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Mosaic Final Report

31st March 2009

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1. Acknowledgements

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The project as a whole would have been impossible without the skill of our "course author" Sandie Byrne, who managed to make one of the most complex areas of the project, identifying suitable content and turning it into an effective learning experience, seem straightforward.

Lastly I would like to thank the Public Programmes Division of the Department for Continuing Education, and in particular the Director, Philip Healy and the Manager of Internet-delivered Courses, Claire Kelly, for allowing us to develop this course as part of the short online courses programme[1].

[11] http://onlinecourses.conted.ox.ac.uk/shortcourses.php

2. Executive Summary

Introduction

Mosaic was a project to develop the online course, 'Ancestral voices: the earliest English literature', and a standard induction unit to introduce students to learning online, primarily from pre-existing content external to the University of Oxford and make it freely available for reuse and adaption to the UK HE community and more widely

Achievements

The project produced

- 'Ancestral voices: the earliest English Literature' online course, primarily developed from existing external learning materials, delivered to students in January 2009.
- A generic induction unit to be used with online learning courses, primary developed from existing external learning materials, to prepare students for online study
- Details of, and access to, the evaluated and revised version of both the English literature course and induction unit from early 2009 both through JORUM and through the project site.
- Author guidelines with information on reuse of content
- Blog posts reflecting on the project,
- Reports and a case study of the project

All outputs are available through the project website, http://mosaic.conted.ox.ac.uk.

Findings and recommendations

The project findings led to the following recommendations to increase reuse in HE:

When making content available for reuse:

- **Maximise discoverability** by putting your content where people are already looking – e.g. Google, Flikr, locations where people already browse for that subject, for maximum impact and uptake.
- **Release content in smaller, more usable, chunks**, making content available in large units inhibits reuse.

When reusing content:

- **Link to or embed content**, while seeking permission for every item used in a course is the best approach to take in an ideal world, in real terms the overhead involved makes this impractical. Unless there are strong pedagogical reasons to incorporate material in a course in its entirety avoid this approach.
- Consider that **any content can be learning content** in the right context.

More generally:

- **Both students and academics need new skills to engage with reused and repurposed materials.** It is important to scaffold the use of linked to content within a course, whether by generic information assessment skills or specific commentary on a source within the course context.
- **All Universities need clear policies on licensing all outputs** that apply as broadly as possible across all their activities – and make all their work useable as content.

Conclusions

With the growth of freely available high quality online resources, it is likely that the reuse of content will only grow in the next few years. However it is not clear that it will do so in ways that the higher education sector will effectively manage and control. Prior to the RePRODUCE strand of work, there had been a tendency to fund projects to open up content based on speculative models of how reuse takes place. In funding this stream JISC has provided the sector as a whole with much valuable evidence about the realities of reuse in practice, ensuring that future innovations in this space, not just in the UK but internationally, can move forward on a much improved evidence base and make better choices that improve the chances of achieving the level of impact sought.

3. Background

Mosaic was a project to develop the online course, 'Ancestral voices: the earliest English literature', and a standard induction unit to introduce students to learning online, primarily from pre-existing content external to the University of Oxford and make it freely available for reuse and adaption to the UK HE community and more widely. The project also developed guidelines for authors and a case study, to disseminate the lessons learned both within the University and to the wider HE community. While the project has covered similar ground to many of the other projects in the RePRODUCE strand, it has also offered a chance to look at reuse within the context of a high profile research intensive university with very regimented quality standards and in a "traditional" academic subject.

The project team was privileged due to the extensive experience on online course development[2] and project management in place[3]in TALL, as well as the prevailing pedagogical model of the online courses which is very complementary to significant reuse of content. However, while linking to existing content was part of the current online course model, the uptake was variable, and the team was not confident that the advice and support made available to authors maximised the potential benefits of increasing this practice. This project offered the Department an unrivalled opportunity to explore the options in this space, develop best practice guidelines into the future and to share our knowledge and experience in the area more widely in the community.

While the profile of and interest in Open Educational Resources (OERs) grows, uptake is still below what was hoped when they were first conceived, it is clear that this project and the others in the strand offer a great chance to understand the forces at play when online content is reused for learning and to help us take these into account when developing more open resources in the future. With the launch of the HEFCE/Academy/JISC Open Educational Resources Programme[4] it is more important than ever to understand how the choices made in developing, licensing and storing these items might maximise the chance that they are actually used.

4. Aims and Objectives

The broad aim of the Mosaic project was to create an online course reusing as much external content as possible, and through this process, collaboration with the support project CASPER and the other projects in this strand, improve understanding of the reuse of content in HE. The projects objectives included:

- Identifying enough materials of sufficient quality in the subject area
- Developing these into a learning experience of a quality to be accredited by the University of Oxford
- Clearing copyright to integrate all the materials into the course
- Developing guidelines and materials to encourage reuse more generally
- Delivering the course to a cohort of students and evaluating its effectiveness
- Making the materials and other course outputs available to the wider HE community

The aims of the project did not change throughout its duration.

This project aimed to address the following evaluation framework questions:

- What have we done/built/achieved, to what quality, and how efficiently?
    - To what extent has our development work led to improved or more efficient practice in learning, teaching and administration?

[2] OUDCE has made a significant investment in e-learning in the past twelve years. Since establishing its specialist e-learning unit, TALL, in 1996, the Department has developed a portfolio of around 50 online courses and is continuing to develop further online and blended learning courses in a range of subjects at both undergraduate and postgraduate level.
[3] See overview in http://www-jime.open.ac.uk/2004/14/manton-2004-14-paper.html
[4] http://www.jisc.ac.uk/fundingopportunities/funding_calls/2008/12/grant1408.aspx

    - What tangible/measurable benefits have been realised through the work of the programme?
    - How effectively have projects under the programme contributed to positive and sustainable change in their institutional strategy, processes and practice?
- What has been learned or confirmed through development activities?
    - To what extent have the projects and studies contributed to increased knowledge in the programme or activity area? For example:
    - What are the drivers and brakes for successful implementation/use of technology?
    - What was the impact of innovations on learners? On teachers? On the institution?
    - What were the unanticipated outcomes?
- To what extent have the programme activities remained relevant to the strategic needs of the sector?
- What do we need to do next as a result of programme activity and lessons?

5. Methodology

The online course, 'Ancestral voices: the earliest English literature', was developed as part of our Online short courses programme of accredited undergraduate level one 10-week online courses for the general public. These courses are tutored by a subject specialist academic and run with between 15-32 students per cohort. There are no formal entry qualifications for these courses, although enthusiasm, commitment, a high degree of motivation and a willingness to engage in discussion with others, are recommended. However, to ensure that students can participate fully in a course they must meet basic requirements for English language and computing skills. All of these courses commence with a standard induction unit to introduce students to learning online, which was also updated as a result of the project.

TALL has a highly developed online course development methodology[5] used to develop all the courses in this portfolio, managed by our experienced project managers. This covers all aspects of course development and delivery. See the Appendix 2 for a full description of this process.

Building on our basic methodology the project intended to seek relevant content from as wide a basis as possible – starting with an initial focus on identifying materials from dedicated repositories and learning objects, which did not yield sufficient suitable resources, this vision was expended so that the final course used content from:

- Academic articles
- Media articles (BBC etc)
- Pod casts
- Fully online courses
- Online textbooks
- Assets - Images/diagrams/maps etc
- Databases (especially archaeological ones)
- Sites developed by enthusiasts
- Academic sites (departmental and individual)
- Academic project sites
- Museum sites
- Blogs

With so many disparate sources it was anticipated that content selection, course authoring, quality assurance, copyright clearance and content integration would take longer than normal (which proved to be the case – see implementation section) as such additional time was built into the standard plan at all stages, as well as an additional round of external content review, to ensure that the content adhered to our quality requirements both in academic and online learning experience terms.

[5] See Appendix 1 for our standard course development schedule

6. Implementation

While in many ways the implementation of this project was relatively straightforward, as it followed our well defined course development methodology, in others it proved even more complex than imagined (see below). It was always anticipated that this project would require stretching our usual 9 month development timeframe to account for additional time needed for copyright clearance and more complex technical development, however in both cases these elements took even longer than expected. So while we had initially hoped to launch the course in October 2008, it in fact launched in January 2009.

Content identification and authoring

A key success factor in innovating within our course development process was an open and adaptive relationship between the academics, administrators and the development team. In all our online courses, the course authors are contracted separately to their normal work, whether they are employed by the University or not. This allows us to work under very clear terms and conditions that maximise the likelihood of success and ensures that authors are contractually obliged adhere to the standards required. These contracts include:

- Well developed terms of reference
- Negotiated deadlines with a bonus attached to achieving them
- Clear statement of IPR and the relationship of pre-existing works to the final course (the output belongs to the University, making it straight forward to subsequently release materials)
- Requirement to supply copyright information and write tutor notes

For this project the team deliberately choose to work with an academic with whom we had a long track record of successful projects, who fully understood the constraints and opportunities in online resources from a teaching perspective, and who was prepared to work in a flexible and adaptive manner depending on the emergent needs of the project. In recognition of the likely additional complexity of authoring using external content and contributing to the research project the usual online course author fee was substantially increased.

In terms of identifying content to reuse, searching began with an initial list of repositories suggested by the course team

- Intute -http://www.intute.ac.uk/artsandhumanities/
- The OU -http://openlearn.open.ac.uk/
- Jorum -http://www.jorum.ac.uk/
- Merlot -http://www.merlot.org/merlot/index.htm
- Rice Connexions -http://cnx.org/
- MIT OCW -http://ocw.mit.edu
- Open courseware consortium - http://www.ocwconsortium.org
- OER Commons - http://www.oercommons.org/
- Jisc Collections -http://www.jisc-collections.ac.uk/
- Directory of Open Access Journals -http://www.doaj.org/
- UNESCO List of Open Educational Resources -http://oerwiki.iiep-unesco.org/index.php?title=OER_useful_resources
- Google OCW search - http://opencontent.org/googleocw/

The author then moved onto sites she knew of from her professional and domain expertise, both in the area of English literature and online teaching and learning, including:

- Voice of the Shuttle - http://vos.ucsb.edu/
- Google scholar - http://scholar.google.co.uk/
- Institute of Education - http://www.ioe.ac.uk/
- CTI textual studies - http://users.ox.ac.uk/~ctitext2/
- Hwaet – not currently available

- Labyrinth library - http://www8.georgetown.edu/departments/medieval/labyrinth/library/library.html
- The orb - http://www.the-orb.net/
- Oxford online course packs - http://www.english.ox.ac.uk/oecoursepack/

The next step was to look at the websites of universities which teach Old English and following up the resources listed on our internal course on Effective Online Tutoring.

Finally Google searches were done on combinations of the terms such as:

<online courses>, <distance learning>, <teaching online>, <learning online>, <Old English>, <literature in Old English>, <Anglo-Saxon>, 'Anglo-Saxon culture'>, <runes>, <Writing systems>, <English grammar>, <Old English courses> <Anglo-Saxon archaeology>, <treasure trove>, <Anglo-Saxon finds>, <Vikings>, <Normans>,

And where appropriate more specific terms, for example, the titles of the texts and the historical characters such as Bede.

More detail on the experience of the project from the author's perspective has been shared with the community through the Tall blog, http://tallblog.conted.ox.ac.uk/index.php/category/authoring/.

Copyright

Clearing copyright and IPR issues tended to be as anticipated, however the implications in terms of person time, were even greater than expected (approximately 50% longer than originally anticipated) and the sheer information management requirements of clearing over 200 items proved frustrating at times

It was difficult to organised the clearance from so many different sources in that by the time we had made initial enquiries to most of them, it was time that follow-up enquiries were due to be sent to those that had not responded. It proved too that for a certain percentage of sources we had difficulty in tracing the actual rights-holder (see below). Although past experience had led us to expect this, because we were clearing so many more items than we would normally do for a similar course the difference in scale meant that we spent a lot of time trying to resolve these issues. It was somewhat disheartening that the amount of items left uncleared seemed large although in percentage terms it was probably no greater than for any other course we have developed.

Through our existing course development methodology TALL already had processes and procedures in place for clearing copyright to use in our online courses, which on discussion with CASPER (the RePRODUCE support project) was judged to be acceptable. However the project gave us a chance to match our systems against the latest understandings of best practice in the field and to ensure we had the understanding to deal with new opportunities and challenges around issues such as IPR and web 2.0 content etc.

As a result of our dialogue with CASPER our standard letter to copyright holders was updated as the requirements of this particular project were different from the usual – we were looking for clearance to place the materials in the JORUM repository to be available for adaptation and reuse as well as on our own password protected course website. We also adapted our standard copyright clearance spreadsheet used to manage and track the renewals process. This was due to the particular demands of building this course as it was necessary to provide guidance to our web developers as to how each external item was to be integrated into the course materials, i.e. the nature of the reuse. It also enabled us to clarify our understanding of when to seek clearance and when to look at other ways to make materials available to students.

In most cases the content was not initially available under any form of license and had to cleared on a case by case basis. Where content was available through a license it was through Creative Commons or in the Jorum repository in the case of Oxford University's Old English Literature course pack material.

In each case we tried to identify the content owner, although it was not always a straight forward process. Usually academics assumed they owned their own content and this often proved to be the case. In the majority of cases they readily gave their permission, and we feel confident that the prestige of the University of Oxford encouraged more people than might otherwise have done so to reply in the affirmative. Museums were more straight forward and often had a permissions department/procedure in place to handle requests, as did publishers. Again, they readily gave their consent – although usually for a fee. In the case of large organisations such as the BBC it was not always clear who should be approached, but once contact was made the negotiations were quick and easy.

To comply with the spirit of the RePRODUCE projects the team sought copyright clearance for every single item referenced in the course, however while we were able to clear copyright in a majority of cases, in a significant number of cases, 32%, we were not able to – usually because we did not receive a reply from the copyright holder, rather than refusals. In every case we were looking for full clearance to place the materials in the JORUM repository to be available for adaptation and reuse and also on our own password protected course website. Therefore there could be no correlation between the refusals and level of clearance we requested. There were significant differences in the refusal percentages of the three main types of licensor we were requesting from:

- Other universities – 29.36% of requests not granted
- Other institutions (museums, BBC, publishers etc) – 42.86%
- Private individuals and enthusiasts – 30.56%

The individual/institution involved usually had questions of a technical nature about how we were actually going to incorporate the material rather than what or how long we were going to use it for. It didn't seem that their questioning had any bearing upon whether they subsequently refused or agreed.

When calculating the % of various content used for the course we took a best effort approach in compiling this data. We estimated content volume as pages, with sensible equivalents inserted for podcasts etc, and for the amount students will engage with on large sites. We also included optional tasks as part of the course as these are part of the materials to be cleared. It is worth noting that the eventual course may have deviated slightly from these figures due to last minutes substitutions, however we are confident that these are broadly correct.

Content type	**Approx % of total content for project**
External - at least 50% These should be non-commercial materials produced externally to the institution and that do not have any connection with the institution leading the bid.	82%
Institutional - up to 35% These should be materials sourced from other parts of the institution leading the bid and repurposed accordingly.	4.5%
New - up to 15% These would be materials specifically generated for this course.	13.5%

Integration of content

Technical integration of content into the course for final delivery proved more complex than initially anticipated. As indicated above our content came from a wide variety of locations and types, but overwhelmingly from sources that were openly available on the internet. While we attempted to clear copyright in every case and to bring content fully into the course, it became clear that this was not a sustainable undertaking for several reasons:

- Managing all the different resources (by name, web address, local file, tracking document, copyright clearance) was a big overhead.
- In several places, the author asked for a copy of a page and those it linked to. Establishing the links between these pages and editing them to include only those which are relevant took time and reduced the material's usefulness.

- At times the use of external resources led to messy referencing, e.g. mentioning the same target several times on a page, but with different names..
- For some sources, the material was mirrored to enable integration, losing useful funtionality found on the original site - e.g. searching by Author, Title, Genre, and Language in http://omacl.org/
- Writing original material for the course separately from integrating the external content (by time and/or personnel) complicated development, as the pre-build required retroactive assessment of how the external content was to be integrated.
- A combination of mirroring material in some places and embedding it in others led to duplication of files and increased file downloads for the student. Review needed to remove and eliminate repetition and redundancy.
- It cannot be assumed that content can be naively inserted into the course without modifications. These modifications may contribute to a better presented course (e.g. cleaning images, normalizing image resolution, and optimizing file sizes), but may not contribute much to the learning involved.
- Our XML-based dev process forces us to make a lot of changes to clean up content. Without the process the course would be built quicker, but would be of lower quality, with problems in how some content is displayed.
- Integrating content that is already hosted on other websites seems to be a lot of work for minimal gain. It feels pretty pointless.

As a result of these challanges, while we obtained permission to incorporate c. 70% of the items used into the course, in the final build many of these were linked to, to enable us to acheive our broader project output requirements rather than wasting effort for minimal gain.

The generic induction

As well as the development of the academic course, the project aimed to redevelop the generic induction that is used at the start of all our online courses to introduce students to studying online and to prepare them for the course more generally. Due to time pressure on the team this was developed out of sync with the wider course development process. However this allowed the team to integrate this work with new media literacy support materials being developed as part of another JISC project being run by the team, Isthmus[6] as well as a wider review of the support provided to students across all our online courses[7].

The induction is required to perform a number of functions in the learning experience, from setting expectations, ensuring understanding of the learning environment, introducing the students to each other and the tutor, and preparing them to study (which for many will be the first time in a long time). In the context of Mosaic what was interesting was the extent to which, when comprehensively reviewed, our generic induction, iteratively developed over the last decade, exceeded expectations.. While we had anticipated using some of the excellent materials developed by the OU and available as part of the OpenLearn project[8] on further consideration of the OU materials, using the information about our students from the Isthmus project surveys[9], and our knowledge about the current effectiveness of our induction, it became clear that the materials were far too in-depth and were likely to prove overwhelming for students studying a 10 week short course rather than a whole degree. This process also allowed us to take a step back, look at student behaviour and evaluation data, and conclude that for its audience our current provision was extremely effective.

As a result this process the core of the induction remained the same (see below for overview), with minor editing for improvement. However new sections were added on *Assessing Information* and *copyright on your course*, which were felt to have been serious omissions in the content in the past, and links to further information in the online support site were provided throughout the induction where relevant.

[6] http://isthmus.conted.ox.ac.uk/
[7] See full description of this in Isthmus highlights and pilots report, available at http://isthmus.conted.ox.ac.uk/
[8] http://openlearn.open.ac.uk/
[9] http://isthmus.conted.ox.ac.uk/

As a result of this, the induction came considerably behind the course as a whole in terms of reuse of external content with c 90% of the material being an updated version of existing content. However the online support site (developed through the Isthmus project) did make considerable use of external content especially in the New Media literacy pages[10].

Evaluation

Please see separate evaluation report for this information.

7. Outputs and Results

The project successfully developed an online course, 'Ancestral Voices: the earliest English Literature'. The publicity materials for the course[11] describe it:

Overview
This course aims to dispel the myth that Old English literature is either dreary, difficult, or only about drinking and fighting, and will introduce participants to the range of Old English literature, from stirring tales of heroism, courage, and fellowship, to poignant elegies of love and loss; from passionately devout to earthily humorous.

Description
An accessible introduction to the earliest extant English literature. The aim of this course is not for participants to learn to read or speak Old English; the texts explored will be offered in translation. Optional activities and directions for further exploration, however, enable those who wish to learn some Old English grammar and vocabulary to do so.

This course aims to dispel the popular myth that Old English literature is either dreary or solely concerned with battles, and will introduce participants to the range of Old English literature, from stirring tales of heroism, courage, and fellowship, to poignant elegies of love and loss; from passionately devout to earthily humorous. Areas covered include:

Anglo-Saxon history and culture;
an introduction to Old English texts;
in-depth exploration of selections from Old English texts in translation;
an introduction to and taster of a variety of Old English;
Old English script and runes;
manuscripts;
tools for close critical analysis;
the heroic tradition;
paganism and Christianity;
women in Anglo-Saxon culture.

The project also updated a generic induction to online learning with sections on:

- Course overview
- Communication on your course
- Online netiquette
- Managing your learning
- Assessing information
- Course activities
- Assessment
- Copyright on your course
- Introductions

[10] http://onlinesupport.conted.ox.ac.uk/nml/
[11] http://onlinecourses.conted.ox.ac.uk/coursequeries.php?id=O08P377LTV

In addition the project supported the development of a new online support site, in conjunction with the JISC funded Isthmus project, which includes a courseware guide, learning support and technical support areas, available at http://onlinesupport.conted.ox.ac.uk/

Across the course and the induction c. 80% of content used was external to Oxford university, c. 5% was existing content from Oxford and 15% was new content. The course was delivered to 25 students in January 2009, and is already recruiting for the summer term.

As well as making the course is available in JORUM[12] the project team wanted to encourage wider uptake by making the course accessible on the wider web. As such the course is available at http://openmoodle.conted.ox.ac.uk/course/view.php?id=18 and induction can be accessed at http://openmoodle.conted.ox.ac.uk/mod/resource/view.php?id=209 . All are available through the project website.[13]

All outputs of the project have been made available under the Creative Commons Attribution-Noncommercial-Share Alike 3.0 license, please reference the following page for our information on this. http://openmoodle.conted.ox.ac.uk/file.php/9/GenericInduction/common/copyright-statement.html .

All final outputs of the project are available through the project website, http://mosaic.conted.ox.ac.uk/outputs, including all reporting completed as to JISC requirements, guidelines, case studies etc.

In addition the project team also blogged their experience at:
http://tallblog.conted.ox.ac.uk/index.php/category/mosaic/ .

8. Outcomes and Impact

Apart from the development of a valuable course for our online courses, portfolio, for TALL at a local level the main outcome of this project has been a confirmation of our basic approach to reuse of external content in our courses and improvements of the documentation and processes surrounding this reuse. This has improved the ease of reuse for our authors and technical staff, and hopefully in the longer term will result in better learning experiences for our students as they are exposed to increasing and improved resources.

However it has been the broader implications of our work that should prove most valuable to JISC and the wider community. As interest in OERs grows, it is clear that for some people there is a gap between assumptions about how reuse “should” work and how it actually does take place. While many of the lessons learned both by our project and the RePRODUCE strand more generally may seem relatively unsurprising, these concepts now have evidence to back them up, rather than remaining as one of many opinions on reuse in the future. We are hopeful that the conclusions and recommendations in the sections below, will not only feed into our practice at a local level, but can contribute to approaches for reuse going forward that are more sustainable and far reaching, helping move the community as a whole from the current situation where the rhetoric of reuse considerably outstrips actual practice.

[12] http://www.jorum.ac.uk/
[13] http://mosaic.conted.ox.ac.uk/wiki/outputs

9. Conclusions & Recommendations

For ease of use the conclusions of the project have been grouped into the areas below.

Finding materials for re-use – and sharing outputs for reuse

The team started the project with a good understanding of the repositories most likely to contain relevant materials[14] and shared this with the content author, however in the end it was not these that proved the main source for the author, rather the bulk of content was found through educated browsing from her existing domain knowledge and through more common search engines such as Google.

Recommendation: Maximise discoverability by putting your content where people are already looking – e.g. Google, Flickr, locations where people already browse for that subject. Trying to create a new destination is unlikely to succeed. If you want to use a dedicated repository do this alongside other more open locations, for maximum impact and uptake.

Content for reuse – learning objects?
With the caveats above, generally finding suitable materials of sufficient academic quality, from which to develop our course proved relatively straightforward. While this may not to be true for all subject areas, free content is only increasing, and calls such as the most recent HEFCE/Academy/JISC Open Educational Resources Programme[15] will only increase this trend. However we used very few items that the creators would have classified as learning objects. Our content broadly came from the types:

- Academic articles
- Media articles (BBC etc)
- Pod casts
- Fully online courses
- Online textbooks
- Assets - Images/diagrams/maps etc
- Databases (especially archaeological ones)
- Sites developed by enthusiasts
- Academic sites (departmental and individual)
- Academic project sites
- Museum sites
- Blogs

While some of these map very closely onto the sort of content used in teaching and learning for decades, whether online or face to face, many do not. However what is clear is that, if correctly scaffolded by the course, any content can be learning content. Many of the discussions currently underway on developing repositories and standards, or more generally on approaches to sharing OERs in the future, work on the assumptions that learning content needs separate considerations[16], extra metadata and unique locations, something our experience contradicts.

Work on discovering, representing and sharing learning designs in particular suggests this is a complex field, and also a very personal one – there is no metadata schema, or standard or representation which can encapsulate the particular value of a particular learning design or item of content to all comers. Where the value of these lies is individually derived and context specific[17]. Thus while improvements to standards and metadata, and development of specialised repositories are not in themselves negative, it seems likely that any benefit accrued by these undertakings is

[14] See blog post "Where to look for reusable content" http://tallblog.conted.ox.ac.uk/index.php/2008/02/26/where-to-look-for-reusable-content/
[15] http://www.jisc.ac.uk/fundingopportunities/funding_calls/2008/12/grant1408.aspx
[16] See the debate from Lorna Campbell's blog after a JISC Repositories and Preservation Advisory Group meeting blogged about here http://tallblog.conted.ox.ac.uk/index.php/2008/10/30/exclude-teaching-and-learning-materials-from-the-open-access-repositories-debate-discuss
[17] See the Mod4L report http://www.mod4l.com/tiki-list_file_gallery.php?galleryId=2 for a discussion of this space in relation to learning design in particular.

outweighed by the barriers to sharing and discoverability imposed by the extra complexity. Note that it has been frequently observed that one of the main barriers to academics sharing is not intent (in theory they are happy to do so) but rather the complexity of the actual practice (they are not sure how to, where, don't have time to consider metadata). Materials openly available on the web are already found and used (legitimately or not) all the time, tapping into these existing locations and networks, seems more likely to lead to success then additional infrastructure.

Recommendation: Treating learning content as a special case, which requires new metadata, standards or repositories overcomplicates the process of sharing and reuse, both for creators and consumers of content. Better to adopt existing best practice on the web for sharing and storing content and maximising discoverability more broadly.

Models of reuse.

The specifics of the RePRODUCE call was predicated on a model of reuse that supposed that, most material judged suitable for inclusion in the course would have been developed explicitly as learning content and as such would hopefully comply to standards etc that made it optimised for reuse both in IPR and technical terms. It assumed that when this content was identified the preferred way to build a course with it would be to clear copyright and the right to adapt, in every case, where necessary edit and change the content, and then create these materials into a course package (conforming to all the optimum technical standards and licensing models).

Clearly there are some advantages to this approach:

- The course can be built once and does not need to change if the sources used change
- There are no ambiguities about ownership of the course materials.
- Others can take your course and reuse it in its entirety, adapting to their needs.

However there are also many disadvantages:

- It takes an unsustainably large amount of time to identify the copyright holder, contact them and clear copyright for every bit of content you might want to link to on a course.
- Web based materials have been designed for web delivery in their own context, taking them out of context often weakens them
- Evidence suggests whole courses are rarely reused in their entirety and if the unit at which reuse is presupposed is an entire course, it becomes difficult to identify the content within which may be attractive.
- In many cases you do not want a static version of the content, but rather a dynamically evolving version of the content (one of the strengths of web 2.0)
- Technically integrating materials into a course package does not necessarily enhance the learning experience but is technically fiddly and frustrating.
- While standards should mean a course should work in any compliant VLE this is not always the case. Generally it is easier to incorporate smaller elements.

Recommendation: While seeking permission for every item used in a course is the best approach to take in an ideal world, in purely practical terms the overhead involved discourages reuse. Thus unless there are strong pedagogical reasons to incorporate material in a course in its entirety it is usually preferable to link to or embed it. Making content available in large units inhibits reuse, try and release content in smaller, more usable chunks.

Reused content and digital literacy

With a greater reuse there is clearly a need for students and academics alike to become better at judging and managing these resources[18]. While many of these skills are core academic practice digital media has only increased the complexity of this space. The LLIDA project[19] has done some useful work in creating an emerging competence framework which divides these skills into 3 areas, academic literacies – used when engaging with academic tasks; information and media literacies, used when engaging with academic knowledge/content; and ICT literacies, used when engaging with digital tools. The table below summarises these lists, virtually all of which will be needed for significant uptake of OERS to succeed on a large scale.

[18] http://tallblog.conted.ox.ac.uk/index.php/2009/03/02/reuse-and-digital-literacies/
[19] http://www.academy.gcal.ac.uk/llida/

Academic literacies	Information and media literacies	ICT literacies
critical thinking problem solving reflection academic writing note-taking concept mapping time management analysis, synthesis evaluation creativity, innovation self-directed learning collaborative learning	searching and retrieving analysing, interpreting critiquing evaluating managing resources navigating info spaces content creation editing, repurposing enriching resources referencing sharing content	ICT skills web skills social networking using CMC using TELE using digital devices word processing using databases analysis tools assistive tech personalisation

Recommendation: When reusing content it is important to ensure that students and academics have the skills to work with these resources. Scaffold the use of linked-to content within your course, whether generic information assessment skills or specific commentary on a source within the course context. The JISC funded LLIDA project should provide valuable resources in this space, including examples of best practice.

Licensing of academic content more broadly

One of the clearest lessons from this project is how much content which may be used for learning exists on the open web through university domains, either in the websites of specific projects, individual academic initiative or other models. However what is noticeable is that the vast majority of this material has no obvious licence or copyright statement attached to it. It is a reasonable assumption that when academics put content on the open web, they think that they have shared it and made it open, and in reality for most use they have. However attaching a licence such as Creative commons[20] would allow for easier uptake. While in some cases this may be a deliberate omission, in most it is probably because they are unaware of these licences and what they mean, or they are aware of them, but don't feel that they understand them well enough to implement them, or that they suspect using them may contravene IPR held by their university, and don't know how to find out, so dodge the issue by not engaging with it.

Recommendation: Universities should develop clear policies on licensing their outputs and apply it as broadly as possible across all their activities. The new JISC OER call should help in this work.

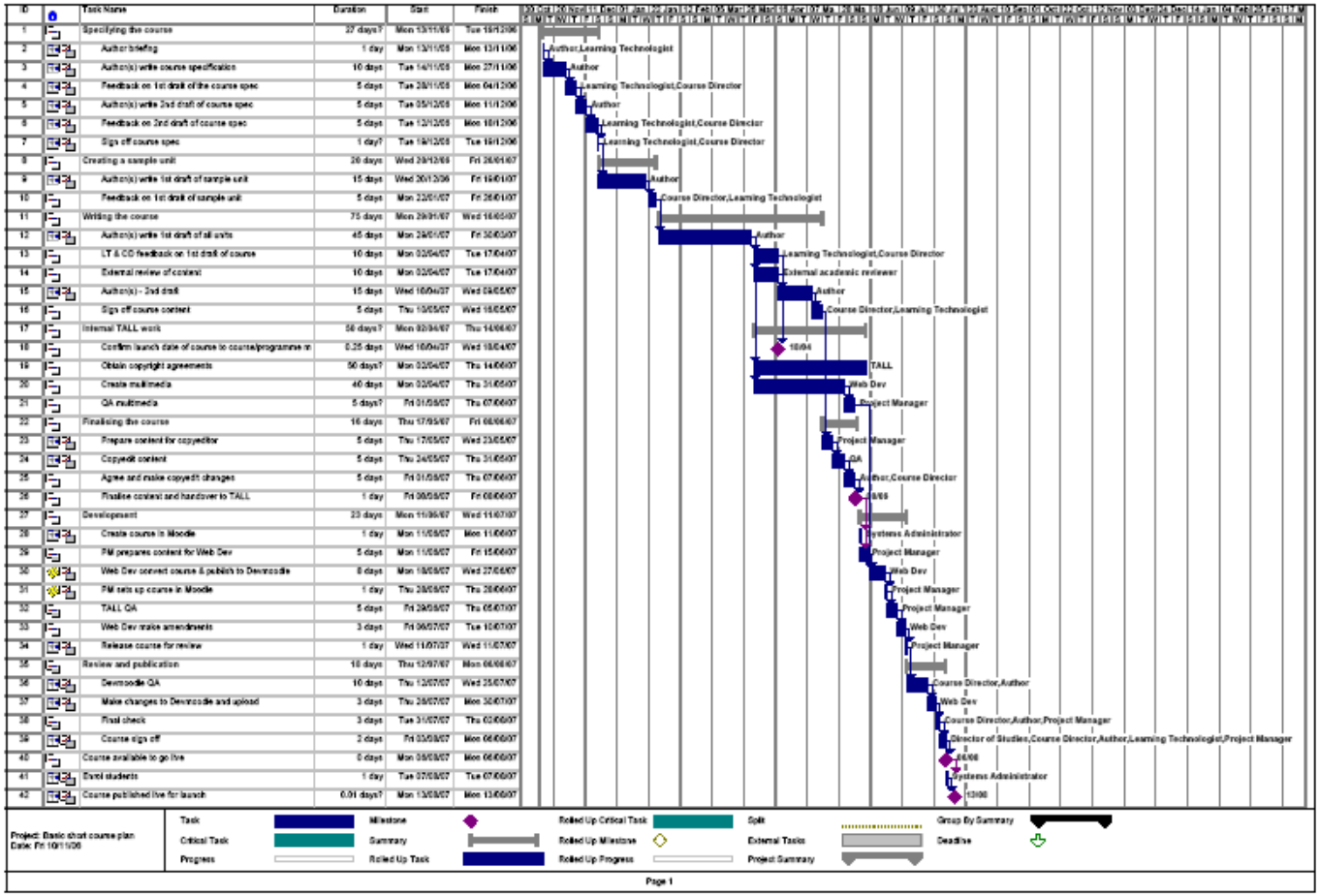
10. Implications for the future

With the growth of freely available high quality online resources, and additional funding to develop more, the reuse of content will only grow in the next few years. However it is not clear that it will do so in ways that the higher education sector will effectively manage and control. The conclusions and recommendations above point to some of the key approaches that our experience suggests will maximise the success of these initiatives. The outputs of our project will remain available in JORUM, however we suspect that more people will access them through our project site or other routes.

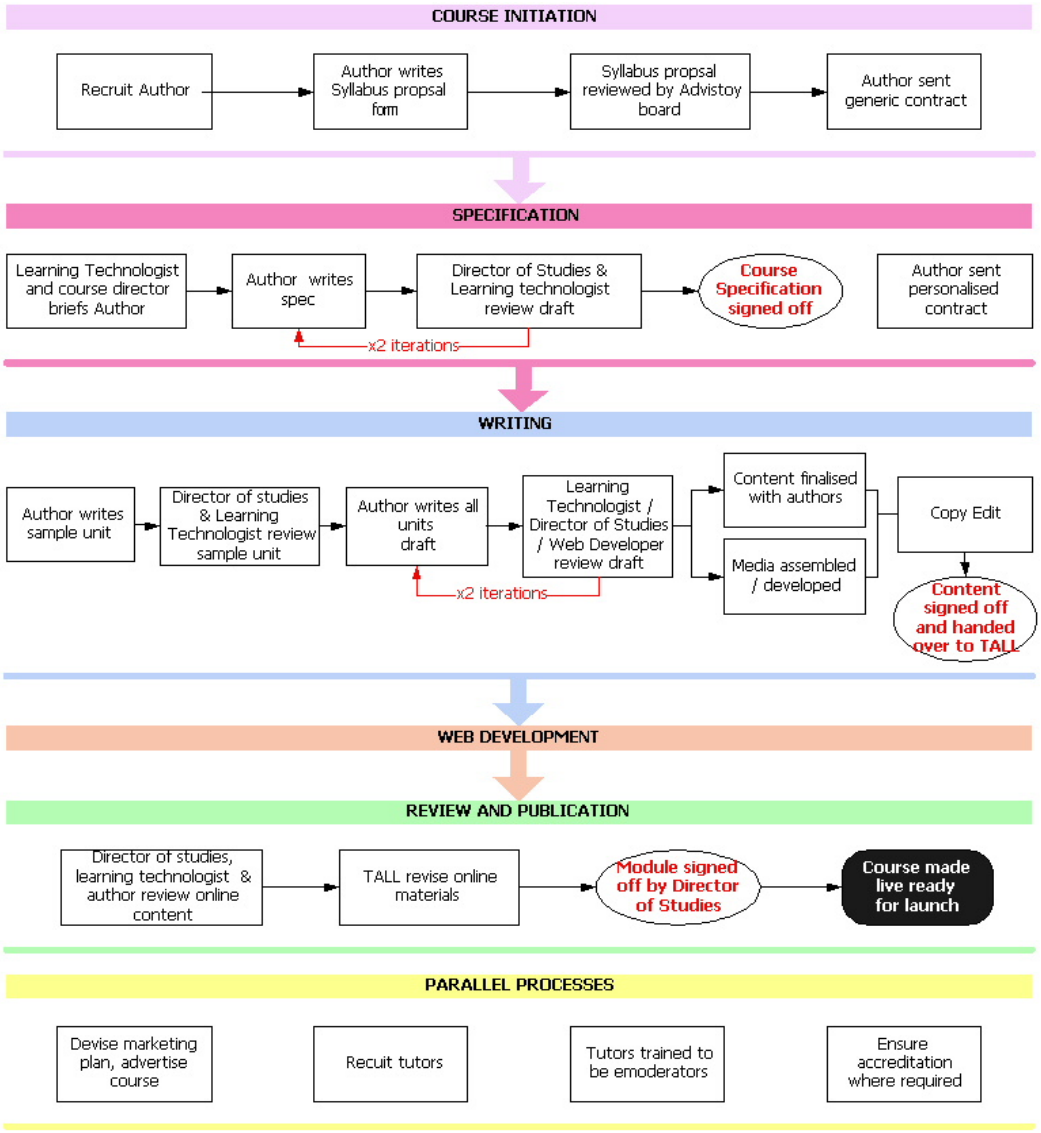
Prior to the RePRODUCE strand of work, there had been a tendency to fund projects to open up content based on speculative models of how reuse takes place. In funding this stream JISC has provided the sector as a whole with much valuable evidence about the realities of reuse in practice, ensuring that future innovations in this space, not just in the UK but internationally, can move forward on a much improved evidence base and make better choices that improve the chances of achieving the level of impact sought.

[20] http://creativecommons.org/

Appendix 1: TALL standard course development project plan



Appendix 2: TALL standard development process



The commissioning and writing process is divided into several stages with a number of steps within each stage. These are:

COURSE INITIATION STAGE

1. Director of Online Learning/Director of Public Programmes invites author to submit proposal using a *Syllabus Proposal Form*. A *Generic Author Contract* is also provided at this stage, for reference. A personalised contract will be provided at stage 8.

2. Author submits *Syllabus Proposal Form*.

3. Advisory Board (which consists of Director of Online Learning/Director of Public Programmes, subject specialists, TALL & Academic Director) approves proposed course.

SPECIFICATION STAGE

4. Author attends briefing meeting with TALL, at which they are given *Author's Guidelines*, draft *Course Specification* and potential *Schedule* are discussed (this might be done by telephone if meeting is impractical for any reason).

5. Project Manager creates *Draft Schedule* and sends to Author and Course Director to agree.
6. Online courses manager incorporate agreed *Schedule* into *Personalised Contract*.
7. Director of Public Programmes sends *Personalised Contract* to Author.
8. Author returns signed *Contract* to Director of Public Programmes.
9. Author completes *Course Specification*.
10. Academic Director, Course Director and TALL approve *Course Specification*, and sign off this stage.

WRITING STAGE

11. Author completes *Sample Unit*.
12. Course Director and TALL provide feedback on *Sample Unit*, and sign off this stage.
13. Author writes *First Draft* of complete course, including *Tutor Notes* & *Copyright* information.
14. Academic Director, Course Director & TALL evaluate *First Draft*.
15. (In parallel with stage 14) External Academic Reviewer reviews *First Draft*. Comments are sent to Academic Director & Course Director.
16. Course Director compiles feedback on *First Draft* (from stages 14 & 15) and forwards comments to Author.
17. TALL begin to source *Copyright* permissions for course.
18. Author writes *Second Draft* of complete course.
19. Course Director and TALL sign off *Second Draft* for copyedit.
20. *Second Draft* reviewed by External Copyeditor.
21. Author reviews changes suggested by External Copyeditor and creates *Final Version* of content.
22. Academic Director, Course Director & TALL sign off *Final Version* for build.

WEB DEVELOPMENT STAGE

23. TALL build course in VLE (Virtual Learning Environment), Moodle, and carry out a QA before releasing it for review.

REVIEW AND PUBLICATION STAGE

24. Course Director and Author review course within VLE.
25. TALL make final changes to content.
26. Course is signed off by Course Director & Online Course Manager

Course made live ready for launch.