

Unicycle Open Educational Resources Project

1. Title Page

Unicycle OER Repository – Simon Thomson, Project Manager

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3. Acknowledgements

This project has been funded and supported by JISC & the HEA.

4. Executive Summary

The Unicycle project implemented an institutional Open Educational Resource repository with a view to ensuring sustainability in approach by embedding OER as an Assessment, Learning and Teaching strategy.

5. Background

At the time of the project call Leeds Metropolitan University (Leeds Met) had recently developed an institutional repository. This was being used to share content on a small scale, mostly relating to research output. Also at this time Leeds Met wished to explore the sharing of materials across institutions in order to be more effective and efficient in the creation of learning materials, a move away from the existing staff shared materials at a very local (subject/award) level.)

The OER call provided an opportunity for Leeds Met to identify materials of value to other institutions and partners and release some of our well-established materials currently located on our user authenticated skills for learning site (<http://skillsforlearning.leedsmet.ac.uk>) under an open license. Further to this we considered that our expanding Regional University Network (RUN) might benefit from access to our materials as they deliver HE courses in an FE setting.

We felt that possible benefits of using OER and engaging in this approach to sharing would benefit staff and students by providing access to learning materials, thus increasing staff efficiency (so that they are not having to continually develop resources) and allowing them to concentrate on the design of a good learning experience rather than the creation of all the learning materials.

In turn we hoped that this approach will in the longer term prove effective in increasing the quality of the learning experience for students, as staff will have access to a wide range of teaching and learning materials from which to design and construct a high quality learning experience.

Even within a local context it has been identified that staff have a tendency to “recreate” materials from scratch for module delivery, even though a suitable module may already have been developed within the institution. An example of this is with research methods, an early audit of Leeds Met modules identified 47 instances of Research Methods modules (in various forms) with predominantly similar content.

As part of this project we wished to set the foundations for a long term OER strategy across the institution, which would enable us to continue the OER release after the funding period. The institution had not engaged in the release of OER material prior to this project. We were aware however that some staff were already making materials available in the public domain at an informal level but not under any official OER context. Some members of the universities Teacher Fellow network had already been individually using materials on a small scale released as OER's (most notably materials from Open Learn and MIT Open Courseware) but again there was no wider implementation or strategy on engaging staff in OER access. We hoped that the project would enable us to widen awareness of OER across the institution and encourage staff to engage in both the use and release of OER materials.

6. Aims and Objectives

Original Aims & Objectives

Aim: To build a 'unicycle': a prototype mechanism for the export and import of open educational resources at Leeds Metropolitan University. The Unicycle Project will increase the release of open educational resources (OER) from Leeds Met into the further and higher education communities.

Objectives: Build a cross Faculty network of OER co-ordinators / employing learning technologists and an educational developer to help staff to incorporate and adapt quality-checked OER / collate OER materials for inclusion in the institution repository / identify appropriate tagging and technical requirements / share OER materials with RUN partners & HE community via JORUM.

The following defined outputs were also planned for and specific objectives included the following:

Unicycle will increase the supply of OER from Leeds Met by:

- adapting, uploading and making available at least 360 credits of quality-checked resources, via Leeds Met's JISC-funded repository, JorumOpen and other suitable outlets;
- continuing to work on University policy and procedures to support OER;
- developing a set of incentives for the release of open learning materials;
- winning 'hearts and minds' of significant numbers of teaching and learning support staff about generating OER ;
- creating a 'supply chain' for quality-checked release of OER – instituting arrangements to assist academic staff in producing learning materials and preparing them for open release;
- integrating OER development into the University's sustainable planning cycle to ensure future funding.

OER's to be released:

The original objectives included the release of materials from all 6 Faculties, 2 Centre of Excellence in Teaching & Learning (CETL) projects and central student support services. The purpose of this was to explore the processes involved in a range of OER material and also to ensure that we were able to implement a system and process that could be applied across a range of subject areas.

7. General approach

The project sought to release a range of materials from within Leeds Met and as such took a very granular approach to the materials. We specifically decided to approach the release of OER as “resources” rather than “courseware”. We internally defined courseware as a collective range of resources which formed a full module and accessed through a web interface.

Our approach was to release “resources” which could be small or large components of a module delivery. This was largely driven by our current repository infrastructure that was focussed on the management of resources rather than courseware content.

The Unicycle project set out to engage a range of staff in the submission of OER materials with Faculty co-ordinators being responsible for the actual depositing of the materials. Whilst we have engaged a range of staff in the submission of OER materials the current depositing of materials has been largely undertaken by the Learning Technologist for the project. This has largely been down to the fact that the metadata tagging and technical requirements for depositing have been evolving and it has been more effective to communicate between one depositor and the repository co-ordinator. The defined process will then be communicated to the Faculty co-ordinators for long term implementation.

In terms of end users of OER materials this has largely still been focussed on internal Leeds Met needs and also the needs of the members of our Regional University Network (RUN). The project sought to identify the needs of academic staff engaged in the daily process of teaching and learning. The project has not particularly identified a specific user as we consider the materials being offered will be of use to a range of tutors in the HE & FE sector. Some of our RUN partners have indicated that certain types of generic student support resources such as enterprise, professional practice and work based learning materials would be of particular use to them and so we have ensured a range of enterprise materials have been included to fulfil this request.

In general we have allowed the Faculties to decide which materials they wish to release as OER’s and the project team have provided guidance and support as to what might be suitable. We did ask that contributors consider submitting materials that they themselves have found to be particularly useful in their teaching and support of students.

The Unicycle project has sought from the outset to win hearts and minds and change some cultural perspectives on re-use and sharing. In order to do this we wished to make it very clear that submission of materials should be entirely voluntary and the choice of the staff member who is the author/creator of the material.

Sometimes the response to such requests for sharing material was “what’s in it for me?” and whilst this may not be in the spirit of the open nature of the project it soon became a key consideration in attempting to win hearts and minds. The approach to reward and recognition was to try and give staff clear reasons for submission of material and the value in doing that beyond the personal motivation of sharing your work.

Key stakeholders within the institution were engaged early on in the process of bidding in order to increase the likelihood of success in implementing the project across the institution. This was initially done with a paper presented at Academic Board in February 2009, outlining the possible benefits of OER material and the potential efficiency that might be achieved by our own staff using OER material from other repositories. Two key institutional stakeholder groups have been engaged early on in the project, these are the Technology Enhanced Learning (TEL) team and the Assessment, Learning and Teaching (ALT) team, both headed by Professor Sally Brown, Pro-Vice Chancellor for Assessment, Learning and Teaching.

Technical issues have been managed by the institutions repository team (see section 9) and have been largely addressed within the development of the Intrallect repository system. This system has been able to manage the majority of the range of resources required by the project and offers a range of meta data input fields which we have been able to personalise as the project has developed.

Project Acronym: Unicycle
Version: Version One
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Date: 29th April 2010.

We have established repository policies that apply to both research and OER materials within the system. We ran a number of staff awareness workshops on IPR and copyright and have identified this as a longer term staff development need. Specific copyright guidance and requests were managed and processed by the institutions copyright clearance manager as part of the longer term OER implementation.

8. Implementation Process

Institutional Agreement & Support.

In order to ensure support at all levels of the institution the project manager initially set out to gather support from Academic Board from within the institution. This was key to the successful implementation of the project as this agreement gave “authorisation” for staff to release OER materials as part of this project.

Gaining support from the Pro Vice Chancellor for Assessment, Learning & Teaching (ALT) was another key aspect of the implementation of the project in being able to engage staff across the institution. This support and subsequent discussions resulted in Open Educational Resources being set as an ALT priority for 2009/10. Setting this priority ensures that Faculties are required to address OER within an ALT context for that year.

Faculty Support.

Each Associate Dean for ALT was asked to identify a named person as Faculty co-ordinator for OER. This person would be responsible for the following within the Faculty:

- Gathering of materials from staff within the Faculty/Area.
- Managing local quality control, including IPR and copyright.
- Arrange staff development session to be run by the central project team.
- Disseminate information and good practice to the Faculty/area.
- Liaise with the repository manager and learning technologist to co-ordinate material submission and provide feedback on process.
- Attend meetings and events to support the project as necessary.
- Liaise with the Faculty Associate Dean for ALT to align OER with other teaching and learning priorities.

Quality Control:

- Initially quality control was to be managed centrally by regular meetings of the OER project manager, faculty reps and repository.
- It became apparent that each faculty had different needs with regards to quality and material identification so quality management was decentralised with each faculty managing their own quality (based on the fact that they are best placed to assess quality within their own subject areas).
- IPR support and workshops were provided by the project team for Faculties but each Faculty was responsible for checking IPR and copyright within the content.

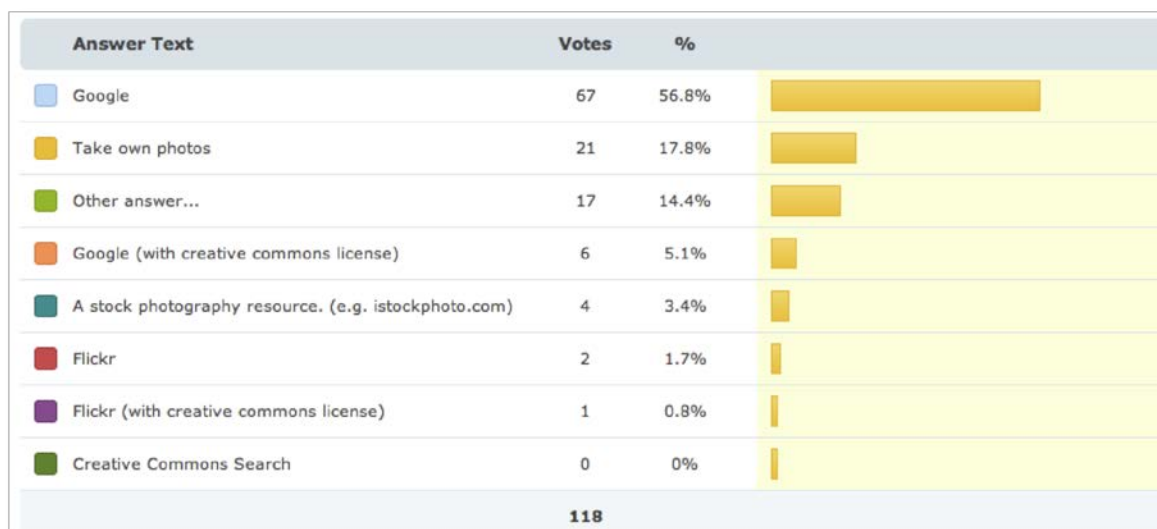


Fig 1 – Early staff survey on use of images for teaching and learning which identified need to implement IPR staff development programme.

Material Submission:

- Process managed by the project learning technologist who liaised with Faculty co-ordinators and repository team.
- Faculty co-ordinators gathered materials from staff, checked for quality and copyright and passed on to learning technologist for repository submission.
- Learning technologist submitted materials to the repository, provided feedback to repository team on meta data needs.
- Learning technologist also undertook random quality checks and provided feedback and support to the faculty representatives.

Staff engagement – “Winning Hearts and Minds”:

- The project arranged staff development workshops and seminars across the Institution.
- Faculty co-ordinators arranged separate local workshops for subject staff (these sessions were very hands on and specific to the subject areas and achieved the greatest impact).
- Development of a formal internal reward and recognition system that was embedded as part of the Performance Development Review process.
- Development of staff guide to OER booklet.

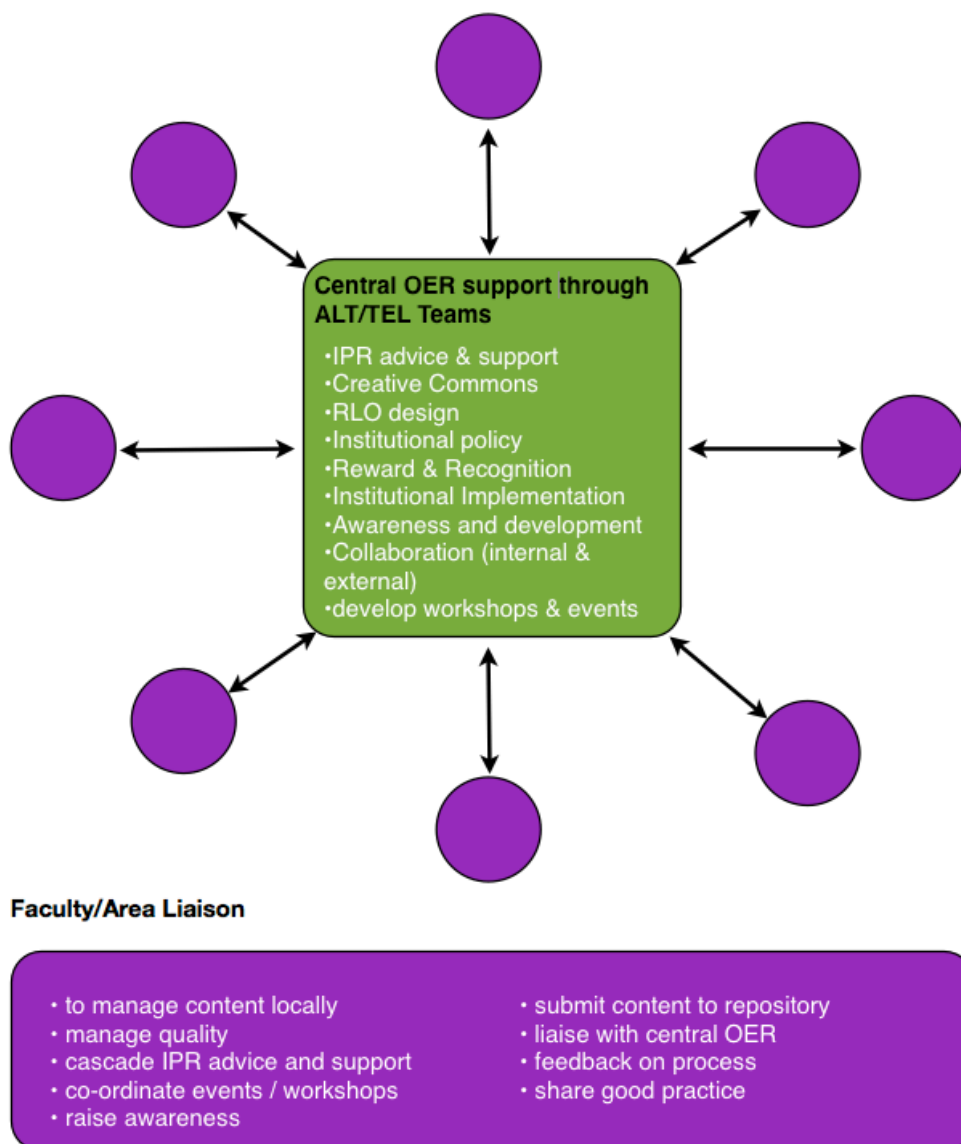


Fig 2 – Institutional Implementation

Repository:

- The project met with and engaged the repository team and managers to ensure appropriate technical support and implementation was available.
- We worked closely with the repository team to develop and evolve the technical implementation of the repository system to meet the needs of the OER materials.
- Repository team updated meta data requirements, search tools and policies as necessary throughout the project with close working relationships with the project manager.
- The repository manager liaised with JORUM Open team to ensure compatibility of resource bulk submission from Leeds Met repository to JORUM Open

Evaluation & Dissemination:

- Staff workshops and seminars were surveyed and results of these are provided in the appendix section.
- Faculty co-ordinators were surveyed with regard to experiences and invited to attend externally evaluated focus groups.
- Presentations made internally to Leeds Met, at external conferences and events.
- Staff booklet developed in collaboration with other OER pilot projects.

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- An independent educational consultant was asked to assess the impact of the project at Leeds Met and has externally evaluated project.

9. Outputs and Results

Open Educational Resources released

- Leeds Metropolitan University has released over 3000 hours of learning material as a direct result of the Unicycle project.
- Material equates to almost 300 credits of learning and is drawn from a range of modules beyond the 360 credits.
- A full list of the resources released can be found in appendix A but include the following:
 - Virtual Maths – Repository Search Term “Virtual Maths”, Virtual Maths is a free to use online resource that encourages innovative teaching and learning of functional mathematics. Using links to real life problems, our animation and graphics provide a new perspective on maths. <http://www.virtualmaths.org/> - The virtual maths resources are available via the virtual maths website or through the repository as individual resources. All materials are released under creative commons license Attribution-Non-Commercial-Share Alike 2.0. (Over 150 learning resources)
 - Business, Finance and Accounting workbooks from 2 x 15 credit modules. These were released by a staff member who has recently retired and was happy to offer as “legacy” material for use by other staff.
 - 30 resources from our “Skills for Learning” team at Leeds Metropolitan University on study skills have been released as OER.
 - Computer-Assisted Assessment - Disability Awareness simulation tool developed as part of CETL ALiC. An online tool for use by academic staff in exploring accessibility issues when developing online materials.
 - Enterprise CETL has released a range resources through the repository in the academic development of Enterprise. http://www.leedsmet.ac.uk/enterprise/resources/resources_index.htm
 - A series of lectures from visitors and internal professors originally published through Leeds Met YouTube channel and now released through the repository.

Technical Developments

- Unicycle utilises intraLibrary, a commercial repository platform that was implemented as part of the earlier JISC funded project “Implementing an Institutional Repository for Leeds Metropolitan University”
- intraLibrary uses IEEE LOM (Learning Object Metadata); the administrator can define multiple *application profiles* (metadata schema) which can incorporate subsets of LOM that may be differentially applied to collections based on content type.
- (All mandated metadata relates to the resource being described and not to the description of the resource.)
 - Required Metadata
 - Programme tag – ukoer
 - Title
 - Author / owner / contributor
 - Date
 - URL
 - Recommended Metadata
 - Language
 - Subject classifications
 - Keywords
 - Tags
 - Comments
 - Description
- IntraLibrary supports multiple user defined taxonomies for classification and the OER application profile includes both HEA Subject Centres and the Joint Academic Coding System (JACS). OER can be searched via HEA Subject Centres, JACS codes and “keyword”.
- Licence information is entered using the licence editor which is configured to apply Creative Commons Attribution-Non-Commercial-Share Alike 2.0 UK: England & Wales -

<http://creativecommons.org/licenses/by-nc-sa/2.0/uk/> - an individual or institutional name must be identified as the rights holder

- RSS was explored quite early in the programme as a potential technology for metadata harvesting and has the benefit that it is relatively simple to implement. Jorum have incorporated an RSS reader into the modified DSpace repository that is used for JorumOpen and projects are able to submit an RSS feed for harvest as long as that feed meets certain criteria (e.g. Only a RSS version 2 feed is currently supported/the feed should include a UK Eng&Wales v2 CC).
- It is relatively straightforward in intraLibrary to bulk-export IMS content packages to generate a .zip file up to a maximum of 100MB at a time. Each .zip in turn contains multiple .zip files for each resource which contains the file (unless it's a URL) and the IMS manifest with all the metadata, in the format specified by Jorum.
This process is continuing to evolve as we work with the JORUM Open team to develop a sustainable and periodic submission system

A full technical report is listed in the appendix section below.

• **Innovations in practices/ processes around OER**

There are still a number of improvements to be made with regard to the integration of the systems and processes (largely around streamlining the deposit process for staff) but the current implemented process can be found in appendix B.

The project has developed good relationships with other OER related projects both subject strand and institutional programs and as such a number of key issues have been identified across the range of projects through online, face to face and conference call discussions which are categorised below:

IPR - Management and control of intellectual property rights with OER material submission.

Quality - Controlling or measuring quality of materials.

Reward & Recognition - Encouraging staff to submit materials and give meaningful R&R.

Submission - Making the process of submission simple but effective enough to offer detail for retrieval and use.

During this process of engagement the Unicycle project has sought to “win hearts and minds” of staff and key stakeholders. As such we have been examining ways in which we can encourage and support staff in a meaningful reward and recognition programme, thus encouraging staff to engage in the sharing of resources. The Unicycle project was asked to lead discussions on this aspect of Open Educational Resources for JISC at Institutional programme meetings and it has become clear during the work of the project that there was very limited awareness amongst staff around what OER materials are and the opportunities they may offer in using them.

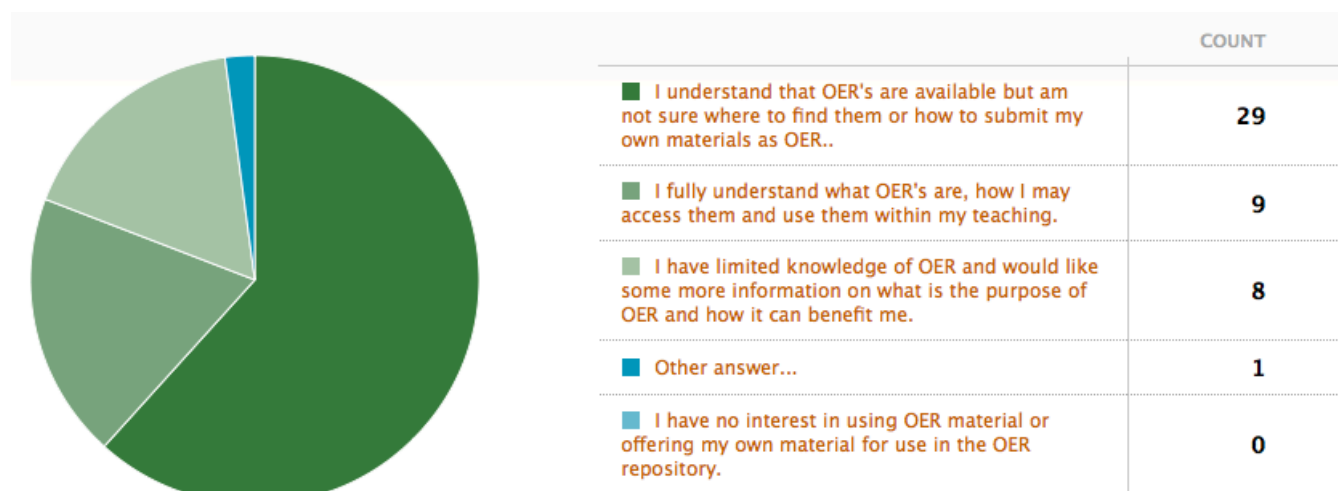


Fig 3 – Subject group poll on staff knowledge on what OER are. (May 2009)

An early institutional poll of academic suggested that staff had heard of OER's but were unsure how to access them, or how to offer their own work as use as OER. It also became clear that there was confusion as to the difference between OER 's and RLO's (reusable learning objects). A series of staff development workshops and subject group meetings were arranged to help clarify the purpose of OER's and the benefits. In total over 120 staff accessed staff development sessions or workshops relating to OER. Feedback and evaluation on the workshops indicates that this was of great benefit to staff. Comments from the IPR & OER awareness events included:

"I really enjoyed it and found it to be extremely useful." – Faculty of Health workshop.

"I can really use thatfor free?" – Staff Development Festival TEL Café event.

"ooooh look what I have found – that's amazing can I really use it?" – International Faculty awareness session.

In the workshop surveys 100% of staff saw value in using OER's as a direct result of the workshops.

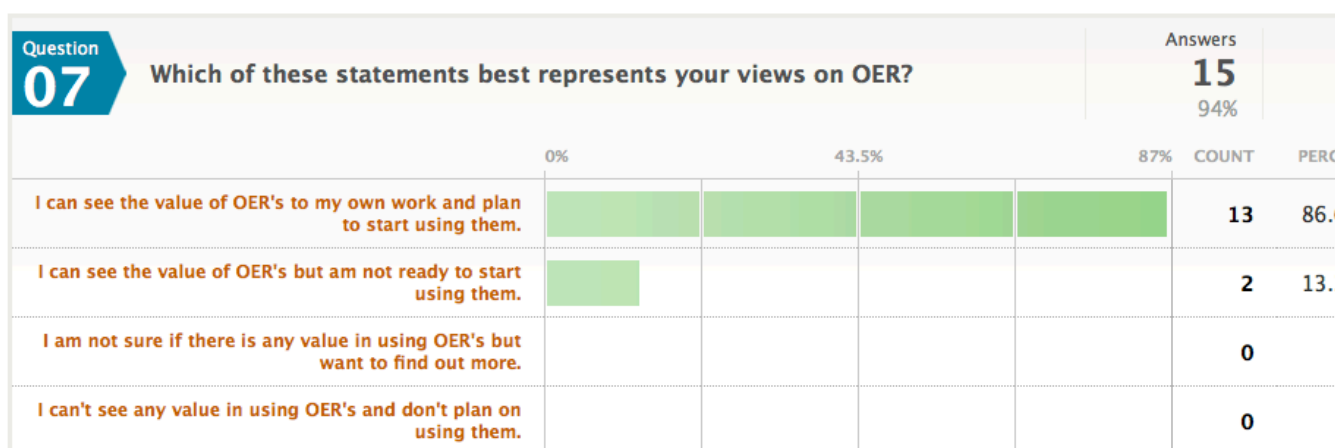


Fig 4 – Workshop survey Q7 showing staff response to OER value.

One of the proposed outcomes of the project was for Unicycle to establish a long term sustainable model for institutional OER implementation (which is the basis of the strategy document – Appendix B). Pioneers in the OER publication field such as MIT Open Courseware (<http://ocw.mit.edu/OcwWeb/web/home/home/index.htm>) and the Open University's Open Learn (<http://openlearn.open.ac.uk/>) both have a largely centralised model of managing the process which has proven to be costly. Both of these projects initially received substantial funding from Hewlett foundation to undertake this process. The Open University received \$4.4m in 2006 and MIT has had over \$6m over the course of the Open Courseware project 1. These costs are not viable in good periods of economic stability and within the current economic climate they are almost impossible. In fact the MIT Open Courseware project is now asking for donations from the public to maintain the system.

Therefore a proposed model was developed which gave Faculties both ownership and responsibility for management of their own OER content supported by the TEL/ALT Teams which have already been successfully established within the institution and provide support and development in a wide range of TEL/ALT related areas. Using this established model both increased our efficiency and offered a framework, which recognised the different materials Faculties offer as OER whilst maintaining a strong central institutional approach.

Utilising the current institutional repository has also allowed us to provide an efficient model for implementing OER. Based on the projects experience of implementing this model it may be a

suitable approach for institutions wanting to start an OER programme with minimal capital investment.

At Leeds Met we envisage that this infrastructure may need developing as the OER material submission increases in order to provide additional storage and repository functionality but the processes and policies will remain unchanged.

Lessons Learned through evaluation.

The project has been evaluated in line with the evaluation framework for OER Pilot projects. Below is a summary of that evaluation; a full cross mapping of the Unicycle project within the framework is available in Appendix H.

The Unicycle project has been able to provide evaluation evidence through a variety of approaches and the lessons learned are identified under the following OER pilot evaluation focus areas:

- **OER Release Processes:**
 - Localising quality control has given ownership of process to staff.
 - Copyright (particularly IPR) has been identified as needing considerable staff development and this will need to continue.
 - Development of a single submission system for depositing in more than one repository (by bulk upload to JORUM Open) has significantly decreased time of submission.
- **Developing, managing and sharing OER's:**
 - Quality assurance is based upon the current academic quality standards processes and managed by Faculties.
 - The Unicycle model works well for the granular approach to OER release.
 - Sustainability requires support by senior managers and ALT strategists.
- **Business cases and benefits realisation:**
 - Efficiency benefits by sharing OER resources so academic staff spend less time "making" materials.
 - Benefits of raising staff awareness around IPR and good practice in using third party resources.
 - Benefits for institution in sharing resources with partner colleges and strengthening educational relationships.
 - OER costs include repository infrastructure, staff development time, faculty liaison allocation.
- **Cultural Issues:**
 - Change of culture from sharing locally to sharing globally.
 - Staff motivation ultimately enhanced by clear reward and recognition.
 - Some staff concerned about loss of control of work.
 - Majority of staff see the value of OER but many are still concerned about the "quality" of their work.
- **Institutional Policy:**
 - Institutional approaches should be embedded as a wider ALT strategy.
 - Workflows and processes should align with current institutional practices.
 - Policy supported by academic board and pro vice chancellors likely to be more successful.
 - Identify current channels of communication and dissemination within the institution and utilise these for OER engagement.

- Align the OER policies and practices to current institutional policy and visions.
- **Legal Issues:**
 - Build awareness of legal issues (e.g. IPR & Copyright) without “scaring off” academic staff.
 - Offer assurance and guidance based on best practice (e.g. JISC Legal advice).
 - Approach legal issues with common sense, not “worst case scenario”.
 - Apply the same legal approaches that staff may already be familiar with (e.g. copyright clearance).
- **Technical and hosting issues:**
 - Work with current technical support teams and infrastructures to gather long term implementation support.
 - Consider metadata requirements that academic staff would be happy to enter and yet useful enough for the resource to be found.
 - Implement a system which aligns with any current repository work to increase efficiency and works on the strengths of current teams.

The Unicycle project also undertook an independent evaluation of the project through an external academic advisor, the full report is available in appendix I but a summary is outlined below:

LeedsMet OER: Unicycle Project

“The OER Repository is located in the Library system, Intrallect, and its development was informed by experience of the University’s existing, institutional repository.

I found the OER Repository intuitive and easy to use, and this was confirmed by discussion with focus groups of faculty co-ordinators (FCs), although I did not upload any materials directly, nor did all of the FCs, though we did have the process demonstrated.”

Policy, cultural change and staff development

“The project enabled the development and trialling of an infrastructure for managing the identification of content, QA-ing and uploading. Instead of a centralised model based either in the library or in a central support service [cf NTU’s IRep; OpenLearn and MIT], such as the TEL team, the project relied on processes embedded in each faculty. A Faculty Co-ordinator (FC) was nominated by associate deans (for learning and teaching), and the FCs liaised with the Unicycle Project Team and Project Manager. FCs comprised a mix of learning technologists and academics.

Other University interests were also represented and invited to be part of the model (i.e. to identify non-course specific content); e.g. YouTube content.

In effect this strategy has enabled:

- identification (and ownership) of content to be faculty based;
- staff development activities to be faculty based;
- awareness of the role of OERs to be based on specific, practical subject needs, rather than on abstract or high-level concepts;
- quality assurance to be ‘owned’ by academics (i.e. content specialists) rather than by non-academic support staff distanced from content; and
- take-up and embedding of OER issues across the university via all faculties, academic support units (i.e. the library) and non-academic administrative units.

This infrastructure would seem to be cost-effective, robust and sustainable.”

Quality Assurance

“While quality assurance did not go beyond the issue of copyright compliance, it should be noted that OERs should also be compliant for accessibility, whether they are courses or modules, or elements of

a course/ module. In the focus group discussions it was clear that copyright compliance took priority because of the limited time available.

There may also be faculty and institutional interests in the pedagogical underpinning(s) of OERs, such as: implicit learning outcomes, delivery method(s), learning styles (i.e. diversity and accessibility issues), e-learning design issues.”

URL's for evaluation reports:

<http://www.box.net/shared/d3xla8vh95> - Academic advisor evaluation report.

<http://www.box.net/shared/6j6bpcqdl0> - Evaluation framework mapping.

10. Outcomes and Impacts:

10.1 Main Project Outcomes.

- Influence University policy and procedures to support OER; A strategy document has been agreed and will be presented at Academic board in June 2010 with a view to officially implement and OER strategy as a direct result of this pilot.
- developed a set of incentives for the release of open learning materials; (see reward and recognition in impacts section)
- winning 'hearts and minds' of a significant number of teaching and learning support staff about generating OER
- created a 'supply chain' process for quality-checked release of OER – instituting arrangements to assist academic staff in producing learning materials and preparing them for open release;
- progress in integrating OER development into the University's sustainable planning cycle to encourage future funding.
- OER identified as an Assessment, Learning & Teaching (ALT) priority which is an institutional focus on ALT priorities for the forthcoming year.- This has helped support the OER project and increased awareness within Faculties
- Unicycle project has supported a number of Technology Enhanced Learning (TEL) network events including the TEL Tea Cafe event Staff Development Festival, Reusable Learning Object (RLO) workshops with the RLO CETL from Cambridge University and TEL network events as part of it's wider dissemination programme. All of these have given staff first hand experience of accessing and utilising OER materials.
- Wide reaching institutional collaboration. The project currently has liaised with staff in all 6 Faculties, as well as staff from Active Learning in Computing (ALiC) CETL , Assessment & Learning in Practice Setting (ALPS) CETL and Enterprise CETL who submitted resources for the Unicycle project.
- The project worked with our internal Skills 4 Learning team to release some examples of their study support materials, Leeds Met publications team to explore the possibility of releasing some chapters and examples from our own publications as an opportunity to market these to other HEI's via OER channels and the Leeds Met YouTube channel team to release some of the ALT related videos for use as OER.
- Staff development sessions have been arranged and/or undertaken in 5 Faculties.
- OER Workshops available as part of the institutional staff development programme.
- Wide variety of resources identified as being made available as part of the OER project (including materials used to support student studies and not just ALT related materials).
- Increased staff awareness in the areas of IPR & Copyright.
- OER OUTPUTS: These materials range from a 10 minute activity to full 150 hour (15 Credit) module content.
- Staff guide to Open Educational Resources (released as an OER).

10.2 Key areas of Impact identified for sustainability:

The project has enabled us to define an institutional process and set of guidelines for the implementation of OER within an institution. The key areas involved in this model are outlined below and include lessons learned and impacts.

10.2.1 Central OER Guidance:

This aspect of the Unicycle model was to provide guidance and support for OER co-ordinators within Faculties. It made available key documents and materials to assist Faculties with staff development, IPR awareness and OER use and submission through the institutional repository. It guided and informed institutional policy and from that Faculty policy on OER. An example of this process is that this year the use of OER was highlighted as an Assessment Learning and Teaching priority for 2009/10. This priority setting requires that all Associate Deans for ALT in each Faculty demonstrate how OER has impacted on the ALT strategy for each Faculty.

The central OER guidance has been embedded within the ALT team in the Institution and as such will continue to be so beyond the project dates. This embedded approach allowed for us to consider a realistic long term sustainability plan without a need for large investment plans and produce support documents and guidance through already established processes.

10.2.2 Faculty Liaison:

The purpose of the Faculty liaison person(s) were to provide localised implementation of the Open Educational Resources strategy and offer sign posting and support for Faculty colleagues. It was also anticipated that this person would liaise with the Associate Dean for ALT to record the Faculty contributions, manage quality control and IPR and take an overview of the OER strategy at a local level. This approach has proven to be a key driver in the success of the wider implementation of OER within the institution.

What has been significant as part of the Faculty liaison roles is that those staff who are on more senior levels as faculty representatives appear to have had more success in engaging a wider range of staff. Of the 6 Faculties two OER co-ordinators were Learning Technologists, 1 Senior Lecturer (Full Time), 1 Senior Lecturer (Part Time) and 2 Principal Lecturers (PL's). In both cases the principal lecturers have been able to arrange a significant number of staff development and engagement sessions within their Faculties whereas the Learning Technologists have been unable to do this to the same extent.

The Principal Lecture with an ALT remit within their Faculty was able to arrange twice as many staff development sessions than the Learning Technologists. This suggests that in order to get the widest impact of OER within the institution the Faculty roles should be undertaken by PL's with specific duties in the area of ALT.

10.2.3 Non Academic Institutional Areas:

Beyond the faculties other areas of the University also contributed materials to the OER repository. A current example of this has been the Skills for Learning Material and the Leeds Met YouTube channel which have offered a number of resources for the current project. This process allowed us to identify areas where we were already developing significant content but through the project we have been able now clearly release this as OER.

By doing this we have been able to make it clear to users that we are happy for them to use material in their teaching and learning. Generally we have found this to be a very rewarding experience and begins to give clarity of use of resources to academics. It has begun the process of legitimising the use of other peoples material in their teaching and learning.

Releasing many of our Skills for Learning Materials as OER (previously they have been behind a user authenticated system) has been of benefit to some of our Regional University Network of colleges who teach HE in FE settings. As an addition to these areas it was timely that Centres for Excellence in Teaching and Learning (CETL's) were coming to an end of the project period. As such we identified 3 of our largest CETL's and provided an opportunity to disseminate their work through our repository with appropriate Creative Commons (CC) licenses. Within these areas a specified person worked at a local level within those teams to manage quality and decide on what materials to make available as OER.

10.2.4 Intellectual Property Rights (IPR) & Copyright.

Ownership of content comes in many forms and this project has been able to identify a range of "ownership" issues and challenges that have begun to be addressed as part of this project. Firstly it is important to note that any material released under the OER programme have a Creative Commons license which in it's very nature releases some ownership rights as part of it's sharing (this is not to be confused with authorship acknowledgement which still remains). This has implications relating to the content being offered under OER. As part of the project it has become clear that the majority of staff surveyed (57%) used Google as the main source of images for use in their teaching and learning materials although this practice is beginning to change as a direct result of this project through workshops and seminars.

Through a range of workshops and seminar sessions we have been able to raise staff awareness of searching for open licensed images, audio and videos for use in their presentations. Some of these materials may come from other OER repositories but there are filters within Google image searches which will only return materials which are licensed for use. The project has undertaken the development of this process and has been able to run staff development workshops as part of the institutional staff development programme (these have had limited attendance). A preferred approach which proved to be more successful was to run a workshop for each subject area within a Faculty and is clearly a real “eye opener” for many staff. It is envisaged that this staff development will continue beyond the life of the project through the institutions Technology Enhanced Learning Team.

The standard CC license applied to Leeds Met repository materials is Attribution Non-Commercial Share Alike, however Faculties can choose an alternative license appropriate for their needs. An example of this is some Health materials were identified as wishing to be non-derivative in order to safeguard the context of some of the materials and in part to alleviate fears from staff who did not wish to be associated with work which may become inaccurate or distorted.

10.2.5 Reward & Recognition (R&R).

The Unicycle Project impacted R&R in the following 3 ways:

1 - Win hearts and minds through awareness of the development of an OER community. By demonstrating to academic staff the benefits of accessing OER materials in the creation of their own learning materials we hoped to encourage the “giving back” to the OER community. This was evidenced by encouraging 5 retiring staff to contribute materials as a “legacy” to their work.

2 - The second approach was to engage in a more systematic process. As part of the performance development review (PDR) process we are encouraging line managers (via the PDR training process) to consider setting OER contribution as a SMART objective for academic staff. This objective can be as small or large as the person wishes but ideally fits within the SMART requirements. It is this approach which we hope will have a longer term impact on the release of OER material from within Leeds Met, and we see this process continuing beyond the project.

What we have been able to achieve is an agreement from central Human Resources that staff are able to set OER release as a “SMART” objective as part of their annual Performance, Development Review (PDR) process. This agreement was publicised late on in the PDR cycle but early conversations suggest up to 5% of academic staff have agreed to release OER as part of their objectives for 2010/11. (Exact figures are difficult to retrieve due to the confidentiality of the PDR process).

3 - Finally we looked to expand reward and recognition to beyond the local environment of Leeds Met. We have had discussions with other institutional OER projects to consider how we might develop a national recognition of OER contribution. It was largely agreed that staff could legitimately consider OER contribution as a form of publishing and that it should be identified on academic CV's and form part of consideration within job applications. This will take time to show any clear impact but we should encourage staff to identify through their CV's how they have contributed to the ALT community not just through publication of papers and books but also through their contribution of OER materials.

On a National level the Unicycle project has sought to engage in national debate on reward and recognition. Working with The MEDEV OER project (a subject centre OER project) we have been in discussion with the Higher Education Academy with regard to specifically identifying OER contribution as part of the HEA Fellow applications. These early discussions have been very positive and with the HEA fellow scheme due to for review we are hopeful that OER engagement will become recognised at a national level, with a longer term objective that institutions begin to recognise academic staff's contribution in the area of OER.

10.2.6 Staff Development.

As previously mentioned in previous sections staff development was an embedded process which covered a range of issues and provided guidance and opportunities for staff. A list of the key formal staff development events are identified below, but feedback from some Faculty representatives have

indicated that it is the informal staff discussions beyond the formal staff development sessions that are beginning to change staff perspectives on OER use.

- Providing Guidance on OER release and associated issues and processes. – Institutional Staff development sessions (approximately 20 attendees).
- Leeds Staff development festival. Unicycle was part of the TEL showcase event which saw over 80 people attend.
- Regional University Network Partner meetings – 3 meetings with RUN partners.
- Subject group and Faculty staff development sessions (over 120 staff in total undertook an OER related staff development session.)
- Unicycle project site which has attracted over 40 “ning” community members both internal and external to Leeds Met.
- Guidance document for staff which was disseminated to the Faculty co-ordinators for sharing amongst Faculty members.
- Development of OER booklet for academic staff. This booklet has been printed and will be disseminated to all full time academic staff (over 1000).
- TEL café OER workshop which allowed attendees to “taste” OER’s with a possibility of attending wider institutional workshops. (Over 50 staff)
- Reusable Learning Object CETL workshop and Unicycle OER joint workshop on the creation of a reusable learning object in Glo Maker. (18 staff)
- TEL Networking event on Open Educational Resources engaging academic staff and learning technologists from every Faculty. (22 staff)
- Illuminate session on sustainability for JISC’s 2nd Tuesday events (18 attendees).

10.3 Key stakeholders

We have identified 5 Key stakeholders within the implementation of the Unicycle project, these are identified below with a bullet list of benefits that the project has identified.

Leeds Met (institution)

- The ethos of OER aligns with visions and values: Professional, Respectful, Enterprising, Purposeful, Creative, Inspiring.
- Improve quality of teaching and learning by using a range of OER materials for teaching and student learning and thus improve NSS results.
- Encourage collaboration and sharing internally and externally to improve cost efficiency and quality.
- Provide a platform to “showcase” materials being developed at Leeds Met.
- Highlight our institutions approach to openness and engagement beyond boundaries.
- OER agenda aligns with our use of Technology Enhanced Learning and ALT approach to enhancing the student experience.
- Expansion of the Leeds Met repository, increasing use and access.
- Raising awareness of Leeds Met’s excellent teaching, learning and support resources.
- Provide a process and platform for centralising learning materials for sharing internally.

Academic staff

- Opportunity for staff to be recognised and rewarded (through the PDR process) for OER contribution.
- Increase awareness of IPR amongst academic staff.
- Legitimise staff’s use of other peoples material in teaching and learning (by using OER material instead of sourcing non creative commons licensed material).
- Provide opportunity for teaching and learning focussed academics to showcase their work.
- Encourage staff to utilise a range of learning materials to improve the student learning experience.
- Shift the focus of academics being content creators to being learning designers. (This project has identified that many academics feel “compelled” to create all of the learning materials

which can often result in low quality materials, by using OER materials alongside their own we hope staff will improve the overall learning experience).

- Get access to their learning materials at any time and from any place. Once released as OER the materials will be available regardless of where staff are employed.

Regional University Network (RUN) Partner institutions

- Increased support of Leeds Met's network of partner colleges.
- Provide materials to support the student experience who are Leeds Met registered but are taught at a RUN partner.
- Share teaching and learning materials between Leeds Met and RUN partners in order to align the student experience for students intending to progress on to Leeds Met's awards.
- Solidify progression agreements between Leeds Met & RUN college courses by setting out to develop shared OER resources as part of the course validation process.
- Formalise the sharing of supplemental learning materials to support student learning.
- Increase the collaboration within course teams with RUN partners.

Students

- Increased access to quality learning resources independent of the course or Faculty they are registered with.
- Increase access to self study resources
- Increase access to study support materials, including information literacy skills.
- Widen access to employability & enterprise materials for career development.
- Improve learning experience by encouraging staff to utilise more OER materials in their teaching.

HE Community

- Release learning, teaching and academic support resources beyond the boundaries of Leeds Met.
- Increase collaboration within the OER community for shared good practice and experiences.
- Develop a sustainable OER model for sharing with the HE sector.
- Provide a repository system for working with partners to share their materials through Leeds Met's repository.
- Engage in wider reward and recognition discussions to offer opportunities for academic staff to be recognised for their OER contributions.

11 Conclusion

In conclusion the Unicycle project has sought to develop an embedded and sustainable approach to OER within an HE institution and engage it's staff and faculties in that process to ensure long term implementation beyond the funding of this project.

It has been able to achieve this by embedding processes and development within current institutional systems. Alongside this the Unicycle project has implemented a series of OER & IPR workshops designed to increase awareness and benefits of OER.

As already identified throughout this report we have sought to embed all aspects of OER creation, submission, retrieval and use as part of the fabric of the institution. What we have been able to implement is an institutional approach which embeds the content collection, quality checking and ownership of the process within already established networks within the institution. Alongside this we encouraged ownership of OER development and use from within the Faculties and areas at a "grass roots" level.

We have found this model to be cost effective and clearly demonstrates increased levels of engagement across the institution. The model which will be presented to our institutional Academic Board for Quality Enhancement in June 2010 with a view that this practice now be formally implemented within the institution and formally supported by the Pro-Vice Chancellors office for Assessment Learning and Teaching.

We have been particularly pleased with the success of the project in being able to collect OER materials from across the institution, engaging all 6 Faculties in staff development and OER submission. The Leeds Met open repository truly represents a broad range of materials that are available within the institution, and now available with a Creative Commons license.

We have also been able to identify the need to continue staff development in relation to IPR and the use of OER in transforming educational approaches, whereby academic staff are encouraged to focus energies in using OER material to build an effective and quality learning experience for students, rather than feeling compelled to "create" all of the learning material for the module.

More importantly this project has begun to see a cultural shift to the approach of sharing and using material with a formal recognition of OER which can now be further developed across the institution.

12 Recommendations

The key message from our experience in the Unicycle is to “embed” the practice of Open Educational Resources within already established processes within the institution. Being able to demonstrate the benefits to staff first hand through staff development sessions has initially proven slow but this is having real longer term benefits as staff start to see first hand how OER can really enhance their own teaching and learning.

Below are a list of key recommendations for “embedding” OER within the institution and thus developing a sustainable approach to OER.

- a) Gain support from senior institutional managers (ideally with an assessment, learning & teaching remit). This helps to communicate the value and importance of OER from an institutional perspective.
- b) Embed OER as institutional practice in the development of new courses and modules
- c) Seek to agree OER targets for staff/areas/subject groups.
- d) Realise OER outputs with support from institutional PDR process (encouraging staff to take ownership of OER release but giving them reward for doing so).
- e) Implement long term staff development programme to support OER (IPR/OER searches/OER submission etc)
- f) Implement OER as part of institutional ALT (assessment learning and teaching) strategy.
- g) Faculty/Subject areas to take ownership and quality control of OER development, thus negating the need for a potentially costly centralised unit.
- h) Utilise current institutional support mechanisms for OER (e.g. staff development programmes, events schedules, copyright services, repository and central services teams.)
- i) Identify specific areas of need for OER (e.g. colleges & delivery partners) – this can help provide focus for the content to be released and identify particular audiences.

13 Implications for the future

This report has already highlighted key areas for sustainability within the project and these will continue to develop as part of our future implementation of OER within Leeds Met. Highlighted below are a number of future developments which we would wish to make based upon the outputs of this pilot project:

Staff Development:

As part of the institutional programme of staff development we wish to establish a series of workshops and activities which support academic staff in the use of OER, including IPR, creation, submission, retrieval, review, repurposing and evaluation of OER use. This may provide opportunities for further resource development whereby an open courseware module could be developed to support this.

Partner Engagement:

As part of our work with our Regional University Network colleges we wish to explore the development of an OER request service. This service would allow our partner colleges to request materials which we may have to be released as OER. Longer term this would help us to identify the needs of users and also ensure appropriateness of content.

OER Submission:

Submission systems and processes could be further streamlined for use by academic staff who may find the current process and addition to their current workflow. Areas of specific development could be firstly, the creation of an OER submission " widget", whereby an academic is able to drag and drop a resource onto the widget, enter essential meta data and the item gets submitted to the repository. Secondly there are opportunities to explore a single submission process which then deposits the resource in multiple repositories.

14 Appendices:

Appendix A – Unicycle OER materials submission list: <http://www.box.net/shared/7vhp58qqyo>

Appendix B – Unicycle Institutional Strategy Model: <http://www.box.net/shared/aqInvo8r3c>

Appendix C – Survey results completed by Faculty Co-ordinators:
<http://www.box.net/shared/xhh0xlei9z>

Appendix D – Survey results of OER staff development workshop evaluation:
<http://www.box.net/shared/z1vkjcc20v>

Appendix E – Results of a series of OER related Polls undertaken on the Unicycle project site:
<http://www.box.net/shared/m1kd3llsv8>

Appendix F – Unicycle technical implementation report for OER:
<http://www.box.net/shared/y68eofc3cs>

Appendix G – Staff survey into OER: <http://www.box.net/shared/n21i84ss4b>

Appendix H – Unicycle project evaluation framework mapping: <http://www.box.net/shared/6j6bpcqdl0>

Appendix I – External evaluators report on Unicycle project: <http://www.box.net/shared/d3xla8vh95>

Appendix J – Academic staff guide to OER booklet: <http://www.box.net/shared/oqa2312an4>