

PRESS RELEASE – 18th April 2007

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***OpenDOAR* API (Application Programmers' Interface) Released**

OpenDOAR, as a SHERPA project, is pleased to announce the release of an API that lets developers use *OpenDOAR* data in their applications. It is a machine-to-machine interface that can run a wide variety of queries against the *OpenDOAR* Database and get back XML data. Developers can choose to receive just repository titles & URLs, all the available *OpenDOAR* data, or intermediate levels of detail. They can then incorporate the output into their own applications and 'mash-ups', or use it to control processes such as OAI-PMH harvesting.

The following example illustrates how the API works:

<http://www.opendoar.org/tools/apidemonstrator.php>

This makes the API request below for repositories holding French language material, with the results sorted by country and repository name:

<http://www.opendoar.org/api.php?la=fr&show=basic&sort=co,rname>

The resultant XML is then processed locally for display using the following PHP script, which simply inserts a customised XSL stylesheet into the XML:

```
<?php
/* Run the API query and read the resultant XML into array $opendoar() */
$opendoar = file("http://www.opendoar.org/api.php?la=fr&show=basic&sort=co,rname");
/* Output a MIME header and the first line of the XML output */
header('Content-type: text/xml');
echo $opendoar[0];
/* Insert the link for the Style Sheet */
echo "<?xml-stylesheet type='text/xsl' href='\"apidemonstrator.xsl\"' ?>\n";
/* Output the rest of the XML stream */
for ($i=1; $i<count($opendoar); $i++) {
    echo $opendoar[$i];
};
?>
```

The inserted stylesheet - <http://www.opendoar.org/tools/apidemonstrator.xsl>

- Adds custom fixed HTML text – translated into French
- Uses a CSS stylesheet to render the results using the local visual style
- Adds an equivalent *OpenDOAR* chart image
- Displays data for selected XML elements

This is just one example of the many uses to which the API can be put. Three experimental applications were created by external collaborators during the prototype stage, including the Google Maps mash-up Repository66 (<http://www.repository66.org/>). These examples are detailed in the full online description of the API at, www.opendoar.org/tools/api.html, where full technical documentation can also be found.

Background Information

OpenDOAR is a continuing project hosted at the University of Nottingham under the SHERPA Partnership. *OpenDOAR* maintains and builds on a quality-assured list of the world's Open Access Repositories. *OpenDOAR* acts as a bridge between repository administrators and the service providers who make use of information held in repositories to offer search and other services to researchers and scholars worldwide.

A key feature of *OpenDOAR* is that all of the repositories we list have been visited by project staff, tested and assessed by hand. We currently decline about a quarter of candidate sites as being broken, empty, out of scope, etc. This gives a far higher quality assurance to the listings we hold than results gathered by just automatic harvesting. *OpenDOAR* has now surveyed over 1,100 repositories, producing a classified Directory of over 800 freely available archives of academic information.

For more information, go to the *OpenDOAR* site at <http://www.opendoar.org/>.

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