The Learning Bank

April 2004 - Issue 1

The Learning Bank Prospers



The X4L Learning Bank **Project continues to prosper** and pay dividends to all

A **IISC** funded project

The team continues to work well together and has developed a significant pool of expertise in e-learning practice. Expertise developed to date includes elearning design principles and practice; technical solutions for e learning and interoperability; methodologies for establishing learner requirements; new media design and development; skills in the use of a wide range of tools to support e-learning and robust project management practice.

The first year of the Project concentrated efforts on the following: research to explore what learners and tutors would like to gain from e-learning activities in general and from the Learning Bank in particular; use and evaluation of the tools available to support the Project, for example, the Intralibrary repository; up to date knowledge of technical and pedagogical aspects of e-learning and creation of high quality learning content

for the Project's target curriculum: hospitality and catering, business studies and study skills.

The Project team has now completed other work which has moved the Project forward. Recent developments have included evaluation of the tools we are using and those which would suit other users' needs, testing and evaluation of new tools, application of web design expertise to create learning content which is accessible for all learners, review of virtual resources for re use in content creation using existing subject gateways and search engines and training tutors in the use of X4L tools, for example, the Jorum + Reload editor.

The Learning Bank is now poised to move into new and exciting areas of the Project delivery including tutor and learner training and evaluation of learning models to identify best practice in the delivery of effective learning episodes which incorporate the Learning Bank's principles, processes and products.

Also in this issue

Our Top 10 Tools for you - page 4

The project team has reviewed a number of tools which are available to use in content development for e-learning

10 of of 10 Users Prefer Accessibility - page 2

Accessibility requirements affect all users. We outline the Project's work in spearheading accessibility as a usability issue.



A major part of our current Learning Bank work has involved the team

resources for the Project

The team is currently

immersed in a vast search of

the curriculum areas of study

part of the 'content review'

The task has been

of time and work towards

comprehensive database of

aspect of the project.

ultimately creating a

the curriculum tutors.

the world wide web looking for

suitable educational materials in

skills, catering and marketing as

challenging to say the least. The

team are devoting a great deal

freely available virtual resources

As a Strand A project of

X4L, the Learning Bank has

been dealing with various

content development, but

there has also been a need

have been focussing on the

to work closely with the

Strand B projects which

development of tools to

support the programme.

requirements for a national

and to support the X4L

One of these projects,

JORUM+, has been funded by

the JISC to investigate the user

repository of learning materials

programme's research into the

aspects of e-learning

that will be made available to

curriculum areas.

producing a review of virtual

http://www.sbc.ac.uk/thelearningbank/

From The Cyber Edge - A Tutor Writes

The Learning Bank has established links with tutors through research and practice. Tutors have engaged with the Project as advisors, validators, subject specialists and triallers and their role will be increasingly important as the Project team moves towards making learning

the target curriculum areas. Bob Glover, Deputy Director of Business Studies and a Teaching Fellow at the University of Central England, is an enthusiastic member of the Project team. We asked Bob to describe his role within the Project:

objects available for use in

"I was approached to get involved at the early stages and saw the potential benefits of the Project for myself, other

tutors and learners straight awav." Bob's response to the

Learning Bank has been welcomed and, for him and his colleagues, the Project provides a way into the sometimes daunting world of e-learning.

The next phase of the Project will give Bob and other tutors a chance to select and use learning objects with students. He already has lots of ideas as to how to use elearning materials with his learners

The Learning Bank team looks forward to continued work with all of the tutors on the Project.



Project Manager

Chris Poole

Senior Content Developer

Nicholas Bullen

Content Developer

Roland Douglas

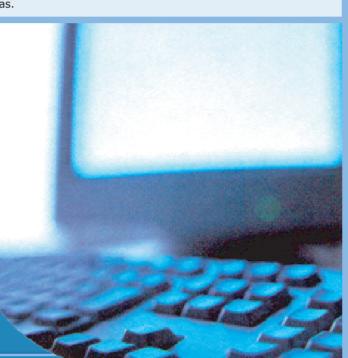
Content Developer

Terry Lilley Content Developer

Featured Article

My Life As A Content Reviewer - page 3

A major part of current project work has involved the Project team in a review of virtual resources for the project curriculum





Standards and Specifications

About Bobby

Bobby is a comprehensive web accessibility software tool designed to help expose and repair barriers to accessibility and encourage compliance with existing accessibility guidelines.

standalone program and as a free web-based utility, it grades webpages according to global web standards and international accessibility legislation

Bobby Ratings AAA Bobby

Bobby reports cover three

Priority 1 Accessibility page's usability by people with disabilities. A Bobby Approved rating can only be granted to a site in which none of the pages **Priority 2 Accessibility**

problems are those which you should try to fix. Although not as vital as Priority 1 access errors, the items in this section are considered important for

Priority 3 Accessibility is only awarded to sites which meet Conformance Level AAA for the Web Content Guidelines All accessibility issues have be

ldvanced Distributed Learning

From its conception the

evangelised on behalf of the

emerging learning material

specifications, realising that

these specifications are the

key to making high quality,

portable content available

National Learning Network,

across the entire educational

'Paving the way to excellence in

should be built into the content

development process from the

very beginning and the specifications help to do this.

The document sets out the

e-learning' has confirmed our

convictions that best practice

A recent publication from the

Learning Bank has

sector.



Accessibility requirements can affect certain types of users but an inclusive design is beneficial for all. We outline the Project's progress in developing broad brush as well as more specific accessibility standards.

The Learning Bank materials are being created based on the idea that accessibility is a subset of usability. Therefore our learning objects are being designed to be accessible by all. Of course this is easier said than

We're moving towards a concept of 'inclusive design'. Recent BBC research seems to show that visually developments have included impaired users resent the provision of text-only e-learning resources and different educational levels and

that they in fact actively prefer the inclusion of pictures and

10 out of 10 Users Prefer Inclusive Design

graphics. The main problem with this approach is that it is difficult to cater for a wide range of sometimes conflicting needs: needs a very different approach to catering for physical impairments. Additionally, intellectual accessibility can often be overlooked. For example, how does one create Basic Skills e-learning materials for students with poor literacy?

In an attempt to address some of these issues we are trying two very different webtechnologies Flash and XHTML/CSS:

1/ Flash - In its latest incarnations has become much more accessible to screenreaders. Although it can have drawbacks, its benefit seems to be that it can provide an interface that enables a crossbrowser/cross-platform solution for rich-media materials: audio commentaries, video streams with synchronised text transcripts. Our accessibility adding dynamic text to target

keyboard shortcuts for users with physical impairments which make use of a mouse difficult

2/ XHTML/CSS - We are very keen on the idea of a semantic web: to separate content from design. This catering for cognitive disabilities enables users to access the same content but with the ability of viewing it as they decide: with or without pictures, using a Braille tablet or on a screen. We are currently using CSS stylesheets, Javascript and cookies to enable persistent user stylesheets which change text size according to user preference.

The next development is for us to add stylesheets which alter colours and colour contrasts for users with dyslexia and colour blindness. Other developments have also included keyboard shortcuts for easier navigation. We are also very proud that our current XHTML template validates as 'Bobby AAA Approved'.

Although we continue to face hurdles on the way towards creating engaging cross-browser / cross-platform / accessible learning materials we feel we have made a good start towards what sometimes feels like the search for the holy grail.

11

Spec Praisers

The Learning bank heaps praise on SCORM and IMS Specifications

standards to which learning objects should be produced, and the technical requirements for both content and interoperability. Work done by **The Learning**

Bank has shown how the SCORM Specifications can be used to increase the granularity of user tracking to provide a smoother elearning experience for the student and feed back more useful and detailed information to the tutor. A recent update to these standards, called SCORM 2004, includes support for IMS Simple Sequencing giving the prospect of true differentiated elearning and courses that adapt to the e-learners' knowledge and skill levels.

Chris Poole, Senior Content Developer with **The Learning** Bank, says, "None of this work would have been possible without

the commitment to the emerging Specifications that colleges and software suppliers have shown." The future of X4L at South

Birmingham College will see The Learning Bank working to the new IMS Learning Design specifications to create learning episodes around the content produced and an exploration of **SCORM 2004**

Links:

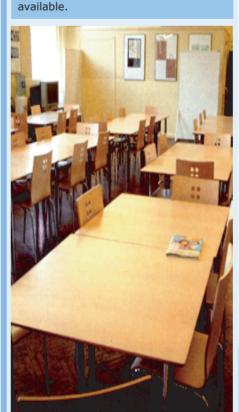
http://www.nln.ac.uk/materials/tutors /paving_the_way.asp



E-Learning Tools and Tips

The Learning Bank Team

The project team has reviewed a number of tools which are available to use in content development for elearning. Two lists have been compiled, one with the top 5 basic tools (recommended for tutors new to ILT and non-techies) and a list of our top 5 advanced tools (for ILT proficient tutors and e-learning developers). Some of the tools listed are still in development but have already shown the potential to be incredibly useful to the e-learning community as a whole. These lists are also likely to vary as improvements and new tools become



Top 5 Basic E-Learning Tools 1. MS Word

You can create engaging learning materials using Word by adding activities such as pop-ups, drop down menus and drag and drop. Documents can be converted to html web pages and there are a number of other tools available that can attachments. Using email enhance Word such as Course Genie (activities), Open Office time and place and also can (exporting documents to various formats) and iCITA's Office Accessibility Wizard (for exporting accessible HTML pages).

visual aid for presentations, it can also be used for self-paced webquests, encourage and student-controlled activities. By using features such as action buttons, hyperlinks, graphics and animations you can use PowerPoint as an effective elearning tool

Movie Maker is a free movie editing programme bundled with Microsoft XP. It can be used easily by students and tutors to create and edit video effects, music, and narration to create movies for enhancing elearning.

. Macromedia

Dreamweaver has established itself as the industry standard webpage editor. It enables designers and developers to create a wide range of web based materials. Standards compliant, this WYSIWYG authoring tool includes build-in 5. **TOIA** (in development) validation for accessibility, as well as more advanced features such as XHTML, CSS mark-up and Database

TOIA is a free tool that allows

Our Top 10 Tools For You



3. MS MovieMaker clips. You can add special

There are obviously issues with recommending the use of Microsoft products. We suggest that you also

investigate open source alternatives such as Open Office.

Microsoft Word

Creating Interactive Teaching & Learning Materials Using Microsoft Word www.rsc-northern.ac.uk/contentandcurriculum/ ilt/creating%20with%20word.ppt Accessible Web Publishing Wizard for Microsoft Office:

Microsoft Powerpoint

Creating Interactivity using PowerPoint:

http://www.sba.muohio.edu/duricydd/interactiveppt/interactiveppt.html http://soe.cahs.colostate.edu/cttec/PDF%20Formatted%20Training%20Documents/ Powerpoint/e-portfolio_tut_pdf.prn.pdf

Microsoft MovieMaker http://www.hitchams.suffolk.sch.uk/ict_art/moviemaker/

Digital Horizons

Don't forget the Internet can also be used as a verv 2. MS PowerPoint effective tool for e-learning. PowerPoint can be more than a You can set students activities for research such as

4. Email

Email can effectively be used

groups and tutors can contact

discussion and also exchange

eliminates the restrictions of

create a permanent record of

as a tool for communication

and collaboration. Student

each other, use email for

information with file

teaching and learning.

5. **Internet**

collaboration using chat or forums and provide access to your college virtual learning environment (VLE) and other web based learning resources.

http://www.netskills.ac.uk/TonicNG/ cgi/sesame?tng http://www.vts.rdn.ac.uk/

http://www.e-

g/email.htm

Useful Tips

Using Email as an educational tool:

learningcentre.co.uk/guide2elearnin

http://www.warwick.ac.uk/ETS/inte

Using the internet in the classroom:

http://www.ozline.com/learning/the

http://www.ozline.com/learning/ind

ractions/vol1no1/barnes.htm

. **Reload** (in development) multimedia elements such as This tool allows users video, audio and animations. (educators and developers) to Its real trump card is the Flash create and package learning plug-in's cross-platform, crossobjects in standards compliant browser dominance and its formats. Reload can be used to ability to stream all of this rich repurpose and restructure media content on a normal 56k

Top 5 Advanced E-Learning Tools

learning materials allowing

courses to be ported between

VLE's, digital repositories and

Dreamweaver

other sources.

connectivity.

. Macromedia Flash Flash allows developers and designers to create engaging, interactive and accessible learning objects by integrating

(in development) This repository enables educators to access, share and re-use learning objects from the web. Although the repository is not yet open to all educational establishments it will be a beneficial tool for acquiring e-learning content.

modem connection.

4. Intralibrary

teachers and developers to create and manage online assessments in a standards compliant way. TOIA is still being developed as part of the X4L project but has shown great promise as an e-learning tool. Definitely one to watch!

re-use of these learning objects. Two repository software ± (O/D) ■ O Public administration & military science (0.41) ± 🧿 Statistics (0/0)

systems, intraLibrary and Xtensis, have been provided as working tools for the project. They offer testing facilities that allow individual X4L programmes to investigate the issues related to the depositing, re-use and re-purposing of learning objects.

🗄 🔘 Technology (1/183) Search Options Search Results [24 objects





The enormity of the task

really struck home for content

he calculated the number of

feeling "weak at the knees".

team to develop an elaborate

methodology to optimise the

content and data. In the spirit

of sharing good practice with

decided to document the entire

objectives of the review to our

established frameworks, search

other X4L projects we have

review process on our X4L

criteria and documentation.

forum, from the initial

JORUM+ A National Treasure?

gathering and capture of

web searches required to

developer Nicholas Bullen when

complete the task. An estimate

of 27 000 searches left Nicholas

The review has enabled the

🛨 🧿 History & geography (1/9) ± O Literature (0/9) Description of the state of

□ O Social sciences (3/15) ■ Commerce, communications & transportation ⊕ Oustoms, etiquette & folklore (0/0) Economics (1/4)

My Life As A Content Reviewer









intralibraryั The Learning Bank has

The forum provides a

of the review. Amandeep

considerable mettle says,

will be of great use to our

partners and tutors."

areas.

narrative of the highs and lows

Sangha, a content reviewer of

"Although the process can be

that the final list of resources

The final aspect of our

review of virtual resources will

availability and appropriateness

content and the identification of

any gaps within the curriculum

of freely available educational

form a report outlining the

laborious at times we are aware

worked closely with Intralibrary, one of the many digital repositories currently being considered to become the UK's national repository service for all FE and HE institutions.

IntraLibrary has enabled Strand A projects such as ours, to share and re-use learning objects across the web.

Ultimately the successful repository will be used to enable educators to store and retrieve learning objects, search for learning objects using catalogue systems or by keywords (using metadata), and enable the import and export of content packages that conform to specifications such as IMS and







Content Developer April 2004 - Issue 1