



AFRICA NAZARENE
UNIVERSITY

This case study reflects on the first 18 months of a multi-year engagement to harness OER in support of quality ODL provision in Kenya.

Opening learning at Africa Nazarene University

A case study
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Institute of Open Distance Learning (IODL)

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Acronyms and abbreviations

ANU	Africa Nazarene University
COL	Commonwealth of Learning
CPD	Continuous Professional Development
CUE	Commission for University Education
DE	Distance Education
HoD	Head of Department
ICT	Information and Communications Technology
IODL	Institute of Open and Distance Learning
LMS	Learning Management System
M and D	Masters and Doctoral (studies)
MoU	Memorandum of Understanding
NADEOSA	National Association for Distance Education and Open Learning in South Africa
ODeL	Open Distance and eLearning
OER	Open Educational Resources
PAR	Participatory Action Research
PGC/PGD	Post-Graduate Certificate/Diploma
QA	Quality Assurance
RPL	Recognition of Prior Learning
Saide	South African Institute for Distance Education
SMS	Short Messaging System (short text messages for mobiles)
Unesco	United Nations Educational, Scientific and Cultural Organisation
WIL	Work Integrated Learning

Opening learning at Africa Nazarene University: A case study

1. Introduction and background

This case study explores progress made, lessons learned and possibilities for the future in harnessing Open Educational Resources (OER) in support of the vision and mission of Africa Nazarene University to open learning opportunities in higher education. We begin by providing a context for the work that has been undertaken to date.

1.1 Context

Nyaigotti-Chacha (2004) traces the advent of higher education provision in Kenya back to 1922:

Higher education in Kenya can be traced back to 1922 when the then Makerere College in Uganda was established as a small technical college which was then expanded to meet the needs of the three East African countries i.e. Kenya, Uganda and Tanganyika and Zanzibar, as well as Zambia and Malawi. In the 1940s and early 50s it is only this college that was providing university education in East Africa. This lasted until 1956 when the Royal Technical College was established in Nairobi. In 1963, the Royal Technical College became the University College, Nairobi, following the establishment of the University of East Africa with three constituent colleges in Nairobi, Dar es Salaam and Kampala (Makerere). The University of East Africa offered programmes and degrees of the University of London till 1966. In 1970, the University of East Africa was dissolved to create three autonomous universities of Nairobi, Dar es Salaam and Makerere. The University of Nairobi was thus established as the first university in Kenya.¹

Through a process of establishing additional public universities, supporting double intakes and allowing the establishment of middle level colleges and new private universities, the scale of higher education provision in Kenya began to grow rapidly. By 2003, Ngombe was able to report as follows:

Kenya has 6 public and 13 private universities with an enrollment of about 50,000 students. Roughly 80% are enrolled in public universities, while 20% of the total university student population attends private universities. More than 60,000 students enroll in middle-level colleges. The middle-level colleges cater to a variety of post-secondary career courses leading to certificate, diploma,

¹Nyaigotti-Chacha, C. 2004. Reforming Higher education In Kenya: Challenges, lessons and opportunities. http://www.international.ac.uk/media/4000/reforming_he.pdf

and higher diploma awards. By 1990, Kenya had about 160 middle-level colleges; by 2000 it is estimated that the country had more than 250 of them.²

Ten years later, it was reported that the year 2013 marked a time of significant change for the higher education system in Kenya. Most notably, the Universities Act 2012 was signed into law in January, with the aim of streamlining and improving the management of university affairs. The country's higher education regulator – the Commission for University Education (CUE) – subsequently published regulations and standards to operationalise the new Act. The final Universities Regulations, 2014 were gazetted on 12th June 2014 and are currently in force (CUE 2014)³.

Against this backdrop of legislative change, the Kenyan higher education system is expected to keep expanding at a rapid pace, thanks to a number of converging factors, including:

- increased capacity in public institutions;
- a growing private sector;
- more government investment in research; and
- diversified student loan programmes (for further information see the full article on ICEF Monitor).⁴

These measures have been taken to try and increase participation in higher education by 10 000 students a year to improve on the low 3% participation rate among 18 to 24 year-olds prevailing towards the end of the first decade of the 21st century.⁵

However, with many countries recognizing that to participate effectively in a global knowledge economy participation rates need to rise significantly (South Africa's new target is 25%⁶; Singapore's is 40%⁷), it is not surprising that Kenya, like many other countries, has begun to explore the possibilities of open and distance learning, as attested by the following recent Government Gazette notification:

GAZETTE NOTICE NO. 398⁸

**THE MINISTRY EDUCATION, SCIENCE AND TECHNOLOGY
ESTABLISHMENT OF THE TASKFORCE ON OPEN UNIVERSITY**

IT IS notified for the information of the general public that the Cabinet Secretary for Education, Science and Technology has, for the purpose of improving access to university education, established a Task Force on the establishment of a National Open University to offer university programmes through distance and e-learning mode ...

... The Terms of Reference of the Task Force are to-

² Ngombe, C. c,2003. Country Higher Education Profile – Kenya.

<http://nairobi.usembassy.gov/uploads/NA/x2/NAx2ArBKwKyVQAIgTglu18A/wwwfeduprk.pdf>

³ Commission for University Education (CUE). 2014. *Universities authorised to operate in Kenya*. Nairobi: CUE,

⁴ <http://monitor.icef.com/2013/12/converging-factors-fuel-growth-in-kenyas-higher-education-system/>

⁵ http://gse.buffalo.edu/org/inthigheredfinance/files/Country_Profiles/Africa/Kenya.pdf

⁶ Department of Higher Education and Training (DHET). 2013. *White Paper for Post-School Education and Training: Building an expanded, effective and integrated post-school system*. Pretoria: DHET.

⁷ <http://www.universityworldnews.com/article.php?story=20120828165518283>

⁸ <http://kenyalaw.org/kl/index.php?id=4197>

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- (a) To review and harmonize expectations and objectives of the Open University as outlined in various documents including the Sessional Paper No. 1 of 2005 on Education, Training and Research (2005), Report of the Public Universities Inspection Board (2007), the National Strategy for University Education (2008) and the Road Map for Open University (Rumble Report 2008). It will also include the Task Force on the Realignment of the Education Sector to the Constitution of Kenya 2010 (2012), the Task Force on Alignment of Higher Education, Science and Technology sector to the Constitution 2010 (2012), the Sessional Paper No. 14 of 2012 on reforming education and training sector in Kenya and the Universities Act, 2012.
- (b) To review based on the Blue Print Report (2011) for the Open University and the recommendations from CUE existing academic curricula in areas given priority that included pure and applied sciences, business studies, education, humanities and social sciences in both public and private universities with a view to recommend and to develop initial academic programmes for the Open University of Kenya (OUK)
- (c) To review present and emerging delivery modes for ODL, related support technologies and propose ways to integrate those modes (a model) to support delivery of the initial academic programmes for the Open University of Kenya. It will include connectivity, communication portal and website, learning management system (LMS), course management system (CMS) and other learner support systems.
- (d) To review ways to facilitate collaboration and exchange programmes between the envisaged Open University of Kenya and key ODL institutions including local universities and external best practice institutions such as the African Virtual University (AVU), Open University of Tanzania (OUT), UNISA in South Africa, National Open University of Nigeria (NOUN), Open University of Namibia, Open University of Malaysia (OUM), IGNOU in India and the UK-OU in Britain among others.
- (e) To review best practices on operational structures in ODL and propose operational structure for the Open University of Kenya, initial staffing and capacity building.
- (f) Any other task related to the foregoing.

Dated the 9th January, 2014.

JACOB T. KAIMENYI,

Cabinet Secretary for Education, Science and Technology.

There are already large-scale open universities in Nigeria, South Africa, Tanzania and Zimbabwe and recently the governments of Ghana and Mozambique also committed to establishing open universities. Open universities offer more flexible routes into and through higher education using distance and elearning methods to free students from the necessity to attend campus-based sessions for extended periods as with traditional contact provision.

1.2 The role of Africa Nazarene University

Africa Nazarene University (ANU) is a Private Christian University and an Institution of the International Board of Education of the church of the Nazarene. ANU was established in 1994 and granted its University charter in 2002. ANU's main campus is situated 24 km from Nairobi, in Ongata Rongai. It has Regional Centers also in Nairobi, Meru, Kisii, Machakos and Eldoret. ANU offers flexible modes of study including campus-based, school-based, evening programs and distance learning.

The vision of ANU is to be:

A light to the people of Africa through higher education grounded in the Wesleyan – Holiness Tradition; the University of choice for Christians desiring academic excellence; a community which will produce individuals of character and integrity of heart, and a place where lives will be transformed for service and leadership to make a difference in Africa and the world.

The mission of ANU is to:

Provide a holistic education that develops individuals academically, spiritually, culturally, and physically, and to equip them with excellent skills, competencies and Christian values, which will enable them to go into the world well prepared to meet the challenges of their time.

The Institute of Open and Distance Learning (IODL) at ANU was established to assist mature and self-motivated learners, often those already in the workplace, to further their studies without the constraints of attending campus-based lectures on a full-time basis.

The ANU IODL has adopted the use of CAMS (an academic management system) and Moodle (a learning management system configured for ANU as “ENAZ”) to enable distance learners to register and contact lecturers for tutorials, discussions and completion of continuous assessment processes online. Distance learners are able to enrol at the beginning of any month of the year and pay their tuition fees on a monthly basis. However, they become active learners in the trimester following their registration.

The following courses are offered through distance learning mode:

- Bachelor of Commerce
- Bachelor of Business and Information Technology
- Bachelor of Computer Science
- Bachelor of Mass Communication
- Bachelor of Christian Ministries
- Bachelor of Education
- Bachelor of Counselling Psychology
- Bachelor of Dryland Natural Resources Management
- Bachelor of Theology
- Bachelor of Peace and Conflict Resolution Studies
- MBA
- Master of Arts in Religion.

Courses are generally offered through a blend of strategies including use of:

- Self-instructional material
- Email/Online ENAZ/CAMS

- Face-to-face sessions at centres
- Cell phone
- CD Rom.

The student population has grown from 63 in 1994 to over a 1000 in 2008 to close to 5,000 in 2014. More than half of the current enrolled students are pursuing non-traditional learning pathways through evening classes, school-based learning and distance learning. There are currently about 700-800 registered distance learning students (although there are also about 2000 school-based teacher education students who might also reasonably be classified as distance learners). ANU has planned a 20% annual growth rate over the 5-year period 2012 to 2017 and increasingly to make use of resource-based eLearning to offer a range of modes of provision.

The National Open University taskforce indicated in Section 1.1 above has already visited ANU and has indicated interest in further follow-up discussions. In addition, ANU has openly shared its lessons of experience regarding open and distance learning with other institutions, including Daystar University, which have expressed interest also in utilizing distance education and open educational resources.

ANU and OER Africa have signed a memorandum of understanding (MoU) that commits the two organisations to working together to support ongoing design, development, and implementation of ODeL programmes at ANU; integration as appropriate of OER into both ODeL and face-to-face programmes at ANU; showcasing of emerging best practices at ANU to be shared with the broader higher education community within and beyond Africa; lobbying the broader higher education community within and beyond Africa regarding the merits of collaboratively creating and sharing intellectual capital in higher education as a mechanism to improve quality and enhance long-term cost-effectiveness; mobilizing release of OER in areas of prioritized strategic importance for African (and global) higher education; and, where appropriate, jointly preparing new project and funding proposals.

1.3 The role of OER Africa

Since inception in 2008, *OER Africa* has sought to respond to the challenges faced by educators in Africa's higher education institutions (HEIs) by working with them collaboratively to develop and implement OER processes to redress specific teaching and learning insufficiencies. These processes have been tailor-made to fit the realities of the contexts within which they are to be applied, including inadequate bandwidth, a shortage of skills to develop and adapt relevant and appropriate teaching and learning materials, insufficient funding and over-stretched human resources. Strategies implemented to this end have included OER sensitization and advocacy, proof of OER concept pilot projects, policy work, materials development and adaptation, course design and action research. A good example of OER Africa's work in support of discipline-specific networks has been in the area of Health OER (see <http://www.oerafrica.org/healthoer>), where practitioners have been very responsive to the possibilities provided by OER for the deployment of socially appropriate, contextually relevant, cost-effective teaching

and learning materials. Health OER partner institutions now routinely share particular resources across a variety of repositories and websites, including www.oerafrica.org. *OER Africa* has also made demonstrable progress in raising the profile of Africa's intellectual capital through its global advocacy strategy; this includes the recently re-launched *OER Africa* website at www.oerafrica.org and a comprehensive range of publications complemented by inclusion of some OER Africa work in publications by international organizations with which the initiative has affiliated, such as the Commonwealth of Learning (COL) and UNESCO.

Initially, *OER Africa* adopted an expansive partnership strategy with a strong advocacy agenda. However, *OER Africa* now wishes to consolidate the gains made by deepening the knowledge base required to take OER in African universities to the next level – that is, the mainstreaming of engagement with OER to improve pedagogical practice. In November 2013, a small additional grant awarded by the Hewlett Foundation enabled *OER Africa* to host an Advisory Meeting of selected stakeholders, which sought to explore the most effective path for the future role of *OER Africa* in foregrounding OER to support the transformation of Africa's higher education institutions and in disseminating this new knowledge. Upon deliberation of the meeting's conclusions, *OER Africa* determined that its best course of action, over the next few years, would be:

to support a small selection of HEIs which are committed to transforming teaching and learning practices, in the context of the information society, through Action Research and Critical Practice, to **build evidence** that OER practices which can both lead to and support transformation, and can be successfully mainstreamed and institutionalized.

Accordingly, OER Africa plans to work intensively with four African HEIs over the next 3 years, with one of these being ANU.

2. Activities undertaken to date

Three in-country workshops have been facilitated with some online follow-up support as follows:

- August 2013: A review of current ODeL provision and an orientation to OER
- March 2014: Curriculum and materials development for effective ODeL provision integrating OER
- September 2014: Activity- and resourced-based materials development and mainstreaming of OER
- March 2015: Development of an underpinning research agenda and review of policies, QA systems, intellectual property rights and reflective praxis.

2.1 A review of current ODeL provision and an orientation to OER

There were three stages to the first engagement between ANU and OER Africa.

First, a draft review template, based on the *Quality Criteria and Guidelines* of the National Association for Distance Education and Open Learning in South Africa (see www.nadeosa.org.za) was emailed for

comment and, if necessary, adaptation prior to use for an internal self-assessment of readiness for expansion of ODeL provision.

Following the self-evaluation, the OER Africa representative visited ANU to interrogate and verify the self-review through a process of triangulating data from observation, review of physical documents and focus group interviews with key stakeholders. This was followed by an 'Orientation to OER' workshop covering the following questions: What are OER? Where can we find OER? How can we evaluate OER? How can we adapt OER? How can we publish OER? What are the OER policy issues?

Following the engagement, a draft report was prepared with recommendations about next steps. The draft was tabled in-country and then finalised thereafter.

2.2 Curriculum and materials development for effective ODeL provision integrating OER

During the course of December 2013 to February 2014, discussions were held via email about the design and logistics for a follow-up workshop that would cover the following issues: curriculum design, course design, materials development; and OER for expanded ODeL provision.

The resultant workshop progressed according to plan with each workshop session focusing on a different aspect of ODeL provision and OER integration:

- Day 1: Curriculum development
- Day 2: Course development
- Day 3: Materials development
- Day 4: Planning
- Day 5: Policy implications and forward planning.

Day 1: Curriculum development

The key message of the session was that ODeL curriculum design requires a holistic and integrated approach that considers the complex interaction of internal and external stakeholder expectations, student needs and expectations, identification and development of appropriate content and learning resources, learning and learner support, an appropriate assessment strategy and appropriate supporting human, physical and Information and Communications Technology (ICT) infrastructure.

The key output for the session was a programme overview geared towards helping potential students make informed choices about whether a particular programme would meet their needs and what successful participation would require of them.

Day 2: Course development

The key message of the session was that the design of individual courses needs to be aligned to the design of the curriculum as a whole and needs to follow similar iterative and collaborative processes. All ODeL resources, whether print-based or in digital format, should take issues such as the following into consideration in design and formative evaluation processes:

1. Introduction and orientation
2. Selection and coherence of content
3. View of knowledge
4. Presentation of content and interactivity
5. Activities, feedback and assessment
6. Language
7. Layout and accessibility.

However, how these guidelines are interpreted in practice will depend on the level, context and purpose of the different courses. Particular attention needs to be given to ensuring there is coherence, sequencing and progression from in-course self-assessment activities, formative assignment activities and summative activities that provide evidence appropriate to the stated exit level outcomes/objectives; and also that formative feedback (and feed forward) comments should be provided at each key stage in the learning journey.

It was further noted that first-year course units need to play multiple roles. In addition to providing an orientation to underpinning foundational disciplinary knowledge, first year course units need also to help students develop academic literacy and independent study skills and also to provide a scaffolded engagement with the features of the chosen learning platform (in ANU's case this will be Moodle in the short term although Canvas may be considered in the medium term).

The key output for Session 2 was to be the selection of a particular course unit as the focus of development after the workshop and the mapping of design decisions for that course unit to the template supplied. However, this mapping exercise needed to be completed as "homework" as there was insufficient time to complete it during the workshop session itself.

Day 3: Materials development

The key focus of the session's discussions was the design of appropriate activities and feedback to encourage students' active engagement with the learning process. Participants had the opportunity to engage with examples of the kinds of activities for different learning purposes as outlined in Table 1 and sourced from Saide's online design course design toolkit (<http://www.saide.org.za/design-guide/>).

Table 1: Activities to promote learning in ODeL courses

Activities building comprehension	Activities building critical thinking	Activities building skill
Computer marked quizzes <ul style="list-style-type: none"> • Short answers • True/False or Yes/No • Multiple choice Video reflections	Online research Case studies	Simulations, role plays (online) Demonstration and practice
Webquests Matching and sequencing Drag and drop	Problem based learning Decision making trees	Games Projects
Cloze Label and identify diagrams Scavenger hunts	Webquests	Peer to peer collaboration and communication <ul style="list-style-type: none"> • Chat sessions • Blogs • Forum discussions • Emails E-portfolios Student presentations
Activities are interrelated and serve to build competence comprising knowledge, skill, values and attitudes that enable students to perform at a specified standard		

Day 4: Planning

Session 4 involved a recapping of key issues and initial forward planning from a Head of Department (HoD) and a lecturer perspective respectively.

Day 5: Policy implications and forward planning.

Day 5 focused on the stakeholder relations and policy implication of the ODeL and OER issues discussed earlier in the workshop. A draft OER policy document was developed, discussed and was to be updated and taken through the necessary consultation and approval processes.

Day 5 also included a session on forward planning.

The workshop was followed by a supported materials development process, running from March 2014 to the end of June 2014, in which staff received feedback on draft ODeL materials at key stages of development. By the end of this process it was intended that some example course units should have been completed and published as OER.

2.3 Activity-based resources and mainstreaming of OER

The third workshop was aimed at consolidating the work completed to date and planning how to build on this foundation to mainstream use of OER at ANU using a participatory action research (PAR) approach. On the basis of this engagement a number of short-, medium and long-term goals were identified. However, it is in the nature of the PAR approach being pursued that these goals will constantly be reviewed during the course of the engagement.

Among other things, part of the reflection on the first day of this workshop included groups working on a reflective 'OER Maturity' index created for this purpose. Across the 19 participants in 4 groups that took part, it was felt that:

- There is not yet a critical mass of staff who know what OER are or how to use them. There need to be more orientation workshops, increasingly with examples originating from within ANU itself.
- There is a policy and procedure framework but it is not yet sufficiently aligned to OER and ODeL. The draft OER Policy is still in process. (ANU management adopted an ANU OER policy in January 2015.)
- There is a strong Quality Assurance (QA) presence but not yet aligned to QA of materials for ODeL generally or publication under an open licence in particular.
- Leadership is supportive but as noted in the previous comments, the message has not yet reached a critical mass of staff and the in-principle support therefore does not always materialise into substantive support as staff respond to other issues that seem more urgent or central.
- Investment is generally adequate but provision has not been sufficient for the costs of developing, updating, publishing and revising high quality ODeL learning resources.

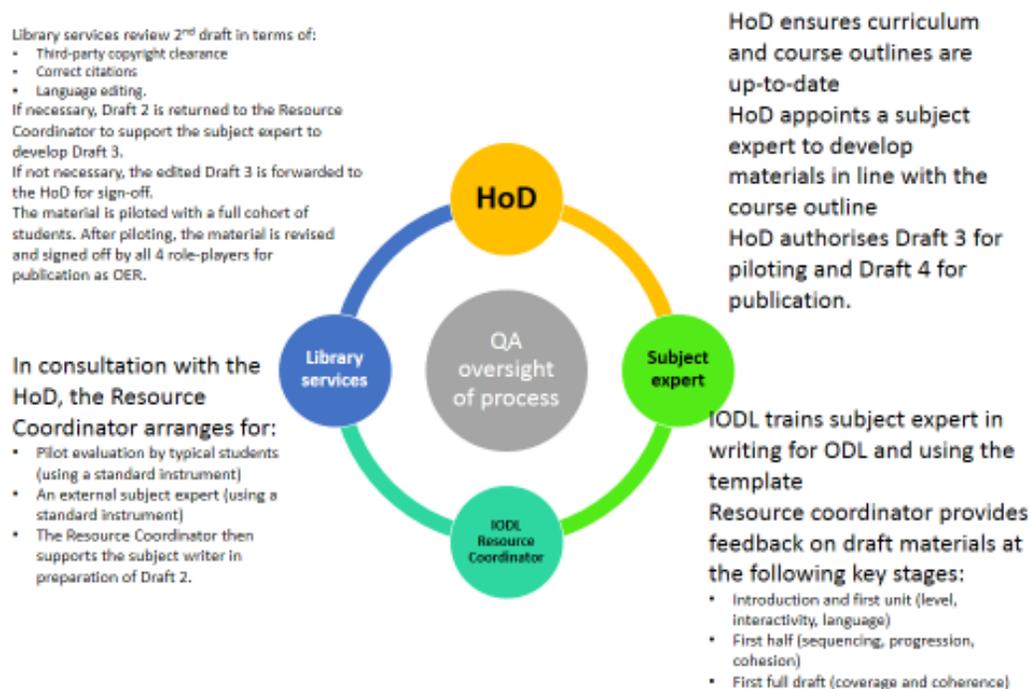
2.4 Developing an underpinning research plan

The fourth in-country engagement in March 2015 was in fact several different workshops in one.

The first two days focused on developing a research agenda to support and inform the overall action plan developed in the previous workshop. The following short-term research projects were agreed:

- An audit of ANU's regional centres with respect to their capacity to support ODeL learners, including facilitating access to OER;
- A comparative review of readiness to engage with OER among the different schools and departments within ANU;
- A comparative study of OER take-up at four Kenyan universities;
- An evaluation of the impact of OER into selected distance learning courses;
- A strategy for documenting and reflecting upon lessons of experience from the beginning of the learning journey that OER Africa and ANU are walking together.

The third day focused on quality assurance issues. It began with a presentation on the current quality assurance system and procedures within ANU and then explored the implications for expanded provision of ODeL as well as the implications for quality assurance of the OER policy adopted in January 2015. This discussion resulted in the development of a revised QA process for the development and implementation of ODeL learning resources and their subsequent publication as OER as illustrated below:



On the fourth day, participants (including representatives from outside ANU) explored the copyright, IPR and more general policy implications. It was agreed that ANU would form a task team to revisit its IPR framework.

The final day provided an opportunity for those currently involved in materials development to report on their progress and to receive feedback from peers.

3. The relationship between ODL and OER

Since the provision of appropriately designed learning resources is a critical, but not the only, factor in effective distance learning provision, there is a natural synergy between distance provision and open educational resources. However, the scope of possibilities is much wider than just learning resources as

illustrated below. The following framework has been adapted from Lentell⁹ (2004: 249–259) and Welch & Reed¹⁰ (eds) (c.2005) to provide some insight into the possible linkage between ODeL and OER.

The table was originally developed to provide feedback to higher education institutions on their existing policy framework.

Policy area	Policy issues/objectives	Relevance to collaboration and/or OER
Identifying target audience	<ul style="list-style-type: none"> • Educational purpose of the programme • Demography of student population (e.g. age range, gender, employment) • Motivation for learning (e.g. vocational, academic) • Existing knowledge and/or skills of target students (e.g. can study/ ICT/ language/ information literacy skills be assumed?) • Curriculum needs (e.g. is it defined by an examination or a professional body, academic knowledge, vocational skills?) • Market research 	<ul style="list-style-type: none"> • The sharing of research and templates could facilitate the process of building and then using student profiles at participating institutions.
Type of DE system	<ul style="list-style-type: none"> • Campus-based, organization-based or individual-based? • Self-paced or programme-based? • Open access? • Single, dual-mode or partnership service provider? 	<ul style="list-style-type: none"> • The sharing of research, guidelines, process documents and quality criteria can help an institution make informed decisions about which model(s) of DE will be most appropriate to its needs.
Choosing the appropriate technology for distribution and materials and for interaction with students	<ul style="list-style-type: none"> • Print, audio-visual, web-based or a mix? • Access implications of choice? • Training implications of choice? • Cost – including maintenance and sustainability? 	<ul style="list-style-type: none"> • Open licences for materials will facilitate cost-effective production and distribution of materials. • Access to course materials from other members of the community of practice can be an effective, rapid strategy to secure materials for courses where no materials exist. • This might allow use of media that would not have been affordable if an institution needed to develop everything itself.
Business planning and costing	<ul style="list-style-type: none"> • Philosophy and objectives • Capital and recurrent costs <ul style="list-style-type: none"> ○ Planning ○ Implementation ○ Maintenance and updating ○ Fixed and variable 	<ul style="list-style-type: none"> • Clear policy indications are needed that materials development is considered important by the institution and that there is commitment to investing in it.

⁹ Lentell H (2004) Chapter 13: Framing policy for open and distance learning. In H Perraton & H Lentell (eds) *Policy for Open and Distance Learning. World review of distance education and open learning* (Vol. 4). London: RoutledgeFalmer/COL

¹⁰ Welch T & Reed Y (c.2005) *Designing and Delivering Distance Education: Quality criteria and case studies from South Africa*. Johannesburg: Nadeosa

Policy area	Policy issues/objectives	Relevance to collaboration and/or OER
	<ul style="list-style-type: none"> • Self-financing or subsidised? • Course portfolio (e.g. length of study) • Course development and production process (e.g. team, individual contract) • Course delivery <ul style="list-style-type: none"> ○ Enrolment ○ Tutorial system ○ Materials dispatch ○ Assessment ○ Record keeping ○ Marketing ○ Funding 	<ul style="list-style-type: none"> • Policy positions are essential to ensure high quality of materials and effective collaboration, and this is indicated by allocation of appropriate resources, including staff time. • It may be necessary to include specific references to collaborative activities to ensure that funds are set aside to cover the time of academic staff from the institution to participate in such collaborative activities. • Sharing of course materials with members of the community of practice may reduce requirements to pay sub-contracting fees for materials development, as it may open access to already developed course materials in key areas of need. • Participation in materials development/OER collaborations could generate consultancy funds, providing an alternative income stream to the institution and its staff and financial returns on capital investment.
HR strategy	<ul style="list-style-type: none"> • Staff complement • Staff development • Staff workload • HR systems 	<ul style="list-style-type: none"> • Most academic staff will be discipline experts rather than materials developers – the wider OER community may be able to help with the development of skills related to materials development. • Staff awareness processes should include awareness about changing intellectual property parameters introduced by the growth of ICT, and accompanying introduction to open licences like the Creative Commons. • Consideration might be given to the notion that staff participating in collaborative activities and materials development exercises that are over and above their normal workload can receive remuneration for their time spent. However, in the long term, if DE provision accelerates, job descriptions will need to be adapted so that time is allocated to programme development, course

Policy area	Policy issues/objectives	Relevance to collaboration and/or OER
		design and materials production as a core activity.
Programme development, course design and materials production	<ul style="list-style-type: none"> • Buy, make or adapt? • Media choice and/or mix? • Instructional design • Developmental testing • Production • Delivery • Updating • Storage 	<ul style="list-style-type: none"> • Facilitated by use and adaptation of OER. • Facilitated by systematic analysis of current copyright status of existing materials, and efforts to ensure that all materials can be freely updated and revised without securing additional permissions. • Existing OER available on the internet and materials available from other members of the community of practice can support review processes and cost-effective updating of courses. • Establishment of licensing frameworks relevant to digitized materials (e.g. Creative Commons) will be essential to protect the rights of the institution. • It is essential to define terms of use of all materials within a digital library, which will be facilitated by systematic materials audit and establishment of systems to manage the institution's knowledge base. • Shared course materials and OER can be used to increase the number of available materials in the digital library without significant additional cost. • Collaboration with other members of the community of practice will facilitate such access, as will ongoing integration of the institution into emerging global OER networks.
Tutoring and supporting students	<ul style="list-style-type: none"> • Tutor role and tasks • Tutor skills • Recruiting tutors • Induction and training of tutors • Monitoring tutors • Marking and feedback • Face-to-face, telephone, online tutoring • Student counselling • Student guides and providing information to students 	<ul style="list-style-type: none"> • The sharing of research, guidelines, process documents and quality criteria can help the institution make informed decisions about suitable models for tutoring and supporting its DE/off-campus students.

Policy area	Policy issues/objectives	Relevance to collaboration and/or OER
Recruiting and enrolling students	<ul style="list-style-type: none"> • Making course information available • Marketing • Diagnostic testing of potential students • Briefing students about ODL • Enrolment • Fee payment systems 	<ul style="list-style-type: none"> • The sharing of research, guidelines, process documents and quality criteria can help the institution make informed decisions about suitable models for recruiting and enrolling DE/off-campus students.
Assessing students	<ul style="list-style-type: none"> • Methods to be used (e.g. exams, projects, thesis and portfolio) • Summative, formative or both? • Methods of submission and giving feedback (e.g. online or by paper correspondence?) • Recording marks and student progress 	<ul style="list-style-type: none"> • The sharing of research, guidelines, process documents and quality criteria can help the institution make informed decisions about suitable models for assessing DE/off-campus students.
Managing and administering the DE system	<ul style="list-style-type: none"> • Operational issues e.g.: <ul style="list-style-type: none"> ○ Finance ○ Student recruitment ○ Enquiries processing ○ Enrolment ○ Materials development ○ Materials manufacture ○ Tuition and support ○ Assessment ○ Technology • Governance and management structures 	<ul style="list-style-type: none"> • The sharing of research, guidelines, process documents and quality criteria can help the institution make informed decisions about suitable models for managing and administering its DE system.
Collaborative relationships	<ul style="list-style-type: none"> • Programme development, course design and materials production • Associations • Sub-contractors • Work-integrated learning • Consortia 	<ul style="list-style-type: none"> • The sharing of research, guidelines, process documents and quality criteria can help the institution make informed decisions about suitable models for managing collaborative arrangements.
Monitoring evaluation and quality assurance	<ul style="list-style-type: none"> • Who the evaluation is for (e.g. politicians, managers, educational staff) • The level of monitoring (e.g. system level, course/programme level, individual tutor or individual student level) • Capability to act on findings of evaluation, monitoring and quality assurance • Quality assurance systems 	<ul style="list-style-type: none"> • Completing a systematic audit of materials and their licences will create a clear legal framework to guide staff and students. • Maintaining proper licences that facilitate use and adaptation of materials further supports this. • The sharing of research, guidelines, process documents and quality criteria can help the institution make informed decisions about suitable models for managing a quality assurance system in a DE context.

Where institutions work independently or collaborate to develop curricula and materials that will be offered or shared across borders, issues of portability, contextualization, language usage and equivalence of experience and support come to the fore.

Source: OER Africa Policy Toolkit (2012)

4. Outputs

Four workshop reports with guidelines and recommendations have arisen from the workshop process conducted to date. The workshops have also been updated for other internal and external training sessions, made possible because the workshop resources are all OER. A number of existing distance learning resources are in various stages of revision. This case study is one of three initial OER to be published under the ANU imprint:

1. This case study
2. ANU IODL/OER policy
3. Revised distance learning module on *Christian Ethics*.

As noted in *Section 6: Next Steps*, a tentative plan of action has been developed based on individual, small group and large group reflection as well as focus group discussions with key internal stakeholders.

5. Lessons learned

Following an OER orientation workshop facilitated by OER Africa in August 2013, several faculties at the Africa Nazarene University began to integrate OER into their curriculum resources, but particularly so in the field of teacher education, as explained below.

In teacher education, lecturers continue to encourage students to use the OERs in conducting research and completing general class assignments. This has prompted ANU to organize regular information literacy training for both students and lecturers to enable them to effectively make use of the available OER. Some ANU lecturers in teacher education continue to adapt and use OER in their classrooms and online using the teaching styles available from the MIT and TESSA websites, therefore, enriching their classroom teaching and learning experiences.

Mathematics education for teachers at ANU has benefited the most from the use of a number of software applications that they have downloaded freely for use in the training of teachers. The student teachers have found these resources helpful in writing Mathematics documents, learning basic mathematics and calculus. These resources include LaTeX which is a document preparation system and document markup language. The teachers have found LaTeX appropriate for professional writing of mathematics papers, books, articles etc. Also in use is "Microsoft Mathematics" which provides a graphic calculator that plots in 2D and 3D, and supports step-by-step equation solving. "Graph" which is an Open Source application

used to draw mathematical graphs in a coordinated system has also been used by ANU lecturers and education students. "Maxima" a system for the manipulation of symbolic and numerical expressions has also been put to use by ANU lecturers and students to plot functions and data in two and three dimensions.

ANU lecturers producing teaching modules for distance learning Education students continue to use OER in addition to the available ebooks and ejournals in the ANU Library Databases. Generally, ANU students and lecturers through OER have made use of various online sites where they have been able to make access a wider range of resources including ebooks, journals and videos¹¹.

The following are typical challenges experienced when a traditionally contact-based institution introduces distance provision alongside its contact-based teaching. Being aware of these kinds of challenges up front, may help to forestall them:

1. Curricula designed for inexperienced 18-24 years olds may not be appropriate for mature, working students
2. Overload of staff: DE students fitted in rather than offered equivalent quality; a tendency to work only for extra pay
3. Workloads that do not make provision for materials development and updating, discussion classes and online fora, management of a decentralised team; research is often prioritised over teaching
4. Inappropriate cross-subsidisation including contributions to overheads for services not availed to DE students
5. Slow contracting and payment of part-time staff or full-time staff for work over and above that contracted ; additional workload allowances/travel expenses
6. Trying to limit access to distance learning resources rather than developing learning resources for use by ALL students
7. Internal disruptions affecting external students e.g. rescheduling of contact sessions, examinations, practicals/work integrated learning (WIL)
8. Tutors who already have full-time jobs; tendency to restrict availability, provide superficial assessment and feedback
9. Making time for appropriate staff development and quality assurance and providing access to support staff (and support students).

ANU has already experienced some challenges related to issues 2, 3, 5, 8 and 9 and this has led to the need to update the institutional policy framework.

It is ANU's experience that staff are more likely to embrace OER if they can see a direct link between OER and a curriculum need. Often this will occur at ANU as student demand and institutional strategy increasingly lead to growth in distance and online learning and hence the need to source and/or develop appropriate learning resources.

¹¹ OER Africa, ATEN. 2014. *OER in Teacher Education: reflections from the OER Africa Teacher Education Network*. Nairobi: OER Africa.

It is envisaged that as more courses migrate to resource-based approaches in this way, that this will put pressure on those staff currently reluctant to engage to begin to do so.

6. Next steps

1. On the basis of collaborative reflection and participatory discussion, various short, medium and long-term goals have been identified as ways

6.1 Short-term goals Sep 2014- Aug 2015

2. Approve IODL/OER Policy
3. Finalise Christian Ethics module (including sign-off by HoD, QA and Library)
4. Develop case study on lessons to date
5. Establish OpenANU (a section of the ANU website devoted to sharing ANU OER)
6. Publish 1, 2, and 3 on OpenANU and OER Africa
7. Set a practical student assignment to re-design the CoL materials design template for ANU
8. Import Christian Ethics module into the template and publish a 2nd version
9. Complete Education Administration module, import into template, sign off by HoD, QA and Library and publish
10. Design and initiate a student tracking system
11. Complete comparative cohort/mode retention and throughput analysis
12. Undertake research into: capacity of regional study centres; internal readiness for take-up of OER; comparative take-up of OER by universities in Kenya; impact of OER integration into selected ODeL courses
13. With new Learning Resource Development manager, QA and Library – design internal guidelines, procedures and quality checks for revised distance learning materials
14. Update and publish at least 1 module as OER per trimester using guidelines and procedures, reflect and amend accordingly
15. Analyse time/workload commitment as part of process and develop into an article for publication in an open access journal by end August 2015
16. Develop an orientation/CPD programme (in the form of a post-graduate certificate or diploma)

6.2 Medium-term goals Sep 2015- Aug 2016

1. Implement PGC/PGD and include student evaluation; capture information with previous for an article to be submitted by end August 2016
2. Host a low-budget conference on ODeL including OER with a view to establishing a national association for open and distance learning in Kenya to build a community of practice and influence national discourse by end August 2016
3. Evaluate data from comparative cohort studies and student tracking system; amend support systems accordingly; write this up as draft article for an open access journal by end August 2016
4. Evaluate data from time/workload commitments and update HR and finance workload allocations, rewards and promotions system accordingly; write this up as an article by end August 2016
5. Begin advertising ODeL provision; track student progress; develop ODeL student and tutor questionnaires; analyse results from questionnaires and student tracking; ensure key learnings are fed back into programme, course and materials review; write up this process as a draft article for an open access journal by end December 2016

6.3 Long-term goals Sep 2016- Aug 2017

1. By end August 2017 have developed an ANU-specific case study/article and possibly M/D study which addresses the following questions:
 - ❖ What kinds of pedagogical transformation are envisaged at ANU and within what timeframes are these changes expected to be introduced? How does this align with the OER community's understanding of the transformative educational potential of OER?
 - ❖ To what extent can use of OER constitute an effective catalyst in driving or supporting these envisaged pedagogical changes?
 - ❖ In what ways can a focus on pedagogical transformation serve to embed effective OER practices into mainstream institutional activities and systems, rather than these practices operating parallel to the mainstream?
 - ❖ What opportunities already exist within universities that can be used to drive this kind of pedagogical transformation and how can these opportunities most effectively be harnessed?
 - ❖ What policy, procedural, systemic, cultural, and logistical challenges and barriers inhibit these changes within institutions?
 - ❖ What strategies need to be implemented to overcome these challenges?
 - ❖ What levels of institutional political support or championing are needed for changes made to become institutionalized?

2. Support a partner institution to host a 2nd national open and distance learning conference
3. Develop the ANU strategic plan (and supporting policy, systems and budgets) 2018-2023 to reflect projected growth in student numbers, retention and throughput by qualification and mode of delivery.

7. Concluding remarks

As noted above, a key challenge for multi-mode provision is to ensure that the quality of ODeL provision is not compromised by staff commitments, budgets, systems and procedures that are skewed towards the campus provision. A key quality principle that ANU subscribes to is equivalence of provision across different modalities. The current lack of library training and ICT support at centres is a problem in this regard and might be overcome by training centre staff to offer support in these areas and/or centre staff visiting centres to offer such support once a trimester and/or developing an ENAZ support module for these purposes. In similar vein, with growing use of ENAZ, ICT support cannot be limited only to normal office hours since most distance learners are active outside of those hours. A member of the ICT team should be at least on standby to reboot the system/ tackle other ICT problems outside of normal office hours, including over weekends.

Internationally the trend is towards ODeL provision and this seems also to be the emerging focus in Kenya with the recent announcement of the intent to establish a National Open University for Kenya. ANU is well-placed to influence the national discourse by illustrating what is required to ensure quality provision.

About ANU



Africa Nazarene University (www.anu.ac.ke) is a member of the worldwide family of Nazarene institutions founded on the same principles - the development of students in a strong spiritual environment. ANU offers a well-rounded, holistic education to help members establish themselves in three important areas:

- Character - Explore your faith for living.
- Competence - Achieve your goals for your career.
- Community - Find your place in the world.

About OER Africa



OER Africa (www.oerafrica.org) is an innovative initiative established by the South African Institute for Distance Education (www.Saide.org) to play a leading role in driving the development and use of Open Educational Resources (OER) across all education sectors on the African continent. Established in 1992, Saide's mission is to increase equitable and meaningful

access to knowledge, skills and learning across the African continent, through the adoption of open learning principles and distance education strategies. Saide's OER Africa initiative brings together all of its OER-related activities under a common conceptual framework. Saide is – through its OER Africa initiative – providing a unique opportunity to deploy African expertise to harness the concept of OER to the benefit of education systems on the continent and around the world.

About The William and Flora Hewlett Foundation

The William and Flora Hewlett Foundation has been making grants since 1967 to solve social and environmental problems at home and around the world. The Foundation's programmes have ambitious goals that include helping to reduce global poverty, limiting the risks of climate change, improving education for students in California and elsewhere, improving reproductive health and rights worldwide, supporting vibrant performing arts in its community and supporting disadvantaged communities. The Foundation is the primary supporter of the work of OER Africa generally and of its ATEN work in particular.