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An OER online course remixing experience

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Abstract

This paper describes the authors' experience of remixing two existing OER courses to provide an OER course for a particular purpose and context. The developing country target environment is stated as well as the original resources' provenance. The motivation for remixing these OER is explored, and the design of the adapted resource is described followed by notes on the implementation and evaluation of the remixed 'Facilitating Online Learning' pilot course. Lessons learned include that remixing existing OER courses with similar licenses is an achievable undertaking, and OER will be reused if they are deemed to be contextually relevant. It follows that the content, nature, and deployment environment of the OER is important as is its licensing for reuse. The practical illustration of a simple remix experience is significant, as there is little literature available on remixing OER. Sharing this experience is intended to encourage and inform other such remix projects.

Keywords: Open Educational Resources; online course; remix; developing country; capacity building

Introduction

Mirroring the trend in developed countries, higher education institutions (HEI) in developing countries are facing the challenge of increasing access to higher education (HE) while maintaining the quality of their course provision. Although deploying supporting information and communication technologies (ICTs) is seen as a possible solution to providing wider and scalable access, it is highly likely to raise additional barriers within African HE environments. Wilson and Stacy (2004) reported on serious concerns around the capacity of academic staff to undertake blended or online teaching and learning, and the increasing desire of African universities to make use of ICTs over the past several years raises similar concerns, not to mention the limited institutional ICT infrastructure and considerations around learner access with the developing country context. In a case study from Tanzania, Mtebe and Raisamo (2014) highlight that the majority of academic staff lacked the necessary skills to create and reuse Open Educational Resources (OER).

The increasing integration of ICTs to support teaching and learning resulted in the early recognition by Plomp (1999) of the multiple roles now required of the academic. Plomp (1999, p. 26) reported that

> Lecturers will become facilitators and designers of students' learning environments, and they may take on a variety of roles such as resource person, coordinator, and often co-learner and co-problem solver. This demands a special approach to staff development, which goes beyond the training of basic ICT skills.

While many funded programmes, for example the Partnership for Higher Education in Africa Educational Technology Initiative (PHEA ETI), have undertaken to address concerns in this area

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over the past 10 years (PHEA 2008), it remains difficult to propagate efforts in developing capacity throughout the region in a sustainable manner.

Two noteworthy attempts have been made in recent years to address aspects of the challenge of developing academic staff capacity in online teaching and learning within the African HE sector. In each case, the organisations undertook the design, development and publishing of openly licensed resources permitting reuse and adaptation, in order to support and enhance the capacity building of academic staff.

The first of these was initiated by the South African Institute for Distance Education (Saide) who designed and developed a resource in three formats: initially the print-based '*Supporting Distance Learners: a Tutor's Guide*' was published in 1998, followed by an online web version in 2009 (Saide, 2009), licensed as an OER under creative commons (CC) (Welch, Drew & Randell, 2010); and in 2010 the OER was transformed into an online course housed within a virtual learning environment (VLE) and renamed '*Supporting Online Learners*' (Krull & Mallinson, 2013). This latter version is available both as an unmediated (self-study) and a mediated (facilitated) course. This resource aimed to prepare educators for teaching and learning with technology, understanding the facilitator's role in supporting the learner in the context of open, distance and online learning, activity based learning, and the use of communication tools.

During an overlapping time period, the Centre for Education Technology (CET) at the University of Cape Town (UCT) developed an adapted online course '*Facilitating Online*' also aimed at African HE institutions. The original Online Facilitation course was designed and developed by Gilly Salmon (Leicester University) and was then adapted by the Centre for Educational Technology (now Centre for Innovation in Teaching and Learning - CILT) at UCT and released under a CC license. It was run online by CET for the first time in 2004, and subsequently the course has been refined and run again online in 2006, 2008, 2012 & 2014. This course is supported by a resource '*Facilitating Online: A course leader's guide*' (Carr, Jaffer & Smuts, 2009).

The purpose of these two openly licensed resources was to support the adaptation and transference of facilitation skills from face to face situations to the online environment, and equip facilitators to make informed choices concerning the implementation of online communication and interaction within the design of learning activities.

Motivation for remixing the resources

According to Butcher (2011), one of the transformative potentials of OER concerns "the principle of allowing adaption of materials" by both students and educators. This permitted activity is believed to contribute significantly to "creating more effective learning environments" (Butcher, 2011, p. 13). However, finding suitable and relevant OER can be challenging for educators (Mtebe & Raisamo, 2014), and Butcher (2011) acknowledges that it is rare to find an OER that is immediately fit for local use. With hundreds of thousands of CC licensed OER residing in repositories, one is likely to search for a 'good fit' initially rather than a perfect fit for immediate use.

Although the above courses may on the surface appear to have a similar purpose, each has a distinctive focus and scope, as outlined in Table 1. The most notable difference is that Course A encompasses a wide range of elements that influence online teaching and learning, includes a focus on technology, and provides grounded activities, examples, and readings; whereas Course B focuses on the more human dimensions of achieving good online facilitation, and is highly experiential and reflective.

Table 1: Courses A and B Outlines

Course A: Supporting Online Learners	***Course B: Facilitating Online***
Course Outlines (Units/Weeks)	
1. The Lifelong Distance Learner 2. Open Learning, Distance Education and e-Learning 3. Supporting Learning 4. Asynchronous Communication 5. Tutorials and Web-conferencing 6. Assignments to Support the Learning Process	1. Arriving 2. Conversing 3. Facilitating 4. Creating 5. Applying

Both of these courses and their constituent dimensions are deemed to be important and of direct relevance to the African HE context. They both require time and effort to satisfactorily engage in developing the capabilities required for successful online teaching and learning. In addition to good teaching skills, prospective online facilitators need to be aware that competencies required for success include being a content facilitator, competent ICT user, and designer amongst others (Wilson & Stacey, 2004; Anderson, 2008). With academic staff being under considerable pressure to enhance their teaching and learning using supporting ICTs, while maintaining their current workload, it is a challenge to prioritise time for professional development in this area, particularly in the face of little reward on offer by institutions.

Consequently, the authors decided to attempt the design, development and implementation of a remixed OER course that would provide essential elements of each of the original resources and run online over just 3 weeks. The plan was to aim for an appropriate balance of the elements, and attempt to shorten and tailor the remixed course without losing the intrinsic value of either original resource. The authors believed that these two integral changes would provide a course with a unique flavour and prove to be an attractive offering to enhance the professional development of academic faculty in African HEIs.

The significance of remixing OER

Reports on successes and challenges in remixing OER are not easily found, and Amiel (2013) cautions that OER remixing is still not widely practised. There can be a divide between creators and consumers of OER, and while developing countries may be perceived as the latter at present, there are some examples of African academics producing OER (Mtebe & Raisamo, 2014). It remains a responsibility for African academics to engage with existing OER, take advantage of the affordances of reusing and remixing according to licensing permissions, and work towards producing and using OER that are suitable for their local contexts.

An initial perception of simply finding and reusing OER ‘as is’ to save time, has proved to be inappropriate in situations where the content context and examples may not be within the frame of reference of the target audience. Within a developing country, one of the most important activities to be undertaken is to engage with the resource and thoroughly review it in terms of suitability for local purpose. In Olcott’s (2012) reflection on emerging OER issues for universities, he cites a major issue as: “developing sustainable business models for OER”, and reports that much OER work has been sustained by external project funding rather than absorbed or funded internally by institutions when undertaking teaching and learning OER-related activities requiring financial and/or human resources. In much the same way that open source software (OSS) is not free to deploy, OER are also not ‘free’ (Olcott, 2012), but rather require academic expertise and discretion, quality assurance, and contextualisation in order to be useful.

Stagg's (2014) continuum of OER adoption (Figure 1) illustrates the remix stages as being differentiated by 'passive' and 'active' practices. The former is described as taking a single resource and adapting the content, while the latter is described as blending multiple OER into a new resource. These stages are not necessarily sequential with the remix stages not requiring the earlier adoption of the previous stages, although awareness would surely be a prerequisite in some form. Nevertheless, the maturity of the stages expressed should be noted, particularly when engaging with resources that are already licenced (Stagg, 2014).

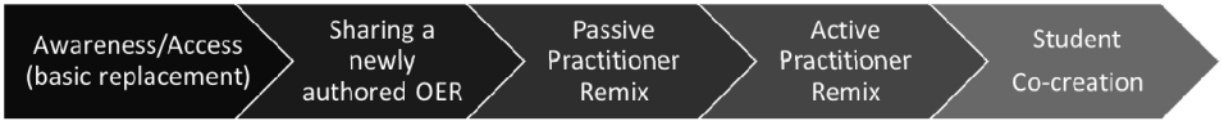

Figure 1: Continuum of Open Practice (Stagg, 2014)

Design and development of the remixed online OER course

The design of the remixed course was informed by experience gained as members of the Saide support team during the 5 year PHEA ETI programme that ran from 2008 through to 2013 at seven participating sub-Saharan Africa HE institutions. This initiative aimed to support interventions within the participant universities to make increasingly effective use of educational technology to address some of the underlying educational challenges facing the HE sector in Africa (PHEA, 2009). One of the specific PHEA ETI objectives was to build academic capacity in quality online course design and delivery through use of a VLE, which involved a lengthy quality improvement process over time (Mhlanga, Krull & Mallinson, 2013). The outputs of this initiative were destined from the outset to be released as OER (PHEA, 2008).

Taking cognisance of the implications of remixing OER, the authors set out to practically illustrate that providing sufficient subject matter experience and knowledge of OER licensing is present, one can undertake a remix project relatively easily. In this case, the 'Active Practitioner Remix' stage (Stagg, 2014) was adopted and modelled.

Amiel (2013) raises several concerns around what he terms 'design-as-remix', which include those related to licensing, attribution, context, and technical standards. The context of this particular remix project is noteworthy in the following respects:

- The primary original course resources were also developed by African educators and designed for the African context.
- The freedom to reuse, adapt and remix was granted by the original resources.
- The task was then reduced to a regular learning design activity for online provision for the same context.

The use of the CC framework enables "authors, in a user-friendly way, to grant other people the right to make copies of their work and, if they wish, to allow other people to make changes to their work without seeking permission" (Butcher, 2011, p. 8). At the remix stage, authors needs to understand how to release the final resource under licensing conditions permitted by the original resource(s). This is a complex task requiring deep understanding of license compatibility (Stagg, 2014). As noted by Amiel (2013), the more open the license of a resource, the easier it is to remix with other resources. However, very often the resources used to remix will have different licenses. The license for Course A is CC-BY (attribution), while the license for Course B is CC-BY-NC-SA (attribution, non-commercial, share alike). These licenses are compatible and the remixed Course

C is required to use the more restrictive license of the original resources and adopt the CC-BY-NC-SA license. The course authors in this case were thus able to avoid any issue of "incompatible content" that can sometimes negatively affect the remixing process (Amiel, 2013).

Another important issue within OER remixing is the use of technical standards and formats. The selection of an open format increases the potential for reuse and remixing (Amiel, 2013). Course C was developed for distribution on the Moodle platform – an OSS VLE. Course A was already available as a Moodle VLE course, while Course B was hosted in a Sakai adaptation. Course B was thus converted into a Moodle format before remixing. Although it took great effort in recreating the course in Moodle, the course authors did not face any technical barriers in the remixing process.

Butcher (2011) notes that a critical skill required in adapting and remixing OERs is expertise in course and materials design. Both the authors have backgrounds in learning design and were integrally involved in the PHEA ETI as well as the re-development of '*Supporting Online Learners*' (Course A) for the Moodle VLE. The authors were also previous participants in '*Facilitating Online*' (Course B) and believed they were in a good position to make informed decisions regarding the design of the proposed remixed course.

The final design of the remixed Course C titled '*Facilitating Online Learning*' is shown in Table 2. Aspects to note in the design of the remixed course include the retention from Course A of practical exploration of tools and technologies, aligning pedagogy and deploying activity based learning, and exploration of asynchronous vs synchronous communication. From Course B, the human elements were condensed and integrated and an assumption made that less initial uptake time would be needed to become familiar with the VLE. It was decided to loosely retain the framework from Course B, while infusing the practical and technology elements from Course A, where appropriate. The result was a 3 week fully online course with 3 days 'start up' time (week 0), a 'break week for mid-course catch up, and 3 days wrap up time at the end.

For the remixed Course C, the target audience were academic faculty and educational technology support staff at African HEIs, as this was the audience that inspired the remix. It was anticipated that persons who participated in the course were already engaging to some extent in online teaching and learning in the HE sector. The teaching and learning elements to be aligned were the objectives, course materials, learning support, level of interaction / mediation, level of temporal flexibility, and the assessment structure (Mallinson, 2013).

Young and Chamberlin (2006) emphasise that a facilitator's understanding of their pedagogical style, communication skills, and level of adaptability, impacts on their comfort levels of facilitating within a highly interactive online environment. Given the prior experience of the facilitators, the subject matter, and the nature of the online course, a high level of mediation was planned for the pilot. Guided by cohort size considerations outlined by Mallinson (2013), the participant group was limited to between 20 and 25, with 3 facilitators designated to provide the support and mediation.

Two modes of provision were considered: fully online and blended. It was decided to proceed fully online in order for participants to experience a range of implications of 100% online provision. These were anticipated to include online presence of facilitators and participants, reliable and stable power supplies and internet access for participants, and satisfactory support for the participants. A further consideration was the geographical location of the target audience, who were unlikely to be able to gather regionally let alone in a full quorum for face-to-face sessions.

In addition, the current trend of micro-credentialing was piloted by Saide through this remixed capacity building initiative. Open digital badges are readily processed through Moodle 2.5+ and care was taken to design a Saide branded badge image, develop appropriate criteria for award, and support participants (badge earners) in exporting their badges from within the VLE to an online digital open badge display and storage system such as Mozilla Backpack.

Table 2: Remixed Course C Outline and Resources

Schedule	***Tools/Technologies***	***Resources***
Week 0 – Arriving (3 days)		
4 x introductory activities	Online Quiz (Survey) Discussion Forum (x2) Blog Assignment	Teaching in Online Learning Context (Anderson, 2008); Facilitating Online eBook (Carr *et al*., 2009)
Week 1 – Conversing (full week)		
5 x activities Week 1 Reflection	Discussion Forum (x2) Synchronous Chat Online Assignment Wiki Blog (x2)	Pre-course survey results; Sync. vs Async. ppt (Mallinson, 2014a); Guide to completing a wiki (Wentworth, 2014);
Week 2 – Facilitating (full week)		
5 x activities Week 2 Reflection	Discussion Forum (4) Wiki Blog Live web conferencing	5 stages of online participation (Salmon, 2003); BlackBoard Collaborate access guide; Dimensions of online learning (Mallinson, 2014b);
Break week		
Catchup on reading, activities & engagement		
Week 3 - Applying		
4 x activities Week 3 Reflection	Discussion Forum (x3) Assignment – file upload Google docs Blog Live web conferencing	Activity design templates (x2): Mallinson (2014c); Salmon (2003); Approaches to teaching and learning (Witthaus, 2009);
Wrapping up – Closing (3 days)		
Course evaluation Closing reflections/ Farewells	Online quiz (survey) Discussion Forum (x2) Video	Guidance on locating, exporting and displaying the open digital badge earned. (Video) (Mallinson, 2014d)

Pilot implementation

A simple email flyer was used to market '*Supporting Online Learning*' (Course C) to known Saide partner HEIs in sub-Saharan Africa, who were encouraged to further distribute the information. The flyer provided information including: brief course description, target audience, learning outcomes, course topics, time commitment, support, and recognition of achievement. In addition, the facilitation team and organisation were named and registration cost indicated. An online registration system was developed using Google forms for potential participants to express interest and provide their details to the organisers.

Although the course elicited much interest, the uptake was only 18 participants in the pilot group, which led to the decision to use the third facilitator on an *ad hoc* basis. On enquiry, anecdotal evidence indicated that the cost was an inhibiting factor for the prospective participants. Despite the course being an OER, the charge was necessary to cover the time of the facilitators who were not funded. This issue was subsequently mitigated to some extent by the host organisation successfully arranging sponsorships for a number of participants.

Of paramount importance was the need for the facilitators to model the good practice they were encouraging the participants to explore and emulate. With every online action of the facilitators working consciously towards this standard, the course delivery was a particularly intense experience for the facilitators, resulting in reflection on the extent of the time and effort required to mediate a fully online course.

The pilot was run over the period October/November 2014. The VLE used for the pilot was Moodle, which was used locally by almost all of the partner institutions to whom the course had been marketed. The course was highly mediated as planned, with weekly individual progress reports emailed to each participant in order to indicate completion of the assigned activities for the period and encourage participants to undertake incomplete or not yet attempted activities. Acknowledgement of completion was provided by the awarding of both open digital badges and digital certificates for completing 80% of the course activities. Despite the high level of support, only 12 of the 18 registered participants attained the awards.

Evaluation

The lessons learned in remixing existing OER courses with similar licenses is that it is an achievable undertaking, and an OER will be reused if it is deemed to be relevant to the designated educational environment. It follows that the content, nature, and deployment environment of the OER is important as is its licensing for reuse. All of the elements listed below would contribute to propagating the further reuse, remix, and implementation of an OER course:

- The time taken to effectively remix OER should not be underestimated. The original resources need to be thoroughly reviewed in terms of content, format, language and style.
- Because elements of different resources are used, revised or combined, care should be taken to ensure a cohesive and coherent final resource. Expertise in learning design is required.
- The final resource needs to be suitable for the local context and designated educational environment.
- Where CC licenses are compatible, resources can be remixed fairly easily, and the selection of the license of the final resource is straightforward. However, authors should become familiar with the types of licenses and their legal implications, as incompatible licenses are a significant barrier to remixing.
- It is important to pay attention to technological standards and formats. The more open the technical standards and formats, the fewer barriers there are to remixing.

The implementation of the remixed course also provided an evaluation mechanism. A survey was completed by participants and facilitators at the course conclusion, in which participant feedback indicated that this had been a largely new but useful experience. Participants particularly valued the development of skills in creating online activities and using synchronous communication tools. Most participants felt that they were very well supported online. Many participants experienced challenges in devoting sufficient time to the course while fulfilling their day-to-day responsibilities. Several participants suggested extending the duration of the course to allow more time for engagement. Participants who were new to Moodle also believed that they needed more familiarisation time with the VLE.

The main recommendation for improvement from the facilitators was to increase the duration of the course by one week i.e. spread the activities across 4 weeks. The additional time also acknowledges the learning curve for participants when using a new VLE. Additionally, the authors believed that a more substantial portion of Course A elements (pedagogy and technology) should be integrated in the adjusted time frame. Before releasing the final remixed revised course as an

OER, the facilitators decided to enhance the facilitation guide so that future facilitators would have access to more detailed guidance for their own course instances. Finally, in the African context participant funding is scarce, and sponsorship should be obtained ahead of time to enable free access for participants to the mediated online course. It was noted that this funding model is practised by CILT (UCT) when running their Facilitating Online course.

It should also be noted that subsequent to the pilot, a request was received by one of the participants that the course be made available to their institution in order to remix the course for internal use. Although the unrevised course version was provided to them, this bodes well for the re-use and potentially further remix of the course.

Concluding remarks

With the pilot course completed in late 2014, the developers are planning the revisions with reference to the participant feedback and their own experience and reflections. The revised course will then be published as an OER under a CC license. The lessons learned are shared via this paper, and it is intended that they will be of use to other OER developers who are planning to remix and repurpose existing resources for their own context. The affordance of working with existing OER when designing a learning intervention was appreciated and exploited, validating the expressed intention of the OER movement. The fully online pilot course mode proved to be a considerable challenge in the African context, despite the participants having previous experience of teaching and learning online. Finally, this course provides an example of a remix project by Africans for African reuse and further remixing. This paper is intended to provide encouragement for academic staff in developing countries to take ownership of their OER adoption.

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