></td>
</tr>
<tr>
<td>Type of document</td>
<td>1. - 513 $a = 655 7 $a</td>
<td>dc:type</td>
<td>rft.jtitle</td>
<td></td>
</tr>
</tbody>
</table>

5.6 Metada translation

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### 5.7 OpenURL with DOI

**OpenUrl MetaLib -> SFX**

```
<opid></opid>
```

5.7 OpenURL with DOI

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5.8 OpenURL without DOI

OpenUrl Poliformat -> SFX

http://tais3.cc.upv.es:3210/sfx_local?
isbn=&
issn=&
date=2008&
volume=&
issue=&
spage=&
epage=&
aulast=PÉREZ BENEDÍ,&
aufirst= JENIFER&
auinit=&
title=Prisma : aspect-oriented software architectures&
sici=&

RFC.3986

SFX Link
(Advanced Search)

5.9 Diagram of sequence
5. Demo RiuNet as a target in SFX

And finally…

Thank you to:

- You all...
- GreenData
- Jason Cooper (Loughborough University)
- Eloy Rodrigues (Universidade Do Minho)

Some interesting links

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