OERu

Open Education Resource university

Towards a logic model and
plan for action

The ideas presented in this report reflect the collective wisdom of OER thought leaders, practitioners and interested persons who have collaborated openly in developing the concept for the *OER for assessment and credit for students project* and the *OER university* concept. These ideas have been collated into a logic model framework with assistance from Robin Day (Otago Polytechnic, New Zealand), Phil Ker (Otago Polytechnic, New Zealand), Wayne Mackintosh (OER Foundation, International), Rory McGreal (Athabasca University, Canada), Paul Stacey (BCcampus, Canada) and Jim Taylor, AM. (University of Southern Queensland, Australia). The report is a derivative work of a report prepared for UNESCO/COL Chair in OER at Athabasca University in collaboration with the Open Education Resource Foundation.

As a community collaboration, this report incorporates selected extracts and adaptations from many contributors as recorded on WikiEducator (http://wikieducator.org/OERU and corresponding sub-pages). Please consult the relevant history pages in the wiki for the relevant contribution history and metadata for the images reused and adapted for this report.

Table of Contents

Executive summary

The *Open Education Resource (OER) university* initiative aims to develop a "parallel learning universe" (Taylor 2007) to augment and add value to existing post-secondary education provision by creating flexible pathways for learners using open learning materials hosted on the Internet to earn credible credentials from accredited higher education institutions. This report documents emergent trends and proposes a high-level logic model for designing a scalable and sustainable international ecosystem for the successful implementation of the OER university initiative.

Individuals are free to learn from OER and other digital learning materials hosted on the Internet. The core problem is that learners who access these digital learning materials on the web and acquire knowledge and skills either formally or informally, alone or in groups, cannot readily have their learning assessed and subsequently receive appropriate academic recognition for their efforts.

The OER university initiative proposes the establishment of an innovation partnership among like-minded institutions in the formal education sector to extend their community service and outreach missions in supporting improved access to higher education especially for those learners who lack the means or access to follow traditional learning paths. Through the community service mission of participating institutions, the initiative will open pathways for OER learners to earn formal academic credit and pay reduced fees for assessment and credentialisation.

The concept is rooted in the "examination-only" model pioneered by the external degree program of London University one hundred and fifty years ago whereby learners could have their knowledge assessed and credentialised, irrespective of where or how the learning took place (Daniel 2011a). Existing prior learning assessment and recognition (PLAR) protocols including approaches, methodologies and policy frameworks could be refined, improved and adapted for the OER university initiative. Contemporary advances in digital technologies provide opportunities for designing more scalable and cost-effective implementations of PLAR. Moreover, social-media software technologies combined with: intellectual property arrangements favouring open access learning materials; appropriate pedagogical design for digital learning environments; and a new global system for academic volunteers would enable the development of more cost-effective solutions to improve student support for independent learners who may choose this mode of study.

The report identifies five trends emerging in the OER arena which provide an enabling environment for the successful implementation of the OER university initiative:

1. *Unsatisfied global demand for post-secondary education.* The predicted global demand for higher education exceeds the capacity of the existing system to deliver; it is not economically viable to continue to build new universities.

2. *Growing inventory of open access learning materials on the Internet.* There are thousands of courses, research journals and OER available under open access licensing provisions, which could be integrated into selected courses for academic credit.

3. *The burgeoning phenomenon of institutions providing access to free-tuition learning.* A growing number of non-profit institutions and post-secondary providers are offering free-tuition courses utilising OER. However, robust and credible solutions for providing assessment and credentialisation services are lacking.

4. *The potential for shifts in the organisational cost-structures for the design, development and provision of asynchronous learning.* The marginal cost of replicating digital learning materials is near zero. Moreover, open content licensing arrangements, which provide permissions for reusing and adapting learning materials, facilitate collaborative approaches for course development where costs can be shared among partner institutions. This does not necessarily require "new" money but rather a future reallocation of existing staff time to releasing selected outputs under open content licenses.

5. *The potential for reconfiguring existing protocols for assessment and accreditation of OER learning.* Existing approaches and methodologies for PLAR combined with institutional practices for credit transfer and course articulation can be reconfigured for achieving the aims of formal credentialisation of open learning on the web.

The OER Foundation, an independent non-profit entity that provides leadership, international networking and support for educators and educational institutions to achieve their objectives through open education hosted an international planning meeting to explore the concept of an "OER university" on 23 February 2011. The meeting was also supported by an open pre- and post-meeting online seminar convened by BCcampus, Canada (see Annexure A). Streamed live on the Internet, the meeting attracted hundreds of educators, OER thought-leaders and interested persons from forty-six countries. Meeting participants reviewed a draft logic model for the OER university initiative and discussed key issues, responses and priorities.

This report presents a refined version of the logic model based on the feedback and open international consultations. The OER university project aims to provide flexible pathways to ensure that OER learners can achieve credible qualifications. Quality assurance and institutional accreditation is the foundation stone on which the project is based. Inputs for the logic model include, existing open content, open textbooks, open access journals, open courseware, OER, and open source software infrastructure. The OER logic model is designed to address the current gaps in the OER ecosystem including open business models, open curriculum, open student support, open assessment and open accreditation.

The report identifies three immediate priorities:

- Recruit a critical mass of anchor partners for the project.

- Identify the selection criteria and agree on the inaugural qualification(s) for the OER university project.

- Commence with the collaborative and transparent planning of the activities required for each initiative including milestones, budgets, key performance indicators and detailed output specifications.

The OER university concept provides a means whereby education can be more accessible, more affordable and more efficient in a sustainable way. The proposed initiative has the potential to become a flagship project in building what Brown and Adler (2008) have called an "open participatory learning ecosystem".

Introduction

The concept of *open education* encapsulates a simple but powerful idea that the world's knowledge is a public good and that the open web provides an extraordinary opportunity for everyone to share, use, and reuse knowledge. This represents a significant opportunity for universities to return to the core values of the academy, namely to share knowledge for the benefit of society.

Educators have a natural propensity to collaborate (Chow 2010). The nature of the academy requires the sharing of knowledge and building upon the ideas of others. An experienced researcher knows that a thorough literature review of existing knowledge is the natural starting point in resolving a research question. In research, universities have no issue with sharing and building on the ideas of others, yet in teaching there has been a perception that we must lock our teaching materials behind restrictive copyright regimes that minimize sharing at the expense of learning. Open Education Resources (OER) provide a unique opportunity to expand and integrate our research traditions associated with the notion of building on the ideas of others into our teaching practice. In this way universities can leverage the potential of the Internet and open education for research-led teaching and learning.

OER are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use or re-purposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, games and simulations, and any other tools, materials, or techniques used to support access to knowledge (Atkins, Brown and Hammond 2007).

Universities are one of a handful of organisations, which survived the Industrial Revolution. It is plausible that history will repeat itself in the digital age. The traditions of rational and reflective practice of the academy will contribute to building sustainable futures for the university and the institution's rightful place in society as we move forward in the OER world. Brown and Duguid (1995) have alluded to the risks that in a digital age, blind adoption of technology-mediated degrees without due understanding of the institutional character and culture of the university, could impact on the value society attributes to post-secondary credentials. Digital learning and OER, for instance, could lead to a new form of elitism where the perception associated with online degrees using OER would not command the same respect as campus-based alternatives. In this regard, the awarding of credentials by the university is an important determinant for credibility and quality because this function is dependant on the value, which a community of scholars actively engaged in research, can provide.

Universities should be actively engaged in designing appropriate futures for credible assessment in the OER world. Processes appropriate for the assessment of digital learning using OER hosted on the web need to be properly researched and implemented with the academic rigour required. Tapscott and Williams (2010) suggest that universities may be losing their grip on higher learning because changing models of pedagogy and knowledge production may necessitate changes in how we credentialise. This project provides a contribution to building what Brown and Adler (2008) have called an "open participatory learning ecosystem" – an ecosystem in which formal education institutions have an important role to play by augmenting opportunities for open learning, assessment and credentialisation within the larger learning system now possible with the Internet and OER.

Downes (2011) characterizes this as "a change of outlook from one where education is an essential service provided to all persons, to one where the role of the public provider is overwhelmingly one of support and recognition for an individual's own educational attainment. It represents an end to a centrally-defined determination of how an education can be obtained, to one that offers choices, resources and assessment."

This report summarises the changing dynamics and contexts associated with OER and proposes a framework for researching and implementing an OER university initiative as a contribution from the formal education sector in nurturing the development of an "open participatory learning ecosystem" (Brown and Adler 2008). The ideas summarised in this report provide a snapshot of the collective community contributions from OER thought leaders, practitioners and interested persons. BCcampus, Canada arranged an open online seminar from 16 February to 2 March 2011[1], discussing many of the ideas reflected in the report. A summary of the pre-meeting outputs is provided in Annexure A. The OER Foundation hosted an open international planning forum, which was streamed worldwide with funding support from UNESCO[2]. International online discussions continue to inform and refine the concept. Consequently, the ideas presented in this report reflect the collective wisdom of many individuals committed to widening access to post-secondary education worldwide. The report concludes with a list of priorities and suggestions for the way forward.

Problem statement and theory for action

Individuals are free to learn from OER and other digital learning materials hosted on the Internet. The problem is that learners who access these digital learning materials on the web and acquire knowledge and skills either formally or informally, alone or in groups, cannot readily have their learning assessed and subsequently receive appropriate academic recognition for their efforts.

Proposed solution

The knowledge, research and experience derived from the large-scale open distance learning institutions in providing assessment services at a distance, combined with refinements to existing protocols for Prior Learning Assessment and Recognition (PLAR) could open pathways for assessment and credit services for students where traditional delivery models are unable to respond to the growing need for post-secondary education worldwide.

The OER university concept is designed to provide affordable access to post-secondary education for the estimated 100 million learners in the world who are qualified for a seat in tertiary education today, but due to funding issues or lack of tertiary education provision will not be able to gain credible qualifications (Daniel 1996). The core mission of the university is to contribute to society as a community of scholars through the pursuit of education, learning and research. Many public funded post-secondary institutions incorporate the mission of community service to serve the wider interests of the communities in which they operate by sharing expertise and scholarship for the benefit of society.

Through the community service mission it is possible for an OER university initiative to open pathways for OER learners to earn formal academic credit and pay reduced fees for assessment

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1 http://scope.bccampus.ca/mod/forum/view.php?id=8738
2 http://wikieducator.org/OER_for_Assessment_and_Credit_for_Students/Meeting_Agenda_-_23_Feb_2011

and credit. By combining the potential of open access resources with the community service mission, it is plausible to create what Taylor[3] has called a "parallel universe" of post-secondary learning opportunities to complement and augment formal education provision, especially for those who lack the means to follow traditional learning paths. *Figure 1* below provides an overview of the pathway OER learners could follow towards achieving formal academic credit.

Figure 1: Concept for an OER for assessment and credit initiative (Adapted from Taylor 2007).
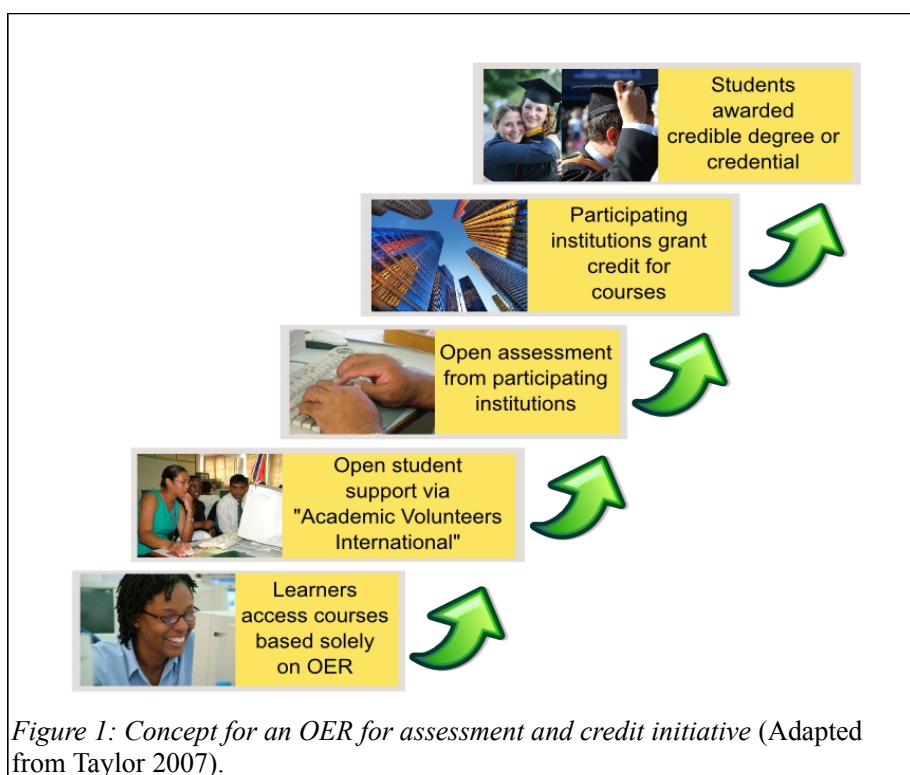
With OER, it is possible to learn globally but accredit locally. While it is possible for individual universities to provide academic credit through PLAR methodologies, the Internet provides unprecedented opportunities for universities to collaborate on the development of a sustainable and scalable OER ecosystem, whereby students can achieve credible qualifications using open access materials from around the world. In addition, the complexities of credit transfer and course articulation across geographical boundaries would necessitate a collaborative, networked solution for addressing transnational online learning and credentialisation.

The OER university concept is derived from the original etymology of "universitas magistrorum et scholarium" referring to a community of scholars. The OER university will evolve as a virtual network of credible post-secondary institutions to augment and add value to existing delivery models. As such, the project uses the lowercase "u" to refer to the OER university collaboration. Daniel (2011c) advises that the OER university should not be "an accredited institution, but rather an umbrella organization for a network of participating institutions with longstanding reputations and accreditation." The OER university will not become a formal teaching institution and will not confer degrees or qualifications. However, it will work in partnership with accredited educational institutions to provide credit for OER learning on the pathway to awarding credible credentials.

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3   Taylor, J.C. 2007. Open courseware futures: Creating a parallel universe. e-Journal of Instructional Science and Technology (e-JIST), Vol 10, No. 1. Online: http://www.ascilite.org.au/ajet/e-jist/docs/vol10_no1/papers/full_papers/taylorj.htm. Retrieved 16 January 2011.

The proposed system for the OER university project is modelled on the university equivalent of industry's co-opetition model where companies work together for selected parts of their business where they do not believe they have competitive advantage, and consequently agree to collaborate in areas where they can share common costs. Consider for example, the collaboration between Toyota, Peugeot and Citroen who share design, component parts and a jointly owned manufacturing plant to produce competing "city cars"[4]. Similarly, universities can collaborate on components of the OER ecosystem to achieve cost advantage, while retaining autonomy over core credentialing services. More than a decade ago, Gibbons (1998) highlighted the imperative for universities to form alliances and partnerships in response to the interplay among the massification of higher education, fundamental shifts in the modalities of knowledge production and technology interchange.

The imperative for collaboration and alliances has now increased as a result of the changing dynamics associated with the ownership of ideas through open content licensing in a digital age. It will become increasingly difficult for universities to forge and sustain competitive advantage in the higher education system through closed teaching resources due to emerging partnerships being formed in the OER arena, which foster collaboration.

The OER Foundation, an independent non-profit entity that provides leadership, international networking and support for educators and educational institutions to achieve their objectives through open education hosted an open planning meeting to explore the concept of an OER university on 23 February 2011. The meeting was also supported by an international pre- and post-meeting online seminar convened by BCcampus, Canada.

The meeting was streamed internationally on the Internet to allow participation from education leaders and interested persons from around the globe. The meeting attracted over two hundred registered participants from forty-six countries. The face-to-face meeting in Dunedin included attendees from, Australia, Canada, Fiji, New Zealand and Samoa including representatives from the university and polytechnic sectors, Ako Aotearoa (the New Zealand National Centre for Tertiary Teaching), the New Zealand Ministry of Education, and the Tertiary Education Commission of New Zealand. Athabasca University's Technology Enhanced Knowledge Research Institute through the COL/UNESCO Chair for OER provided valuable insights into the development and refinement of the meeting agenda. The meeting concluded with a consensus decision to move forward with the OER university concept and both Otago Polytechnic, New Zealand and the University of Southern Queensland, Australia have agreed to award academic credit for courses to be offered through the OER university network. Taylor (2011a) suggests that the OER university concept is not theoretical speculation, but is entirely viable. The OER university concept provides a means whereby education can be more accessible, more affordable and more efficient in a sustainable way.

Context

Open access technologies combined with contemporary shifts in the ownership of ideas in a digital age may change the way universities view their place in the higher education market by refocusing strategic approaches to course development and collaboration. There are five significant trends and factors, which allude to the potential for disruptive innovation (Christensen, Baumann, Ruggles & Sadtler 2006) in online learning provision whereby new services take root initially in simple applications at the bottom of a market and then eventually displace established market propositions:

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4   http://www.tpca.cz/en/

1. Unsatisfied global demand for post-secondary education;

2. Growing inventory of open access learning materials on the Internet;

3. The burgeoning phenomenon of institutions providing access to free-tuition learning;

4. The potential for shifts in the organisational cost-structures for the design, development and provision of asynchronous learning.

5. The potential for reconfiguring existing protocols for assessment and accreditation of OER learning.

Unsatisfied global demand for post-secondary education

According to UNESCO (2009), there were almost 153 million post-secondary students worldwide in 2007, a 53% increase since the year 2000 and a fivefold increase in less than 40 years. The demand for higher education is predicted to expand from 97 million students in 2000 to over 262 million students by 2025. Daniel (1996) reported that a major new university would need to be created each week to address the anticipated demand. Usher (2007) of the Educational Policy Institute predicted that the number of students in post-secondary education will more than double in the next decade. Daniel, Kanwar and Uvalić-Trumbić (2007) report that "India alone would need nearly 2400 additional universities in the next 25 years - or roughly two new universities per week".

This level of demand exceeds the capacity of the existing system to deliver and it is not economically viable to continue to build new universities. The magnitude of unsatisfied demand for post-secondary provision provides a solid economic imperative for the OER university concept.

Growing inventory of open access learning materials

There are thousands of course modules presently available online, both commercial and free from respected institutions, along with millions of websites that can be used to support a wide variety of learning outcomes. Consider the following open access examples:

- The OpenCourseWare Consortium has indexed more than four thousand high quality university level courses (Heller, 2010; OpenCourseWare Consortium: Online);
- The OpenLearn website hosted by the British Open University provides free access to over eight thousand hours of learning materials (Open University: Online)
- More than six thousand journals are listed in the Directory of Open Access Journals. (Directory of Open Access Journals: 2011).
- Flatworld Knowledge, the world's first commercial publisher of open textbooks lists over seventy four textbooks in their catalogue as of December 2010. (Wikipedia 2011: Online)
- AU Press, hosted by Athabasca University, Canada's first open access scholarly press hosts more than forty scholarly works including several textbooks, and augments access to scholarly publications (AU Press 2008: Online).

The burgeoning phenomenon of free-tuition courses

Growth in the Internet combined with social media are contributing to an increased number of free-tuition courses being offered online.

Presently, more than four billion people have reasonable access to the Internet. More than 1.3 billion do so using mobile devices like cell phones, tablets, ebooks and notebooks (Chapman, 2010; International Telecommunications Union, 2010). Corresponding with increased access to the Internet, post-secondary institutions need to consider the impact of social media technologies. Social media encompasses a range of contemporary web-based technologies that facilitate scalable and interactive communication around the creation and exchange of user-generated content. Half of the top-ten most visited websites of the world are social media websites (e.g. Facebook, Youtube, Blogger, Wikipedia, Twitter) and it is estimated that social media accounts for twenty two percent of all time spent online in the United States of America (Nielson 2010: Online).

Consider the following examples of courses offered at no-cost to the learner:

- The FlexiLearn website at Indira Gandhi National Open University provides free and open access to a wide number of degree course materials at the University, and the government is sponsoring tuition services (IGNOU 2009).
- The London School of Business and Finance provides free access to an online MBA course with accreditation options provided by the University of Wales (London School of Business and Finance 2010);
- The OpenLearn initiative of the British Open University reports that over ten thousand students accessing free courses have converted to full enrolled students (McAndrew and Lane 2010).
- Otago Polytechnic in New Zealand have adopted a default Creative Commons Attribution intellectual property policy thus facilitating the potential shift to free access to all courses offered by the institution (WikiEducator: 2011).
- The Massive Open Online Courses (MOOCs) (See for example: Fini 2009; Parry 2010), which utilise the open web and social media to offer courses to large student cohorts comprising both for-credit and free non-credit students in the same course, frequently registering more than 1,000 learners.
- The University of the People is a non-profit institution headquartered in Pasadena, California, which provides universal access to free-tuition courses having accepted students from 110 different countries. At present the University is not an accredited institution but is preparing to apply for accreditation in the US (University of the People 2011).
- The Saylor Foundation, launched by Michael Saylor, an American entrepreneur with a pledge of $100 million, is building a free university (CNN.com 2000). Currently the university does not have accreditation.

The potential for shifts in the cost-structures for the design, development and provision of asynchronous learning

There are two fundamental changes in the potential cost-structures afforded by digital technologies and open content licensing:

- The marginal cost of replicating digital knowledge is near zero. Therefore, with open content licensing there are significant opportunities to reduce the costs associated with reproducing and maintaining online courses.

- Through networked collaboration, the design and development costs for producing high quality OER can be shared among multiple institutions while retaining the freedom to brand course materials and adapt for local contexts.

The potential for reconfiguring existing protocols for accreditation of OER learning

Providing assessment at a distance and corresponding mechanisms for assessing prior learning are not new phenomena. This experience provides a solid foundation for refining and adapting these approaches for the OER university project.

Research and experience from technology-mediated learning in higher education, most notably that derived from the provision of open distance learning, will enable institutions to design appropriate and scalable solutions for formative and summative assessment at a distance for OER learners.

While the disaggregation of teaching services from credentialing services may not be common practice at most universities, this has been done successfully in the past. One hundred and fifty years ago, London University commenced with its external degree programme "on the radical principle that it didn't care how you acquired the knowledge provided you could pass the exam" (Daniel 2011a). So for example, London University proctored its first international examinations at a distance in 1865. The London University external degree programme has produced five Nobel laureates (Daniel 2011a).

Prior learning assessment and recognition (PLAR) potentially provides opportunities for the transfer of approaches, methodologies and policy protocols (assessment and credentialising policies, etc.) for the OER university project. PLAR is a recognised process used by many post-secondary institutions to evaluate learning outside the classroom for non-traditional learners (those who study independently usually not for credit) to gain academic credit (Bowman, Clayton, Bateman, Knight, Thomson, Hargreaves, Blom, and Enders 2003; CLFDB 1999; Zucker, Johnson, Flint and CAEL 1998).

There are, however, unresolved challenges. PLAR methodologies are presently very labour intensive and unlikely to scale well for large numbers of learners. Approaches and models for national assessment and accreditation vary considerably around the world (COL & SAQA 2008: 7). In a digitally connected world, the harmonisation of qualification articulation across legal boundaries could contribute to significant savings and reductions in duplication of effort. Consequently, there is growing interest in the area of standardisation and articulation of qualification frameworks among international agencies (COL & SAQA 2008: 7). The pioneering work led under the auspices of the Commonwealth of Learning to develop a Transnational Qualifications Framework for the Virtual University for Small States of the Commonwealth provides useful insights into resolving these issues (COL & SAQA 2008).

A logic model for an OER university project

Project aims

The OER university project will:

- enable accredited educational institutions to provide assessment and credit pathways for formal academic credit at reduced student fees, which will lead to recognised credentials.

- through a network of participating universities identify courses and programs based entirely on digital resources including OER, licensed under free cultural works approved open content licenses made available for credentialisation under the project.

Introducing a logic model for the OER university project

The ultimate outcome of the OER university project is to provide flexible pathways to ensure that OER learners can achieve credible qualifications. Quality assurance and institutional accreditation is the foundation stone on which the project is based.
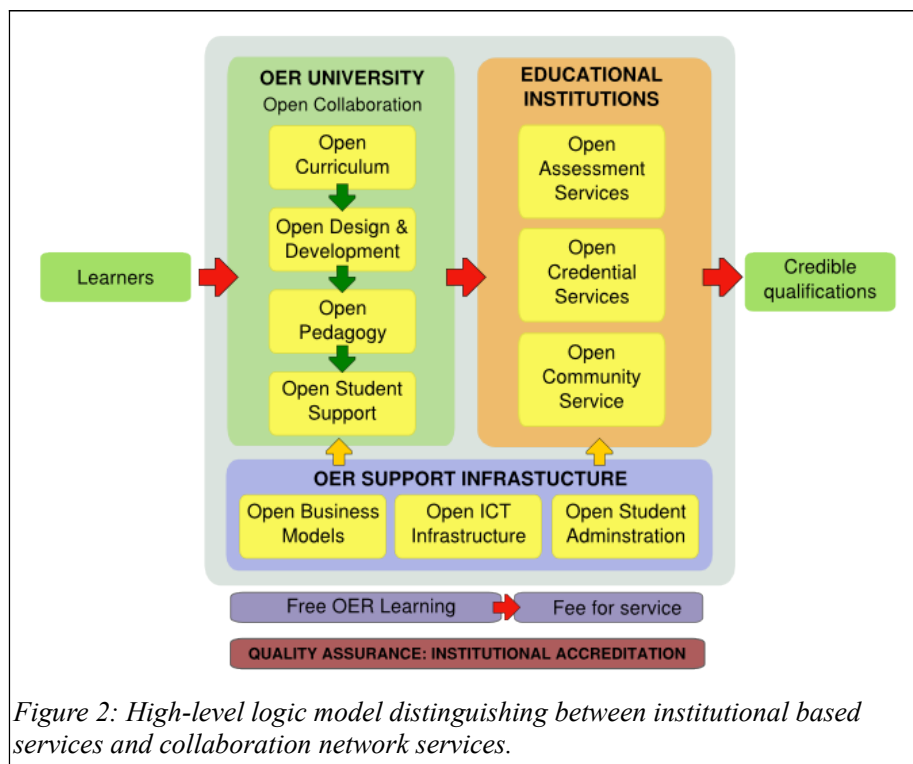
The OER university project is designed to create a "parallel learning universe" (Taylor 2007) to augment and add value to traditional models of delivery through open collaboration networks. Taylor (2011b) argues that conventional supply of education using traditional delivery methods will not the meet the demands for access to higher education, requiring for example, the doubling of provision for post-secondary students over the next decade. The OER university project could provide a stairway to credible credentials based solely on OER and the logic model provides a framework for designing the project.

Inputs for the logic model include, existing open content, open textbooks, open access journals, open courseware, OER, and open source software infrastructure. The OER logic model is designed to address the current gaps in the OER ecosystem including open curriculum, open student support, open assessment and open accreditation.

The logic model distinguishes among three broad categories of initiatives (i.e. core components) required to achieve the OER university project.

1. **OER university network**: covers those activities where cross-institutional collaboration is more effective than institution-based service provision.

2. **Educational institution services**: refer to the fee-for-service initiatives that will be provided by participating post-secondary institutions on a cost-recovery basis.

3. **OER support infrastructure**: incorporates the cross-cutting infrastructure needed to support a scalable network for the OER university project.

Each category comprises a number of initiatives represented by the yellow blocks in Figure 2 below.

Figure 2: High-level logic model distinguishing between institutional based services and collaboration network services.

The individual initiatives are described in more detail in following subsection.

A logic model for planning program results

The logic model is directed by the intended impact of the OER university project, namely to increase open learning opportunities for all students worldwide using OER with flexible pathways to gain formal academic credit. The project is designed primarily to provide more affordable access to post-secondary education for learners who don't have access to tertiary education.

Figure 3: Supporting a parallel OER learning universe
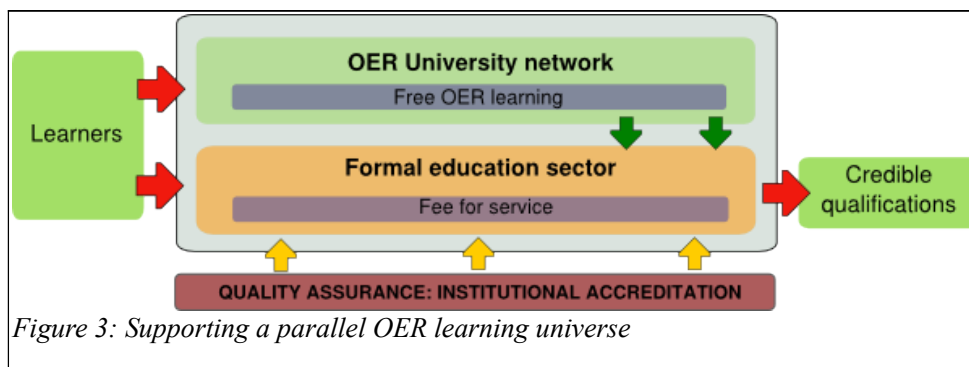
Learners may choose to enrol at formal education institutions in the traditional way or students may choose to learn from OER freely available on the Internet (see Figure 3 above). The OER university project aims to design and implement appropriate solutions by establishing a

collaborative network whereby assessment and credentialing services can be provided by participating institutions on a cost-recovery basis or funded through scholarships or grants from their respective Ministries of Education or other sources.

The project aims to facilitate pathways for OER learners to gain credible credentials from participating institutions that are formally accredited and officially recognised in their national jurisdictions. Quality assurance and institutional accreditation is the foundation stone on which this parallel learning universe is based. The OER university project must ensure equivalence and parity of esteem for qualifications gained through the OER network. OER resources and systems used to support the project will be available for reuse and re-purposing in the formal sector thus contributing to improved efficiencies and greater return on investment for participating institutions.

The outputs of the OER university project will also add value to existing tertiary education systems worldwide.

Intended impact

The overall aim of the OER university project is to:

- develop and implement a sustainable and scalable ecosystem which can support open access learning opportunities for all students worldwide using OER.

- provide pathways for OER learners to obtain credible certification and qualifications from accredited institutions within national education systems.

In order to achieve the overall impact of the OER university project, the logic model illustrated in *Figure 4* below is structured according to the required inputs for key initiatives aimed at achieving a number of project outputs on the pathway to achieving the stated outcomes.
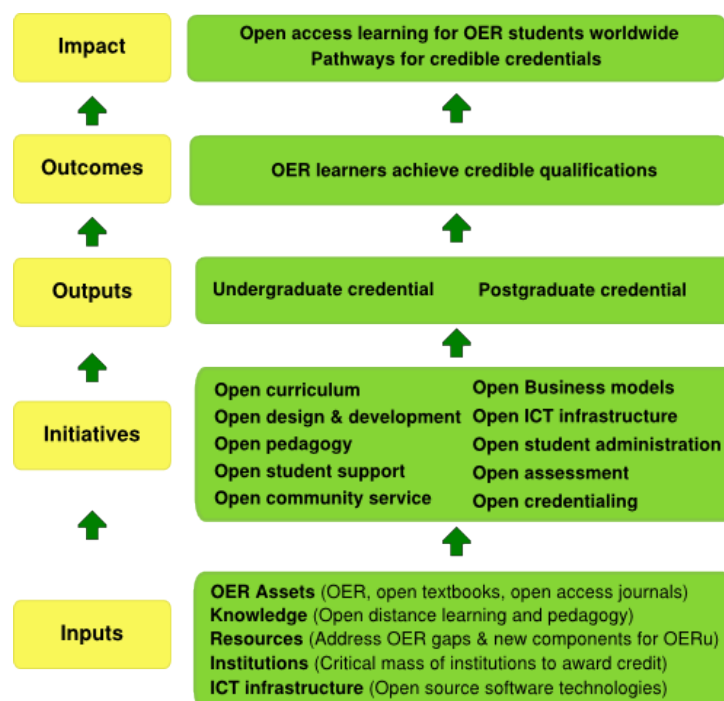

Figure 4: High-level logic model for the OER university project

Inputs

A number of important building blocks already exist for input into the OER university project:

- **OER assets**: There is a rapidly growing inventory of existing international educational resources, which can be integrated into the open pedagogy model envisaged by the project. These include: open access content, open access journals, open textbooks, and open applications.

- **Existing expertise**: There is a wealth of transferable experience from distance education and open distance learning to support the design and development of the project. In addition, participants in the free software movement have gained extensive experience in open models and approaches to building sustainable open systems. As an OER initiative, the project would be committed to transparent and open planning thus enabling wide participation by OER thought leaders and practitioners from around the world.

- **Financial resources**: Financial resources including contributions in time from participating institutions and external donor funding for strategic elements will be needed to address gaps in available OERs and the design of new components for the OER for student assessment and credit project systems.

- **Participating institutions**: The project will require a critical mass of participating institutions for awarding formal academic credit for OER university courses. Otago Polytechnic, New Zealand and the University of Southern Queensland, Australia have confirmed their participation to award credit for OER learners and Athabasca University in Canada has established formal PLAR and challenge examination processes. As an open project, all post-secondary institutions that care about sharing knowledge as a core value of education will be encouraged to contribute to the project as anchor partners in the planning and implementation of more sustainable education futures.

- **ICT infrastructure**: Reliable and scalable open source software systems exist for implementing the OER networked collaboration.

Initiatives

To facilitate planning and coordination across national boundaries, the project is sub-divided into a distinct initiatives. Each initiative will include a number of activities (with corresponding inputs, outputs, milestones, key performance indicators and outcomes) ultimately contributing to the implementation of the OER university project.

The logic model aims to be sufficiently robust to accommodate the requirements for credible certification within the formal education sector so learners and society will have confidence in the qualifications, but also be flexible enough to leverage the potential OER offers for re-use and re-purposing for local learning contexts. Conceptually, the key initiatives of the logic model are grouped into three main categories with corresponding strategies for achieving financial sustainability of the OER ecosystem.

OER networked collaboration	The grouping of initiatives where collaboration is a prerequisite for scalable and cost-effective implementation. • These services are provided and funded through networked collaboration among a consortium of participating post-secondary institutions.
Educational institution services	The grouping of initiatives, which are provided by registered education institutions in the formal education sector. • Funded on fee-for-service (cost-recovery basis) and/or subsidised by government grants.
OER support infrastructure	Refers to the support infrastructure including open source software ICT infrastructure and sustainable business models. • Institution specific services services are provided on a cost-recovery basis; and • Shared infrastructure services are funded through OER consortium collaboration.

The initiatives for each category are summarized in the following table:

OER NETWORKED COLLABORATION	
Open curriculum[5]	• Curriculum is based solely on OER. • Select courses from the "smorgasbord" of existing open resources and fill gaps where no OER exist. • Prioritise credentials which will be accredited, by participating institutions including the processes for learners to configure open learning programs.
Open design and development[6]	• Recognise the unique requirements of independent study and asynchronous learning systems. • Design and implement dynamic processes for collaborative development of an open pedagogy which will scale for large numbers of OER learners.
Open pedagogy[7]	• Incorporate learning literacies for a digital age. • Teaching focused on the pedagogy of discovery.
Open student support[8]	• Provide student support through "Academic Volunteers International". • Incorporate tutor support from academics and retired scholars as well as senior students who gain formal credit through community service leaning courses and initiatives.

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5 Critical path priority. OER university selects the first credential(s) to be offered.
6 Solid experiential base on the team approach for design of ODL. However, new design approaches needed for cross-institutional collaboration and the dynamic web.
7 Solid scholarship on digital literacies and early prototypes levearging the pedagogy of discovery and social media.
8 Prior experience of volunteer services in other domains are transferable. Scalable design for "Academic Volunteers International" needed plus integration of community service learning credits for student support.

EDUCATIONAL INSTITUTION SERVICES	
Open assessment services[9]	• Formative and summative assessment services provided by participating institutions utilising assessment processes equivalent to those for mainstream students to ensure parity for credible OER credentials.
Open credential services[10]	• Solutions for appropriate OER equivalents of PLAR and credit transfer among participating institutions. • Mapping of credentials through "international qualification frameworks" • Award academic credit for open scholarship through existing local accreditation systems.
Open community service[11]	• Harness institutional community service models in support of their mission and potential contribution to the OER university project.
OER SUPPORT INFRASTRUCTURE	
Open business models[12]	• Develop scalable and sustainable models for supporting the OER university project including the co-ordination of volunteer services supporting planning and development.
Open technology infrastructure[13]	• Open source software solutions to support the OER university project.
Open student administration[14]	• Solutions to support the administration requirements of the OER for assessment and credit of students project.

Activities for each initiative

Each of the initiatives will require a number of activities to achieve the envisaged outputs within the logic model. So for example, the *Open design and development* initiative will require staff, who have the capability and skills for the collaborative development of OER with knowledge of Creative Commons licensing. The Learning4Content project and the Open Content Licensing for Educators courses are examples of existing activities of the OER Foundation that will contribute to the achievement of the outputs of a particular initiative. Determining and selecting the first qualifications for the OER university is an example of an activity required for the *Open Curriculum* initiative.

The logic model is designed to provide a framework for international networking and collaboration where different institutions and individuals can take responsibility for leading the successful completion of the range of activities necessary for the attainment of the aims and objectives of an OER university project.

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9 Solid experiential base for scalable assessment in ODL. Opportunities for networked open assessment exist.

10 Protocols for prior learning assessment can be refined. Build on ground-breaking work of Transnational Qualifications Framework for VUSSC pioneered by COL. Map course articulation within existing organisational frameworks.

11 New ground. Requires reallocation of existing resources -- not new money to achieve greater ROI of community service budget.

12 Strategic priority to ensure institutions can cover the cost of engagement in OERu. Will also research of new national funding models based on funding academic services.

13 Well advanced. Open source software solutions exist to cover the spectrum of ICT infrastructure required. Seamless OER content interoperability requires attention.

14 Can piggyback existing institutional systems, but significant opportunities to streamline and enhance capabilities through collaboration.

From logic model to plan for action

Sir John Daniel (2011b: Online) confirms that the OER university concept has the potential to reduce the cost of higher education dramatically, suggests that the "examination-only" concept looks very modern in the world of digital OER and commends anchor partners for engaging in the movement as part of its community service mission. Taylor (2011c: Online) points out that the concept is "very sound but implementing it would take institutional commitment".

The project has identified the following priorities and suggestions for the way forward:

- *Recruit a critical mass of anchor partners for the project.* The OER Foundation, Otago Polytechnic, Athabasca University, and the University of Southern Queensland aim to identify an anchor partner from each major region of the world.

- *Identify the selection criteria and select the inaugural qualifications for the OER university project.* Anchor partners will collaboratively determine the criteria for deciding on the first credentials to be offered under the *open curriculum* initiative.

- *Commence with collaborative and transparent planning of the activities required for each initiative.* The project will identify champions for convening the development of the various activities under each initiative. UNESCO has confirmed that they will host the planning discussions for the project on their new OER community platform. This phase will require detailed planning of the respective activities including inputs, budgets, milestones, key performance indicators and outputs required to achieve the aims of the project. Planning will be conducted openly and transparently so that multiple organisations can participate thus avoiding duplication of effort. The project envisages collaborative development of funding proposals to be submitted to the international donor community for strategic components of the project.

OER University - A summary of SCoPE seminar inputs

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The following notes are summarized from SCoPE OER university (OERu) online discussions and an OERu drop-in think tank web conference session held over the period 4-21-Feb-2011. The summary has been distilled from contributions made by participants from Israel, United States, New Zealand, India, Canada, Netherlands, Australia, United Kingdom, Pakistan, Portugal, and Brazil.

OER university model and ideas

The OERu:

- is a a consortium of partner universities - a university of universities. Participating colleges/universities are given an OERu logo to post on their web-sites designating them as participants.

- un-bundles the package of services traditional universities provide: recommending (and sell-ing) learning materi als, forming learning groups, arranging learning experiences, supplying teachers, certifying.

- provides a search service for OER materials and maintains a repository of credit based OER approved by the consortium .

- brings together currently separate OER initiatives to generate collaboration between them for development and assemblage of OER into mutually credentialed outcomes.

- creates a framework within which existing OER can be assembled and new OER development positioned.

- establishes a world OER credit bank and transnational qualifications framework. Institutions developing OER can register their OER with the credit bank specifying what credit they are willing to accord those who successfully complete the learning outcomes associated with it. OERu assembles or creates the transfer/articulation aspects of assembling OER into a credential. Each OERu university partner can link existing OER courses of other partner universities to its OER degree programmes .

- facilitates creation of an OER learning path, learning plan, and/or PLAR documentation template for students ideally through consultation with advisor or mentor

- provides student support resources to help students navigate their learning paths and compile portfolios. Partners with institutions who provide options for student support possibly on a fee for service basis. A 24x7 call center for assisting students.

- creates a social learning context for OER reinserting or applying pedagogy to OER. Utilizes mass collaboration approaches combined with social networking to establish peer-to-peer and tutor-student support potentially with senior students receiving credit for tutoring junior students. Provides a brokering/marketplace where those who want to facilitate learning can meet those who want to learn. Emphasizes peer-to-peer social learning over teacher/student traditional learning. Students as teachers solidifies learning.

- prioritizes low-cost / low-bandwidth solutions for learner support and uses mobile technologies for these interactive components .

- provides continuous entry points throughout the year with entry by exams rather than pre-requisite courses or degrees. A 365 days online registration and evaluation process.

- supports individual pace of learning, multiple exit points, including instant certification by testing .

- removes affiliation requirements, residency or citizenship requirements, age restrictions (make OERu undergraduate and graduate programs open to children) .

- provides certification or links to colleges and universities who do a PLAR like assessment of the portfolio .

- awards the degree with logos of universities who participated in the validation process displayed on the certificate or alternatively the universities themselves confer the credentials .

- maintains a registry of graduates .

OERu users and use cases

- a student using OER could literally study anywhere in the world for free and transfer his/her learning to a "receiving institution" for conversion to transfer credit .

- personally designed pick and choose model where students formulate their own learning pathway (likely favoured by working professionals).

- structured degree model where templates of predefined OER are assembled into a curriculum leading to a credential (younger students looking for qualifications to move into professional area in labour market).

- OER-U could also work in K-12 sector to establish elementary and secondary programs leading to post-secondary so someone could presumably begin at the primary/elementary level and progress seamlessly to undergraduate or even graduate degrees.

OERu questions and challenges

- How to develop the course materials for learners globally?

- Providing not only free education but free authentic, valid and reliable certification too. Leaners may need to pay for credential services unless national governments provide grants to cover these costs through the state education system.

- Finding a free online platform or specifying that learning materials for the OER university be developed (or converted) into open file formats that are equally accessible by a variety of Learning Management Systems (LMSs).

- OER have to be available or at least readily convertible to low tech, pencil and paper, or print-based materials.

- Institutions will not move toward an OERu strategy unless they see a clear benefit for themselves. Does OERu need to be a parallel higher education universe?

- Develop low-overhead quality and accreditation systems building an entirely new model rather than adapting the old one.

- The concept of an OER-university is an innovation and a major one for the education globally. Individual and organisational adoption will depend on the current concerns and benefits of this

innovation for them.

- Be more creative. Start without thinking about existing systems and courses. Rethink units of learning.

- OERu needs to be younger and bolder. We need to get our heads into being 15 to 25 again.

- We already have a critical mass to at least get one degree operational.

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SCoPE OERu seminar is at http://scope.bccampus.ca/mod/forum/view.php?id=8738

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