

Towards open education at a private university in Kenya

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Abstract

This paper is based on a Doctoral study. The study derived from a multi-year project implemented by OER Africa to explore the potential of Open Educational Resources (OER) in support of pedagogic transformation in African universities. The wider project adopted a participatory action research process while the study made use of an analytical autoethnographic approach to capture and analyse data and to make recommendations. The approach involved multiple in-country engagements with Africa Nazarene University in Kenya and the triangulation of information derived from document review, observation and iterative focus group discussions and individual interviews. Initially the engagement focused on developing a supportive policy and capacity-building environment for individuals to integrate OER into specific Open, Distance and eLearning (ODEL) courses and to publish revised course materials under an open licence. However, as the initiative progressed, it became apparent that there was need to revisit the institution's overall business model.

Keywords: OER; ODeL; business model

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Introduction

This paper is based on a Doctoral study recently completed. The study derived from a multi-year project implemented by OER Africa to explore the potential of Open Educational Resources (OER) in support of pedagogic transformation in African universities. The project involves four institutions: Africa Nazarene University (ANU) in Kenya, the Open University of Tanzania (OUT), and the Universities of Pretoria and the Free State (UP and UFS) in South Africa. This study centred on ANU only in the period 2013 to 2016, with a focus on the period 2015-2016, and was timed to inform ANU's new strategic planning process from 2017.

Initially the engagement focused on developing a supportive policy and capacity-building environment for individuals to integrate OER into specific Open, Distance and eLearning (ODEL) courses and to publish revised course materials under an open licence. However, as the initiative progressed, it became apparent that there was need to revisit the institution's overall business model. In fact the key finding of this study is the suggestion that engagement with OER is unlikely to move from being an individual to an institutional focus unless such engagement is aligned with the overall vision, mission and business model of the university.

Methodology and research questions

The discussion in this section comprises two parts: it outlines the overall project methodology and research questions and within that then explains the study methodology.

Project methodology

Given the theory of change underpinning its practice, OER Africa attempted to integrate a participatory action research (PAR) agenda into each of its institutional engagements as its primary method of critical reflection.

The PAR process was necessarily open-ended, which meant that specific research questions and methodologies needed to be negotiated with the participants themselves. However, it was OER Africa's expectation that the research agenda might seek to answer the following kinds of questions, amongst others:

- What kinds of **pedagogical transformation** are envisaged at each of the participating institutions 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?

As indicated by the diagram below, an iterative action research process was envisaged, enabling organizational change, and leading to key identifiable actions and outputs that were conceived, acted upon, reviewed and revised through ongoing discussion and debate with the relevant stakeholders. It was further intended that the lessons of experience that emanated from these processes should be shared more widely through appropriately open forums.

The model was based on one developed by Zuber-Skerritt (1996, p. 99), building on the work of Lewin and Beer, Eisenstadt and Spector as reported in Cohen, Manion and Morrison (2000, p. 238). It should be noted that the process is iterative – reflecting leads to new planning, acting, observing, reflecting cycles.

OER Africa Participatory Action Research Model
Adapted from: Zuber-Skerritt, 1996: 99

	Maximising Impact Strategy
	Task Alignment Model
	Force Field Model
	Action Research Model

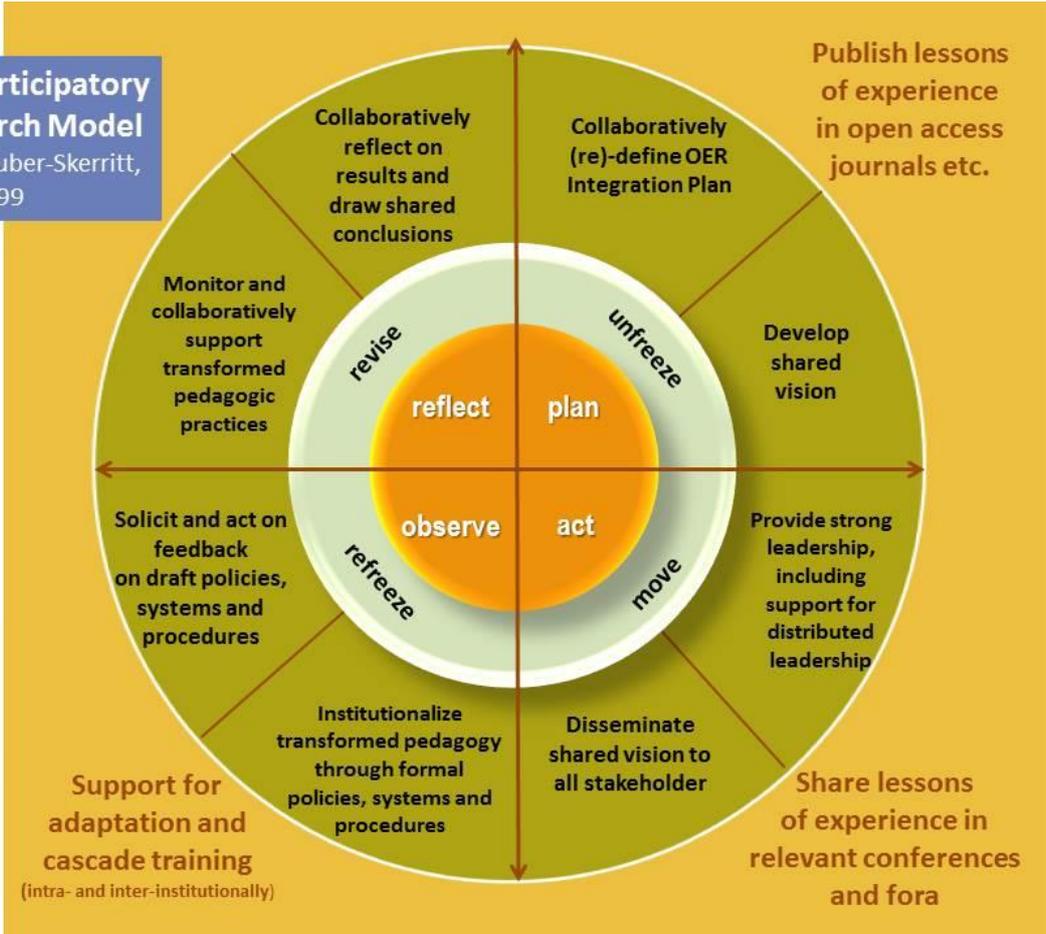


Figure 1. OER Africa Participatory Action Research Model

The outer circle was adapted by OER Africa to reflect the key actions needed to integrate engagement with OER as a mainstream activity in curriculum and materials development and in support of transformation of pedagogy.

The approach was grounded in processes of interaction with stakeholders in an ongoing critical conversation; hence it was a ‘participatory’ action research model designed to transform practice in a consultative and organic way. Continuous communication is a central feature of this type of engagement, allowing the researcher to “collect data in a non-threatening way” but it also requires the researcher to take a critical stance towards the taken-for-granted assumptions that informed past practice (Moyo, Modiba and Simwa, 2015, p. 71). It was also the intention in the wider project to ensure that lessons of experience from these processes informed the discourse in higher education more broadly through publications, presentations and support to follow-up training activities.

Study methodology

Within the wider project methodology, there was need to identify a study methodology that would help to reconcile the researcher’s dual role as co-participant and institutional lead with obligations to meet specified project outputs.

Cohen et al. (2000, pp. 3-34) explore the nature of research as inquiry and identify three broad paradigms within which a researcher might work: normative, interpretive and critical. From their discussion of the nature of these three approaches, an interpretive approach seemed most consistent with the nature and goals of the wider project of which this study formed a part.

However, documenting this process in ways that would provide insights into the questions identified above, and fulfil ANU’s desire for a historical narrative of the ANU-OER Africa engagement,

suggested a broadly ethnographic approach which is concerned with “how people make sense of their everyday world” (Cohen et al., 2000, p. 24).

McMillan and Schumacher (2006) outline the nature of such an approach and conclude, “The final product is a comprehensive, holistic narrative description and interpretation that integrates all aspects of group life and illustrates its complexity” (p. 26).

Within this broader conception, the study adopted aspects of an **auto**-ethnographic approach. Ellis, Adams and Bochner (2010), characterise this specific approach as combining elements of autobiography and ethnography. This approach recognises, acknowledges and accommodates the researcher’s influence on the research process and how this is written up and shared (Vianna and Stetsenko, 2015).

Given the needs of the wider project, the researcher adopted an ‘**analytic** autoethnographic’ approach as explained by Anderson (in Pace, 2012, p. 5). In any study involving the thoughts and practices of human beings, there is always the possibility of misunderstanding, misinterpretation and conclusions being drawn from inadequate data. In addition, within the field of education it is notoriously difficult to establish simple cause and effect relationships. Attempts were made to overcome these shortcomings by triangulating data and providing draft reporting and preliminary findings for comment within the community. In fact, a process of “crystallisation” (Niuwenhuis, 2007, p. 81) is probably a better term to use than ‘triangulating’ since it could not be predicted at the start what shape the research and research findings would take. Over the course of 2013 to 2016, the researcher made seven in-country visits to ANU (five within the parameters of the research period 2015-2016) and facilitated and reported on several capacity-building workshops, focus group discussions, individual interviews, document reviews and observations of practice.

Brief literature review

The literature review for this study comprised three focus areas:

- Open educational resources (OER)
- Theorising curriculum transformation through OER
- Managing curriculum transformation through OER.

Open educational resources (OER)

The term OER refers to educational resources that have been licensed for use and re-use in a variety of ways (Littlejohn and Pegler, 2012; UNESCO, 2012; Wiley, 2006, 2008).

Despite some persuasive arguments for engagement with OER (Butcher, 2011; Butcher and Hoosen, 2011; Wiley, 2016); a growing body of evidence of such engagement, including in African contexts, (Haßler and Mays, 2014; Kernohan, 2012; Komba and Mays, 2014; Mawoyo, 2012; Moore, 2010; Omollo, 2011a, b; Omwansa, 2015 and Ooko and Mays, 2015); as well as predictions of increased engagement (Johnson, Becker, Estrada and Freeman, 2015; Johnson, Becker, Cummins, Estrada, Freeman and Hall, 2016); it has been argued that our understanding of OER and how they might best be utilised remains relatively under-theorised (Papachristou and Samoff, 2012), and this provides a justification both for the study reported on here as well as the wider project of which it forms a part.

Theorising curriculum transformation through OER

While accepting that the nature of what constitutes a curriculum is widely contested (Beetham and Sharpe, 2013; Carl, 2009; du Preez and Reddy, 2015; Flinders and Thornton, 2004; Higgs and Smith, 2015; Hoadley, 2012; Luckett, 1996; Ornstein and Hunkins, 2004; Slabbert, de Kock, and Hattingh, 2009; Slattery, 2006), this study adopted a broad conception of curriculum (following Graham-Jolly, 2003) which considers at least four dimensions as follows:

- The **curriculum as product/plan** – what an institution sets out to achieve as expressed in formal documents about what should be taught, how and when; how and when learning should be assessed; and how the curriculum should be resourced and supported;
- The curriculum as **practised** – what happens in classrooms or outside them because of teacher and institutional choices and circumstances;
- The **curriculum as experienced** – what each individual learner internalises and takes away from the educational experience;
- The latter being influenced by the **hidden curriculum** – the things that are learned that were never formally intended.

We can add a further dimension to this typology:

- The **null curriculum** – the curriculum that is not taught: what is left out and why? (Flinders, Noddings and Thornton, 1986).

Managing curriculum transformation through OER

Within the broad curriculum framework outlined above, institutions in Kenya and in Africa more widely, are subject to the same demands as in other parts of the world for programmes that are more flexibly designed for increasingly diverse learning needs and contexts in which open, distance and e-learning (ODEL) approaches need to be employed (Altbach, Reisberg and Rumbley, 2009; Blumenstyk, 2015; Evans and Pauling, 2010; Glennie and Mays, 2013).

It was suggested to ANU, building on Educause (2010), Glennie and Mays (2009, 2013) and Lapovsky (u.d.), that designing curricula for an ODEL environment from the outset will create a model and supporting resources that can then be adapted, with varying degrees of additional face-to-face engagement, also for work-place-based and campus-based part- and full-time provision.

An extensive body of literature exists on the systemic nature of ODEL provision and the implications of changing elements of institutional subsystems on the whole system (CoL, 2001, 2004, 2005, 2009; GDEnet, 2009; Holmberg, 1995; Hülsman, 2016; Moore and Kearsley, 1996, 2012; Louw, 2007; Peters, 1998; Perraton, 2000; Rowntree, 1992; Rumble, 1997, 2004) as well as the implications for human resource management thereof (CoL, 2004; Fullan, 1993, 2006; McMillan, 2008).

The researcher had argued prior to the study that OER should be able to contribute to supporting these more flexible forms of provision which all require the developing, sourcing and / or adapting of appropriate learning resources (Mays, 2014).

Discussion

Through the process of engagement outlined in the methodology discussion above, the following insights were gained into practice at ANU.

Findings in relation to the research questions

The sub-headings in this section relate to the research questions identified earlier.

Pedagogical transformation

At ANU, an initial engagement with OER followed immediately from the initial introductory workshop. There was evidence not only of a willingness to use OER in teaching but also to produce OER among those involved in the initial engagement. The institution had already moved into the provision of distance learning and other forms of resource-based learning and had developed a customized Learning Management System (LMS) in the form of a Moodle platform called eNaz. The pedagogical transformation already underway at ANU was then from a teacher-contact-based form of provision increasingly to resource-based learning; the larger curriculum transformation issues included grappling with the demands of different modes of provision for different learning needs and contexts. Sustained engagement with OER at ANU required attention to addressing factors in the wider institutional environment. The need both for an enabling policy environment and time to engage with support processes is consistent with findings of other studies such as Chae and Jenkins (2015), de Hart, Chetty and Archer (2015) and Miao, Mishra and McGreal (2016).

Catalyst

The ANU experience suggests that engagement with examples of OER can help educators think differently about content and ways in which to engage students more actively in the learning process. A key shift in the development of new and revised materials in the seven courses that were initially part of the review and redevelopment process was the inclusion of a greater number and kind of activities to guide students towards engaging more actively with the content. This is evident in one module that was completed and shared (Mtukwa, 2014).

Mainstreaming

OER Africa's initial engagement with ANU was through the Institute for Open and Distance Learning (IODL). However, although the university invested extensively in its ICT infrastructure, and

expanded the IODL office-space and staff, the core business model remained oriented primarily to campus-based provision. The recurring costs of curriculum and materials development and redevelopment, and the necessary quality assurance rigour to support the process, had not been factored into the university's core business model and costing. Thus engagement with OER remained limited to the few individuals who were part of the initial workshops and who decided to continue to engage in their individual capacities rather than as part of a mainstream institutional process.

However, as noted previously, the demand from potential ANU students is increasingly for more flexible provision that is not centred on the main campus in Ongata-Rongai. The growth in demand for part-time, workplace-based and distance learning places greater emphasis on resource-based forms of learning and hence on the potential of OER to avoid needing to create everything *ab initio*.

Opportunities

Three key factors converge to shape new practice – changing demand from a changing student profile, the existence of the IODL, with some practical experience of distance provision, and institutional commitment to integrating use of the moodle-based “eNaz” LMS into all forms of provision, requiring that all staff need to source and/or adapt and/or develop learning resources to support their teaching.

What is then needed is to ensure that these factors inform the new business model and strategic plan of the university.

Barriers

The business model of the university did not adequately support growth in non-traditional provision. The IODL, which was identified in the current strategic plan as an engine for growth in student numbers, remained isolated from the mainstream practice despite the establishment of an intra-institutional advisory board, in that for most staff, engagement with distance learning, and OER integration, was something over and above the normal workload of servicing full-time students.

There was need at the start to create a policy framework that would allow the sharing of ANU resources under an open licence. However, it was recognized that the development and subsequent publication of an OER policy needed to be part of a much broader debate on intellectual property rights and the extent to which the institution wished to engage with more open educational practices.

It also became clear early on that a move towards expanded provision of ODeL, and towards greater use of eNAZ in contact provision, meant that job descriptions, performance management, training and support and related budgets would need to be amended to reflect the institution's shift towards resource-based learning approaches and the centrality of materials development and review as a core job function and business activity.

Related to both above, it was also clear that there was need to revisit the quality assurance process to have a clear sign-off procedure to ensure that only OER of quality would be integrated into ANU course materials and, concomitantly, only OER of quality would be published under the ANU name.

Strategies

All the issues identified above are subservient to the focus of the institution's new strategic plan from 2017 and the development of an appropriate business model to support that plan.

As part of this process, it was thought necessary to rethink the nature and role of the quality assurance unit. During the engagement with ANU, the quality assurance unit was staffed by one person only, who subsequently returned to their academic department, and the role was then taken on by an interim staff member with an administrative rather than an academic background. Such a unit needs both academic and administrative competences however, especially given the institution's plan to seek ISO certification.

Institutional support

Unambiguous support for OER as part of a broader shift towards resource-based learning is critical ((Halfond, Casiello, Cillay, Coleman, LaBrie, Niemiec and Salley, 2016; Sapire and Reed, 2011). In the latter part of the project, and in the absence of a full-time Director for IODL, this role was increasingly played by the DVC academic. With the appointment of a new Director for the IODL, some of this workload could be shared but it will be critical going forward that the new Director should feel that they have the support and resources to function effectively.

Interpretation of key learnings in relation to policy, theory and practice

Although ANU is a private institution, it must work within the prescripts of national policy. Although national policy acknowledged the potential of more open and flexible forms of provision, at the time of this study the emphasis of the regulatory framework was still on assuring the quality of campus-based provision (CUE, 2014 a, b). It is felt important that role-players like ANU, who are interested in ODeL provision, should begin to develop fora through which to influence national policy and regulation towards greater acceptance of ODeL provision, and to develop appropriate contextual norms for good practice, as has been the case in South Africa (CHE, 2014; DHET, 2013, 2014; Welch and Reed, 2005).

A commitment to integrating OER, as a matter of course, into resource- and activity-based flexible modes of provision then needs to be reflected in the institutional strategic plan and supporting policy framework, especially in the areas of intellectual property rights, human resource management, ICT policy, infrastructure and support and quality assurance mechanisms (among other things to ensure equivalent quality of provision across different modalities) (OER Africa, 2012).

With a clear strategic and policy framework within which to work, it is important to identify and develop an appropriate business model to enable and support the intention set out in policy. A key component of the business model must then be costing and budgeting that reflects the features of ODeL provision, including budget for recurring learning resource development and review as well as integrated support (Hülsman, 2016; Kanuka and Brooks, 2010; Rumble, 1997, 2004; Simpson, 2013).

When OER are to be employed as part of a drive towards a wider resource-based and ODeL strategy, it is important to give attention to developing the appropriate systems and sub-systems to support that move (Moore and Kearsley, 2012).

Adala (2016) observes that the policy and regulatory framework in Kenya is now beginning to be more conducive to mainstreaming ODeL provision and integrating OER, with the notification of the intent to establish an Open University and with Kenya being a signatory to the Paris 2012 OER declaration. In addition, a regional office of Creative Commons Africa is based in Nairobi and a national OER policy is in process of development to align with Kenya's 'Vision 2030'.

ANU is now operating in changed circumstances and it was suggested that the institution should embrace the change in the opportunity provided by the need to develop a new strategic plan.

It was further suggested that central to the new plan should be adoption of what Downes (2007) and Ehlers (2011) refer to as an "open ecology" which might be depicted as follows:

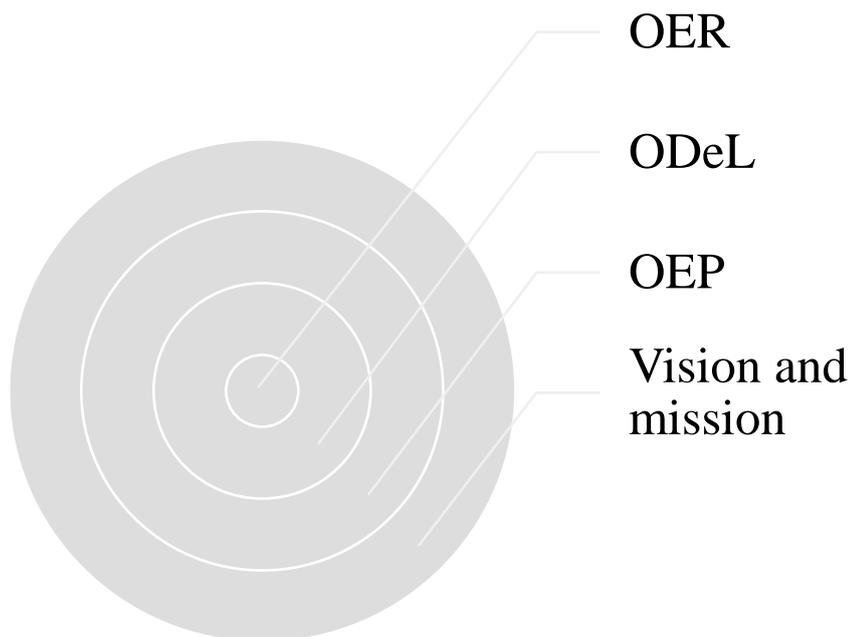


Figure 2: Proposed open-ecology model

The diagram illustrates the notion that ANU's new strategic plan should continue to be informed by its faith-based vision, mission and values but suggests that the adoption of more open educational practices, in which collaboration and the sharing of intellectual property is encouraged, is entirely consistent with these beliefs and values and supportive of expanded provision of open, distance and e-learning, which embraces a wide range of more flexible forms of provision to suit different learning needs and target audiences.

In such a context, the development and review of learning resources becomes a mainstream practice, part of every academic's job description, and with support from the library in finding appropriate OER (Salem, 2016), it should be possible to make it standard practice that in developing new courses, a search for existing OER that might be adopted and adapted is always a first step in the materials development process.

However, as discussed in Chapter 3 of the study, the learning resources are only one part of a complex whole. We need to think much more systemically about the nature of appropriate education provision in a digital era and the challenges of the associated change (CHE, 2014; Fullan and Langworthy, 2014; Mehaffy, 2012; The World Bank 2016, pp. 29, 33-34, 146-147, 326-330). There is need for ANU to clarify the nature and role of the various sub-systems that support its teaching and learning mission and to ensure that all are coherently aligned. The key sub-systems requiring attention are thought to be:

- Curriculum sub-system
- Materials sub-system
- Learner support sub-system
- Assessment and certification sub-system
- Logistical and quality assurance sub-system
- National and cross-border provision sub-system
- Financial management sub-system (Du Vivier, 2010; UP, 2009; Welch and Reed, 2005).

Within this systemic framework, each programme will need to go through an appropriate design phase prior to implementation and then an implementation and review phase. This is illustrated in Figure 3 below and elaborated in Chapters 3 and 6 of the study.

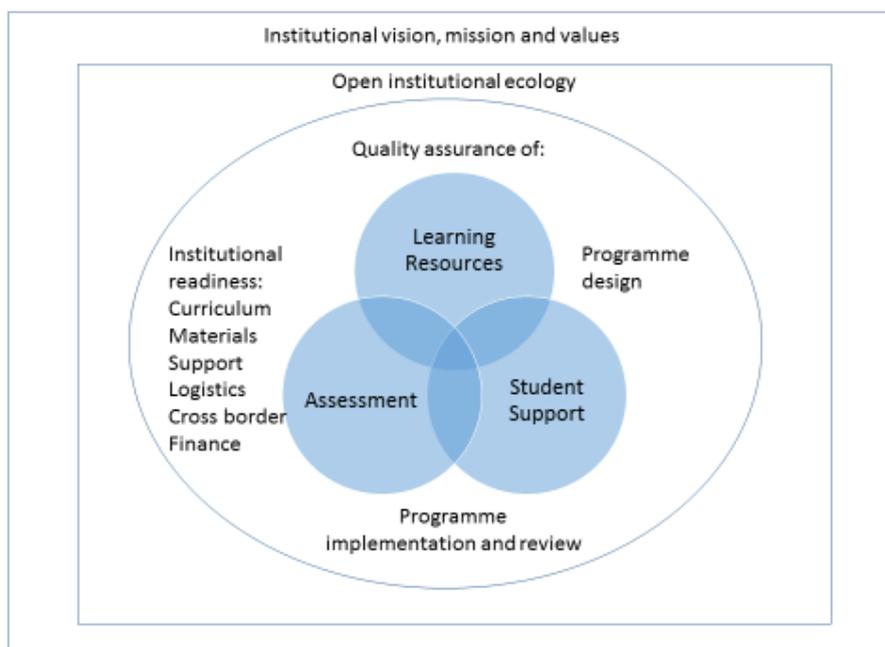


Figure 3: Proposed systemic framework

A recent report by Inamorato dos Santos, Punie and Castaño-Muñoz (2016) suggests that there are ten cross-cutting dimensions that will support the opening of educational opportunities: six are considered core and relate to being more open about content, pedagogy, recognition, collaboration, research and access; four are considered transversal by making the first six possible

and comprise leadership, strategy, quality and technology. These dimensions underpin the various sub-systems that have been identified and discussed in detail in Chapter 6 of the study.

Conclusion

This study reported on here arose, somewhat opportunistically, from a multi-year project that was initiated by OER Africa with support from the Hewlett Foundation.

As noted in the discussion, my engagement with ANU started with a review of its distance education offerings and an exploration of the potential of OER to add quality and save time in updating these programmes but evolved into a conversation about the university's overall business model. This is a conversation that will need to continue as ANU moves into its new strategic planning and implementation phase from 2017.

I remain an advocate for open educational practices, using open, distance and e-learning methods and integrating and producing OER and I believe that this is consistent with ANU's faith-based vision, mission and values. It seems to me that we are more likely to meet the need for opening access with a reasonable chance of success by being open to sharing and working together. As a widespread African proverb cautions:

"If you want to travel quickly, travel alone. If you want to travel far, travel together."

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