Demonstration

Introduction

This paper describes progress made on a project funded by the Australian government to create a free (as in open source) softaware application and associated documentation. The project is known as the Integrated Content Environment for research and scholarship or ICE-RS. The project is tasked with creating and/or documenting software and work practices that allow academics and students writing-up research to create documents, collaborate, manage, publish and deposit their work in repositories. An overview of the project, derived from the successful proposal document is available on the ICE website (Sefton 2006b) .

ICE-RS is supported by the Systemic Infrastructure Initiative as part of the Australian Commonwealth Government's Backing Australia's Ability – An Innovative Action Plan for the Future (http://backingaus.innovation.gov.au).

The project proposal describes the key aim; to provide more flexible content than having all documents delivered in PDF (Adobe 2007) while also making the written dimension of scholarship more efficient and the result more sustainable:

In the institutional repository world, the Adobe PDF format is currently the expected norm for document delivery.

Even though institutional repositories are web-based systems most content is not available in the native web format, HTML. HTML is more usable and flexible than PDF in many situations, allowing users to skim and sample content more easily that PDF. PDF, on the other hand, is a good solution for printing long documents and can be configured to make reading even book-length content a comfortable experience.

So why is it not the norm for repositories to offer both PDF and HTML?

It is because many of the widely used tools used for creating and storing research do not allow for reliable, automated production of HTML and PDF versions, and repository solutions are not geared to delivering content in flexible ways.

(Sefton 2006b)

Work on is planned to add handle technology to ICE. What this means is that each file in an ICE repository will be assigned a handle automatically by the software.

Initially the handle will resolve to the server-side ICE repository, which because it is in the Subversion system is web-addressable, although usually authentication will be required.

The author need not worry about handles at all: they can use links in the usual way to manage their content and the system will manage the creation and management of handles when content is exported from the system.

An internal link would look like an ICE URL:

http://localhost:8000/some-path

When exported it would use a handle resolver:

http://myresolver.edu.au/hdl/4435387897435

Which would resolve to the ICE repository:

http://myrepository.myuni.edu.au/some-path

When the ETD goes from authoring to the examination phase the software will export it from the ICE site to a web site, media such as a CD-ROM or access controlled repository: the handles will then resolve to any online version.

Upon deposit into a repository, ingest software will update the handle records for every part of the ETD including all the documents, embedded images. multimedia and so on, so that any exiting copies of the work, including both electronic and paper versions will still contain working links.

Bibliography and reference management