

A Brief Comparison between the University of Leicester Plone PROWE System and the Open University elgg/PmWiki Solution

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Background

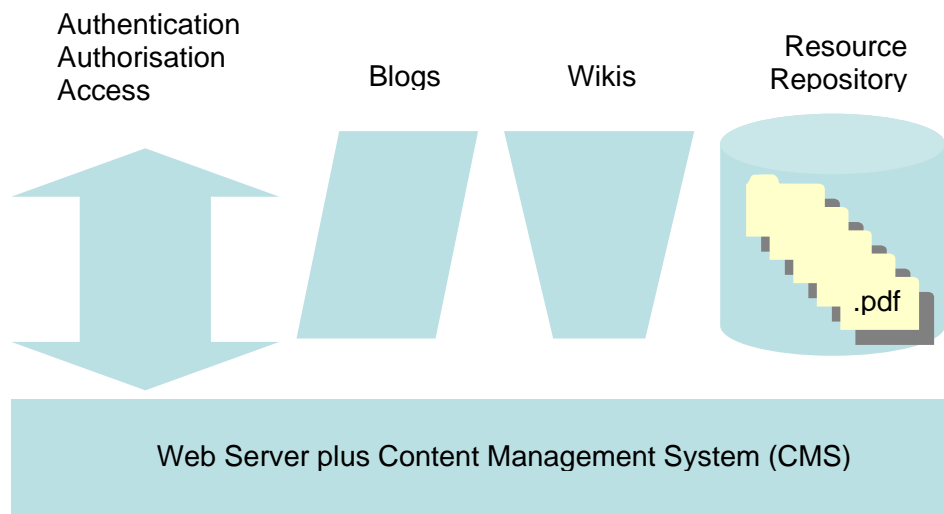
The original application for the JISC-funded PROWE¹ research project led by the Open University (OU) in partnership with the University of Leicester (UoL) stated that it "...will develop and investigate the potential of informal and personal repositories for the professional development of distance education tutors by using new online, accessible and cost-effective networking tools such as weblogs and wikis to encourage the exchange of ideas, supported by access to resources, people and use cases". [1]

Additionally, it stated that: "We will develop a tool that will:

1. enable a personal tool for recording and developing resources for saving time, enable reuse of resources;
2. provide a simple and enticing way of sharing and commenting on these resources; and
3. build a database of case studies that promote good practice." [1]

Schematically, the above aims can be represented by the following design model:

PROWE



¹ PROWE = Personal Repository Online Wiki Environment

This model is designed to give tutors/site leaders full control over how the various components (blogs, wikis etc) are made available and are accessed by individuals and others from the world community.

The underlying web structure can be based upon any of the leading architectures, as most now support a weblog [2], wiki [3] and CMS services.

The University of Leicester

At UoL, the above architecture is based around Zope [4], which is an open source application for building content management systems, intranets, portals, and custom applications. It is an open source content management framework and features a transactional object database that can store not only content and custom data, but also dynamic HTML templates, scripts, a search engine, and relational database (RDBMS) connections and code. One of its major features is the ability to allow users to update websites from anywhere in the world.

Zope has its own security model based around the concept of "safe delegation of control", which allows control of certain areas of a Web site to be given over to other individuals.

Plone [5] is an open source content management system that allows for the easy creation of a variety of web page content types. It is written primarily in the Python [6] programming language and additional components can easily be added from existing open source repositories or written by local programmers. For example, simple blog and zwiki tools have been added to the UoL system.

The Zope/Plone combination gives the PROWE project implementation at UoL the required flexibility in the support for different types of web content and the authentication/authorisation needed to protect such resources.

The following features are currently available under the current (January 2007) UoL release:

1. user authentication is against a central Microsoft Active Directory;
2. devolved authorisation control supporting multiple communities (eg Community of Self; Community of Interest; Community of Practice; Community of Need and Community of Many, see Dence and Mobbs, 2006 [7]);
3. blog and wiki support;
4. repository support;
5. RSS feeds; and
6. support for metadata entry.

Plone has been adopted by several organisations, particularly charities, as their preferred Web content management solution. See the Plone web site for examples.

The Open University

The OU has used open source software called elgg [8] and PmWiki [9] to support the PROWE project. Elgg is an open source social networking software and is available a variety of platforms supporting: Linux, Apache, MySQL and PHP. The software encompasses weblogging, file storage, RSS aggregation, and personal profiles. Elgg has been used extensively to form social networks, see, for example, www.elgg.net and www.elggspaces.net.

PmWiki supports username and password protection that can be applied to an entire wiki site, to sections or to individual pages. Users can be given the rights to read and/or edit wiki pages and the ability to upload attachments. PmWiki's access control system can be completely self-contained in a similar way to that supported by Plone. Like Plone, it can also work in conjunction with LDAP servers such as Active Directory. PmWiki's functionality can be extended and a "cookbook" of plug-in services is available (see the web site for further details).

Features Summary

	Access Control	Blog	Wiki	Repository	Metadata Standards	Branding (skins)
Plone	Yes	Yes	Yes	Yes	Flexible	Yes
Elgg	Yes	Yes	*	Yes	Social tagging [10], eg FOAF **	Yes
PmWiki	Yes		Yes	File Upload via attachments	Dublin Core Via Plug-in	Yes

* In an earlier version, either PmWiki or mediawiki was integrated with Elgg, but then removed. It is believed that there is a road map in which to investigate this issue down the line. [source: Mark Stride - OU]

** This was investigated, but due to lack of technical documentation development in this area was not pursued. [source: Mark Stride - OU]

In Conclusion

UoL and OU have both adopted an open source solution to the technical requirements of the PROWE project. The UoL Plone solution has the advantage of a single integrated solution offering blogs and wikis around a central content management system, but it has the disadvantage of being a large and arguably complex solution to a "simple" problem. The OU solution to use "best of breed" has the advantage of offering attractive simple solutions to weblogs and wikis, but lacks the functionality of an integrated solution. Both solutions require a degree of technical support, which might be smaller and simpler within the OU model.

The Future

Plone has been in use at UoL since 2005 and is currently the favoured solution to web content management. Its devolved management features have allowed UoL to offer scalable Web 2.0 services from the level of an individual user up to the university-wide community. The PROWE outcomes are informing the OU VLE project and the OU CETLs, both of which are interested in the use of social networking tools to support e-learning.

References

1. Original JISC project application – see <http://www.prowe.ac.uk>
2. <http://en.wikipedia.org/wiki/Weblog>
3. <http://en.wikipedia.org/wiki/Wiki>
4. <http://zope.org/>
5. <http://plone.org/>
6. http://en.wikipedia.org/wiki/Python_programming_language

7. Dence R D and Mobbs R. "Conceptualising wikis@UoL". Internal presentation material, October 2006
 8. <http://elgg.org/>
 9. <http://www.PmWiki.org/>
 10. http://en.wikipedia.org/wiki/Tag_%28metadata%29
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Notes

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