

HEFCE/JISC/Higher Education Academy Open Educational Resources Programme: Higher Education Institutional Change (HEIC) Strand.

Final Report

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1 Project Summary

Open Educational Resources (OERs) are freely available online teaching and learning materials which have been licenced for re-use and re-purposing in an educational context. Supporting staff to develop a culture of openness in the sourcing and releasing of OER challenges traditional concepts of ownership and copyright and demands confidence and competence with operating in digital environments. Over a twelve month period of time, Embedding OER Practice addressed these challenges through a whole institution approach to raising awareness of the philosophy and practice of OER across a range of subject disciplines and aspects of learning development. The project objectives were to:

- raise institutional awareness of the philosophy and practice of OER
- collaborate with cross-institutional teams to promote and embed OER.
- establish support and guidance for engaging with OER.
- work alongside the HEA Change Academy to plan and develop strategies for embedding OER

Six project teams, made up of academic staff, professional service staff and students, investigated the reuse and repurposing of OER in the following areas:

- transition to higher education,
- early critical reflection,
- employability,
- preparation for professional practice,
- teacher education,
- support for open approaches to teaching and learning.

Alongside engagement with the principles of OER, teams established appropriate dissemination pathways within their Schools and Departments to ensure sustainable practice once the project came to an end. Led by a coordinator from the university's Centre for Educational Research and Development (CERD), the project ran in parallel with a HEA Change Academy initiative. This involved identification of opportunities for embedding a culture of openness at both local and institutional levels and promoting the adoption of OER as a whole institution strategy. The project highlighted the potential affordances of the internet for higher education and emphasised the importance of supporting the digital literacies of staff and students as essential prerequisites for enhancing teaching and learning and the student experience.

2 Main Body of Report

3.1 Project Outputs and Outcomes

Output / Outcome Type <i>(e.g. report, publication, software, knowledge built)</i>	Brief Description and URLs (where applicable)
OPAL (Open Practice at Lincoln)	OPAL http://resources.open.lincoln.ac.uk a repository for Creative Commons licenced materials for teaching and learning at Lincoln. OPAL is currently being piloted and will go live later in 2013.
OERL (Open	OERL http://oer.lincoln.ac.uk an online centre supporting the

Educational Resources at Lincoln)	philosophy and practice of OER. It contains the Embedding OER project archive materials, support for creating online content and developing digital literacies as well as an OER blog.
Team One: Supporting Transition with OER	<p>Final project report http://blackboard.lincoln.ac.uk/bbcswebdav/xid-935071 1</p> <p>Understanding your Reading List OER available at http://guides.library.lincoln.ac.uk/learningdevelopment</p>
Team Two: OER for Early Reflective Thinking and Writing	<p>Final project report http://blackboard.lincoln.ac.uk/bbcswebdav/xid-935073 1</p> <p>Poster for Student OER Conference http://blackboard.lincoln.ac.uk/bbcswebdav/xid-938048 1</p> <p>Poster for Student OER Competition http://blackboard.lincoln.ac.uk/bbcswebdav/xid-938037 1</p> <p>Student OER Conference Programme http://blackboard.lincoln.ac.uk/bbcswebdav/xid-938038 1</p> <p>My Reflective Writing OER http://dspace.jorum.ac.uk/xmlui/handle/123456789/16839</p> <p>Joint presentation at HEA Annual Conference 2012 <i>Embedding OER Practice; supporting staff to deliver student experiences of a lifetime</i> http://blackboard.lincoln.ac.uk/bbcswebdav/xid-934993 1</p> <p>Sue Watling (Project Coordinator) Valeria Carroll (Team Two)</p>
Team Three: OER for Embedding Employability in the Undergraduate Curriculum	<p>Final project report http://blackboard.lincoln.ac.uk/bbcswebdav/xid-935074 1</p> <p>‘Criminology in the Professions’ a Level 2: 15 cats points module available as an OER at http://criminologyintheprofessions.blogs.lincoln.ac.uk/</p> <p>£1000 award from the British Society of Criminology to develop a second OER module to accompany Criminology in the Professions.</p> <p>Paper presented at SRHE (Society for Research into Higher Education) Conference in December 2012: <i>Challenging the commoditisation of knowledge: Taking possession of the industrialisation of the HE landscape: Student as Producer and the use of Open Educational Resources.</i></p>

	<p>Further information: http://oer.lincoln.ac.uk/2012/09/26/forthcoming-conference-paper/ Full paper: http://www.srhe.ac.uk/conference2012/abstracts/0108.pdf</p> <p>OER Showcase Event, 30th January 2013, College of Social Sciences, University of Lincoln</p>
<p>Team Four: Practice Education Electronic Resources (PEER)</p>	<p>Final project report http://blackboard.lincoln.ac.uk/bbcswebdav/xid-935075 1</p> <p>One Minute Wonder videos 'Preparing for Practice' series Assertiveness with Rob Goemans https://docs.google.com/open?id=0Bydsw49GUwI5a2dNdFgzY2I6YWs Practice Learning and Enlightenment with Nigel Horner https://docs.google.com/open?id=0Bydsw49GUwI5eXhUWEIWUHQ4U2c Outtakes collection https://docs.google.com/open?id=0Bydsw49GUwI5dWZEYUJTnjhOdFk</p> <p>Paper presented at SRHE (Society for Research into Higher Education) Conference in December 2012: <i>Higher Education as a Public Good; Pushing Forward, Pushing Boundaries</i>. Presentation http://blackboard.lincoln.ac.uk/bbcswebdav/xid-935175 1 Paper http://blackboard.lincoln.ac.uk/bbcswebdav/xid-935176 1</p> <p>Formatting Guidance for OER production at the University of Lincoln http://blackboard.lincoln.ac.uk/bbcswebdav/xid-935177 1</p> <p>OER Showcase event, 30th January 2013, College of Social Sciences, University of Lincoln</p>
<p>Team Five: Exploring and Embedding OER on PGCE/HE and Beyond</p>	<p>Final project report http://blackboard.lincoln.ac.uk/bbcswebdav/xid-935076 1</p> <p>Module Specification Teaching and Learning in a Digital Age short online course http://blackboard.lincoln.ac.uk/bbcswebdav/xid-935092 1</p>
<p>Team Six</p>	<p>Final project report</p>

<p>Behind the Scenes of OER</p>	<p>http://blackboard.lincoln.ac.uk/bbcswebdav/xid-935077_1</p> <p>OER Workshops and Guidance</p> <ol style="list-style-type: none"> 1 "Copyright for beginners", 2, "Some exemptions and the notion of fair dealing", 3 "Introduction to licensing", 4 "The Six Core Creative Commons Licenses" 5 "Finding OER creative commons licensed OERs", 6) "Finding and uploading open images and audio clips" . <p>published locally</p> <p>http://oer.lincoln.ac.uk/2012/03/14/copyright-and-licensing-workshop/ and on Jorum</p> <p>http://oer.blogs.lincoln.ac.uk/2012/03/14/copyright-and-licensing-workshop/</p> <p>Guide to using Avidemux for simple video editing</p> <p>http://oer.lincoln.ac.uk/2012/03/20/simple-video-editing-for-beginners/</p> <p>Guidance on linking and searching,</p> <p>http://oer.lincoln.ac.uk/2012/03/02/oer-workshop-linking-and-searching/</p> <p>Guide to publishing OERs on WordPress and Jorum</p> <p>http://dSPACE.jorum.ac.uk/xmlui/handle/123456789/16107</p> <p>also available in PDF format at</p> <p>http://oer.blogs.lincoln.ac.uk/files/2012/09/oerleafletHQ.pdf</p>
<p>Sharing Practice: Open Approaches to Teaching and Learning. A one day conference event at the University of Lincoln, June 2012</p>	<p>Sharing Practice Conference Programme</p> <p>http://blackboard.lincoln.ac.uk/bbcswebdav/xid-935005_1</p> <p>Keynote: Steve Stapleton, Open Learning Support Officer, University of Nottingham. <i>Integrating 'open' throughout the university; the Open Nottingham story</i></p> <p>http://blackboard.lincoln.ac.uk/bbcswebdav/xid-935004_1</p> <p>Keynote: Paul Andrews, Head Centre for Digitally Enhanced Learning, Newport University. <i>OER Signposts; Tools and Techniques for getting started</i> http://vimeo.com/44550471</p> <p>OER at Lincoln: Chemistry FM presentation</p> <p>http://forensicchemistry.lincoln.ac.uk</p> <p>OER at Lincoln: Pencils and Pixels presentation</p> <p>http://pencilsandpixels.blogs.lincoln.ac.uk</p>
<p>Conference Presentation. 9th ALDinHE</p>	<p><i>Embedding OER Practice: the philosophy and practice of OER with reference to learning development and digital literacies</i></p> <p>http://blackboard.lincoln.ac.uk/bbcswebdav/xid-934994_1</p>

Conference, University of Leeds, April 2012.	Sue Watling (Project Coordinator)
Conference Presentation. HEA Annual Conference, Manchester, July 2012.	<i>Embedding OER Practice; supporting staff to deliver student experiences of a lifetime</i> http://blackboard.lincoln.ac.uk/bbcswebdav/xid-934993_1 Sue Watling (Project Coordinator) Valeria Carroll (Team Two)
Effective Learning in the Social Sciences Journal paper. July 2012.	<i>Student as Producer and Open Educational Resources; enhancing learning through digital scholarship</i> Sue Watling (Project Coordinator) http://blackboard.lincoln.ac.uk/bbcswebdav/xid-935007_1
The Staff Magazine, University of Lincoln, June 2012.	<i>Sharing Academic Practice; open approaches to teaching and learning</i> Sue Watling (Project Coordinator) http://blackboard.lincoln.ac.uk/bbcswebdav/xid-935008_1
University of Lincoln, Teaching and Learning Strategy, 2012-16 KPI	Percentage of staff adopting open educational resource practices within their working activities. Defined as % of staff who are aware of OERs and able to locate relevant sources. Figure will include % of staff who access, use, modify and regenerate OERs.
Promoting OER through individual institutional 'Buddy Press' Staff Profiles	Development of a plugin (Be-Bop) to extend individual profile to re-present resources held on disparate websites such as YouTube, Slideshare, Vimeo, Jorum etc. Led by Joss Winn (Team Six) http://lncd.lincoln.ac.uk/project/bebop
Delicious OER feed.	Public collection of resources pertaining to OER available at http://www.delicious.com/oer
Chrissi Nerantzi, 'Food For Thought Video' Series on You Tube.	Food For Thought, PGCAP, University of Salford. <i>Observing peers teaching</i> with Aileen Morris (Team Five Leader http://www.youtube.com/watch?v=flp6Xt632nl <i>Open educational resources for learning and teaching</i> with Sue Watling (Project Coordinator) http://www.youtube.com/watch?v=k7A4owL_rPw
Future sustainability,	Open education and OER have become embedded into the University of Lincoln Digital Scholarship group remit http://digitalscholarship.blogs.lincoln.ac.uk/ Digital Scholarship is aligned with the University of Lincoln Teaching Academy http://teachingacademy.blogs.lincoln.ac.uk/

Knowledge outputs,	See 3.3 Lessons Learned for further information about knowledge gained throughout the project and 5. Recommendations for suggestions for carrying this knowledge forward.
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3.2 How did you go about achieving your outputs / outcomes?

The first decision to set up six project teams to look at exploring OER was based on prior experience of the usefulness of development funds to enhance the quality of teaching and learning. It was believed a bottom up approach to pedagogical innovation, one in which staff are supported to become change agents, can be more sustainable than a top down approach where decisions are implemented from a distance. Project money was divided into separate project funds with individual teams having autonomy over spending within the HEA budget restrictions but being encouraged to consider conference attendance and publication as appropriate dissemination methods. Empowering staff to have control of their project finances and take opportunities for speaking in public and writing for publication were considered valuable CPD activities and integral to taking ownership of the projects.

The second decision to focus on generic aspects of the student experience was taken in order to maximise adoption of OER. Project teams were invited to consider models whereby content within their chosen areas e.g. reflection, employability and preparation for professional practice, was constructed through templates which had the potential for customisation to suit different subject disciplines. Although the focus of the project was not to produce content, it was recognised that releasing content as OER through a Creative Commons licence was an inevitable by product of engagement with open educational practices and something to be encouraged.

Using the HEA Change Academy programme of events to structure a timeline, individual projects created work packages containing aims, objectives and targets. Monthly meetings with the project coordinator were factored in as were meetings with HEA critical friends. The date was set for a one day conference *Sharing Practice: Open Approaches to Teaching and Learning* in June 2012 t the University of Lincoln.

The HEA Change Academy ran a programme of events; a Start up event, a two day residential Interim event, an additional Follow-up event and a Final project event, all at the Bentley Hotel, South Hykeham. These were attended by the HEA Change Academy team, Embedding OER Practice team leaders, team members including two students per team and the HEA Critical Friends.

Embedding OER Practice, and the *Sharing Practice: Open Approaches to Teaching and Learning* Event, were publicised through Faculty Teaching and Learning Committees and a series of posters and advertising materials displayed across the university and distributed to staff and students. External Keynote speakers were

booked for the Sharing Practice event and internal champions of OER invited to show examples of best practice with OER at Lincoln. All six project teams were invited to run afternoon workshops and create posters.

The HEA Change Academy events and the monthly meetings with the project coordinator maintained enthusiasm and impetus for the project. These meetings were supplemented with two visits from each set of critical friends which created valuable space for reflection and feedback. All teams were invited to attend a series of OER workshops run to explore issues of copyright, licencing, searching, evaluating and producing content. The project provided opportunities for engagement with individual digital literacies within a supportive and friendly environment and highlighted opportunities to enhance digital engagement and scholarship. Useful knowledge emerged from bringing together technically innovative staff with those less confident engagers with digital environments in a workshop environment.

As project teams developed familiarly with OER content, interest in contributing to the open academic community grew. Existing content was considered for OER and where gaps were identified new content was created. There was experimentation with multimedia software requiring steep learning curves which were successfully challenged leading to increased confidence with digital tools.

Student engagement throughout the project offered powerful opportunities to capture the student voice and alter traditional staff student dynamics. Embedding OER Practice encouraged the active participation of students in meetings and presentations. At the University of Lincoln the Teaching and Learning Strategy is informed by Student as Producer; an approach which emphasises the role of students as collaborators in the production of knowledge, and throughout the year the student voice was encouraged and maintained.

Evaluation of Embedding OER Practice is on-going and interviews with team leaders still to be completed; these were delayed for a number of reasons including the project extension to enable building a local OER repository and OER online support centres, and unavoidable staff absence. All teams produced interim and final project reports and a staff OER awareness survey was conducted following the Sharing Practice event. These evidence the advantages and disadvantages of engaging with open educational practices and resources (examples of comments shown below).

'The project has benefitted from learning what other universities and other projects have accomplished using OER. This collaborative approach has been a source of inspiration to us.'

'There is a need for central support to format, edit and professionally 'produce' the materials, particularly those using multi media formats. This work takes specialist skills and knowledge that academics in our subject area cannot be expected to have.'

'The most exciting aspect was discovery of large number of tools that could be freely used in our teaching – shows staff don't find things unless they are targeted and guided and supported.'

'Cultural change is likely to be a long term project and will rely on information about OER being clear and concise and focused towards staff needs.'

'...difficulty is work pressures ...staff may find it difficult to change their practice due to time constraints... '

'[The project's] impact on team has been immense...All new content now considered for copyright in order to be released as OER.'

'We were starting from a position of little or no knowledge of OER it was important for the team to explore information around the practice of using OER'

'This has been a huge personal learning experience for the members of the team, both in practical and philosophical practice.'

[We were reluctant to publish because] 'Professionally produced materials require professional skills and expertise'

'Because this project was organised in the form of a number of small teams within different schools, rather than one large project, the knowledge gained has the potential to pervade the university from within'

'This [project involvement] has been a unique and remarkable experience.'

'I am relatively new to teaching but [OER] will definitely become a part of my approach to designing learning.'

A number of institution wide pathways for sustaining the project have been successfully established. Staff adopting open educational resource practices within their working activities is a KPI in the University of Lincoln Teaching and Learning Strategy 2012-16. This is defined as the percentage of staff who are aware of OERs and able to locate relevant sources; it also includes the percentage of staff who access, use, modify and regenerate OERs and will be measured by periodic sampling. There are on-going conversations aiming to embed awareness of open educational practices into the Quality Office validation and periodic review processes and Embedding OER Practice is an agenda item on the central Teaching and Learning Committee.

As well as OER outputs from each project team (See 3.1 Project Outputs and Outcomes) a number of institution wide outputs for continuing the promotion of

open educational practices have been established. A Digital Scholarship and Open Practice newsletter has been set up and a hard copy guide to Developing OER Practice is being written. The Open Practice at Lincoln (OPAL) repository is being piloted and the current project site at <http://oer.lincoln.ac.uk> is undergoing conversion to become the Open Educational Resources at Lincoln (OERL) online support area. A new online short course, Teaching and Learning in a Digital Age, begins in February 2013. Aimed at staff wanting to explore their use of virtual learning environments and the affordances of the internet for higher education, the course has been validated as part of the university's Teacher Education portfolio of programmes and content will be made available under a Creative Commons licence for the wider use.

The overall aim of the project was to embed OER practice at the University of Lincoln as a whole institution strategy. There were four project objectives aimed at raising institutional awareness of OER through collaboration with cross-institutional teams, to establish central OER support and guidance and work alongside the HEA Change Academy to develop strategies for embedding OER.

The aim and objectives did not undergo any significant change throughout the project. Institutional awareness and cultural change takes time but the processes begun during the project were embedded into project participants' appraisal processes and working practices. The collaboration with cross-institutional teams was a project strength and will continue through the project coordinator's role of teaching and learning coordination across the university. A support group for digital scholarship which includes open educational practice has been established within the Centre for Educational Research and Development and aligned with the University of Lincoln Teaching Academy. Support and guidance for engaging with OER will continue through the development and dissemination of OPAL (Open Practice at Lincoln) repository and OERL (Open Educational Resources at Lincoln) an online guidance centre for open education. Lastly the support of the HEA Change Academy has been valuable throughout the project and although this was time limited, lessons learned from engagement with change experts will continue to have validity as OER is promoted and supported through whole university initiatives.

The project was managed from within the Centre for Educational Research and Development (CERD) at the University of Lincoln. CERD was headed by the Dean of Teaching and Learning with a cross university remit which positioned it in a strong location for leading on institution-side initiatives. The project coordinator was responsible for decisions relating to the management of day-to-day project activity, resources and budgets. These included monitoring progress and performance, ensuring project outputs were delivered on time, identifying risks, problems, and issues, and escalating them as appropriate, managing communication, preparing reports, arranging meetings and keeping records and maintaining the project web site and documentation.

Stakeholder engagement with academic staff and professional services with an interest in teaching and learning, in particular the staff in the Library and those working directly with education technology, was regularly maintained through the work of the individual project teams as well as the cross institutional remit of the project coordinator whose role includes support for the use of virtual learning tools and environments. Teams were tasked with raising awareness of OER within their own areas and inviting students to join their teams. Communication with JISC/HEA/HEFCE was the responsibility of the project coordinator who also kept the VC Office and Senior Management updated with progress reports following each HEA Change Academy event. The project coordinator managed whole-institution events such as the *Sharing Practice: Open Approaches to Teaching and Learning* conference and OER publicity through posters, leaflets and online presence.

Evaluation was on-going throughout the project. Individual teams developed an individual work package which identified objectives, tasks, outputs and responsibilities and provided a useful tool for evaluating progress throughout the project. Teams were encouraged to evaluate progress for monthly team meetings with the project coordinator. This was usefully repeated through regular meetings with the HEA critical friends which the project coordinator also attended.

A set of critical success factors was established to measure progress against. These focused initially on individual skills and competencies with working in digital environments as these were considered the essential prerequisites for change to take place. If staff were uncomfortable with working online they were less likely to engage with open educational practices as assume users can search, manage and create digital content.

Critical Success Factors

- Development of effective repository search strategies and recognition of creative common licences
- Expertise with appropriate copyright and Digital Rights Management (DRM) knowledge with regard to all digital content found on the Internet
- Establishing individual staff and student confidence and competence working within digital technologies for teaching and learning
- Increased awareness of appropriate virtual pedagogies and the construction of effective online learning experiences
- Management of individual team projects designed to promote and embed OER Practice within specific subject areas
- Establishing opportunities for dissemination across departments, schools and faculties.

Project staff surveys and interviews are on-going to establish how well the critical success factors were met. Findings will be posted on OERL and a comment tool has been embedded into OPAL (Open Practice at Lincoln) repository to encourage staff

feedback on OER content. Early analysis suggests empowering staff to become agents of change is effective but in terms of establishing digital confidence and competence there is still much work to be done (See 3.3. What did you learn and 5. Recommendations).

3.3 What did you learn?

Adoption of OER requires behavioral change which involves shifting from traditional ways of working. Individuals are unlikely to engage with change unless the following prerequisite conditions are in place or have been considered.

- It is believed to lead to direct improvement in particular time saving and better organization,.
- There is a specific task which can be managed more effectively by changing practice.
- The necessary infrastructure is in place including ensuring the resources to support change are visible and accessible.
- Change is encouraged and enhanced through reward and recognition schemes.
- Steps are taken to meet the challenge of sustaining new practice after the project funding ends.
- Networks have been established where staff can communicate and share experiences and practice.
- Quality is not compromised and minimum standards of use are established for repositories while quality offices are supported to build quality checks into processes of curriculum design, validation and periodic academic review.
- The impetus for change is improved through empowering teaching and learning staff to engage in their own research into new practices. A bottom up approach supports the development of trust between colleagues and opportunities to deal with any fear of change or failure within supportive collegial environments.
- Resistance to change, whether passive or active, is a valid and useful response which opens up opportunities for broader discussion about the affordances of digital ways of working.
- Creating space where resistance can be surfaced and discussed is essential to the change process.

- Key to adopting OER practice is individual confidence and competence with working in digital environments. Institutional strategies for supporting digital scholarship are prerequisite.

‘OER cannot be separated from issues around digital literacy.’

‘This can be quite off putting particularly when we all have limited time available to do things – again this shows we need to invest in staff digital literacies, confidence and competence and have more joined up thinking in terms of events like sharing practice where staff can see educational technology in action.’

- Change is not perceived as challenging existing practice without good reason. Creative commons licensing can highlight poor practice with copyrighted materials or lack of understanding about intellectual property thereby reinforcing the need for targeted and accurate guidance and support.
- Support for change is local and targeted. A workshop approach to supporting OER development is an important source of support and within the context of the project there was a collegiality which encouraged engagement but central workshops do not always reach everyone. A targeted road show style approach within different disciplines is more effective. This is resource heavy but this project shows changes from traditional to digital ways of working demand significant investment in initial scaffolding, which can gradually be withdrawn as confidence increases and support facilities are developed at a local level.
- It is widely recognised embedding OER may involve steep learning curves for staff not already engaged with digital ways of working so time taken to adopt new practices will vary across the institution.
- Heavy works loads are acknowledged and realistic amounts of time are added to tasks. Taking a pragmatic approach to change for example the team focus on generic aspects of the student experience is more likely to link change with areas of work already highlighted for attention and more likely to be fitted into existing commitments.
- The philosophy of open education is seen as important if not more so than the practice. Unless staff are given time and space to make the paradigm shift towards openness and sharing they are less likely to adopt the change in practice OER requires.

3.4 Immediate Impact

Immediate impact is the raised awareness of OER within project teams. This has been a successful first step towards greater awareness of open practices across individual schools and departments.

'Project team members have begun to think differently about pedagogical practice and have created learning materials which reflect the philosophy or OER.'

'Within the space the overall project created, the team were able...reflect on the intellectual relationship between OER and the Student as Producer ethos. This even challenged the team's views about bigger questions such as the position and privilege of course materials in the student learning experience, as OER challenge the concept of the lecturer/university transmitting privileged knowledge through course materials to a passive student recipient.'

Project teams have begun to sustain awareness of OER through meetings with Heads of Schools and Departments, annual appraisals, local newsletters, local committee meetings and other structured inter departmental forums for information and communication.

Institution wide raised awareness of OER has been achieved through project publicity, in particular creative commons licensing information cards distributed to all staff, the *Sharing Practice Open Approaches to Teaching and Learning* conference (June 2012) and *Student Conference on Reflection* (November 2012), a Staff Magazine article and the Effective Learning in Social Sciences journal edition which was guest edited by Team Three and contained papers with OER content (see 3.1 Outputs). Presentation at external events during the year included the ALDinHE 9th Annual Conference, HEA 2012 and SRHE 2012. There have been cross institutional meetings on the setting up of an OER repository and Embedding OER Practice added to agendas for Faculty and central Teaching and Learning Committees.

Engaging with OER provided useful opportunities for raising issues of inclusive practice, in particular with the provision of multimedia content in alternative formats. TechDis advice has been suggested as guidance throughout the project.

The experience of working with multiple teams of staff engaged with teaching and learning across the university has highlighted the value of bottom up approach to instigating change and empowering staff though development funds to become change agents.

3.5 Future Impact

Future impact with open educational practices will be informed through the Teaching and Learning Strategy which lists engagement with OER as a KPI and provides the mechanism for identifying and tracking progress across the institution.

Awareness of OER will continue to be raised through the Digital Scholarship strand of Student as Producer, the organizing principle for teaching and learning across the university. This creates useful opportunities to feed into validation, revalidation and periodic academic review structures as well as processes supporting curriculum design. OER is an active component of the Digital Scholarship group which is aligned with the University of Lincoln Teaching Academy. A Digital Scholarship and Open Practice newsletter will be launched in Spring 2013 with OER as a core element.

OPAL, the Open Practice at Lincoln repository and OERL, the Open Educational Resource at Lincoln online support centre will offer key points of contact for staff and students with the principles and philosophy of open education. Inclusive practice with digital content will be highlighted and steps taken to introduce a minimum standard of presentation to all content deposited in the OPAL repository.

Embedding OER practice which adheres to appropriate guidelines for testing and evaluating OER, awareness of copyright issues and creative commons licensing, an agreed set of metadata or keywords for searching and a systematic review process to ensure standards of digital scholarship are maintained, might appear to challenge the freedom and openness on which OER are predicated, so a careful and considered balance will need to be found between the two positions.

An Embedding OER Practice case study will be written and submitted to a leading educational journal.

The broad cross institutional involvement of multiple project teams and outputs suggests a high likelihood that not all future impact can be identified at this point. Some of it will be local rather than institutional and staff and students will be encouraged to use new OER communication forums such as those listed above to disseminate and share their practice and successes. As interest in open educational resources and courses (MOOCs) grows within the media it is likely this will inform greater interest in OER which cannot be attributed directly to this project, but the project outcomes do mean support for engaging with the philosophy and practice of OER is already in place.

4. Conclusions

Higher Education has been transformed by the internet over the past decade. Access to information sources, and teaching and learning materials, can now be made potentially available 24/7 and the development of social media platforms has challenged the way in which people communicate and share information. Radical changes in working practices have presented challenges for many staff and students, in particular those for whom technology is not integral to their subject discipline or practice. Embedding OER at Lincoln has highlighted the range of differential working practices within online environments and been a useful reminder that individuals are

often positioned in different places on the spectrum of change from traditional face to face to virtual environments for teaching and learning. As technological competence has increased through continual seepage into lifestyles and working practices there has been a dilution of the institutional support which was provided when the first virtual learning environments were embedded into existing systems and procedures. This project has not only highlighted the complexity of behavioral change with regard to shifts to digital ways of working, it has also provided a useful snapshot of how users engage with finding, managing and evaluating large amounts of information or creating content to upload and freely share for educational purposes. It has also emphasised the importance of support for digital practices; in particular the need to create linkages between innovators and late adopters, set up communities of digital scholarship for sharing experiences and practice and have clearly resources structures for academic staff working with multimedia now that production and editing no longer requires professional studios and skills in order to produce 'good enough' content for the digital enhancement of virtual teaching and learning.

OER represents a radical departure from existing academic practice where resources are shared between tutors and students on campus and managing and maintaining a change like this takes time. OER are freely released so other people can reuse and repurpose and thereby potentially increase the value of that resource. Social media has resulted in cultural shifts in attitudes to content; it is no longer seen as fixed but part of a wider process of change and circulation, constantly renewed by the energy the work of its users brings to it but also existing outside traditional quality controls. This lack of consistency or standardisation is for some people a barrier to engagement and cited as a reason for resistance to OER. A balance needs to be found between the freedom to upload resources under creative commons licences and attention to minimum quality standards alongside inclusive practice which maximises access and use.

In large institutions like universities, change often occurs in pockets and Embedding OER Practice uncovered many examples of innovation and enthusiasm which are too often unseen. Cross university teaching and learning events like the *Sharing Practice; Open Approaches to Teaching and Learning* conference bring people together and provide showcases of OER content and stimulate interest in the affordances of educational technology and its potential for digital enhancement. Change agency needs networks which reach out and encourage engagement with new ways of working. Without continual support and opportunities for reward and incentivisation, there is a risk change becomes ghettoised, involving the same group of proactive people. This inevitably increases the divides between the innovators and those with less appetite for change or with workloads which preclude the time needed to adopt the challenge of new ways of working. Change does not come naturally; it threatens comfort zones and self-esteem making it easier to return to familiar ways of working rather than do things differently. Embedding open educational practice requires a shift in attitudes towards academic openness and

sharing as well as competence working with online environments and materials. For individuals pressured by the shift to virtual learning this duality can result in resistance which is often misinterpreted and misunderstood. Enhanced support for digital scholarship and digital literacies, and the affordances of online ways of working, may initially seem like a move in a different direction to adoption of OER, but the long term effects will be to encourage more flexible attitudes towards sharing and the principles of reuse and repurposing which lie at the heart of OER practice.

The timing of the project has been fortuitous in that it drew to a close as media interest in open educational resources and courses (MOOCs) was accelerating. Public attention has recently been drawn to the affordances of freely available educational materials and these are increasingly being seen as supporting widening participation and life long learning agendas as well as providing excellent marketing, promotional and transition tools, offering tasters of full and part time courses already available. The broadening of the MOOC portfolio and greater investment into MOOC platforms is currently raising voices of concern. While it is becoming accepted that OER cannot replace the university, and access to content is no substitute for active discussion and debate with tutors and peers, so it is being suggested that free access to OER has the potential to create new divides between those able to afford an on campus education and those who cannot. It is too early to predict the full effect of open education but the openness of internet structures and the prevalence of OER are unlikely to decrease in the near future making this project both timely and relevant. It has offered valuable opportunities to inform and engage teaching and learning at Lincoln with research into the advantages and disadvantages of OER, and the digital enhancement of teaching and learning, as well as contributing to ongoing dialogues on how best change can be supported in the ever changing landscape of higher education in a digital society.

5. Recommendations

Embedding OER Practice has offered valuable opportunities to work with staff and students across the university in exploring and extending innovative approaches to teaching and learning online. Following twelve months of project activity the following recommendations are made.

- Increased recognition that open educational practices involve individual digital literacies and embedding OER practice across institutions cannot happen in isolation from campus wide support for the digital enhancement of teaching and learning.
- Central resources allocated for scaffolding the development of digital scholarship and challenging resistance to digital ways of working. Support for enhancing digital scholarship works effectively when designed and delivered

by staff with experience of resistance to change and knowledge of best practice in supporting digital literacies.

Fostering a climate which encourages engagement with OER through the creation of central and local spaces for discussion and support.

Recognising there is no 'one size fits all' model for adopting OER so whilst scaffolding for digital scholarship and OER practice will work best managed centrally, maximum effect will be achieved through additional dissemination at local level.

Embedding digital scholarship champions within departments to ensure open educational practices are recognized as essential digital literacies within subject discipline.

Support the development of content creation to be licensed as OER. Not all institutions have content development teams and where a DIY approach is adopted to the design and delivery of online teaching and learning materials, it will be worth ensuring networks support audio and video capture and editing software for staff to access and incorporate into their personal digital toolbox.

Support staff awareness of copyright, granularity, intellectual property, creative commons licensing, appropriate metadata to ensure correct license choice and maximise search success.

Establish regular newsletters for digital scholarship including OER news and support or investigate slots in existing communication methods such as the Staff Magazine.

Link evidence of digital scholarship and changes in open academic practice with reward and recognition; for example:

- ensuring open practices are recognized through appraisal processes and CPD,
- supporting both internal professional accreditation processes and formalizing OER engagement within their criteria e.g. the UL PSF,
- supporting application to external accreditation through the HEA and the Professional standards Framework or Learning Technology certification through the Association for Learning Technology (CMALT),
- time release for staff engaging with the UL Teacher Education Programme,
- encouraging central and departmental small grant funds for educational development activities with an OER focus.

Build open practice and digital scholarship into quality assurance processes for example validation, revalidation and periodic academic review.

Include open practices within induction for new staff for example raise awareness of institutional support already available through OPAL and OERL.

Support the consideration of OER at the beginning of curriculum or activity design not at the end in the same way inclusive practice is encouraged to be built in from the start rather than a bolt on or afterthought.

6. Implications for the future

Engagement with OER should be seen as part of much broader engagement with digital lifestyles, practices and ways of working. It is not enough to assume staff have prerequisite digital confidence and competence to engage with OER practices. Instead OER should be seen as a way to reinvigorate staff development and teacher education with appropriate and timely support and resourcing of digital literacies and digital scholarship essential for teaching and learning in a digital age.

Digital literacies are as critical to higher education as traditional literacy and numeracy have always been but are more complex. As well as competence with hardware and software, there are multiple issues around appropriate use, presentation of virtual identities, online safety and protection of data. OER offers a mechanism for engaging with digital scholarship but this must be eclectic and involve professional digital practices and those digital graduate attributes most appropriate for an evolving digital culture.

OER have the potential to suit a diverse range of users but unless attention is paid to inclusive practice digital content can deny access rather than support it. OER is a timely opportunity to revisit accessibility of online resources and prioritise equality through ensuring multiple formats and equivalent learning experiences. Ideally this should be part of a minimum set of standards applicable to all content uploaded for teaching and learning purposes and maximise opportunities for inclusion.

The philosophy of open education is as important as the practice. Unless staff are given time and space to make the paradigm shift towards openness and sharing they are less likely to adopt the change in practice OER requires. OER is currently providing the sector with ideal opportunities to ensure the university of the 21st century has the essential landscape and curricula for a digital age.

7. References

All materials referred to have been made available electronically (See Section 3.1 Outputs and Outcomes).

While not directly referenced within this document the following publications have been valuable sources of information throughout the project.

JISC

JORUM repository blog <http://www.jorum.ac.uk/blog>

JISC Infokit Open Educational Resources

<https://openeducationalresources.pbworks.com/w/page/24836480/Home>

JISC Infokit: Guide to setting up and running digital repositories

<http://www.jiscinfonet.ac.uk/infokits/repositories/index.html>

JISC Guide to Project Management

<http://www.jisc.ac.uk/fundingopportunities/projectmanagement.aspx>

JISC guide to writing a project plan

<http://www.jisc.ac.uk/fundingopportunities/projectmanagement/planning.aspx>

Transforming Curriculum Delivery Through Technology; Stories of Challenge, Benefit and Change

http://www.jisc.ac.uk/media/documents/programmes/curriculumdelivery/Transforming%20curriculum%20delivery_accessible2.pdf

In Their Own Words: exploring the learner's perspective on eLearning

<http://www.jisc.ac.uk/media/documents/programmes/elearningpedagogy/iowfinal.pdf>

Higher Education in a Web 2.0 World

<http://www.jisc.ac.uk/media/documents/publications/heweb20rptv1.pdf>

Web 2.0 for Content for Learning and Teaching in Higher Education [http://ie-](http://ie-repository.jisc.ac.uk/148/1/web2-content-learning-and-teaching.pdf)

[repository.jisc.ac.uk/148/1/web2-content-learning-and-teaching.pdf](http://ie-repository.jisc.ac.uk/148/1/web2-content-learning-and-teaching.pdf)

Other

Outram, S. (2005) *53 Interesting Ways in which Colleagues Resist Change Part One*.

HEA Discussion Paper

http://www.heacademy.ac.uk/assets/York/documents/resources/resourcedatabase/id554_complex_change_in_heis_paper6.doc

Outram, S. (2005) *53 Ways of Managing Resistance to Change Part Two*. HEA

Discussion Paper <http://www.heacademy.ac.uk/assets/York/documents/>

Yuan, L., MacNeill, S. and Kraan, W. (2008) Open Educational Resources – Opportunities and Challenges for Higher Education. JISC-CETIS

http://wiki.cetis.ac.uk/images/6/6d/OER_Briefing_Paper_CETIS_without_recommendations_with_cover_page.pdf

Yuan, L., MacNeill, S. and Kraan, W. (2008) *Open Educational Resources - Opportunities and Challenges for Higher Education*. JISC
CETIS http://wiki.cetis.ac.uk/images/0/0b/OER_Briefing_Paper.pdf

8. Appendices (optional)

All materials referred to have been made available electronically (See Section 3.1 Outputs and Outcomes).