Feature Article: Intute Integration Update

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An overview of Intute's Integration project, which is developing ways of integrating content into users' websites and VLEs. Content is embedded using simple links, news-feeds, HTML and JavaScript, and search options are provided. Usability testing and user surveys are being conducted. Exemplar status is rewarded to examples of good practice.

Introduction

Intute[1] is a JISC-funded service that offers the best of the Web. It is designed primarily for higher education, although other users access the website too, both in the UK and other countries. Since March 2006 it has been running an Integration project to enable users to pull Intute content into their own Web pages, VLEs or other services. This article explains why integration is considered important by Intute and its users, which Integration methods are offered and how they were marketed. Results of two usage surveys are given and plans for usability testing are outlined. The Exemplars scheme, which publi-cises good practice, is explained. Finally, new developments are discussed.

Why Integration?

Part of Intute's brief is to keep abreast of developments in education, online services and the Internet. Web 2.0 technologies have allowed users to customise and adapt content for their own use, and Intute has responded to this by developing a suite of tools for re-using its content. Some of these had already been used during the time of the old RDN (Research Development Network) gateways such as Humbul or SOSIG, which later became Intute. But the Integration project forms a more focused effort to build and market these methods. One of Intute's objectives is to demonstrate efficiency and cost savings to universities. It offers a ready-made database of quality resources, and integration represents a further stage, where institutions can re-use Intute content in their own online spaces.

Integration Services Available

A range of flexible free methods of integration has been developed, and these have been marketed to higher education libraries. They vary in complexity. Some are more simple and suitable for people with knowledge of writing Web pages, while others require systems administrator rights and more advanced technical knowledge.

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[1] Intute Hhttp://www.intute.ac.uk/

The methods are:

- Simple links to Intute or the VTS (Virtual Training Suite)
- Newsfeeds
- Intute Lite – a search box for the catalogue
- Intute Include – a search box which is more sophisticated
- MyIntute – the customising service
- Contributing resources to Intute
- Intute OpenSearch plugin
- OAI repository access
- Cross searching

A simple link is just that – a link to the main Intute website, or to a section of it, if preferred. The Institute of Advanced Legal Studies in London, for example, has a simple link only to the Intute: Law section, for example, as they do not want a link to the whole site.

Over 100 newsfeeds are available, which provide alerts to new resources added to Intute, to general Intute news via the main blog, or to subject news on the four group blogs, i.e. for social sciences, science, arts and humanities or life sciences.

A search box can be put in your own Web page, and from there it is possible to search the whole Intute catalogue, or, if preferred, just a section of it. There are two methods for putting in a search box: the Intute Lite method is the easier one, for people with some knowledge of editing Web pages. All they need to do is copy some ready-written HTML into the appropriate place on their Web page. They then set up a results template on another page. There are both JavaScript and non-JavaScript versions of Lite available.

The Intute Include method is more sophisticated and requires a Web administrator to install some simple software on the local Web server. The software will send users' searches back to Intute and output the results it receives in your local style - users won't need to leave your website's domain to search Intute, and the results can be made to fit in with your own look and feel. Some universities have used neither Intute Lite nor Include, but have written their own script for integrating a search box; for example, Leeds University used some php coding, as php is used for producing their website.

The MyIntute service provides a secure space where users can save Intute and non-Intute websites and tag them. These can then be exported (if wished) via email, RSS, HTML or JavaScript, to a Web page or VLE. This provides a way for lecturers to create reading lists for students, or lists of recommended websites. The beauty of the JavaScript export method is that it updates the Intute record descriptions automatically, thus saving lecturers or librarians time and effort. Users can also save searches done on Intute, and set up email alerts of new resources added.

Figure 1 Example of a MyIntute homepage, with tag cloud

Intute also welcomes input from users, and they are encouraged to submit Web resources for inclusion on the Intute catalogue. This is done via an online submission. Intute's team of editors, who are spread around the UK in various universities, then review suggestions and if they fit Intute's criteria, they are catalogued.

The Intute service also supports the OpenSearch standard[1]. By simply clicking on a button on our website, you can add Intute as a search target on both the latest versions of the Internet Explorer and Firefox browsers.

A more sophisticated implementation of the same OpenSearch standard also lies behind the Intute Include service. We are starting to explore how we can make this available to developers who wish to write their own search clients. For full information on Integration methods, please see the Integration page at: http://www.intute.ac.uk/integration/.

Some examples of integration can be viewed on del.icio.us[2]. These give a clearer illustration of what can be done.

Integration services have been marketed in various ways, including an email campaign to key organisations, presentations at conferences, and articles in journals or newsletters. Integration help pages have been developed on the main Intute website at http://www.intute.ac.uk/integration/.

A series of Quick Guides have been developed (perhaps a misnomer, as they are not always short!) in PDF on the same pages. The main target for marketing has been university libraries, as they usually have Web pages listing subject resources or electronic resources for students. However, Intute would like academics to use integration facilities

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[1] OpenSearch Hhttp://www.opensearch.org/Specifications/OpenSearch/

[2] del.icio.us examples of Integration available at: Hhttp://delicious.com/angejoyce/integration

as well, and we have recently been looking at integrating content in virtual learning environments (VLEs) and other virtual spaces such as student portals.

Intute keeps the user community informed on Integration services through its blog and a JISCMAIL list called INTEGRATE-INTUTE.
http://www.intute.ac.uk/blog/category/integration/
http://www.jiscmail.ac.uk/cgi-bin/webadmin?A0=INTEGRATE-INTUTE

Usage and Usability

Intute monitors usage of the integration tools via desktop research. Three spreadsheet surveys were conducted, March-May 2007, August-October 2007 and February-May 2008. The Integration Research Assistant, Angela Joyce, surveyed library Web pages from all UK universities, and recorded how they had integrated Intute content, if at all. Reports were written on the latter two surveys. The most popular method of integrating was a simple link to Intute or the VTS: 66% of the libraries surveyed had linked to Intute in August-October 2007, increasing to 81% by February-May 2008. Incidentally, some links to the old RDN gateways were still present (9% in last survey) and universities were contacted and asked diplomatically to update these to Intute. 6% had not integrated Intute at all. Reasons for the popularity of a simple link are not known but it seems likely that this is the easiest and quickest method to use. Latest results are summarised below:

February-May 2008

Simple link to Intute	81%
Simple link to VTS	51%
Intute in federated search	16%
Intute search box	5%
Intute newsfeed(s)	4%
MyIntute	0 .7%

Leeds University library was one of the first to use integration in a consistent way, and Intute has used them as a case study. Leeds wanted to offer up-to-date, quality content on their subject pages, without having to maintain it themselves. They had used ROADs software previously (also used by some RDN gateways), and Intute seemed like a natural progression. Subject librarians in education, law, engineering, dentistry and East Asian

Figure 2 Leeds University Law Web page
http://www.leeds.ac.uk/library-old-site/subjects/law/websites.php

studies agreed to test it out. Minor technical and cataloguing problems have generally been overcome and overall it has been a success. They now use MyIntute, the search box and newsfeeds on their pages. Martin Gill, Faculty Team leader, said 'MyIntute has offered us an easy and effective way of promoting quality assured websites to our students.' More information on this and other more technical aspects of integration is available in a recent *Ariadne* article[1].

A different example of usage is the UsPaCe project[2] [5], funded by JISC and based at the University of Plymouth. UsPaCe is investigating the application of suitable Web 2.0 technologies to support learners in the South West. Using the iGoogle gadget, they have created a direct search of the Intute database, which sits on their server. This will be released for their users in September and we are looking forward to feedback:

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[1] Joyce, Angela et al: 'Intute Integration' *Ariadne*, issue 55, April 2008. Available at: Hhttp://www.ariadne.ac.uk/issue55/joyce-et-al/

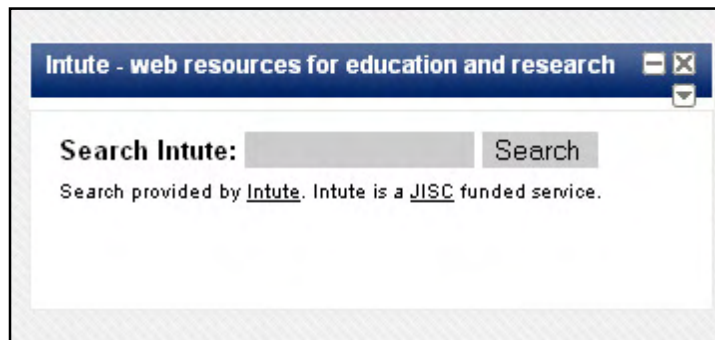[2] UsPaCe Hhttp://www.uspace.org.uk/

Figure 3 Screenshot of UsPaCe Intute search

Meanwhile, City of Bristol College has been experimenting with Intute integration on the Blackboard VLE. It is already possible to put in simple links, newsfeeds and MyIntute content on Blackboard. Currently Intute does not offer a standard way of putting the search box on Blackboard, as Blackboard re-formats services like Intute Lite or Include, which use JavaScript. Intute staff are working on a standard Blackboard Building Block which should avoid this problem.
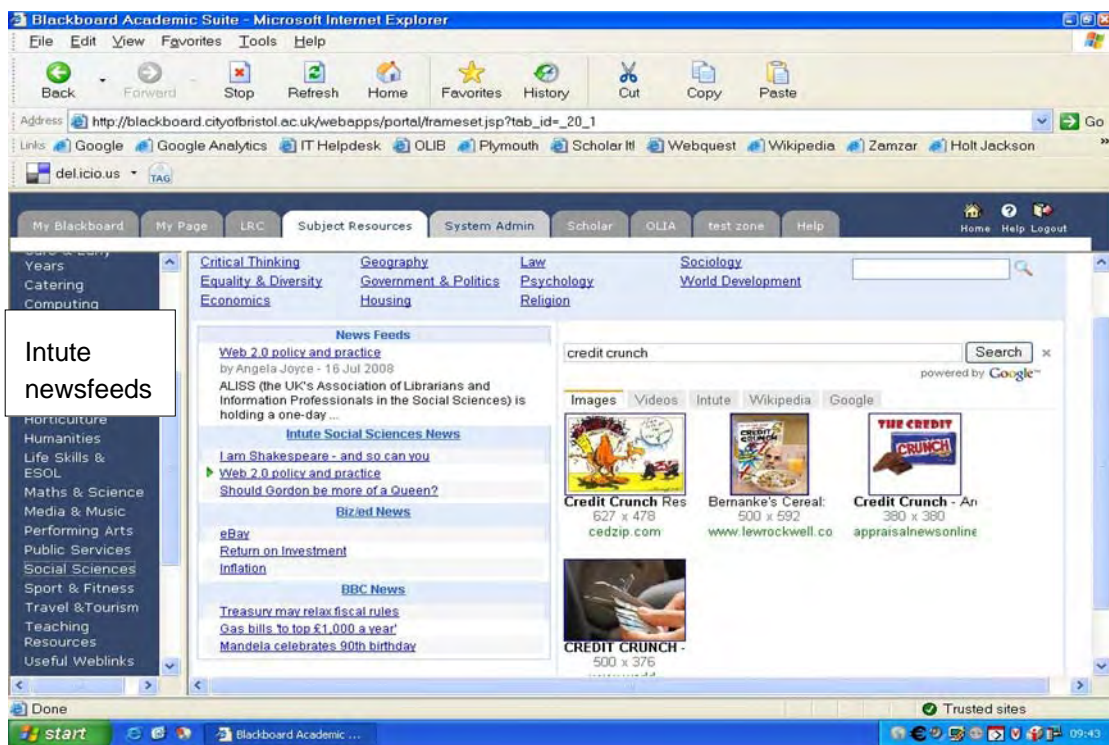

Figure 4 Intute newsfeeds on Blackboard at City of Bristol College

Although take-up of Intute simple links has been widespread, and we have made some good individual contacts, there is still potential for further use of Integration services. Therefore, usability testing is being conducted in September 2008, with the assistance of Pure Usability consultancy[1] and higher education volunteers, to find out what users want

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[1] Pure Usability Hhttp://pureusability.co.uk/

and how they view Intute's services. This may lead to changes in the Intute website design, in marketing and technical developments.

Exemplars Scheme

As an incentive to institutions to integrate, and to spread good practice, Intute has introduced an Integration Exemplars scheme. Those who have integrated Intute content in their websites or virtual learning environments in an effective and consistent way can become Exemplars and can display this logo if they wish.

Intute asks for their permission to quote them as examples, and to write about their experiences in articles such as this. We are impressed by the different and creative ways in which users have adapted Intute content, and have built up some good relationships with them. Current Exemplars can be viewed on this page:

http://www.intute.ac.uk/integration/exemplars/

More Exemplars are welcomed.

New Developments

In the fast-changing world of the Internet and Web 2.0, no-one can be complacent and Intute is looking at new ways of integration. For example, a pilot Windows version of Intute Include (the more sophisticated search-box method) has been developed. We are currently working with some volunteers to trial it. Our current version of Intute-Include only runs on Linux/Unix Web servers. More information is available in our blog posting:

http://www.intute.ac.uk/blog/2008/08/14/intute-include-for-windows-web-servers/

As mentioned, Intute staff are collaborating with Blackboard to enable implementation of the search box into that system. Similar activity is under way with the Moodle VLE. It is already possible to put in a simple link or newsfeed but staff at Bristol University's Education Support Unit, who are Moodle experts, are working with us to find a way of embedding the search box.

Summary

This article has given an overview of the Integration project, which is still evolving. Take-up of simple linking has been good, and appears to be increasing. Other services have had more modest take-up. Hopefully the usability testing will reveal more reasons for this, and suggest new directions or simple 'tweaks'.

We are very interested to hear from users who have tried out our "off-the-peg" methods of integration, or who are experimenting with new ways of using our content. If you have not used Integration services, do try them out. Please contact me if you have any questions or comments (angela.joyce@bristol.ac.uk).

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