Implementing the OERu
Report for the Period 1 January 2015 to 30 June 2015

Post-secondary Network to Develop Pathways to Academic Credit Using OER
Grant Reference: #2013-8739

1. Executive summary

The design and implementation of the OER universitas (OERu) is characterised by methodical and rigorous planning. As an open collaboration, a distinguishing feature of the OERu partnership is that all planning is conducted transparently in WikiEducator and the network has adopted an incremental approach to remain agile and responsive to the dynamic changes in the evolving landscape of open online courses. Since the inception of the OERu, all partner meetings are streamed live on the Internet with opportunities for remote participants to engage and contribute to the planning of the OERu.

The implementation of the OERu has been structured according to three distinct phases:

1. *Prototyping (2012 – 2013)*: At the 1st Meeting of Founding OERu Anchor Partners hosted at Otago Polytechnic in November 2011, the network agreed to develop three prototype courses to inform planning and decision-making in preparation for the launch meeting at Thompson Rivers University in October and November 2013.
2. *Consolidation (2014 - 2017)*: During this phase, the OERu partners are focusing on the development of the OERu Programme of Study leading to a Bachelor of General Studies. During this phase the network will focus on assembling courses for a coherent programme of study leading to a Bachelor of General Studies and a few additional programmes. The consolidation phase includes the parallel development of support processes and technology infrastructure to ensure successful implementation of the OERu.
3. *Scalable implementation (2018 –)*: During this phase, the OERu aims to achieve a fiscally self-sustaining network without reliance on 3rd party donor funding to scale the OERu programme of study. A key focus is to nurture the development ecosystems to support the mainstream integration of open education approaches at partner institutions.

The reporting period covers the six months from 1 January 2015 to 30 June 2015 corresponding with the 2nd year of the OERu's consolidation phase. Key achievements during the reporting period include:

1. Implementing the first call for OERu Institutional Action Plans (IAPs) from OERu partners contributing to an increase in the number of OERu course nominations for development.
2. Inaugural offering of the Digital Skills for Collaborative OER Development (DS4OER) open online course.
3. Administration of the OERu open source software survey which confirmed interest from 4 partners to establish a shared open source technologist position.
4. Successful recruitment of a new Open Source Technologist position with $68,0000 (i.e. 80% of the cost contributed by partners through a "matched-funding" project.)
5. Significant improvements in technology solutions for hosting OERu open courses.
6. Open consultation on the OERu credit transfer and course articulation guidelines.
7. Development of an open business model for the OER Foundation.
8. Design of the survey instrument for the OERu input evaluation.
9. Significant increasing in the outputs of Creative Commons Aotearoa New Zealand, the national affiliate hosted by the OER Foundation (OERF).

The incremental design and rigour of the OERu planning is succeeding in establishing solid foundations for a successful international collaboration to achieve more affordable education futures with pathways for learners to gain credible credentials using open education approaches.

2. Report narrative

The report narrative documents the key areas of focus and activity during the six-month period of review. Where appropriate, design decisions are supported from data derived from the input evaluation survey administered after the reporting period.

2.1 Improving open OERu technology infrastructure

As indicated in our previous report, the technology platform requirements for collaborative peer-production in a distributed OERu model combined with the ability to host free courses which can be reused at partner institutions and delivered using their own preferred technologies provides a number of unique challenges. These OERu design requirements have been corroborated by the recent input evaluation survey. Partners have ranked the OERu technology requirements for the future in order of priority as follows:

1. The ability to reuse and integrate OERu online course resources for reuse in the local learning management system (LMS)
2. Building knowledge and skills in open source development approaches
3. A collaborative authoring environment with version control for cooperative developments within the network.

While sufficient capacity for improving open source technology infrastructure for distributed development at the OERu has historically been a barrier slowing the rate of progress, we have succeeded in improving our open technology infrastructure and successfully increasing open source capacity at the OER Foundation.

The OERu approach of open development using WikiEducator provides detailed version control for open design and collaborative authoring. Moreover, the wiki provides a single source for scripting outputs to integrate content within a variety of delivery platforms.

The OERF has invested considerable time and effort to improve the professional look-and-feel of published OERu content sourced from the wiki, but more importantly, has implemented responsive design frameworks for mobile devices. Access to the WikiEducator site from mobile devices has increased from an average of 17% of total site visits in 2013 to 42% during 2014 representing an increase of 147% in two years. A significant proportion of the learners the OERu aims to serve in the developing world in the future will be accessing courses using mobile devices. Consequently, we are prioritising a "mobile-first" design and development approach for OERu.

Example of DS4OER content on a mobile phone from a self-hosted WordPress site.

As a small non-governmental organisation, capacity for code development is constrained. However, the OERF was successful in securing a small grant of US$11,875 from the New Zealand National Commission for UNESCO. We invested these funds in outsourcing the development of a responsive OERu theme for WordPress – an open source content management system. We also completed the development of an open course: [Digital Skills for Collaborative OER Development](#) (DS4OER).

The DS4OER course is designed to teach educators how to develop OER materials collaboratively using a wiki. The course also teaches educators how to install and host their own WordPress sites using free-tier services available in the cloud. This "domain of one's own" solution is significant because many organisations in the developing world do not have the budget or technical infrastructure to host their own e-learning courses.

While the OERF provides free hosting services our contributing partner institutions, we do not have the resources to host course sites, for instance, for the 80,000 WikiEducator account holders. Moreover, as the DS4OER course is an open course for all educators, we do not wish to restrict the ability for educators to continue building OER course sites once they have completed their training. The OERu WordPress theme provides a creative solution to support all educators in the world who want to learn how to host their own course sites thus enabling us to scale the initiative globally. In my capacity as UNESCO-ICDE Chair in OER[1], my contribution to the UNESCO OER Chair network focuses on capability development in OER.
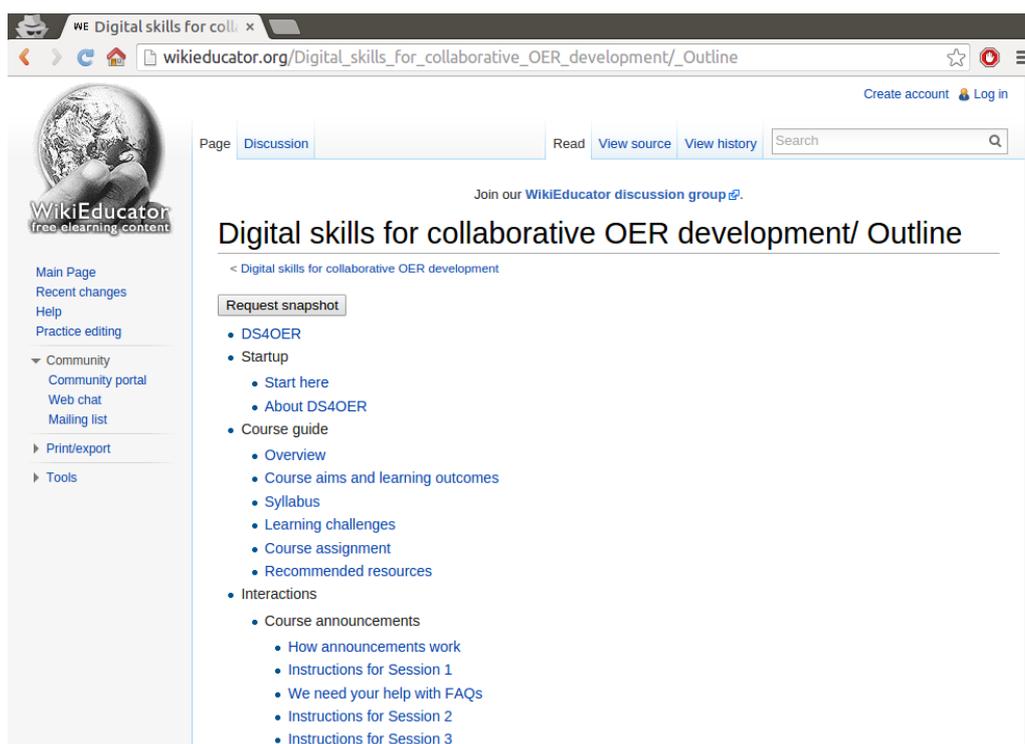
Example of outline of individual course pages in WikiEducator

In summary, the work flow for publishing an OER self-hosted course site comprises the following steps:

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1   I have resigned in my personal capacity from the COL OER Chair in objection to the agency providing commercial publishers preferential publishing rights to an academic article not withstanding an OER policy at the institution. However, as these honorary chairs are institutional, Otago Polytechnic has nominated Dr Day as an alternate chair holder.

1. Establish a course planning page in the wiki summarising the design concept, team members and development schedule. This information is useful for potential collaborators.
2. Build a course outline of individual pages for the course site. Essentially this is a bullet list of all the wiki pages required for the course.
3. Install a WordPress instance using one of the free-tier services in the cloud. (The prototype course directed learners to the OpenShift cloud service provided by Red Hat. We were able to generate an OERu WordPress image for automatic installation on OpenShift hosted on Github avoiding the step of teaching learners how to install a WordPress theme.)
4. Clicking the "Generate snapshot" button in WikiEducator which triggers a custom script to harvest the collection of pages on the outline page and apply a responsive CSS framework for hosting a course site on WordPress. The script automatically generates the site navigation, next and previous buttons etc. for the course site.

All the source code for achieving this functionality is published under an open source software license which means anyone is free to replicate and improve on our work. The advantage of using a wiki outline is that reusing learning sequences in different courses is as easy as copying the relevant pages for a new course outline.

The inaugural offering of the DS4OER prototype was presented from 13 April 2015 to 1 May 2015 attracting 209 course registrations. The OERF was reticent to advertise and recruit widely given the that we had not trialled a self-hosted "domain of one's own" course before. We now know that the technology works, and were planing to launch the next instance of the DS4OER course during Open Education Week 2016 and will advertise the course more widely. The pedagogy of DS4OER is designed to scale for large numbers of prospective learners.

2.2 Expanding open source capacity through community source

The 2nd Meeting of the OERu Council of Chief Executive Officers (CEOs) on 10 November 2014 recommended the implementation of matched-funding projects between the OER Foundation and OERu partners subject to surplus funds and / or funding support from donors. The OERu Strategic Plan 2015 - 2017 specified a key performance indicator to achieve a full time equivalent position for open source development capacity.

We administered an open source software survey for OERu partners during March 2015 to determine the extent member institutions are utilising open source software for enterprise technology services and to gauge interest in establishing a co-funded open source developer's position.

Our survey data underscores significant interest in open source technologies in the OERu network. All respondents reported that their respective organisations utilise open source software for components of their enterprise technology infrastructure. The majority of respondents (92%) reported using open source learning management systems, however this figure is overestimated due to the halo-effect associated with open source users who were motivated to respond to the survey. The input evaluation survey administered later in the year provides more reliable data with 70% of OERu partners reporting use of an open source learning management system on campus. A third of our partners are using Blackboard. Of interest is that 31% of OERu partners are using WordPress on campus as a content management system.
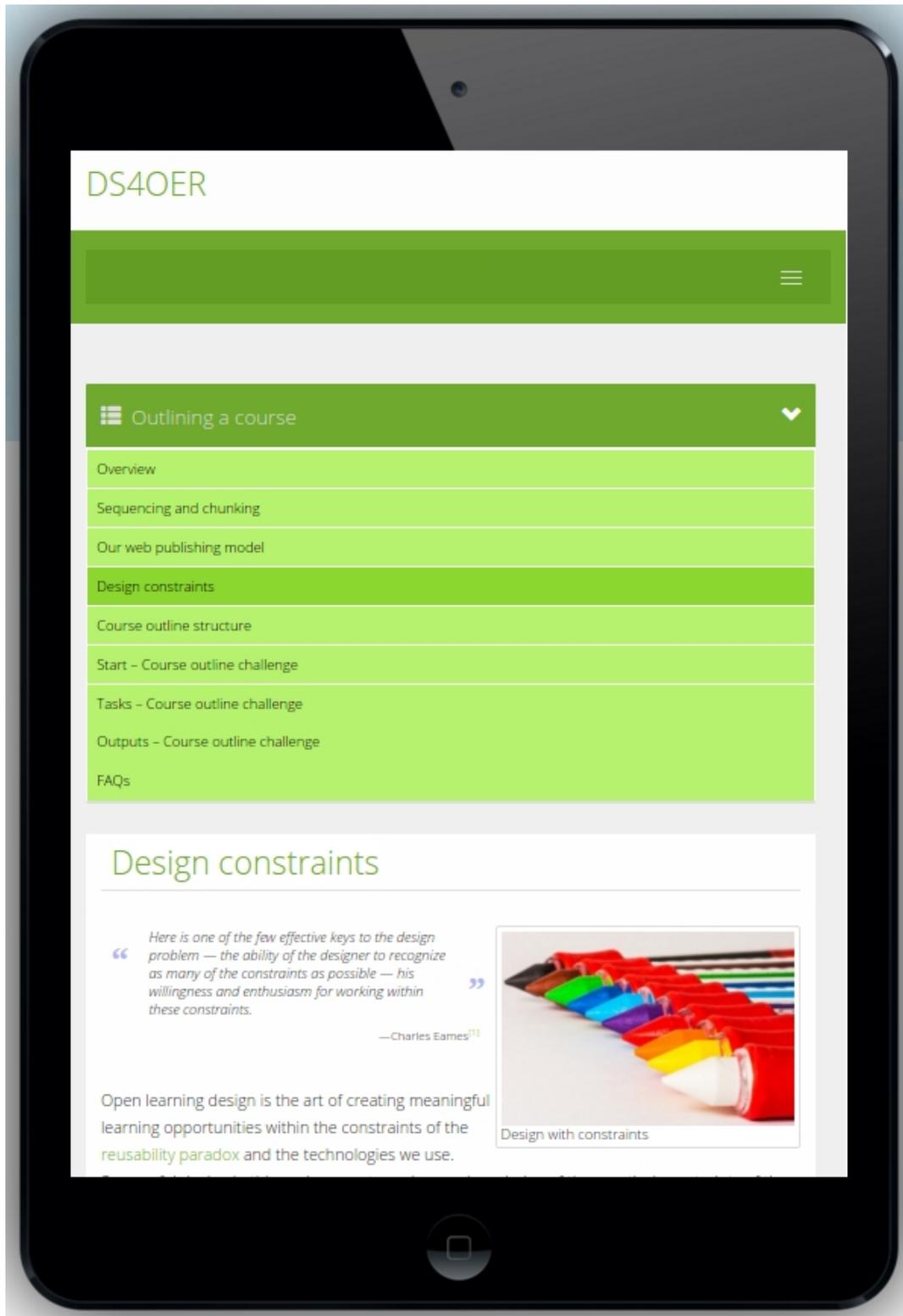
Example of DS4OER course materials authored on WikiEducator displayed on iPAD mini

More importantly, the survey identified four partners willing to contribute to a shared open source technologist position to progress the matched funding proposal endorsed by the OERu Council of CEOs. During February 2015 we had received verbal confirmation from Hewlett at the annual grantees meeting of a strong probability for continuation of the OERF grant subject to final

approvals. This provided sufficient security for the OERF to progress with the recruitment of a new open source technologist position as a matched-funding project. The OERF has committed an additional $20,000 per annum from core budget, initially for a 2-year fixed term. This investment has been matched by an additional $68,000 in shared contributions towards the costs of this role. One partner has indicated that they were only able to commit to the matched-funding project for the 1st year, subject to renewal depending on the availability of local budget. Nonetheless, the matched funding model has more than doubled the OERF contribution to this shared position made possible through the continuation of the Hewlett grant.

 It is interesting to note that the input evaluation has ranked providing exposure to 'best-of-breed' open source collaboration and support technologies as the 4th most important reason for joining the OERu network. This matched funding position approach has significantly improved return on the philanthropic investment dollar.

Following the recruitment process, we have successfully engaged the services of Dave Lane who has more than 20 years experience in open source software. He is also the current President of the New Zealand Open Source Society. We have initially established the role as a 2-year fixed term position as we do not have certainty as to whether partners will continue contributing to the role. However, the OERF recognises the importance of establishing this role as a permanent position and will aim to recruit more OERu partners to minimise the risks associated with partners withdrawing their commitment to fund this position.

2.3 Building the OERu programme and supporting processes for quality operations at scale

The 3rd international meeting of OERu partners convened in November 2014 proposed the introduction of annual "Institutional Action Plans" (IAPs) in which OERu partners delineate plans for allocating their 0.2FTE contribution mapped to the KPIs of the strategic plan.

The OERF administered our first call for IAPs during the first quarter of 2015. Two thirds of the partners responded by the due date. The average full-time equivalent (FTE) staff contribution towards OERu is estimated to be 0.43FTE representing a range from 0.1FTE to 0.672FTE with 50% of the respondents contributing more than 0.5FTE.

The OERu is organised into the following working groups with the conveners of each group serving on the OERu Management Committee:

- Strategic Planning
- Partner Engagement
- Curriculum and Programme of Study
- Course Approval and Quality
- Standing Committee for Credit Transfer
- Technology
- Marketing and Communications.

The OERu Management Committee meets four-times a year and the meetings are broadcast live so anyone interested in the OERu collaboration can participate.

Following the inaugural call for IAPs, the number of participants on individual working groups

increased from 31 to 79 volunteers representing an increase of 154%. The number of OERu course nominations have also increased from 31 to 52 full course equivalents. Clearly, the institution of the IAP process has increased engagement from partners in the OERu initiative.

With increased open source software capacity, the OERF has been able to improve communications. As a distributed virtual organisation, coordinating email lists with a transparent and searchable record of discussions is a challenge. We have implemented groups.oeru.org as a hosted service using the Onlinegroups.net open source system and invested many hours in establishing these groups. As an open organisation, the OERF cannot not force subscriptions and we rely on an "opt-in" model. The system has been working well. Sadly, we recently received notification that the major client of Onlinegroups.net who has been funding development will no longer be supporting the technology, so the OERF may need to find an alternative or consider hosting the technology ourselves. It is a complex system and it may not be worth our effort to host the servers ourselves. We have also established community.oeru.org based on the popular open source Discource engine. The OERF decided to host the software ourselves to gain first-hand experience because the Discourse platform, which has been intentionally designed for mobile devices, shows considerable potential for supporting communications for our OERu learners.

The Standing Committee for Credit Transfer initiated calls for feedback on the OERu Guidelines for Credit Transfer and Course Articulation in preparation for a decision to approve the guidelines at the October 2015 international meeting of partners. Virtual mobility and associated requirements for credit transfer across international boundaries is riddled with complexity. The feedback we have received to date has been positive including a few Registrars confirming that the Guidelines could be adopted without the requirement for policy changes at the respective partner institutions. (The guidelines were approved at the 2015 meeting of OERu partners in October 2015.)

At the OERu 2011.11 meeting of founding anchor partners it was agreed that the project evaluation would be guided by the Context, Input, Process and Product Evaluation (CIPP) model (see Stufflebeam 2007[2]). During the period of review, the OERu finalised the consultative design of the "Input Evaluation" phase. The survey was administered during August 2015 in preparation for the October 2015 partners meeting to assist with key design decisions for the network.

The development of open business models was defined in the original logic model and corresponding planning framework for the OERu at the original meeting proposing the OERu concept in February 2011. The need for open business models was also adopted as a role in the original terms of reference of the OERu Council of CEOs. However, the OERu had not made much progress on the development of business models. During the period of review, the OERF developed and published an Open Business Model canvas in preparation for regional OERu meetings in Oceania and North America that were hosted in August and September 2015 respectively. Paul Stacey from Creative Commons, who is leading an international project on open business models, facilitated these events leading to the development of an aggregated OERu Partner Open Business Model canvas. These business models will be distributed to senior leaders in the OERu network to demonstrate how the collaboration can sustain its activities with opportunities for new revenue streams serving new markets in addition to realising their respective community service missions.

Finally, while not specified as an outcome of this grant, the OER Foundation became the affiliate host for Creative Commons Aotearoa New Zealand on 1 July 2014 as a self-funded project. Of interest, over 150 New Zealand schools have now adopted Creative Commons licensing policies.

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2   http://oceanleadership.org/wp-content/uploads/2011/07/cippchecklist-Attch-2.pdf

3. Progress on specified grant outputs

This section provides a summary of the progress on the attainment of the project outputs measured against the key performance indicators specified in the grant proposal.

Short-term outputs	Key performance indicator	Interim milestones	Progress report
Regular meetings of OERu anchor partners	- Two international face-to-face meetings of OERu anchor partners streamed live on the Internet - Prototype an open wiki meeting for OERu anchor partners as potential model for interim meetings.	- By 31 December 2013: 2nd F-T-F meeting of OERu anchor partners. - By 30 June 2014: First open wiki meeting for OERu partners - By 30 June 2015: 3rd face-to-face meeting of OERu partners.	**Achieved** 2nd F-T-F meeting of OERu anchor partners hosted at Thompson Rivers University, Kamloops, Canada on 31 October and 1 November 2013. - Transnational Qualifications Framework and course articulation meeting hosted at Commonwealth of Learning, Vancouver, Canada on 4 November 2013. - Instituted OERu Management Committee comprising conveners of the active working groups. Two virtual meetings were convened in April and May 2014. Meetings are broadcast live using Google Hangouts on Air with documentation and minutes published in the wiki. The regular OERu Management Committee meetings have replaced the concept of open wiki meetings. 3rd F-T-F meeting of OERu anchor partners hosted at the University of Tasmania, Hobart, Australia. On 6 & 7 November 2014. 4th F-T-F meeting scheduled for 7 & 8 October 2015 at North-West University, South Africa.
Establish OERu Council of Chief Executive Officers	Terms of reference and constitution of the OERu Council of Chief Executive Officers (OCCEOs) approved at the inaugural meeting.	- By 31 December 2013 first OCCEOs meeting and approval of terms of reference - By 30 June 2015: 2nd meeting of OCCEOs	**Achieved** - OER Foundation Board of Directors established the OERu Council of Chief Executive Officers (OCCEOs) to function as an assembly of senior leaders called together for consultation on strategic OERu futures. 1st F-T-F meeting of the OCCEOs hosted at Kwantlen Polytechnic University, Vancouver, Canada on 5 November 2013 where terms of reference were approved.

			2nd F-T-F meeting of the OCCEOs hosted by the University of Wollongong, Sydney, Australia on 10 November 2014. 3rd meeting of the OCCEOs scheduled for 9 Obtober 2015 at North-West University, South Africa.
Diversify OERu delivery model to incorporate micro Open Online Courses (mOOC) with corresponding micro-credentials.	- Minimum of 3 OERu courses designed to incorporate mOOC delivery models. - Micro-credentials towards a minimum of 3 OERu courses implemented. 1 mOOC designed to to enable micro-credentialing towards OERu courses at different levels.	- By 30 June 2014: 2 OERu courses designed to incorporate mOOC delivery models. - By 30 June 2014: micro-credentials for 2 OERu courses implemented. - By 30 June 2015: 3 OERu courses designed to incorporate mOOC delivery models - By 30 June 2015: micro-credentials for 3 OERu courses implemented. (Cumulative totals)	**Exceeded targets** - Scenario Planning for Educators mOOC, originally developed by University of Canterbury as a Master's level course was approved by Academic Board at Otago Polytechnic as an elective course for the Graduate Diploma of Tertiary Education (3rd year Bachelor Degree level) resulting in a single OERu mOOC available for credentialing at two different levels. - Audit of OERu course nominations generated 31 full course equivalents with 8 courses signalled for development in micro course format (35 mOOCs). - Otago Polytechnic has piloted certification for participation as alternate credential showing potential for the professional development market in addition to certification for formal academic credit.
Prototype OERu course utilising automated assessment for formal academic credit.	1 OERu demonstrator course available for formal academic credit utilising automated assessment.	- By 31 December 2013: New elective on "Introduction to Open Education" for the Graduate Diploma at 1st year level approved by Academic Board at Otago Polytechnic. - By 30 June 2014: Open development of database for automated assessment. - By 30 June 2015: Course offered using mOOCs and automated assessment for micro-credentials towards academic credit for full course.	**Commenced – However uptake is slow** 2nd Meeting of OERu anchor partners endorsed a proposal for action to explore the collaborative development of an assessment bank for automated assessment for credit-by-exam. - Progress and uptake has been slow with partner organisations reticent to open up summative assessment banks. The concept may be premature when measured against organisational maturity on open production approaches. - Plan to adopt an approach where OERu learners develop objective items for automated assessment during the 2016 minimum viable product initiative of the OERu to seed a critical mass of assessment items for potential reuse for summative assessment.

| Capability development on OERs, copyright, creative commons licensing and digital skills for collaborative OER development for staff at OERu anchor partners and open community. | • OERF will offer 4 mOOCs on OERs and open content licensing for 1200 participants
 • OERF will offer 4 mOOCs on digital skills for collaborative OER development for 1200 participants | • By 30 June 2013: 2 mOOCs on OERs and open content licensing to 600 participants
 • By 30 June 2014: 2 mOOCs on digital skills for collaborative development of OERs to 1200 participants
 • By 30 June 2014: 4 mOOCs on OERs and open content licensing to 600 participants
 • By 30 June 2015: 4 mOOCs on digital skills for collaborative development of OERs to 1200 participants | **Partially achieved**
 • 3 Open Content Licensing for Educators courses offered in mOOC format attracting 807 registrations from +66 different countries.
 • Development of materials for mOOC on Digital Skills for Collaborative OER Development (DS4OER) completed.
 • Pilot offering of DS4OER attracting 209 registrations.
 • Secured funding from UNESCO National Commission for New Zealand to develop custom and reusable OERu WordPress theme for the DS4OER course.
 • New mOOC course on Dimensions of Openness in Education 70% complete. Aiming to identify two or more OERu partners to adopt this mOOC within credit bearing local courses. Negotiations are taking longer than reasonably anticipated. |

4. Major challenges impacting on the project

Major challenges impacting on the implementation of the OERu include:

1. Developing sufficient product for a coherent programme of study for future OERu learners.
2. Lack of experience and capability of staff at partner institutions in using open design and open development models.

4.1 Developing product for a coherent programme of study

The OERu will not be attractive to potential learners in the absence of a coherent programme of study with a critical mass of courses leading to exit credentials. This challenge is a proverbial "Catch-22" issue exacerbated by lack of capacity and experience at partner institutions in open design and assembly of OER courses intended for reuse and remix.

The following mitigation strategies have been implemented by the OERu:

1. Decision to prioritise an OERu free 1st year of study leading to an exit award as minimum viable product during 2016.
2. Generating additional funds to commission the assembly of OERu courses utilising existing open textbooks and open courses for adoption at OERu partners.

The OERF is exploring the potential of corporate sponsorship to fund the assembly of OERu courses for formal academic credit from existing open textbooks. The concept is to raise funding through corporate citizenship to outsource learning design and course assembly to contribute towards achieving a critical mass of courses for the 1st year of study in the short-term to bridge the gap between current capability in the network and the shortage of open online courses for a viable programme of study. We believe that once-off sponsorships of $15,000 per course with appropriate recognition of the sponsorships could generate the revenue to speed up product development for the network. During the 1st half of 2016 the OERF will pilot a model to outsource assembly of a small number of courses for the OERu delivery model where a partner has agreed to offer assessment services for formal academic credit.

The Hewlett capability development grant, is in part, being targeted to assist with the OERF fund development model to generate resources for commissioning the assembly of open courses to scale the rate of product development.

4.2 Lack of capability of OERu staff in open education approaches

Open design and development signals a cultural shift from sharing to *learn* to *learning* to share. Our experience to date shows that the majority of educators participating in the design and development of OERu courses have little or no experience in open design and development models. For instance, from data we collect from new WikiEducator account holders, two thirds of educators working in the formal sector have not created a wiki account prior to joining the community. This suggests that the majority of educators do not have experience in utilising social media technologies for

collaborative peer production of open courses. In addition, monitoring the upload of images in WikiEducator we know that faculty and teaching staff at most tertiary education institutions have little knowledge of the requirements of copyright or knowledge of the legal requirements of remix of openly licensed materials appropriate for the digital age. In addition, most academic staff are not familiar with designing open online courses for reuse.

The OERu is adopting a learn-by-doing approach to build capability among OERu partners in using open design and development models. We have adopted the following mitigation strategies:

1. Annual offerings of the [Digital Skills for OER Collaborative Development](#) course. This course will also be available for formal academic credit through the OERu. We are targeting the next instance of this course to coincide with Open Education Week 2016.
2. Continue work of the *Partner Engagement* working group which reports to through the OERu Management Committee. This working group focuses on developing support resources and strategies for effective engagement of OERu partner institutions. We are planning to launch an induction course to help new partners gain experience and confidence with open design models.
3. The OERu Council of Chief Executive Officers has approved implementation of matched-funding projects between the OERF and OERu partner institutions. As the revenue base of the OERF increases, we are keen to establish a dedicated position using a matched-funding model to assist with managing partner relationships, programme development and corresponding capability development of OERu partner staff.

5. Lessons learned from the implementation of the OERu

In summary, the success of the OERu collaboration to date has been supported by the following guiding principles:

1. *Responding to a compelling vision which is well aligned to the core values of the contributing institutions.* The vision of providing free learning opportunities for all students worldwide with pathways to achieving affordable degrees, especially for learners who are excluded from the privilege of a tertiary education is a compelling and worthy vision. This is well aligned with the community service missions of the contributing partner institutions.
2. *Open sourcing everything.* The OERu is distinctively open using open educational resources, open educational practices, open licensing, open source software and open planning models. Apart from significant cost savings in providing central technology infrastructure, open and transparent planning builds trust for existing and prospective partner institutions. All partners can monitor developments in real time and participate in all aspects of the implementation of the OERu without excluding valuable volunteer contributions from individuals in the open community.
3. *Ensuring the decision-making autonomy of partner institutions.* A key principle of engagement in the OERu model is the institutional autonomy of partner institutions regarding all decisions relating to the assessment and accreditation of learning. Partner institutions will not jeopardise their institutional stature, brand or credentialing authority yet working collectively the network is able to achieve more than working alone.
4. *Generating a viable value proposition for partner institutions.* Without tangible benefits for contributing partners, there is no motivation for institutions to contribute. The OERu enables institutions to participate in an international network while responding to their community service mission. The OERu model enables partner institutions to build capability

in open and collaborative design models in online learning while generating opportunities for reducing cost. For example, partner institutions could diversify curriculum offerings for traditionally low enrolment courses which would be too expensive to produce alone, but could easily integrate an OERu course into the curriculum for full-fee students without incurring any capital course development costs.

5. *Avoiding the temptation to innovate on too many fronts simultaneously beyond the capacity of the economy and society to accept the new developments*. While the allure of innovating through technology is appealing, the higher education sector and the economy are traditionally conservative when it comes to the token value of a university degree. The OERu has restricted its primary innovation to using courses based on OER for formal academic credit, and has intentionally left the innovation, for instance, of new forms of credentials like open badges to other players the ecosystem.

6. *Minimising risk while maximising impact*. The OERu network is a low risk opportunity for partner institutions because institutional exposure is limited to the assembly of only two courses from existing OER. However, the collective network returns are significantly greater than the initial investment of individual partners because the open model facilitates reuse and remix.

7. *Guaranteeing recoupment of future operational costs of contributing partners.* The recurrent costs of providing assessment services in the OERu model are recouped on a fee for service basis thus minimising risk for contributing partners and generating opportunities for new revenue streams.

8. *Incremental design combined with rigorous strategic planning*. It is not possible to develop a detailed master plan for the medium term in a highly volatile and fast moving technology environment in higher education. Moreover, the complexities associated with the dynamics of an international network comprising institutions from six major regions of the world could not reasonably be anticipated within a rigid master plan. The OERu focuses on incremental projects which are small enough to fail but sufficiently strategic to facilitate organisational learning for the network. In this way the OERu remains agile and responsive to changing needs.

9. *Designing for sustainability from inception using a low cost base*. The OER Foundation has succeeded in keeping its cost base, on average, below $200,000 per annum with only two full time staff. Scalability for course development will be supported through the 0.2 full-time equivalent (FTE) staff contribution from participating OERu partners which will not increase direct operational costs of the core operations of the OERF.

Clearly these principles are not mutually exclusive and interact with each other as a dynamic ecosystem. The OERu model is sufficiently agile and flexible to enable individual partners to pursue their own priorities without compromising the collective goal of widening access to more affordable education.

Declaration

I confirm that all expenditures under this grant have been made in compliance with the terms of the grant and the applicable provisions of the United States Internal Revenue Code (the "Code").

I certify that none of the grant funds were used to do any of the following:

- To carry on propaganda, or otherwise attempt to influence legislation (within the meaning of Code section 4945(d)(1));
- To influence the outcome of any specific public election, or to carry on, directly or indirectly, any voter registration drive (within the meaning
- of Code section 4945(d)(2));
- To make a grant to an organization or to an individual;
- To purchase capital assets with a per-item value exceeding $5,000;
- To provide material support to any person or entity that engages in violent or terrorist activities.

Wayne Mackintosh
Director
OER Foundation
13 December 2015