POCKET (Project on Open Content for Knowledge Exposition and Teaching)

Needs and Technical Analysis Report

This report has been produced in accordance with the project plan and defines the requirements of the project, including standards to be followed and the systems required to support them identified.

1. Project requirements defined

- To build a wide pool of quality assured HE level Open Content
- These materials will all be stand-alone, so there will be no dependencies on other materials.
- To promote effective mechanisms for converting existing course materials into stand alone educational resources.
- POCKET will help to embed effective processes for the systematic development of Open Content into the partner HEIs.
- To develop a module from scratch with all materials created for it as Open Content
- To add quality-assured resources to JORUM
- To support the independent learning strategies identified by the JISC LXP Student Experiences of Technology project by providing more relevant HE-level learning resources that can be discoverable directly from Google.
- To assist the OU in planning its long-term strategy for OpenLearn
- To help inform national policy with regards to Open Content.

2. Requirements captured from partners

The University of Derby

- Will be transforming the Customer Service Skills module from the Foundation course, Hairdressing and Salon Management
- This module is currently run in a distance learning course, so has been specifically written for web delivery and includes activities
- The content author is keen to develop existing activities by using film and animation media
- Copyright is an issue for this module as the material regularly quotes from the Business Link website, Trading Standards and other third party material.
- The University of Derby will also develop a new Masters level module, Law of International Trade, as Open Content

The University of Bolton

- Will be drawing on materials from both its Digital Signal Processing module (which is included in their MSc Advanced Microelectronics) and their Industrial Management module.

- It will redevelop, as a minimum, two 10 credit modules into Open Content learning resources.
- The Digital Signal Processing module contains a lot of advanced mathematics, which is difficult to provide in a digital format that will be accessible to everyone.
- In addition it plans to enhance some of its existing materials through the addition of more Flash-based interactive elements.
- Bolton has the budget from the project to take on a Learning Technologist to undertake the XML formatting of their material, with advice and guidance from the University of Derby.

The University of Exeter

- Exeter is transforming their MSc Business and Sustainability module.
- The content is already in HTML format
- They are keen to add some Flash interactive activities
- The only copyright issue will be the use of maps in the material

3. Technical analysis

POCKET will establish the appropriate tools to use when preparing content for open use through OpenLearn

Software

- XML files should be edited in an XML editor, in which it's simple to add and edit tags and attributes on tags. The editor should also be able to quickly and easily validate files. There are many XML editors to choose from, but we intend to use an open source editor to match the project's objectives
- Flash software will be required to create interactions and animations. The latest version of Flash is desirable (Adobe Flash CS3 Professional), however earlier versions of Flash can be used (ie. Macromedia Flash 8)
- Apple's iMovie will mainly be used to edit film footage, although Final Cut Pro 6 may also be used.
- iMovie is not able to export to flv (Flash movie) so this can be done by either using Final Cut Pro or by using video file converter software such as Visual Hub (mac only).
- FLV files can be viewed by using VLC Media Player
- Photoshop may be used to edit images. The latest version of Photoshop (CS3) is desirable, although earlier versions may also be used.

File Formats

File	Format	Advice/tips
Images	Jpg, gif (for equations and if we need a transparent background for any reason)	As a rule, image resolution should be 72dpi when displayed on the web
Flash animation	swf	

Video	MP4 and FLV On occasion MOV may be used MP4 is the downloadable version while FLV is what is used through the site's own embedded player MOVs are Quicktime	Avoid large sections of AV material as this can lead to very large files to download (or take up much band-with to stream to lots of users simultaneously).
		Content can be extracted from DVD as long as the master tape is available.
		Ideally the video should be split into 10 minute clips (however this can be increased slightly if necessary) and a transcript provided.
Audio	Mp3	Anything can be extracted from CD (audio only)
		Background music can be expensive to obtain copyright clearances, so carefully consider if music is essential to the unit.
		Audio should be split into 10 minute clips (which this can be increased slightly if necessary)
Text	XML	Text must be written specifically for web delivery.
		XML must be validated against the OU Generic Production schema (which is provided in this kit).
Separate documents	pdf	For short documents only

Standards

- The project will be advised by CETIS on standards issues.
- The project will be based on the Open Learn XML Schema.
- Content should be interoperable with IMS standards to facilitate transfer of content between repositories and different VLEs.
- Accessibility standards: W3C WAI AA
- Moodle supports SCORM version 1.2.
- There is an agreed standard for metadata. This will be IEEE 1484.12., or Dublin Core
- RSS feeds are RSS 2.0

Name of standard or specification	Version	Notes
OUXML	1.2	This is the Open University's standard for structured authoring of material released as open schema through OpenLearn. This core format for content enables conversion to alternative formats listed below.
IMS Content Package	1.1.4	Enables transfer to other VLEs
IMS Common Cartridge	1.1	Enables transfer to other VLEs (release planned January 2008)
Moodle Backup format	1.9	This enables transfer to other Moodle servers and local editing of content.
XHMTL	HTML 1.0 Strict	XHTML compliant
XHTML	HTML 1.0 Strict	Zip of all assets associated with a unit