



1. Title Page

Project Document Cover Sheet

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1	1 st March 2010	Dr. David Mossley: I have made some suggestions on the draft report on improvements that might help evidence the project's fit to the project plan, but otherwise there are no immediate concerns with what has been submitted to date. Clearly there is a lot still to complete in terms of outcomes and

		evaluation in the second half of the report; but from what you have submitted it seems there is evidence of impact to draw on.
2	30 th March 2010	

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3. Acknowledgements

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This project has benefited from the advice and guidance of many individuals; however the following people both from the meetings that have taken place, presentations given in open forum and specific one to one conversations with the author need to be acknowledged and thanked: David Kernohan, Heather Williamson, Ellie Colley, Joanne Masterson, Isobel Falconer, Karen Smith, Sharon Waller, Simon Ball, David Mossley and Pete O'Hare.

4. Executive Summary

This project forms a part of the individual strand of the open educational resources (OER) programme funded by the HEA and JISC. The project was run by Dr. Mark Van Hoorebeek within The University of Bradford. The main aim of the project was the release of materials in the area of law and it is felt that this aim has been largely successful. Unforeseen issues have altered the method by which these materials have been released; however the overall aims of the project have been fulfilled. It is envisioned that the long term individual commitment that has been created by this project will be further progressed to an institutional level.

Alongside releasing law specific resources the project has released more general material related to areas that are legally grounded but may have wider applicability such as business law and alternative dispute resolution. The project has also considered the related strategic aspects of the area in relation to further individual academics undertaking the production of OER and the implementation of an institutional strand of OER within The University of Bradford.

There has been some right clearance issues at the institutional level whereby universities have been reluctant to allow use of segments of work if lecturers were previously employed by the institutions and have now left. Generally author permission has been easy to achieve however at times this has not been followed by agreement at the School and Institution level (non Bradford). Those institutions with a background in OER or who are part of the OER strand have without exception been happy to share materials. To a certain extent the publicity of the programme and similar programmes being undertaken across the world are likely to persuade institutions and schools which are not "OER right clearance" friendly that there are advantages in becoming involved.

As universities commoditise their materials into distance learning and e-learning courses this indicates a direction that may run counter to the OER movement. For all the success of the MIT and Open Learn there must be a balance between open release and the ability to sustain a competitive advantage. Careful control of what teaching material is being released has been the default setting of the university sector for a number of years with VLE restricting access with password use and various quality assurance issues arising upon OER release.

The OER materials have been released in a variety of formats from complete units in .zip format to the granular form of the material used. The various licence forms that need to be followed if the items are repurposed have also been also outlined. A number of repository sites which have included Jorum, an open brOME Moodle site and OpenLearn have also provided a way to produce a distributed model of teaching without the need for a VLE, with students adding links from their own digital world i.e. Face book or MySpace. Alongside the distribution of the material the usefulness of software such as Word press and sites such as wet paint have been useful in the management/dissemination/community aspects of the project.

The issues for the individual projects which on the whole are smaller than the institutional or subject strands have included achieving institutional buy in and being able to understand and fully utilise the diverse array of techniques to enable the materials to be found including tagging and metadata requirements. These issues have been overcome during the year duration of the project.

5. Background

Summary to the background to the project

Put very simply the university, although perhaps not to the same extent as the private sector is proprietary in nature.¹ This theme extends to the educational resources that are produced within university institutions: Universities sell an educational product in the form of a course that is made up of modules that impart² an educational experience. The content is

¹ This is true of the continued commercialisation of research within the sector, using patents to protect research. This is, to a certain extent, justified to allow the university to benefit from the work undertaken. This is beyond the scope of this report but does indicate the sector direction in this regard.

² (or perhaps more appropriately phrased offer the opportunities for).

specifically related to how, first academics sell themselves and second how universities offer a competitive advantage over other providers of further education. The quality of teaching makes up an element of what provides a university with its reputation, which in turn attracts students which in turn allows the university to continue operating. Academics who have spent many years improving their teaching may be unsure about the advantages of encouraging other academics to use their work within their own institution or at another institutions. Harvard University has a reputation for providing excellent case studies concerning various elements of business, the revenue stream is welcome but the control and related exclusivity of the Harvard branded materials is also extremely important.

On discussing open educational e-learning an internal response from an academic was “*yes and they [management] will employ us as part timers to update our own work for an hour a week.*” This was perhaps said in slight jest however the release of materials does have the potential to remove value from what academics can offer personally and potentially provide benefit to other universities at the expense of the university where the work was initially created. It could also be perceived that the release of materials may allow existing university clients to reuse the material for in-house training rather than using the university as a training provider.

These concerns are to a certain extent justified however the above perceptions are oversimplified and this project has outlined that the provision of open educational resources can offer significant advantages that balance the risks of free release.

Why is the project important?

Certain universities such as MIT and the Open University have been the academic pioneers of this subject and have had success in this area. The second wave of early adopters have the opportunity and accompanying responsibility to initially trial and secondly roll out these concepts that can radically alter how content is created, released and subsequently perceived by university students, staff and wider society on a local and national scale. The second wave early adopters will fulfil the role of bringing OER into the mainstream.

On a personal level this project is important as it has provided an introduction to OER both to myself and the institution I work for. This project has received generous support and valuable interaction from those involved at the JISC and the HEA and also the academics from the other individual, institutional and subject strands. This has had an effect on how I produce and deliver material, if I remain in this sector it is likely that I will continue to create and release materials of my own and work with other academics in the area of OER within course and university teams for the next thirty years. This has had an impact on how I create and perceive materials and hopefully this impact will in time be transferred to the institution I work for. The concept of buy in has perhaps been more difficult than within institutions who applied at an institutional level but Bradford due to its permeating sustainability and Ecoversity agenda has been able to understand that OER links to the aims that form the sustainability strand of the corporate plan. Work that builds on other work rather than starting from scratch can be a more efficient use of resources. Certainly Bradford University appreciates that there are benefits if home academics can use other academic work but also understands the benefits of other institutions using work produced at Bradford. Hopefully these interactions will lead to connections and synergies that aid in the capitalisation of bid grants and new market opportunities.

Where your project fits within the OER programme (strand, topic focus, key issues addressed)

This project is part of the individual OER strand; however interactions have taken place with members of the individual, institutional and subject strands and it seems that this JISC/HEA project is likely to have produced an OER community that will continue to grow. The topic of focus for the brOME project is the release of high quality open educational resources.³ These materials are based within the subject area of law and related dispute resolution fields, these materials are presently delivered using a variety of formats from word documents to materials that are collated within e-learning packages. These packages have been deconstructed into their component parts to enable OER repurposing.

What (and why)⁴ was the state of OER release and resource sharing in your project's domain prior to the start of your project?

The state of release was minimal in the area of law; this is due in part to the heterogeneous nature of the various international legal systems. The brOME project considered this and dedicated time to initially finding the open educational resources that were available that had relevance to the United Kingdom, classifying this information and subsequently linking to the material from the various sites. There is not a huge amount of legally related material currently available on line, as for the most part law is specific to nation states and this worldwide usage is unlikely unless focus is placed in the legal skills aspect of provision of themes of law that are more generic and thus can be transferred to different countries.

One of the internal review team mentioned that lawyers may be more aware of the risk and issues related to copyright than other areas, this was not agreed by all the members of the review team however it does deserve some thought. If an academic's teaching materials were used badly i.e. changed so they were incorrect or became out of date (as certain areas of the law is always changing) intuitional brand damage could take place also the perception individual academic could be affected. An argument could be made that this could happen anyway whether the material was released under OER terms or not, however it is less likely to happen if only your students and colleges can see it and there is not an invitation to repurpose the material.

The vast majority of teaching materials within the university sector reside within password protected VLE repositories such as Blackboard and Moodle; universities are thus protected from unauthorised release and avoid the various pitfalls such as mistakes within the material that could detract from the academic standing of the individual or institution. The protected nature of the content also allows the management of students, enabling the institution to manage course content on a macro scale, i.e. control the content so students only see the modules they need to take. The limited access also reduces the chance of material that infringes copyright being discovered.⁵ Whether this is the best approach for the storage and delivery of educational materials is open to debate. This project will enable the university and authors of the material to benefit from external community input into the teaching materials and the attribution and accompanying marketing opportunities that can be levered through embracing open release.

How your project built on previous work and/or exploited specific opportunities in your domain?

³ "Digitised materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research." Giving Knowledge for Free: The Emergence of Open Educational Resources: The Organisation for Economic Cooperation and Development (OECD, 2007).

⁴ "and why" added by author.

⁵ The CDPA 1988 (Copyright, Designs and Patents Act) has criticism and review written in as part of the defences to copyright infringement, however all the conditions may not have been met in the use of materials protected by copyright.

(1) The materials that were identified through the initial research were checked, classified and brought under the dissemination theme of the brOME project. These materials were linked to from the institutional site and will form a continuing action strand going forward.

(2) The specific opportunities within the legal domain such as the exploitation of topics that are widely studied (such as business law, mediation and arbitration) have been capitalised on by trying to widen the generalist areas of law to allow repurposing for other areas. As most degree routes have an element of law within the mode of delivery academics who are not in the legal area may be able to take benefit from the repurposing of materials.

(3) Liaising with the subject strand for law has been undertaken; this took place in the first of the OER meetings and this project has benefited from the both the materials and the way in which they have been deposited. This is an element of the project that will be continued after the project end date on the 30th April 2010.

How your project proposed to advance OER release and why this was important to your stakeholders

The university sector is pulled by many competing forces and has many competing priorities. This project has advanced OER by raising the profile of this area within the university and the wider legal sector. This influence has expanded to the local councils where advice has been provided relating to the creation of new e-learning materials. This advice forwarded the use and benefits of OER and was subsequently modified to suit the various stakeholders involved. These stakeholders have included: Academic staff at the University of Bradford and partner organisations, members of the Teaching Quality Enhancement Group, Disability Service and Information Services departments at Bradford University, students studying at Bradford University and the related overseas franchise provision and the Law and Management Schools.

6. Aims and Objectives

What were the aims and objectives agreed at the start of the project.

The aims and objectives that were agreed at the start of the project were as follows: The broad aim of the project is the release of high quality open educational resources. These materials are based within the subject area of law and are present in a variety of forms ranging from simple word and .pdf files to the collation of material within eLearning packages. These will be subsequently deconstructed into their component parts to enable repurposing. The broad aim will be achieved by the completion of smaller SMART objectives. These objectives are likely to be fluid, however will remain in the "spirit" set down within this final project plan:

The materials arising from this project:

- 1) will be proffered as evidence of best practice, this will be accomplished by the posting on
 - i) the JORUM OER deposit tool, with feedback and consultation initially with Pete O'Hare, and subsequent feedback from the competition team.
 - ii) The JORUM deposit site.
 - iii) An institutional website.
 - iv) OpenLearn LearningSpace.
- 2) will serve as part of an institutional pilot program that ties into Bradford University institutional goals, the final report and accompanying materials will feed into the e-Learning and ecoversity strategy of the institution. The project website will contain

- dissemination and a full report on how the project can forward both the corporate plan and institutional values.
- 3) will aim to produce guidance specifically relevant to the University alongside having sector wide relevance through the release of materials. This guidance will concern the themes of how and perhaps more importantly why the materials were deconstructed in a specific way under open source principles.
 - 4) will be imaginatively disseminated both internally and externally under the JISC brOME UKOER tag. For example dissemination will take place through institutional channels and also include participation in JISC based projects such as the IE Demonstrator project (<http://blog.iedemonstrator.org>) and JISCs Involve platform (www.jiscinvolve.org), other channels will include dissemination to local public services such as the council and health services. A detailed dissemination strategy will be submitted to the relevant JISC project officers.
 - 5) will come with accessible plain text and rich media instructions which feature gradated levels of support ranging from zero knowledge to the "bleeding edge" of the subject matter in hand. These instructions will have the specific aim of enabling departmental, institutional, regional and national level adoption of each of the areas of this project into existing e-learning infrastructure.
 - 6) will not try to reinvent the wheel or rewrite software that already exists (unless significant improvements can be made).
 - 7) will utilise open source and capitalise on the potential advantages of doing so, this will span from the potential for VLE use to the actual creation and repurposing of materials.
 - 8) will not try to compete with any other projects through consultations with JISC Legal regarding their collaboration toolkits and communication with other OER projects
 - 9) will be open to collaborations from the public sector and the wider private sector, attempts at partnerships will be made.⁶
 - 10) will be quality driven and aim to create evidence of best practice in open source educational content and mobile rich media creation and development in the university sector. This will be facilitated by project management and critical friends being put in place.
 - 11) will plan for academic articles to arise from the final project report and during the lifetime of the project take advantage of the invisible academe of the double blind journal review system.
 - 12) will take advantage of the advice given by the relevant JISC experts.
 - 13) will avoid areas outside the teams competence and also avoid unnecessary complexity which may inhibit uptake.
 - 14) will diligently search for synergies within other JISC projects.
 - 15) will analyse the "unbundling" of intangible property within an educational context, with due regard paid to relevant guidance documents such as: Web 2.0: Tutor's Legal Issues Checklist, Web 2.0 Legal Toolkit, Podcasts and the Law, Webcast - Copyright & e-Learning and Legal Risks and Liabilities for IT Services in Further and Higher Education.

Did they change during the project?

The general objectives did not change however certain areas did receive more intense focus than was initially envisioned. In many instances the scope of the project widened and scope creep occurred, for example the social networking aspect and various community groups received more attention than was initially planned for. Although this did move slightly away from the agreed outputs and aims it did result in unplanned but positive outputs.

Open Educational Resources to be released: Final aims and objectives

⁶ Such as the institutional open source repositories at MIT and the Open University and the national repositories such as seen in Ireland.

Thirty credits of legally based materials in a variety of formats have been made granular to facilitate repurposing. These materials are copyright cleared and licensed under creative commons criteria. The materials have been deposited in a variety of open educational repositories.

Technical developments to be undertaken: Final aims and objectives

There are numerous technical features involved that relate to this project they include the following areas:

- (1) The utilisation of the various elements involved in OER to forward a clear direction initially within the individual project and subsequently in an institutional context. The complexity of areas such as Dublin cores and the various types of metadata tagging and accompanying complexities of licences should not interfere with the release of materials.
- (2) Making sure the most recent package can be found easily through the use of metadata and tagging.
- (3) Working out who the end user is i.e. student or educator?
- (4) Ensuing that the work can be found in a number of repositories including institutional, individual and external forms.

Practices/ processes around OER to be reviewed and/or reformed: Final aims and objectives

There were a number of practices and processes that arose from this project, and they have been outlined in previous sections. There are a number of practices and profiles that need to be reiterated:

- (1) Limits of copyright and the need to be aware of the idea expression dichotomy in copyright.
- (2) The intention to follow OER principles when starting from scratch and the familiarity of the principles of right clearance.
- (3) The importance of limitation of risk through the use of takedown notices.
- (4) Tagging and metadata usage.

Lessons to be learnt concerning OER release: Final aims and objectives

As explained in the meeting this project has an exploratory element so it is difficult to predict accurately the entire project plan, as due to the nature of the project there is likely to be changes as feedback and new technologies come online. This also applies to the prediction of workpackages and milestones, although these have been partially defined in the above sections. Contact with managers of the individual strand has been made and has resulted in productive discussion, (Ellie Spilman and Karen Smith), contact has also be initiated/continued with other projects including the Law subject specific strand. This will aid in the fulfilment of the synthesis and evaluation function and include elements of formative and summative evaluation.

The table below addresses the workpackage related feedback and covers the period of December 2009 to April 2010.

Timing	Workpackage name	Objective to address	Tasks	Outputs/Milestones
December 2009	Halfway review.	Check that all packages outlined to be completed in the	Analyse work already undertaken.	brOME wiki and institutional website updated.

		first six months have been completed.		
January 2010	Feedback protocols evaluated.	Students and other members of the teaching team will have seen the material in action over a full 12 week period. The embedded VLE and package feedback mechanisms will hopefully be used by users. The usefulness of the feedback will be analysed.	Star rating embedded in website/blog. Limesurvey rating (open source) at the end of each package on all websites where hosted. Questionmark survey at the end of each package on all websites where hosted.	Identification of where the feedback has come from will aid in the actions taken i.e. students who would answer questions regarding how useful the material was to his or her learning. Educators who would answer questions related to how useful the material was to their teaching and finally by the HEA/ JISC teams.
February 2010	VLE integration.	Blackboard and Moodle packages to be exported.	Bundle all OER material into one VLE pack.	Transferral of packages takes place between institutions.
March 2010	Specific dissemination.	Disseminate through relevant lists to those who may find this material useful.	This relates to the February plan. Identify who is a likely user.	Dissemination through alternative channels takes place.
April 2010	Final review.	Review by project team and senior managers within the university. Institutional working paper written.	Institutional "buy in".	Feedback on project and actions taken by senior university management. Protocols put in place for further expansion of aims outlined within the project.

Timing	Factor to Evaluate	Questions to Address	Method(s)	Measure of Success
Continuous through the use of critical friends within my subject area from the UKCLE	Quality of content	How good is this in regard to i) other university offerings and ii) commercial providers	PRINCE2 processes, critical friends outside and inside the institution	It is difficult to measure success in these types of fields, an aim is to understand the goals of the project and deliver them. The personal aim is to create good content, ensure the JISC team alongside the critical friends are

				happy with what is being carried out.
Continuous though the use of contacts made through the OER project and within JISC	Quality of deconstruction	How easy is this to use? How useful is this? Who is likely to use this?	PRINCE2 processes critical friends, outside and inside the institution	The testing of the materials both within the university and through the feedback mechanisms of the JISC open repository should enable a judgement to be made concern the ease of re purposing and re use.

7. General approach

The method of engagement of key stakeholders at institutional level was undertaken as follows: As this was an individual strand project it was important to tie in the OER requirements into the existing corporate plan of the university and it is pleasing to see that this approach has been on the whole successful. One of the advantages of the project call was that the bid demanded a Pro Vice Chancellor of Learning and Teaching to sign the bid off. This certainly gave the project an immediate institutional standing.

The technical, legal and organisational issues were not immediately apparent however the support from the HEA and JISC from departments such as TechDis and JISC legal were useful when issues did arise.

The main depositor would be the author of this report and thus there was less inherent risk as I would know exactly what would be transferred to OER format and subsequently deposited however there was more to learn concerning the diverse elements involved in the release of OER in a university context. The uses of the OER material released would be educators in the university field however it was envisioned that wider usage would also be feasible.

Responses to requests for release.

Letters were sent out at an early stage within the project requesting the clearance of the work that had been produced while I was working within other organisations. The law schools that were contacted were on the whole negative to the idea of the release of open educational learning, whereas the individuals involved in the development i.e. other members of the previous course teams were on the whole positive to the concept.

Example of School and Institutional responses

“Thank you for informing us of your involvement in the Open Educational Resources project. The decision to release material in this “open” format needs to be taken at a senior level within the university. As we are yet to fully outline an institutional approach to this area, I cannot authorise this kind of release of materials that were created while you were employed at this institution. This is not to say that we will not do so in the future, please forward a digital copy of the content over to me and I will proceed on your behalf. Yours sincerely,”⁷

⁷ This has remained anonymous as it has not been cleared for public release.

“.....school does not intend to follow a release policy in this area, and will protect its interest in regard to content created by former employees. Regards”⁸

8. Implementation

As outlined previously the project was an exploratory one and gave some scope for investigation into both how and why OER type release should be used. There were issues that arose in other projects that had direct impact on my own project. For example: The idea that some of the drafted licences for the university release of OER material were over complicated came up on the discussion boards and that helped the brOME project by outlining that the project was not entirely about the complexity of licences and metadata rather it concerned the release of materials.

The project begin with an investigation concerning the state of existing OER materials in regard to both the structure of deposits and the content that was offered to provide ideas of best practice. This then drilled down to the subject specific elements of the law area. For the initial repository a non university site was used as the complexity of accessing a controlled university website slowed the project down with permissions needed to be sought and jobs needing to be processed by university staff. With the onset of CMS/blog packages such as word press these institutional issues can be avoided and the pages can be rapidly developed and then linked through from the university site or transferred onto a university server. This gives the academic who does not have advanced programming skills the option to go outside the university central framework within an OER context.

Regarding the issues that arose throughout the project: Individual relationships were a valuable source of information that were used to overcome obstacles. These relationships came from a range of areas which included the JISC, the HEA and other project based individual, institutional and subject strand members and this gave a range of perspectives on the problems that were being encountered by the brOME project. These members were met at the OER meetings held in London and other events around the country. Alongside this support international community support in the form of blogs and organisational websites provided a further widening of perspectives and information relating to the OER area.

The JISC and HEA websites also provided information relating to the details of previous and other current projects, these allowed previous JISC/HEA related experience to be used in a OER context. To a limited extent the “super” email list from individuals within the JISC and the HEA also helped to guide the project. The Elluminate⁹ sessions were also helpful to ensure that you could “touch base” with the HEA JISC management team.

9. Outputs and Results

The brOME project is a part of the individual strand and at the basic level has facilitated the release of open education resources, and in this regard the project (at least as perceived through the eyes of those involved in the project) has been a success. However it has also succeeded in facilitating an institutional change in the perception towards open educational resources perhaps not to the same extent as in some of the institutional strands but this is significant none the less.

The Open Educational Resources released fulfil that which was promised in the project plan with a institutional site, JORUM and Open Learn Deposit taking place. This has been

⁸ This has remained anonymous as it has not been cleared for public release.

⁹ Bradford University has since adopted the technology.

supplemented by deposit on a number of other mirror sites (see www.mvanhoor.co.uk/wordpressoer). There has been 30 credits of learning that has been released and aspects of this learning has been pared down to the lowest granularity level e.g. clip art being open and the details of the licence included.

The innovations in practices/processes around OER that have arisen from this project are further discussed in the conclusion section of this report. Other work in the form of learning and teaching research grant applications, consultancy and subject specific grant applications has used the skills that have been acquired in this project: There are four funding proposals that continue the work undertaken both by this project and the other projects within the OER sphere. The first is a small research bid, the second involves an e-learning service agreement with a local council, the third is an internal bid,¹⁰ and the fourth will include the The Centre for Education in the Built Environment (CEBE) and will bid for the second phase round of the OER programme. All bids extol the benefits of using the OER aims and objectives and the projects also fulfil aspects of the wider e-learning project aims outlined by JISC.

The most successful dissemination has been the embracing of social networks and OER delivered through mobile technologies.¹¹ The social networks seem to have been embraced by the students and the academics who are interested in this area of study. This has made dissemination to those who are interested very easy, however the drawback is that there are a large number of social networks to deal with. The mobile technologies are adored by a large number of students, if you engage them through something that they use every day the material is more likely to be assimilated as part of their learning experience.

There has been a change in attitude at an institutional level with some of the OER related protocols being channelled upwards. There have been two additional outputs relating to stakeholders that were surprising.

(1) The student usage of the material has been of interest with a proportion buying into the general aims of the project without being requested to do so. Students used the materials for their revision and then, perhaps surprisingly released the revision notes to the rest of the group for comment.

(2) The brOME project has been contacted by non OER projects to add in an OER strand to bid and service proposals. Projects outside my subject area want to use OER as a selling point in other bids for service provision to the wider community, i.e. *“this is not a proprietary bid that wants to lock you into a piece of software. The project will help you use open source software such as Moodle for hosting and help you repurpose your content into open education materials.”*

10. Outcomes and Impact

This project despite being small in scale has had some interesting and pertinent outcomes and impacts, they have been varied and most have been outlined in the preceding sections. An interesting outcome that was not foreseen was interest shown by other institutions not involved in the OER programme. As mentioned previously other internal institutional projects have asked for advice on using OER as a selling point for consultancy and grant bids. Members from other external institutions have made enquires about the open release of materials, the pre mentioned Centre for Education in the Built Environment CEBE linked second phase bid will hopefully capitalise on these enquires from members from The Royal

¹⁰ A proportion of the outputs are hoped to be included in the Bradford Ecoversity project.

¹¹ This is at an early stage and did not form a large part of this project.

Institute of British Architects (RIBA) in regard to the release of architectural and construction based OER materials in the area of sustainable construction, project management and law.

Other outcomes that require further mention include the alteration of school policies, procedures and processes to support the sharing of educational resources,¹² that have arisen from the small but focused brOME project. The capitalisation of the existing projects such as the repurposing of some of the clearance and takedown protocols used in the Bradford University Repository has also been a beneficial outcome.

Releasing the materials to the students: Students are likely to use social networking sites, the material that has been cleared was released in its entirety to a proportion of the students, both on a networked USB drive, through links hosted at the University of Bradford and from a separate site. There was success as students' subsequently added the link to their "home" social networking site. The most popular social¹³ and business¹⁴ networking sites were used and evidence that the links had been transferred through this method of dissemination was seen. Also student "mash-ups" were produced, not by request of the course team, which incorporated the material into revision, using mixed media to revise. This media was released to the other students. This outcome was not planned for the material.

(1) New relationships have been made within the University of Bradford between staff that now forms an OER network that includes a wide variety of skill sets. It is hoped that this network will facilitate capacity building within this area.

(2) All members who have been involved in the project are now familiar with the structure and support offered by the JISC and the HEA.

(3) Interactions with the literature base related to OER has resulted in those involved in the project becoming skilled in the issues that arise during the production of OER materials. This aspect has had benefits in other areas where these new skills have been put to further use.

(4) The use of the OER related community sites that deal with many of the issues that this project has encountered has also been beneficial; these relationships are likely to continue.

The overall aims of the e-Learning programme¹⁵ have been forwarded in a number of ways: Probably one of the most far reaching is to not entirely rely on a VLE,¹⁶ with delivery pushed through a variety of social networks. If a student has already decided to run his or her life using a member of the Facebook/LinkedIn family then linking in learning materials and activities to this should be possible if not desirable to facilitate easy and open access. There is a Blackboard Facebook connector but this misses the point slightly as login is still required to access materials. The open nature of the material should allow further dissemination through usage of Digg and Delicious software applications.

Alongside the skill set and project strand advantages previously outlined, there have been areas where OER has found commonalities with other areas of commitment within the university. This includes the Ecoversity project carried out within the University of Bradford. The reuse of materials alongside the e-learning component of the project can be tailored to help reduce the environmental impact of the teaching activities that take place within the

¹² Para 28 of the project call relates to the institutional willingness to form a support plan around the existing project.

¹³ Social networks: Facebook, MySpace, Bebo, Friendster, hi5, Orkut, PerfSpot, Yahoo! 360, Zorpia, Netlog

¹⁴ Business networking sites were also featured: LinkedIn and XING.

¹⁵ Identify the benefits of e-learning, give advice on its implementation, develop an improved understanding of the potential of digital technologies to support learning and teaching, consider the strategic implications of this and inform and support the delivery of national policy in this area. Our work is applicable to policy makers, senior institutional managers and educational practitioners throughout further and higher education.

¹⁶ The VLE perhaps used for summative testing and course information purposes. Not brave enough to say I will not use a VLE...

university. The OER project will be used as a way of reducing repeated labour, when material is repurposed rather than developed from scratch.¹⁷

Has the overall project expenditure or expenditure in any area, exceeded or fallen short of the funded awarded? Please give details here if this is the case.

The hours worked on the project have exceed those charged to the overall budget, however the nature of the project and the support given to the team involved by the JISC, the HEA and the University of Bradford has facilitated significant buy in from those involved with the project.

11. Conclusions & Recommendations

The conclusions, outputs and recommendations are outlined throughout this report and it is likely as this project has been designed to be sustainable that further conclusions and recommendations will be able to be made as the project continues to expand in both a university and wider educational context.

One of the main issues is that rights clearance is hugely inefficient, however once this has been undertaken the work is released as OER then subsequent work can be used and re purposed by other parties. It was an interesting request from the project call for material to be re purposed rather than recreated. This project has not been able to keep to the non creation intention as often as intended as it has been easier to rework or create a workaround in regard to material that had been embargoed by rights being asserted by other parties. However once you have proceeded through a rights clearance exercise it indentifies some of the sticking points that can arise. These sticking points can then be worked around when designing the next batch of materials. Starting the creation of materials with an agenda or intention to release within the parameters of OER will remove many, if not all, of the problems found with retrospective rights clearance.

The other aspect that needs further investigation is the concept of the reliance on the open education resources that have been created, takedown notice may aid in the limitation of risk however the issues concerning where the concept of liability lies and the concept of honest mistake needs to be considered. How confident are you in OER, even if it is labelled do you have to show due diligent in tracing down the licence for each element of the OER package?

The development that is most noteworthy is that with the advent and subsequent development to of new software such as Word press an individual academic can make and release some impressive open learning materials that can be managed without the need for institutional outlay. The impact from the individual strand part of the programme has been good precisely due to the uptake of these technologies. Further work whether in the teaching and learning field or in wider academic work will consider the benefits of open working practice that create open educational resources (or research).

¹⁷ Institutional involvement in overseas OER projects will strengthen our recruitment from overseas. This is seen as a significant benefit of continuing this project within the university.

12. Implications for the future

Open educational resources in part due to the copyright clearance of all materials allows a certain degree of free placement within various online and offline repositories. For example a widget or a URL link can be placed anywhere on the internet to enable the material to be accessed freely without the entering of a password. A password is a barrier to entry and OER can provide a click and learn scenario experience. Open content release can thus facilitate delivery towards meeting the demands of twenty-first century learners, by providing learning object based content that is “just enough,¹⁸ just in time,¹⁹ and just for me.”²⁰

OER can be perceived to cheapen the learning experience, open educational resources looked at in isolation can feel that as there is no distinct property boundaries anybody can use it, thus there is no unique selling point being passed on imparted to the individual using it. However if open education resources are matched to items that are provided by a university such as face to face interaction and further non OER educational resources this may provide a healthy balance both from institutional standpoint and an access to materials standpoint. This is not a new approach: In April 2001 President Charles Vest of M.I.T. stated that his institution would make the materials for nearly all its courses freely available on the Internet over a period of ten years. This aim has for the most part been achieved: His rationale was as follows: **“Our central value is people and the human experience of faculty working with students in classrooms and laboratories, and students learning from each other, and the kind of intensive environment we create in our residential university.”**²¹

Exit and Sustainability Plans

All of the areas below are sustainable due to the way the whole JISC OER project has been administered to all strands of the funding provided. The sustainability relates in part to the quality of the content and how easy it is to re purpose.

Project Outputs	Action for Take-up & Embedding
The deconstructed open content	JORUM OPEN and JORUM, OPENSOURCE deposit ensures continued reuse under creative commons licensing.
The instructional materials i.e. the how to documentation	JORUM OPEN and JORUM, OPENSOURCE deposit ensures continued reuse under creative commons licensing.
Knowledge and learning diffused to the institution	Working document incorporated into university e-learning strategy
Lessons learnt disseminated to other project teams	Attend OER events and publicised OER and other JISC projects.

The software used has included:

Social networks: Facebook, MySpace, Bebo, Friendster, hi5, Orkut, PerfSpot, Yahoo! 360, Zorpia, Netlog, Poken and My Name is E.

Business networking sites: Linkedin and XING.

Project planning: Mindjet Mind manager and the PRINCE2 add in.

¹⁸ The rapid start up of mobile devices due to the cut down operating systems which are used may enable the user to further utilise very short periods of time for learning activities.

¹⁹ “Just-in-time learning encourages high level learning since learners access and apply the information right away rather than learn the information and then apply the information at a later time.” Ally, M. (2009) Mobile Learning Transforming the Delivery of Education and Training, Introduction, p1.

²⁰ Peters, K. (2009) Mobile Learning Transforming the Delivery of Education and Training, M-learning: Positioning Educators for a Mobile, Connected Future, p114.

²¹ New York Times: <http://www.nytimes.com/2001/04/04/us/auditing-classes-at-mit-on-the-web-and-free.html?scp=4&sq=OpenCourseWare%202001&st=cse&pagewanted=1>. Accessed 1st March 2010.

Repository usage: Bradford University Repository Project - BURP!: DSpace will be used to capture the project data in any format – in text, video, audio, and data. It will be used to index the content and distribute it over the web so users can search and retrieve the University's scholarly works. DSpace will also cater for preserving the deposited content in perpetuity.

Content creation: Word, Adobe Acrobat, Articulate creative suite, Adobe creative suite including Captivate, Dreamweaver, Contribute and QuestionMark Perception.

13. References

Selected Articles

McGill, L., Currier, S., Duncan, C. and Douglas, P. (2008) Good intentions: improving the evidence base in support of sharing learning materials. Project Report, p5. <http://ie-repository.jisc.ac.uk/265/>. Accessed 28th March 2010.

Littlejohn, A., Falconer, I. and McGill, L. (2008) Characterising effective eLearning resources, *Computers and Education*, Volume 50, Issue 3, April, pp 757-771.

Giving Knowledge for Free: The Emergence of Open Educational Resources: The Organisation for Economic Cooperation and Development (OECD, 2007).

Baker, M. (2006) What are the degree chart hits? BBC News:

<http://news.bbc.co.uk/1/hi/education/6071026.stm>. Accessed 28th March 2010.

Currier, S., Barton, J., O'Beirne, R. & Ryan, B. (2004). Quality assurance for digital learning object repositories: issues for the metadata creation process. *ALT-J: Research in Learning Technology*, Volume 12, number 1. pp.5-20.

Morris, D. (2009) Encouraging More Open Educational Resources with Southampton's EdShare: <http://www.ariadne.ac.uk/issue59/morris/>. Accessed 28th March 2010.

Tuomi, O. (2006) Open Educational Resources: What they are and why do they matter. Report prepared for the OECD:

http://www.meaningprocessing.com/personalPages/tuomi/articles/OpenEducationalResources_OECDreport.pdf. Accessed 28th March 2010.

Downes, S. (2007) Models for Sustainable Open Educational Resources, *Interdisciplinary Journal of Knowledge and Learning Objects*, Volume 3:

<http://ijello.org/Volume3/IJKLOv3p029-044Downes.pdf>. Accessed 28th March 2010.

Selected URLs

Jorum: <http://www.jorum.ac.uk/>

The Commonwealth of Learning: <http://www.col.org/about/Pages/default.aspx>

Wikiversity: http://en.wikiversity.org/wiki/Wikiversity:Main_Page

Intute: <http://www.intute.ac.uk/>

OER Commons: <http://www.oercommons.org/>

Zunia: <http://openeducation.zunia.org/>

14. Appendices

A sample of dissemination: Book Chapter:

Book title: Mobile Learning: Pilot Projects and Initiatives. Published 2010.

Chapter title: Content creation and delivery devices: Thoughts concerning mobile learning and teaching practices.

Open Educational Resources (OER)

“The work undertaken by the government funded mobile and open educational resources project²² is expected to result in the release of a large amount of pre existing educational content for use through repurposing on a world stage. Support for this project covered issues around licensing, intellectual property rights, technical aspects such as the use of standards and metadata, and resource discovery. The brOME strand²³ within this project released materials based within the subject area of law collated within e-learning and m-learning packages which were subsequently deconstructed into their component parts and licensed under creative commons agreements to enable repurposing. Certainly within the UK institutional and funding council recognition has encouraged uptake, provided confidence and evidence of best practice in producing and delivering mobile content in a range of formats and situations. The organisations of the JISC²⁴ and the HEA²⁵ have been instrumental in the organisation and rationalisation of these areas through the funding of m-learning initiatives; subsequently the JISC and HEA websites are a valuable resource relating to the cutting edge of the m-learning sector. Alongside this international internet communities and organisations are growing and provide an excellent source of ideas. Showcasing mobile content to a wide audience provides advantages to both the parent institution and individual by allowing idea dissemination and critical feedback.”

A sample of dissemination: University news letter:

“brOME produces open and mobile education strategies

The internet is now well embedded into the university experience for both lecturers and students alike. There is continued progression in a range of areas from Virtual Learning Environments that enable 24/7 access to online journal access to social networks that have been tailored to students and lecturers according to and their learning and collaborative research needs. The pace of this development is unlikely to slow, however it is always worth remembering at the foundation of these new delivery methods is the content produced and delivered by academics. How this material is levered to enable learning has been approached in different ways. Bradford University Open and Mobile Education (brOME) is producing content that is released as open educational resources with the help of JISC and the HEA. Examples of the types of content offered can be viewed on the website supporting the bid, found at the following URL:

<http://www.brad.ac.uk/acad/management/oerp/>. If you are interested in becoming involved in this project please email m.vanhoorebeek@bradford.ac.uk”

²² <http://www.jisc.ac.uk/oer>. Accessed 1st March 2010.

²³ <http://mo-tech.wetpaint.com/>. Accessed 1st March 2010.

²⁴ JISC: Joint Information Systems Committee: <http://www.jisc.ac.uk/>.

²⁵ HEA: The Higher Education Academy: <http://www.heacademy.ac.uk/>. JISC: Joint Information Systems Committee, Committee of the HEFCs to support networking between institutions. HEFC: Higher Education Funding Council for England is one of the main funding bodies for English Higher Education Institutions which provide tertiary education: <http://www.jisc.ac.uk/>.